



ENERGY

CASE FILE
COPY

A CONTINUING BIBLIOGRAPHY
WITH INDEXES

FEBRUARY 1976

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ACCESSION NUMBER RANGES

Accession numbers cited in this Supplement fall within the following ranges:

IAA (A-10000 Series)

A75-38854—A75-47824

STAR (N-10000 Series)

N75-28003—N75-34001

Previous publications announced in this series/subject category include:

<i>DOCUMENT</i>	<i>DATE</i>	<i>COVERAGE</i>
NASA SP-7042	April 1974	January 1968—December 1973
NASA SP-7043(01)	May 1974	January 1, 1974—March 31, 1974
NASA SP-7043(02)	November 1974	April 1, 1974—June 30, 1974
NASA SP-7043(03)	February 1975	July 1, 1974—September 30, 1974
NASA SP-7043(04)	May 1975	October 1, 1974—December 31, 1974
NASA SP-7043(05)	August 1975	January 1, 1975—March 31, 1975
NASA SP-7043(06)	October 1975	April 1, 1975—June 30, 1975
NASA SP-7043(07)	December 1975	July 1, 1975—September 30, 1975

This bibliography was prepared by the NASA Scientific and Technical Information Facility operated for the National Aeronautics and Space Administration by Informatics Information Systems Company.

ENERGY

A Continuing Bibliography

With Indexes

Issue 8

A selection of annotated references to unclassified reports and journal articles that were introduced into the NASA scientific and technical information system and announced from October 1 through December 31, 1975 in

- *Scientific and Technical Aerospace Reports (STAR)*
- *International Aerospace Abstracts (IAA).*



This Supplement is available from the National Technical Information Service (NTIS), Springfield, Virginia 22161, for \$4.00. For copies mailed to addresses outside the United States, add \$2.50 per copy for handling and postage.

INTRODUCTION

This issue of *Energy: A Continuing Bibliography with Indexes* (NASA SP-7043(08)) lists 397 reports, journal articles, and other documents announced between October 1, 1975 and December 31, 1975 in *Scientific and Technical Aerospace Reports (STAR)* or in *International Aerospace Abstracts (IAA)*. The first issue of this continuing bibliography was published in May 1974 and succeeding issues are published quarterly.

The coverage includes regional, national and international energy systems; research and development on fuels and other sources of energy; energy conversion, transport, transmission, distribution and storage, with special emphasis on use of hydrogen and of solar energy. Also included are methods of locating or using new energy resources. Of special interest is energy for heating, lighting, for powering aircraft, surface vehicles, or other machinery.

Each entry in the bibliography consists of a standard bibliographic citation accompanied in most cases by an abstract. The listing of the entries is arranged in two major sections, *IAA Entries* and *STAR Entries* in that order. The citation, and abstracts when available, are reproduced exactly as they appeared originally in *IAA* or *STAR* including the original accession numbers from the respective announcement journals. This procedure, which saves time and money, accounts for the slight variation in citation appearances.

Five indexes—subject, personal author, corporate source, contract number, and report number—are included. The indexes are of the cumulating type throughout the year, with the fourth quarterly publication containing abstracts for the fourth quarter and index references for the four quarterly publications.

AVAILABILITY OF CITED PUBLICATIONS

IAA ENTRIES (A76-10000 Series)

All publications abstracted in this Section are available from the Technical Information Service, American Institute of Aeronautics and Astronautics, Inc. (AIAA), as follows: Paper copies are available at \$5.00 per document up to a maximum of 20 pages. The charge for each additional page is 25 cents. Microfiche⁽¹⁾ are available at the rate of \$1.50 per microfiche for documents identified by the # symbol following the accession number. A number of publications, because of their special characteristics, are available only for reference in the AIAA Technical Information Service Library. Minimum airmail postage to foreign countries is \$1.00. Please refer to the accession number, e.g., (A75-10763), when requesting publications.

STAR ENTRIES (N76-10000 Series)

One or more sources from which a document announced in *STAR* is available to the public is ordinarily given on the last line of the citation. The most commonly indicated sources and their acronyms or abbreviations are listed below. If the publication is available from a source other than those listed, the publisher and his address will be displayed on the availability line or in combination with the corporate source line.

Avail: NTIS. Sold by the National Technical Information Service to U.S. customers at the price shown in the citation following the letters HC (hard, paper, or facsimile copy). Customers outside the U.S. should add \$2.50 per copy for handling and postage charges to the price shown. (Prices shown in earlier *STAR* volumes, 1962-1975, have been superseded but may be calculated from the number of pages shown in the citation. The price schedule by page count was published in *STAR* Numbers 2 and 3 of 1976, or it may be obtained from NTIS.)

Microfiche⁽¹⁾ is available at a standard price of \$2.25 (plus \$1.50 for non-U.S. customers) regardless of source or the quality of the fiche, for those accessions followed by a # symbol. Accession numbers followed by a + sign are not available as microfiche because of size or reproducibility.

Initially distributed microfiche under the NTIS SRIM (Selected Research in Microfiche) is available at greatly reduced unit prices. For this service and for information concerning subscription to NASA printed reports, consult the NTIS Subscription Unit.

NOTE ON ORDERING DOCUMENTS: When ordering NASA publications (those followed by the * symbol), use the N accession number. NASA patent applications (only the specifications are offered) should be ordered by the US-Patent-Appl-SN number. Non-NASA publications (no asterisk) should be ordered by the AD, PB, or other *report* number shown on the last line of the citation, not by the N accession number. It is also advisable to cite the title and other bibliographic identification.

Avail: SOD (or GPO). Sold by the Superintendent of Documents, U.S. Government Printing Office, in hard copy. The current price and order number are given following the availability line. (NTIS will fill microfiche requests, at the standard \$2.25 price, for those documents identified by a # symbol.)

(1) A microfiche is a transparent sheet of film, 105 by 148 mm in size, containing as many as 60 to 98 pages of information reduced to micro images (not to exceed 26:1 reduction).

Avail: NASA Public Document Rooms. Documents so indicated may be examined at or purchased from the National Aeronautics and Space Administration, Public Documents Room (Room 126), 600 Independence Ave., S.W., Washington, D.C. 20546, or public document rooms located at each of the NASA research centers, the NASA Space Technology Laboratories, and the NASA Pasadena Office at the Jet Propulsion Laboratory.

Avail: ERDA Depository Libraries. Organizations in U.S. cities and abroad that maintain collections of Energy Research and Development Administration reports, usually in microfiche form, are listed in *Nuclear Science Abstracts*. Services available from the ERDA and its depositories are described in a booklet, *Science Information Available from the Energy Research and Development Administration (TID-4550)*, which may be obtained without charge from the ERDA Technical Information Center.

Avail: Univ. Microfilms. Documents so indicated are dissertations selected from *Dissertation Abstracts* and are sold by University Microfilms as xerographic copy (HC) at \$10.00 each and microfilm at \$4.00 each regardless of the length of the manuscript. Handling and shipping charges are additional. All requests should cite the author and the Order Number as they appear in the citation.

Avail: USGS. Originals of many reports from the U.S. Geological Survey, which may contain color illustrations, or otherwise may not have the quality of illustrations preserved in the microfiche or facsimile reproduction, may be examined by the public at the libraries of the USGS field offices whose addresses are listed in this Introduction. The libraries may be queried concerning the availability of specific documents and the possible utilization of local copying services, such as color reproduction.

Avail: HMSO. Publications of Her Majesty's Stationery Office are sold in the U.S. by Pendragon House, Inc. (PHI), Redwood City, California. The U.S. price (including a service and mailing charge) is given, or a conversion table may be obtained from PHI.

Avail: BLL (formerly NLL): British Library Lending Division, Boston Spa, Wetherby, Yorkshire, England. Photocopies available from this organization at the price shown. (If none is given, inquiry should be addressed to the BLL)

Avail: ZLDI. Sold by the Zentralstelle für Luftfahrtokumentation und -Information, Munich, Federal Republic of Germany, at the price shown in deutschmarks (DM).

Avail: Issuing Activity, or Corporate Author, or no indication of availability. Inquiries as to the availability of these documents should be addressed to the organization shown in the citation as the corporate author of the document.

Avail: U.S. Patent Office. Sold by Commissioner of Patents, U.S. Patent Office, at the standard price of 50 cents each, postage free.

Other availabilities: If the publication is available from a source other than the above, the publisher and his address will be displayed entirely on the availability line or in combination with the corporate author line.

GENERAL AVAILABILITY

All publications abstracted in this bibliography are available to the public through the sources as indicated in the *STAR Entries* and *IAA Entries* sections. It is suggested that the bibliography user contact his own library or other local libraries prior to ordering any publication inasmuch as many of the documents have been widely distributed by the issuing agencies, especially NASA. A listing of public collections of NASA documents is included on the inside back cover.

SUBSCRIPTION AVAILABILITY

This publication is available on subscription from the National Technical Information Service (NTIS). The annual subscription rate for the quarterly supplement is \$15.00. All questions relating to subscriptions should be referred to the NTIS.

ADDRESSES OF ORGANIZATIONS

American Institute of Aeronautics
and Astronautics
Technical Information Service
750 Third Ave.
New York, N.Y. 10017

British Library Lending Division,
Boston Spa, Wetherby, Yorkshire,
England

Commissioner of Patents
U.S. Patent Office
Washington, D.C. 20231

Energy Research and Development
Administration
Technical Information Center
P.O. Box 62
Oak Ridge, Tennessee 37830

ESA - Space Documentation Service
ESRIN
Via Galileo Galilei
00044 Frascati (Rome), Italy.

Her Majesty's Stationery Office
P.O. Box 569, S.E. 1
London, England

NASA Scientific and Technical Information
Facility
P.O. Box 8757
B.W.I. Airport, Maryland 21240

National Aeronautics and Space
Administration
Scientific and Technical Information
Office (KSI)
Washington, D.C. 20546

National Technical Information Service
Springfield, Virginia 22161

Pendragon House, Inc.
899 Broadway Avenue
Redwood City, California 94063

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

University Microfilms
A Xerox Company
300 North Zeeb Road
Ann Arbor, Michigan 48106

University Microfilms, Ltd.
Tylers Green
London, England

U.S. Geological Survey
1033 General Services Administration Bldg.
Washington, D.C. 20242

U.S. Geological Survey
601 E. Cedar Avenue
Flagstaff, Arizona 86002

U.S. Geological Survey
345 Middlefield Road
Menlo Park, California 94025

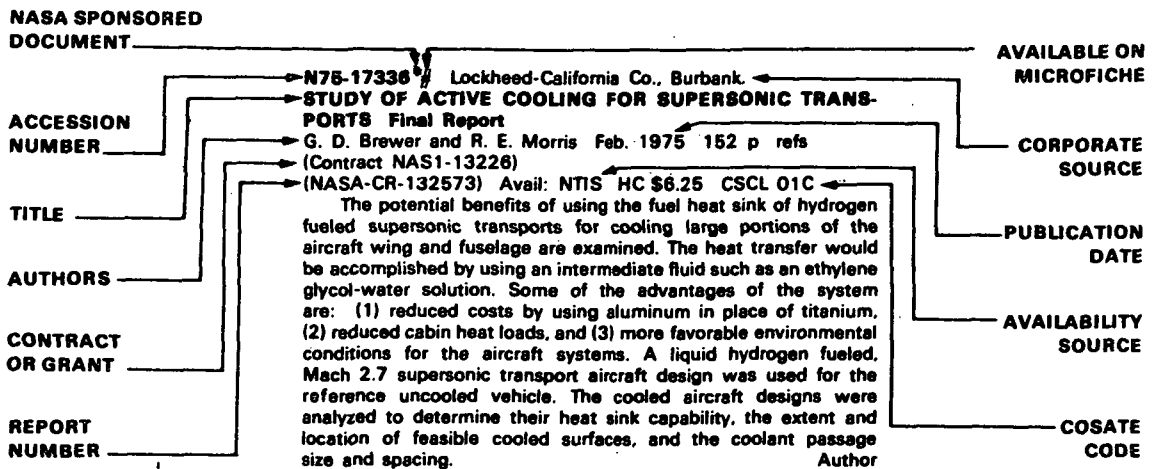
U.S. Geological Survey
Bldg. 25, Denver Federal Center
Denver, Colorado 80225

Zentralstelle für Luftfahrt-doku-
mentation und -Information
8 München 86
Postfach 880
Federal Republic of Germany

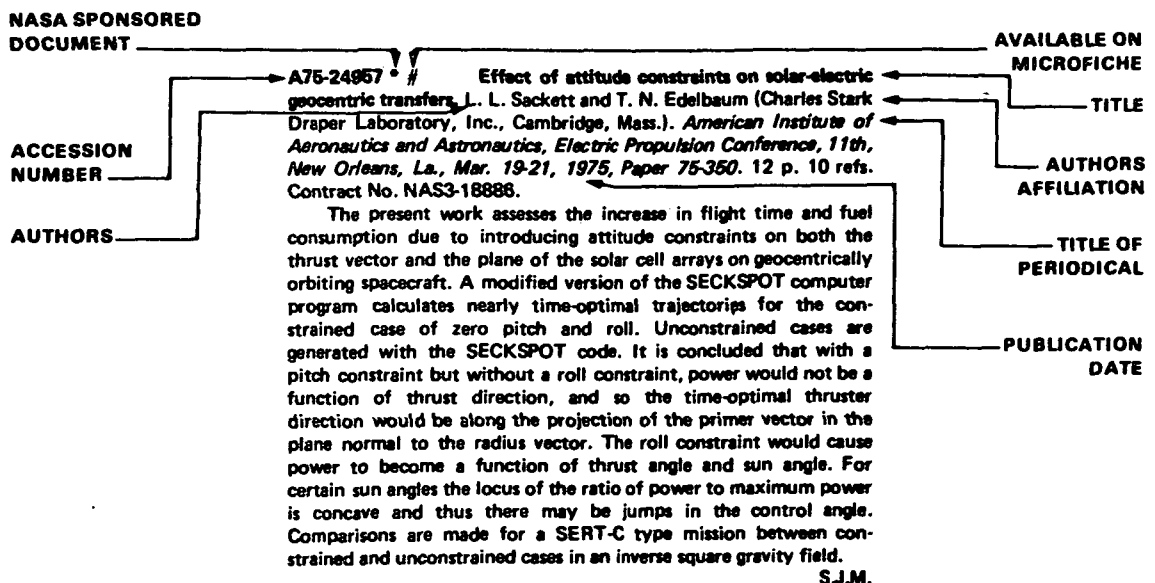
TABLE OF CONTENTS

IAA Entries	165
STAR Entries	199
Subject Index	A-1
Personal Author Index	B-1
Corporate Source Index	C-1
Contract Number Index	D-1
Report/Accession Number Index	E-1

TYPICAL CITATION AND ABSTRACT FROM STAR



TYPICAL CITATION AND ABSTRACT FROM IAA



A Listing of Energy Bibliographies Contained in This Publication:

1. Energy conversion

N75-31580 p0208

FEBRUARY 1976

IAA ENTRIES

A75-38863 Can hydrogen transmission replace electricity. P. J. Hampson, A. B. Hart, B. Jones (Central Electricity Generating Board, Research Laboratories, Leatherhead, Surrey, England), D. T. Swift-Hook (Central Electricity Generating Board, Marchwood Engineering Laboratories, Southampton, England), J. J. Syrett, and J. K. Wright (Central Electricity Generating Board, London, England). *CEGB Research*, May 1975, p. 4-11.

A careful consideration of the nationwide use of hydrogen created with nuclear power is given, and it is concluded that such use does not appear competitive with the use of nuclear electricity at this time. Savings would only accrue in the area of transmission and distribution costs, and even then only if the system were used over very large distances. Thermochemical methods of generating hydrogen directly from reactor heat have not yet been successful, and therefore electrolysis would have to be the means of producing the gas; thus production would not cost less than production of electricity. Possible interest may be expressed in the aviation and chemical industrial fields, however, as fossil fuel prices continue to rise. S.J.M.

A75-38864 Storing electrical energy on a large scale. G. C. Gardner, A. B. Hart (Central Electricity Generating Board, Research Laboratories, Leatherhead, Surrey, England), R. D. Moffitt (Central Electricity Generating Board, Marchwood Engineering Laboratories, Southampton, England), and J. K. Wright (Central Electricity Generating Board, London, England). *CEGB Research*, May 1975, p. 12-20.

Various means of storing the surplus energy to be produced by nuclear power plants later this century are reviewed. Pumped-water storage, compressed-air storage, superconducting magnetic storage, flywheel storage, battery storage, electrolysis storage, and heat storage are discussed. It is shown that there are definite economic advantages to be gained from large-scale storage systems, in their enabling nuclear power plants to be run more continuously at a uniform level. This advantage will increase as the proportion of nuclear-generated energy increases. The most long-term economically appealing of the above storage systems are electrochemical, compressed-air, and heat storage. S.J.M.

A75-38865 The potential of natural energy sources. J. D. Denton, R. Glanville, B. J. Gliddon, R. C. Hotchkiss, E. M. Hughes, D. T. Swift-Hook (Central Electricity Generating Board, Marchwood Engineering Laboratories, Southampton, England), P. L. Harrison (Central Electricity Generating Board, Research Laboratories, Leatherhead, Surrey, England), and J. K. Wright (Central Electricity Generating Board, London, England). *CEGB Research*, May 1975, p. 28-40.

The general technology and application potential of solar power, wind power, wave power, tidal power, and geothermal power in the U.K. are evaluated. Emphasis is on wave power, since this energy source seems to be the most practical for the country. Cost is the prohibitive factor in the solar area, except for solar domestic water heating, which appears quite feasible. Wind power presents difficulties in the economic and load factor realms. Two two-basin tidal systems for use in the Bristol Channel are considered, but their

prohibitive construction costs, variability from neap to spring tides and variability in times of high and low tides, and detrimental environmental effects tend to bar its application. Geothermal gradients in Britain are generally too low for practical, efficient power generation. S.J.M.

A75-38868 # Airborne windmills - Energy source for communication aerostats. M. S. Manalis (California, University, Santa Barbara, Calif.). *American Institute of Aeronautics and Astronautics, Lighter Than Air Technology Conference, Snowmass, Colo., July 15-17, 1975, Paper 75-923*. 19 p. 12 refs.

Practical systems are described which will enable the placing of an aerogenerator on communication aerostats. These tethered aerostats are high-altitude platforms for wide-area telecommunication and broadcast functions. The purpose of this effort is to investigate the use of airborne windmills to increase the operational availability of the aerostat system. Preliminary calculations indicate that useful amounts of power could be generated economically without increasing the weight of the aerostat and without appreciably changing its angular position. (Author)

A75-38956 Thick semiconductor films for photothermal solar energy conversion. R. E. Hahn and B. O. Seraphin (Arizona, University, Tucson, Ariz.). (*American Vacuum Society, Conference on Structure/Property Relationships in Thick Films and Bulk Coatings, 2nd, San Francisco, Calif., Feb. 10-12, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, July-Aug. 1975, p. 905-908. 12 refs. NSF Grant No. GI-36731X.

Efficient and economical photothermal conversion of solar energy requires the use of spectrally selective surfaces for collection and retention of incident solar flux. This spectral selectivity can be obtained from an absorber-reflector tandem by overcoating an opaque metal film having high infrared reflectance with a thick film of semiconductor having an appropriate band gap. The practical implementation of this design using films of silver and silicon on a variety of substrate materials is described. The spectral reflectance of coated samples has been measured at temperatures up to 500 C. The solar absorptance increases with temperature, while the thermal emittance typically increases by 2%-4% at 500 C. (Author)

A75-38958 Polycrystalline silicon layers for solar cells. T. L. Chu (Southern Methodist University, Dallas, Tex.). (*American Vacuum Society, Conference on Structure/Property Relationships in Thick Films and Bulk Coatings, 2nd, San Francisco, Calif., Feb. 10-12, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, July-Aug. 1975, p. 912-915. 16 refs. NSF Grant No. GI-38981.

The substrate requirements for silicon deposition and the techniques for chemical-vapor deposition of silicon films are reviewed. In particular, the technique for the deposition of silicon layers by thermal decomposition of silane is described. The techniques used in assessing the structural properties, the dopant concentration and distribution, and the thickness uniformity of the deposited silicon layer are examined. The deposition of polycrystalline silicon layers containing a shallow p-n junction on steel, graphite, and metallurgical-grade silicon substrates is discussed. Silicon deposited on metallurgical-grade silicon is found to be epitaxial with respect to the substrate, with conversion efficiencies up to 2.5%. S.D.

A75-39018 # The fuel scene and its impact on the economics of airline operations. R. H. Whitby (British Airways, London, England) and E. J. Pope. In: *Anglo-American Aeronautical Con-*

ference, 14th, Los Angeles, Calif., August 4-7, 1975, Technical Papers. New York, American Institute of Aeronautics and Astronautics, Inc., 1975. 8 p.

The paper discusses the development and consequences of recent increases in the price of fuel and shows how they may influence airline planning and aircraft design. The airlines' short-term methods of dealing with price increases are discussed. Possible changes in aircraft design are noted, with particular reference to the competitive effect of limiting cruise speed. The use of the more exotic fuels is unlikely, at least for civil aviation. S.D.

A75-39132 # Hydrazine as a fuel for a fuel cell (L'hydrazine en tant que combustible de pile à combustible). B. Verger and N. Chillier Duchatel (Société Générale de Constructions Electriques et Mécaniques ALSTHOM, Paris, France). In: Properties of hydrazine and its applications as an energy source; International Conference, Poitiers, France, October 22-25, 1974, Proceedings. Paris, Centre National d'Etudes Spatiales, 1974, p. 233-243. In French.

A new design for a hydrazine-hydrogen peroxide battery is described. Because of its strong reducing ability, hydrazine is an excellent reactant for high-performance electrochemical cells. By using certain catalysts of varying composition, the production of ammonia and hydrogen (parasitic reactions) can be minimized. Each element of the modular cell consists of a flat-sheet-shaped container, the sides of which are wave-shaped, filled with electrolyte plus reductant and electrolyte plus oxidant, which are separated from each other by a semipermeable membrane; the container is bounded on the inside by a catalyst and on the outside by an electrode on each side. S.J.M.

A75-39134 # Hydrazine gas generation for pressure gas feed systems. J. Schaper (ERNO Raumfahrttechnik GmbH, Bremen, West Germany). In: Properties of hydrazine and its applications as an energy source; International Conference, Poitiers, France, October 22-25, 1974, Proceedings. Paris, Centre National d'Etudes Spatiales, 1974, p. 267-279.

The use of hydrazine technology in pressure gas feed systems for flight vehicles is examined. Pressure gas feeding with and without medium separation is discussed. In the first case, a pressure gas feed system operating on a hydrazine basis consists of a pressure gas tank with a reducing valve for pressurization of the hydrazine tank; the gas generation unit is placed downstream of the tank. In the second case, possible reactions between propellant and hydrazine decomposition gases are discussed. As compared to a conventional pressure gas system, hydrazine technology ensures a design of less volume and weight, which is of paramount importance in spacecraft engineering. S.D.

A75-39196 An overview of solar energy applications. P. E. Glaser (Arthur D. Little, Inc., Cambridge, Mass.). In: NEREM 74; Northeast Electronics Research and Engineering Meeting, Boston, Mass., October 28-31, 1974, Record. Part 1. Newton, Mass., Institute of Electrical and Electronics Engineers, Inc., 1974, p. 45-50.

The paper reviews briefly some of the main approaches under study and development for harnessing the sun's energy. This includes solar heating and cooling systems, renewable gas and oil fuels, solar heat engine power plants, wind energy, ocean thermal gradients, direct energy conversion using solar cells, and solar energy conversion in space for use on earth. It is pointed out that although a solar heating and cooling system is still more expensive to install than a fossil fuel system, the total costs during the operational life of the two systems are expected to be comparable in view of the spiralling prices of fossil fuels. P.T.H.

A75-39197 MHD power generation. R. J. Rosa (Avco Everett Research Laboratory, Inc., Everett, Mass.). In: NEREM 74; Northeast Electronics Research and Engineering Meeting, Boston,

Mass., October 28-31, 1974, Record. Part 1. Newton, Mass., Institute of Electrical and Electronics Engineers, Inc., 1974, p. 51-53.

The basic principles of MHD power generation are briefly reviewed and the prospects for development of MHD power plants on a commercial basis are examined. While basic technical questions appear to have been resolved, the proof-testing and accumulation of large-scale engineering experience required for developing a MHD plant has only begun in the U.S.A. To move MHD power generation through the pilot and demonstration stages, broad-based support by government and industry is required. P.T.H.

A75-39198 Batteries and fuel cells in the electrical generating industry. J. H. B. George (Arthur D. Little, Inc., Cambridge, Mass.). In: NEREM 74; Northeast Electronics Research and Engineering Meeting, Boston, Mass., October 28-31, 1974, Record. Part 1. Newton, Mass., Institute of Electrical and Electronics Engineers, Inc., 1974, p. 57-59.

The paper shows that batteries and fuel cells have quite significant prospects of becoming integral components of the electrical utility generating system within the next one or two decades. The most prospective use of batteries is in load-leveling systems, to store electrical power generated during off-peak periods, and feed it back into the utility network during periods of above-average demand. The fuel cell will be used for both decentralized generation and load leveling. P.T.H.

A75-39333 Lasers for fusion. M. McGeogh (Imperial College of Science and Technology, London, England). *New Scientist*, vol. 67, July 24, 1975, p. 205-207.

The search for the 'Brand-X' laser for better fusion is reviewed. The requirement is for a gas laser of at least 10% efficiency easily scaled up to energies of about 10 kilojoules, and operating at a wavelength of about 0.4 micrometers. An increase in the efficiency will reduce the cost of such a laser. In order to have good energy storage, a transition with a small cross-section of between 10 to the minus 19th power and 10 to the minus 20th power sq cm should be chosen. The class of quasimolecular system (based on xenon, krypton and argon) offer advantages for energy storage in their low cross-section for stimulated emission. Other lasers discussed included iodine laser, neodymium laser and the carbon dioxide laser. M.G.

A75-39335 * Trace elements by instrumental neutron activation analysis for pollution monitoring. D. W. Sheibley (NASA, Lewis Research Center, Cleveland, Ohio). In: Trace elements in fuel. Research sponsored by the American Chemical Society, Washington, D.C., American Chemical Society (Advances in Chemistry Series, No. 141), 1975, p. 98-117. 11 refs.

Methods and technology were developed to analyze 1000 samples/yr of coal and other pollution-related samples. The complete trace element analysis of 20-24 samples/wk averaged 3-3.5 man-hours/sample. The computerized data reduction scheme could identify and report data on as many as 56 elements. In addition to coal, samples of fly ash, bottom ash, crude oil, fuel oil, residual oil, gasoline, jet fuel, kerosene, filtered air particulates, ore, stack scrubber water, clam tissue, crab shells, river sediment and water, and corn were analyzed. Precision of the method was plus or minus 25% based on all elements reported in coal and other sample matrices. Overall accuracy was estimated at 50%. (Author)

A75-39349 # Available energy conversion and utilization in the United States. G. M. Reistad (Oregon State University, Corvallis, Ore.). (American Society of Mechanical Engineers, Winter Annual Meeting, New York, N.Y., Nov. 17-21, 1974, Paper 74-WA/Pwr-1.) *ASME, Transactions, Series A - Journal of Engineering for Power*, vol. 97, July 1975, p. 429-434. 30 refs.

The effectiveness (basic thermodynamic performance) of various energy-consuming systems and sectors of society is examined, based on 1970 consumption data. Effectiveness is distinguished from

efficiency, which is not a valid comparative measure. Effectiveness takes into account the internal irreversibility losses of a system, and is based on availability; efficiency is based on energy. Energy effectiveness for the utility, residential, transportation, and industrial sectors is investigated. S.J.M.

A75-39385 # Generation of power from the wind. E. W. Hewson (Oregon State University, Corvallis, Ore.). *American Meteorological Society, Bulletin*, vol. 56, July 1975, p. 660-675. 24 refs.

There is vast energy available in the earth's winds for man's use. It is conservatively estimated that the wind power available to man is the equivalent of the output of 1000 typical fossil fueled or nuclear power plants of 1000 megawatts (MW) capacity each. By contrast, the water power potential of the earth is only one-tenth as large. Large wind generators have been built and used during the past 50 years. Research on wind power sites in the mountainous coastal and valley areas of the Pacific Northwest is being conducted. Terrain modification, aerogenerator 'farms', special duty installations, environmental impacts, land use, and net energy costs are all taken into consideration. It is concluded that wind power shows promise of supplying substantial amounts of supplementary electrical energy and that the development of this wind power potential should proceed with the federal government taking a lead role. (Author)

A75-39403 Photogalvanic cells. W. D. K. Clark and J. A. Eckert (Exxon Research and Engineering Co., Linden, N.J.). (*International Solar Energy Society, Annual Meeting, Fort Collins, Colo., Aug. 21-23, 1974.*) *Solar Energy*, vol. 17, July 1975, p. 147-150. 10 refs. NSF-supported research.

The theory for photogalvanic cells is presented showing that they are electrochemical cells which are recharged with light. A description of a photogalvanic cell based on the iron-thionine system is given in which the power conversion efficiency for absorbed monochromatic light is 1.5 per cent. (Author)

A75-39405 Semi-transparent solar collector window systems. N. Fuschillo. *Solar Energy*, vol. 17, July 1975, p. 159-165. 29 refs.

A new window system is proposed which acts as an efficient solar energy collector by absorption of as much of the solar heat as possible with a 20 per cent light transmission. The arrangement is such that winter sunlight heating and summer sunlight cooling are performed by convective flow, whereas on dull warm or cold days or nights the window system is converted into a thermally insulated thermopane window economical in fuel for both artificial heating and cooling. Permanent and retractable systems are described. It is shown that retractable systems have lower cost and life-time but are more flexible in performance, and that a variety of practical solar absorber and reflector coatings exists which allow implementation of semi-transparent solar collector systems giving a 75 per cent utilization of the total solar energy for space heating or ventilation. S.D.

A75-39406 Year round performance studies on a built-in storage type solar water heater at Jodhpur, India. H. P. Garg (Central Arid Zone Research Institute, Jodhpur, India). *Solar Energy*, vol. 17, July 1975, p. 167-172. 17 refs.

An improved solar water heater (capacity 901) made up of a 112 x 80 x 10 cm rectangular tank which performs the dual function of absorbing heat and storing the heated water has been designed and a prototype tested in Jodhpur. The performance tests carried out at the Central Arid Zone Research Institute, Jodhpur, indicate an efficiency factor reaching as high as 70 per cent. The year-round performance tests show that this heater can supply 901 of water at a mean temperature of 50 to 60 C in winter and 60 to 75 C in summer (measured at 4:00 p.m.). The performance tests also indicate that sufficient hot water can be obtained in the early morning if the heater is covered with an insulation blanket overnight or if the hot water is stored in an insulated tank. A performance equation for this type of heater, where the inputs are the solar intensity, ambient air temperature and geometry and material specifications of the heater,

has also been developed. With this performance equation the optimum gap depth, i.e. the distance between upper and lower plate of the heater, has been found to be 10.0 cm. (Author)

A75-39407 Radiation cooling of structures with infrared transparent wind screens. T. E. Johnson (MIT, Cambridge, Mass.). *Solar Energy*, vol. 17, July 1975, p. 173-178. 9 refs. NSF Grant No. GI-41306.

Energy conserving radiation cooling schemes for dwellings in high humidity climates have usually failed due to the deleterious effect of the wind. In this paper the cooling mechanisms at work in wind conditions are examined. A radiator system using an i.f. transparent wind screen that doubles as the structural envelope is proposed and supporting experimental results are presented. A one family dwelling built with these radiation panels can carry 50 per cent of the 24 hr cooling load. Worst case conditions give radiator coefficients of performance twice that of existing appliances. (Author)

A75-39409 Cooling with the sun's heat - Design considerations and test data for a Rankine Cycle prototype. D. Prigmore and R. Barber (Barber-Nichols Engineering Co., Denver, Colo.). *Solar Energy*, vol. 17, July 1975, p. 185-192.

The development of a demonstration package supplying residential cooling and/or electricity via a solar-heated Rankine Cycle is discussed. The 3-ton air conditioning, 1-kW electric system employs a solar collector to warm flowing water which provides input heat to a low temperature organic (R-113) Rankine Cycle. Expansion through a high speed (approximately 50,000 rpm) turbine-speed reducer drives an available R-12 refrigeration compressor and 3600 rpm motor-generator. The design point solar collector water temperature is 215 F, providing an R-113 temperature at the turbine inlet of 200 F. With a water-cooled R-113 condenser purveying a condensing temperature of 95 F and a turbine efficiency design goal of 80%, Rankine Cycle efficiency (turbine shaft power divided by heat input to the working fluid) is 11.5%. An 85% efficient R-12 compressor yields an overall coefficient of performance (COP) goal of 0.71. The project is jointly funded by Honeywell, Inc., and the National Science Foundation. (Author)

A75-39410 Solar absorption air conditioning alternatives. P. J. Wilbur and C. E. Mitchell (Colorado State University, Fort Collins, Colo.). *Solar Energy*, vol. 17, July 1975, p. 193-199. 8 refs. NSF-supported research.

The relative advantages of a single-stage, lithium bromide-water absorption air conditioner heated from a flat-plate solar collector are compared theoretically to those for an ammonia-water system, and the lithium bromide system is selected as the preferred one. Double-stage absorption systems with their improved performance are described and are shown theoretically to require generator temperatures that are too great to make them attractive for use with flat-plate collectors. Dual, series-connected systems which require no cooling tower for heat rejection are shown by analysis to have a low coefficient of performance. System utilizing refrigerant storage and a heat rejection buffer between a cooling tower and the absorber and condenser are discussed along with the computer simulation describing them. They are shown to require smaller cooling towers than conventional units. Operation with an air heat exchanger rather than the cooling tower in such a system is shown to yield acceptable system performance with a small reduction in the fraction of the cooling load which can be met with solar energy. (Author)

A75-39412 Effect of diffusion on concentration profiles in a solar pond. N. Chepurniy and S. B. Savage (McGill University, Montreal, Canada). *Solar Energy*, vol. 17, July 1975, p. 203-205. 11 refs.

The evolution of density gradients with time in salt-containing solar ponds from initial stepwise (discontinuous) state to asymptotic uniform state is mathematically investigated. Various numbers of initial gradated salt solution layers are considered. The time for the

top surface of the pond to reach one-half the concentration at mid-level increases with decreasing number of initial layers and with increasing pond depth. S.J.M.

A75-39925 The economics of coal-based synthetic gas. O. Hammond and M. B. Zimmerman (MIT, Cambridge, Mass.). *Technology Review*, vol. 77, July-Aug. 1975, p. 42-51. 6 refs.

An attempt is made to show that for space heating applications at least one alternative, the heat pump, will have a lower real cost than the gasification of coal. The physical and chemical characteristics of coal are considered along with the thermodynamics of coal gasification and the cost of coal-based synthetics. An evaluation of high-B.t.u. gasification is conducted, taking into account the synthetic gas and the utilization techniques. It is concluded that present gasification technologies already at the development stage offer little promise. G.R.

A75-40176 Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974. Conference sponsored by the Oklahoma State University. Stillwater, Oklahoma State University, 1975. 374 p. \$10.00.

Various topics concerning waste utilization and disposal, new concepts in electric energy generation and storage, nuclear energy conversion, and fuel resources technology are discussed. Papers presented include gaseous fuel nuclear reactor research, high-level radioactive waste management, effects of external fouling on dry cooling tower performance, economics of solar and wind energy systems for large-scale power generation, thermodynamic considerations in the use of gasified coal as a fuel for power conversion systems, and shale from oil shale economically.

S.J.M.

A75-40177 * # Gaseous fuel nuclear reactor research. F. C. Schwenk and K. Thom (NASA, Washington, D.C.). In: Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974. Stillwater, Oklahoma State University, 1975, p. 3-1 to 3-36. 33 refs.

Gaseous-fuel nuclear reactors are described; their distinguishing feature is the use of fissile fuels in a gaseous or plasma state, thereby breaking the barrier of temperature imposed by solid-fuel elements. This property creates a reactor heat source that may be able to heat the propellant of a rocket engine to 10,000 or 20,000 K. At this temperature level, gas-core reactors would provide the breakthrough in propulsion needed to open the entire solar system to manned and unmanned spacecraft. The possibility of fuel recycling makes possible efficiencies of up to 65% and nuclear safety at reduced cost, as well as high-thrust propulsion capabilities with specific impulse up to 5000 sec. S.J.M.

A75-40179 # Prospects for electrolytic hydrogen for chemical/industrial plants. L. J. Nuttall (General Electric Co., Lynn, Mass.). In: Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974. Stillwater, Oklahoma State University, 1975, p. 13-1 to 13-22.

Characteristics of the solid polymer electrolyte water electrolysis cell and the general economics of electrolytically obtained hydrogen are discussed. Advantages of the new design over the conventional liquid KOH electrolyte include long life, operation at high (exceeding 2000 amps/sq ft) current densities, high efficiency, lack of performance degradation with time, ability to withstand high differential pressures, and impossibility of electrolyte carryover into the generated gases. Near-term viability is expected in many chemical and industrial applications, with technology potential becoming competitive for the rest of society over a longer period. S.J.M.

A75-40181 # The utilization of ocean energy for electrical energy generation. S. A. Sebo (Ohio State University, Columbus, Ohio). In: Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974. Stillwater, Oklahoma State University, 1975, p. 15-1 to 15-22. 21 refs. Research supported by the Westinghouse Educational Foundation.

Factors involved in the implementation of wave energy converters, ocean current energy converters, tidal energy converters, and ocean thermal energy converters are discussed. Emphasis is on tidal and solar (thermal) technologies, since these technologies are the closest of the above to realization. In addition, brief comments are made on the use of sea water as a raw material (i.e., a source of thorium and uranium for atomic fission, as well as a source of hydrogen and deuterium for atomic fusion). S.J.M.

A75-40182 # Shale from oil shale economically. H. E. McCarthy (Garrett Research and Development Co., Inc., Los Angeles, Calif.). In: Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974. Stillwater, Oklahoma State University, 1975, p. 16-1 to 16-16.

A new in situ processing concept for the production of shale oil from oil shale is described. In this plan, known as the Garrett process, a rubble pile is formed under the ground by mining into the area under the oil shale or in the oil shale; then a combustion procedure is begun at the top of the pile and retorting is initiated. Air is forced down through the top and is circulated back up to the top. The recycled gas and air are mixed to control the amount of oxygen, which in turn controls the maximum temperature achieved. Oil is then produced at one level, condensed and drained out at the bottom. S.J.M.

A75-40297 Solar climate control - Evaluating the commercial possibilities. P. E. Glaser (Arthur D. Little, Inc., Cambridge, Mass.). *ASTM Standardization News*, vol. 3, Aug. 1975, p. 8-12.

A general review of the feasibility of domestic solar water and space heating systems is presented. Cost considerations, commercial considerations, the solar climate control market, the emergence of a solar climate control industry, and the federal role are evaluated. It is concluded that nurtured development of the solar energy industry at a steady rate will have advantageous repercussions on the international as well as national environmental, economic, and cultural levels. S.J.M.

A75-40298 Solar energy powered systems - History and current status. R. C. Jordan (Minnesota University, Minneapolis, Minn.). *ASTM Standardization News*, vol. 3, Aug. 1975, p. 13-18, 46, 47. 13 refs.

A general review of the development of solar energy technology and a description of its current aspects is presented. Early attempts at solar energy conversion were concerned with direct production of mechanical power, in competition of with that obtained from fossil fuels; present technology deals most effectively with low-temperature heating of liquids and gases. Photovoltaic and thermal system principles are explained; emphasis is on hybrid distributed-heliostatic systems supplemented by conventional power sources. S.J.M.

A75-40299 Laboratory based activities in solar energy at the National Bureau of Standards. J. E. Hill (National Bureau of Standards, Center for Building Technology, Boulder, Colo.). *ASTM Standardization News*, vol. 3, Aug. 1975, p. 20, 21, 24-28. 28 refs. ERDA-supported research.

A75-40300 Evaluation of focusing solar energy collectors. F. Kreith (Colorado University, Boulder, Colo.). *ASTM Standardization News*, vol. 3, Aug. 1975, p. 30-38. 31 refs.

An introductory presentation is made concerning means of evaluating the performance of focusing solar energy collectors, with

emphasis on common features among different focusing collectors. Term definitions, the advantages of focusing collectors over flat-plate collectors methods of concentration, an illustrative example, and an economic evaluation criterion are discussed. It is concluded that the key information necessary to evaluate a collector is its efficiency, defined as the ratio of the useful energy delivered at the working fluid to the total solar radiant energy incident on the aperture. S.J.M.

A75-40502 * Design of short haul aircraft for fuel conservation. M. K. Bowden, H. S. Sweet (Lockheed-Georgia Co., Marietta, Ga.), and M. H. Waters (NASA, Ames Research Center, Moffett Field, Calif.). *Society of Automotive Engineers, Air Transportation Meeting, Hartford, Conn., May 6-8, 1975, Paper 750587*. 16 p. 6 refs.

Current jet fuel prices of twice the 1972 level have significantly changed the characteristics of airplane design for best economy. The results of a contract with the NASA Ames Advanced Concepts and Missions Division confirmed the economic desirability of lower design cruise speeds and higher aspect-ratio wings compared to designs developed in the by-gone era of low fuel price. Evaluation of potential fuel conservation for short-haul aircraft showed that an interaction of airfoil technology and desirable engine characteristics is important: the supercritical airfoil permits higher aspect ratio wings with lower sweep; these, in turn, lower the cruise thrust requirements so that engines with higher bypass ratios are better matched in terms of lapse rate; lower cruise speeds (which are also better for fuel and operating cost economy) push the desired bypass ratio up further. Thus, if fuel prices remain high, or rise further, striking reductions in community noise level can be achieved as a fallout in development of a 1980s airplane and engine. Analyses are presented of developmental trends in the design of short-haul aircraft with lower cruise speeds and higher aspect-ratio wings, and the effects on fuel consumption of design field length, powered lift concepts, and turboprop as well as turbofan propulsion are discussed. (Author)

A75-40521 Future hydrogen fueled commercial transports. A. J. K. Carline (General Dynamics Corp., St. Louis, Mo.). *Society of Automotive Engineers, Air Transportation Meeting, Hartford, Conn., May 6-8, 1975, Paper 750615*. 12 p. 6 refs.

An examination is conducted of the problems inherent in the design of future subsonic liquid hydrogen fueled transports. Attention is also given to the economic aspects of subsonic commercial transports which use liquid hydrogen as fuel. It is found that such transports are very competitive with equivalent jet fueled aircraft. It is pointed out that all economical data are very dependent on the relative price of liquid hydrogen and jet fuel. G.R.

A75-40614 The Florida Solar Energy Center. W. B. Phillips (Florida State University, Tallahassee; Florida Solar Energy Center, Port Canaveral, Fla.). In: *Technology today for tomorrow; Proceedings of the Twelfth Space Congress, Cocoa Beach, Fla., April 9-11, 1975*. Cocoa Beach, Fla., Canaveral Council of Technical Societies, 1975, p. 5-1 to 5-4.

The Florida Solar Energy Center is designed to serve as a central facility for solar energy activities of the state's nine public universities, as well as private institutions which choose to participate. Activities of the Center will include research, development, information dissemination, and demonstration projects. The Center will include Divisions of Research, Development, Tests and Standards, Education, Information, and Technical Assistance. The site consists of 20 acres on the water at Port Canaveral and adjacent to the Kennedy Space Center. Four existing buildings including an auditorium, laboratories, offices, a library, TV studios, and classrooms will be used for the initial operations of the Center. (Author)

A75-40617 * Energy survey - What can R&D do by 1985. S. L. Copps (NASA, Office of Energy Programs, Systems Analysis Div.,

Washington, D.C.). In: *Technology today for tomorrow; Proceedings of the Twelfth Space Congress, Cocoa Beach, Fla., April 9-11, 1975*. Cocoa Beach, Fla., Canaveral Council of Technical Societies, 1975, p. 5-19 to 5-27. 8 refs.

Research and development in the field of energy is generally recognized as requiring long lead times before the results are felt. Near term relief from foreign oil dependence will be achieved by reducing energy consumption through conservation and by increasing domestic energy supply through expanded exploration and drilling for oil and natural gas, and by increased coal production. This paper describes the results of an informal survey performed by NASA within its own agency to determine if any research and development activities might be an exception to the general rule of long lead times and thus have significant impact by 1985 on oil and natural gas consumption. (Author)

A75-40618 * Data monitoring and information availability - A key to solar energy utilization. A. J. Kemp (IBM Corp., Huntsville, Ala.). In: *Technology today for tomorrow; Proceedings of the Twelfth Space Congress, Cocoa Beach, Fla., April 9-11, 1975*. Cocoa Beach, Fla., Canaveral Council of Technical Societies, 1975, p. 5-29 to 5-36. NASA-supported research.

Widespread use of solar energy heating and cooling systems is dependent upon their price competitiveness with other systems in the marketplace. There are indications that the degree of accuracy of existing solar insolation data is such that systems must be oversized by 50 percent. Refinement of the solar insolation data could result in a substantial cost reduction of solar heating and cooling systems making these units more competitive with conventional systems. This paper describes a system, the Sunfall Monitor, that provides this capability. The system monitors and records on tape in computer-compatible format the values of the direct and total solar irradiance. Provisions are also incorporated for evaluation of solar cell, collector and absorber material samples. Concepts and discussions for application of the device in relationship to research/development and the solar energy heating and cooling acts conclude the paper. (Author)

A75-40688 Generation schemes for wind power plants. T. S. Jaya Devaiah (Wisconsin, University, Milwaukee, Wis.) and R. T. Smith (Southwest Research Institute, San Antonio, Tex.). *IEEE Transactions on Aerospace and Electronic Systems*, vol. AES-11, July 1975, p. 543-550. 14 refs. NSF-supported research.

This paper reviews various electric generation schemes for wind energy conversion suitable for interconnection with a power grid. The schemes can be generally classified as constant speed constant frequency (CSCF) and variable speed constant frequency (VSCF) systems. Historically, only CSCF systems have been used for large power generation in wind power plants. However, with the advent of power electronics and the availability of solid state devices capable of handling large amounts of power, VSCF systems are becoming competitive. Various schemes under each classification are discussed and compared. It is stressed, however, that the optimum choice of the generating scheme is not decided by considering the generator alone. The optimum choice is one which minimizes the cost of energy generated by the wind power plant. (Author)

A75-41072 # Statistical relation between heat transfer from a closed area and meteorological parameters during the use of a solar refrigerating plant (Statisticheskaya svyaz' mezhdru teplootvodom iz pomescheniya i meteorologicheskimi vekichinami pri ispol'zovanii solnechnoi kholodil'noi ustanovki). A. Rakhmanov, A. Kakabaev, M. Goshdzhonov (Akademiia Nauk Turkmenskoi SSR, Fiziko-Tekhnicheskii Institut, Ashkhabad, Turkmen SSR), and M. Golaev. *Akademiia Nauk Turkmenskoi SSR, Izvestiia, Seriya Fiziko-Tekhnicheskikh, Khimicheskikh i Geologicheskikh Nauk*, no. 2, 1975, p. 27-31. 5 refs. In Russian.

A75-41125 Efficient use of energy. *Physics Today*, vol. 28, Aug. 1975, p. 23-27, 29, 32, 33. 17 refs.

A brief summary is given of a recent report on the contributions

physics can make to improving the efficiency of present-day energy-consuming devices. The discussion concentrates on the technical aspects of energy use. Three categories of end-use are examined: the house, the automobile, and industrial processes based on chemical and physical changes of state. S.J.M.

A75-41178 # Cooling a light industrial building in Puerto Rico using solar energy. H.-C. Yu and R. P. Hankins, Jr. (Hankins and Anderson, Inc., Richmond, Va.). *American Institute of Aeronautics and Astronautics and American Astronautical Society, Solar Energy for Earth Conference, Los Angeles, Calif., Apr. 21-24, 1975, AIAA Paper 75-612*. 24 p.

A75-41425 A resonant point absorber of ocean-wave power. K. Budar and J. Falnes (Norges Tekniske Hogskole, Trondheim, Norway). *Nature*, vol. 256, Aug. 7, 1975, p. 478, 479. 5 refs.

A system for absorbing and utilizing the energy carried by ocean waves is discussed. The 'point absorber' considered is a system in which the horizontal extent is much smaller than one wavelength. The point absorber is optimized for efficient energy conversion. The resonant characteristic frequency of the system is at all times tuned to the characteristic frequency of the wave. G.R.

A75-41433 Fusion power by magnetic confinement - Plans and the associated need for nuclear engineers. R. L. Hirsch and D. S. Beard (ERDA, Div. of Controlled Thermonuclear Research, Washington, D.C.). *Nuclear Technology*, vol. 27, Sept. 1975, p. 84-91. 8 refs.

A75-41434 Environmental aspects of fusion reactors. F. E. Coffman and J. M. Williams (ERDA, Div. of Controlled Thermonuclear Research, Washington, D.C.). *Nuclear Technology*, vol. 27, Sept. 1975, p. 174-181. 12 refs.

Potential environmental impacts of commercial fusion reactors are discussed and compared with those of fission reactors. It is shown that the environmental impact of fusion reactors will be quite small, with the main contribution coming from thermal discharges. Some attractive safety and environmental characteristics of fusion reactors are described, including an effectively infinite low-cost fuel supply, their inherent incapacity for nuclear runaways, the absence of fission products, flexibility in selecting structural materials, and the absence of special fuels such as U-235 and Pu-239 which could be diverted for purposes of nuclear blackmail. F.G.M.

A75-41530 Determination of some thermophysical properties of pebble-type solar heat accumulators. G. Ia. Umarov, R. R. Avezov, S. O. Khatamov, and M. Sharipova (Akademiia Nauk Uzbekskoi SSR, Fiziko-Tekhnicheskii Institut, Tashkent, Uzbek SSR). (*Geliotekhnika*, no. 1, 1975, p. 38-41.) *Applied Solar Energy*, vol. 11, no. 1-2, 1975, p. 29-31. 7 refs. Translation.

A75-41533 Comprehensive utilization of a solar installation. R. B. Salieva (Tashkentskii Institut Sviazi, Tashkent, Uzbek SSR). (*Geliotekhnika*, no. 1, 1975, p. 65-71.) *Applied Solar Energy*, vol. 11, no. 1-2, 1975, p. 50-54. Translation.

The present work proposes a method for complex utilization of a solar power plant in pasture regions where underground springs are the only water source. The plant operates alternately in furnishing power to well pumps and in replenishing its storage cells. Algorithms for optimal control of the plant are given. P.T.H.

A75-41534 Use of solar heat pumps for heating and air conditioning - A brief survey. O. L. Shvaleva, R. A. Zakhidov, and R. R. Avezov (Akademiia Nauk Uzbekskoi SSR, Fiziko-Tekhnicheskii Institut, Tashkent, Uzbek SSR). (*Geliotekhnika*, no. 1, 1975, p. 72-79.) *Applied Solar Energy*, vol. 11, no. 1-2, 1975, p. 55-60. 31 refs. Translation.

The present work discusses the use of heat pumps of different types for alternate heating of rooms and water during winter and cooling during summer. The main characteristics of some commercial, industrial, and scientific heat pumps available are summarized. The use of heat pumps in conjunction with hot-box type solar power plants is discussed briefly. P.T.H.

A75-41538 Operation of photoconverters under conditions of strong illumination. A. M. Vasil'ev, V. M. Evdokimov, A. P. Landsman, and A. F. Milovanov (Vsesoiuznyi Nauchno-Issledovatel'skii Institut Istochnikov Toka; Moskovskii Energeticheskii Institut, Moscow, USSR). (*Geliotekhnika*, no. 2, 1975, p. 18-24.) *Applied Solar Energy*, vol. 11, no. 1-2, 1975, p. 72-77. 6 refs. Translation.

The parameters of illuminated photoelectric converters are studied experimentally. It is shown that the observed dependence of carrier lifetime on the illumination intensity leads to a more pronounced dependence of the photocurrent and the photo-emf. Illumination-induced changes of the p-n junction boundary conditions lead at superhigh intensities to saturation of the photo-emf. V.P.

A75-41540 Calculation of the radiant energy field for a biparaboloidal radiation furnace with a carbon arc. G. Ia. Umarov, R. A. Zakhidov, and Iu. B. Sokolova (Akademiia Nauk Uzbekskoi SSR, Fiziko-Tekhnicheskii Institut, Tashkent, Uzbek SSR). (*Geliotekhnika*, no. 2, 1975, p. 35-42.) *Applied Solar Energy*, vol. 11, no. 1-2, 1975, p. 86-92. 5 refs. Translation.

Large-area solar energy concentrators are prepared by joining a number of film surfaces. The mechanical and optical properties of the concentrators change with the increase in film thickness at the joints. This makes it necessary to study the surface configurations of concentrators with joints of various type and to determine their influence on the concentrator characteristics. Analytical solutions are obtained to the linear problems of determining the deformed shape of a circular specular reflecting membrane with a diametral seam, and the deflections of a tread under a running load that represents the reaction of the thread on a loaded membrane. V.P.

A75-41541 Investigation of the effect of boiler design and finite thermal response of solar water heaters on efficiency. R. R. Avezov and F. Soatov (Akademiia Nauk Uzbekskoi SSR, Fiziko-Tekhnicheskii Institut, Tashkent, Uzbek SSR). (*Geliotekhnika*, no. 2, 1975, p. 69-72.) *Applied Solar Energy*, vol. 11, no. 1-2, 1975, p. 115-117. Translation.

The analysis is carried out for metallic and sand-type solar water heaters and for two specific positions of the sun. The geometrical dimensions and the mechanical and heat-engineering indexes are tabulated. The analysis shows that, all other conditions being equal, the efficiency of metallic water heaters is greater by a factor of 2.2. V.P.

A75-41547 Computation of water temperature at the mouth of a geothermal well. G. D. Polizo (Odesskii Politeknicheskii Institut, Odessa, Ukrainian SSR) and V. A. Kurishko (Krymneftegazrazvedka Trust, USSR). (*Energetika*, no. 4, 1974, p. 92-96.) *Heat Transfer - Soviet Research*, vol. 7, Mar.-Apr. 1975, p. 145-150. 6 refs. Translation.

A method is described for determining the temperature of water at the mouth of a geothermal well intended as a heat source, based on approximating the unsteady heat and mass transfer in the well by a quasi-steady process. A nomogram is given for determining the water temperature at the well mouth. (Author)

A75-41608 Sunlight to electricity: Prospects for solar energy conversion by photovoltaics. J. A. Merrigan. Cambridge, Mass., MIT Press, 1975. 172 p. 153 refs. \$12.95.

Aspects of energy demand and supply in the U.S. to the year 2000 are examined. Solar energy as a resource is considered along with the principles of photovoltaic energy conversion and the state-of-the-art in photovoltaic conversion technology. Attention is given to silicon cells, cadmium sulfide, cuprous sulfide, cadmium telluride, the possibilities for technological advancement and cost reduction, and questions related to the storage of electrical energy. Economic considerations in the development of photovoltaic energy conversion are discussed, taking into account the demand for electricity, its supply, costs, and the markets for photovoltaic energy conversion. G.R.

A75-41669 * # Design and testing of an energy flywheel for an Integrated Power/Attitude Control System /IPACS/. J. E. Notti and A. Cormack, III (Rockwell International Corp., Space Div., Downey, Calif.). *American Institute of Aeronautics and Astronautics, Guidance and Control Conference, Boston, Mass., Aug. 20-22, 1975, Paper 75-1107*. 9 p. Contract No. NAS1-13008.

This paper summarizes the design of a prototype flywheel energy storage assembly developed to evaluate the spacecraft Integrated Power and Attitude Control System (IPACS) concept. In the IPACS application, the flywheel assembly is used for kinetic electrical energy storage as well as conventional angular momentum control. The kinetic energy storage function dictates high rotational speeds which require new approaches to the design of the major components: rotors, motor-generators, bearing systems, and electronics. The paper includes a general description of a NASA-contracted prototype assembly, a discussion of major component design characteristics, and the presentation of preliminary test results as compared with analytical predictions. The test data were obtained from preliminary tests of the NASA prototype assembly as well as from a Rockwell prototype test unit. (Author)

A75-41698 * # Fuel conservation possibilities for terminal area compatible transport aircraft. G. W. Hanks (Boeing Commercial Airplane Co., Seattle, Wash.) and A. R. Heath, Jr. (NASA, Langley Research Center, Hampton, Va.). *American Institute of Aeronautics and Astronautics, Aircraft Systems and Technology Meeting, Los Angeles, Calif., Aug. 4-7, 1975, Paper 75-1036*. 14 p. 7 refs. Contract No. NAS1-12018.

Design characteristics that would reduce mission fuel consumption and improve terminal-area operations for advanced transports are discussed. Sensitivity studies of the effects of cruise speed, wing geometry, propulsion cycle, operational procedures, and payload on fuel usage are presented and utilized to arrive at a conceptual configuration which offers mission fuel savings as well as desirable operational characteristics in the terminal area. Technical and economic evaluation is provided in the form of a comparison of the resulting configuration with transports reflecting the current level of technology. The research and technology programs required to realize potential benefits are described. (Author)

A75-41768 Thermokinetics of a flat solar collector of constant heat capacity (Thermocinétique d'un insolateur plan de capacité calorifique constante). J. Fléchon, R. Wertwijn, and A. Diallo (Nancy I, Université, Nancy, France; Ecole Normale Supérieure, Bamako, Mali). *Académie des Sciences (Paris), Comptes Rendus, Série B - Sciences Physiques*, vol. 281, no. 1, July 7, 1975, p. 9-12. In French.

This paper examines the evolution with time of the temperature of a flat collector subjected to constant-power solar radiation normal to its surface. Two theories (one approximate, the other more involved) enable defining the instantaneous temperature of the collector by writing a corrected exponential law. The energy yield of the collector is calculated, and a comparison with experimental results confirms the predictions. S.J.M.

A75-42166 Enhancement of Schottky solar cell efficiency above its semiempirical limit. M. A. Green (New South Wales,

University, Kensington, Australia). *Applied Physics Letters*, vol. 27, Sept. 1, 1975, p. 287, 288. 6 refs. Research supported by the Radio Research Board of Australia.

Geometries are described for increasing the efficiency of Schottky solar cells above the theoretical limits recently calculated. The ultimate conversion efficiencies for the new cells are the same as for p-n junction devices. With present technology, improvements of over 50% above the old limits are possible. (Author)

A75-42276 Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Symposium-Course sponsored by the University of Miami. Edited by T. N. Veziroglu (Miami University, Coral Gables, Fla.). Coral Gables, Fla., University of Miami, 1975. 309 p. \$45.

The papers report fundamental information about and latest developments in the field of hydrogen energy and research into hydrogen as an important nonfossil fuel. Topics include solar-tower thermochemical energy cycles, thermochemical production of hydrogen, photoproduction of hydrogen by microbial and biochemical processes, energy transmission systems, hydrogen energy vs electrical energy, liquid hydrogen as an aviation fuel, automotive hydrogen engines, naval applications of hydrogen energy, and the economics of hydrogen energy systems. F.G.M.

A75-42277 # Solar tower thermo-chemical energy cycles. A. F. Hildebrandt (Houston, University, Houston, Tex.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S1-3 to S1-15. 23 refs.

Solar energy systems incorporating a central receiver, or solar tower, are briefly assessed. It is shown that the most promising method of energy conversion in such systems is the conventional steam cycle. The layout of a typical central receiver is outlined, its efficiency is estimated, and the available power at the receiver is evaluated analytically taking into account radiation and other losses. It is found that the heat produced is competitive with present fuel oil costs. Other thermodynamic solar-fuel cycles are considered, including water to hydrogen, methane-water to hydrogen-carbon monoxide, and organic waste to oil or gas. The minimal environmental impact of solar energy is noted. F.G.M.

A75-42279 # Photoproduction of hydrogen via microbial and biochemical processes. A. Mitsui (Miami University, Miami, Fla.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975.

Coral Gables, Fla., University of Miami, 1975, p. S2-31 to S2-48. 68 refs. Research supported by the Gulf Oil Foundation.

The utilization of solar energy for the bioproduction of hydrogen gas is reviewed. Two approaches are discussed in relation to efforts being made to increase the efficiency of hydrogen bioproduction. The approaches investigate microbial processes in intact cell systems and biochemical processes for utilization in a cell-free system. (Author)

A75-42280 # Research opportunities in cryogenic hydrogen-energy systems. J. Hord (National Bureau of Standards, Institute for Basic Standards, Boulder, Colo.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S3-11 to S3-23. 36 refs.

As liquid hydrogen pervades the commercial fuel market, new and improved products and technologies will be needed. To meet these demands appropriate research and development must be performed on hydrogen fuel systems. Candidate markets for cryogenic hydrogen-energy systems are reviewed and discussed, and associated research and development needs are outlined herein. A wide variety of cryogenic research and development opportunities exist. (Author)

A75-42281 # Will hydrogen transmission replace electricity. P. J. Hampson, A. B. Hart, B. Jones (Central Electricity Generating Board, Central Electricity Research Laboratories, Leatherhead, Surrey, England), D. T. Swift-Hook (Central Electricity Generating Board, Marchwood Engineering Laboratories, Southampton, England), J. J. Syrett, and J. K. Wright (Central Electricity Generating Board, Research Dept., London, England). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S3-25 to S3-43. 15 refs.

It has been suggested that hydrogen, produced using nuclear power, could supplant electricity as the major way in which nuclear energy would be distributed and used. This paper compares the economics of transmitting and distributing nuclear energy as hydrogen and electricity. It is shown that if hydrogen is produced by electrolysis, it would be more expensive to deliver nuclear energy in this way than as electricity. Furthermore, since electricity is a higher grade source of energy than chemical fuel, its average usefulness per unit of energy delivered is higher. Whilst there are special areas where there may be a market for hydrogen generated from nuclear energy as fossil fuels become scarce, there does not seem to be an economic case for an all-embracing hydrogen economy. (Author)

A75-42282 # Aviation usage of liquid hydrogen fuel - Prospects and problems. G. D. Brewer (Lockheed-California Co., Burbank, Calif.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S4-3 to S4-37. 11 refs.

If worldwide air transportation is to continue to grow as forecast, a fuel must be found to supplant petroleum-based kerosene (Jet A). The new fuel must be available universally without hazard of control by cartel, and must meet fundamental requirements of economics, safety, performance and environmental considerations. Hydrogen is found to provide this potential. The results of studies performed to investigate the feasibility, practicability, and potential advantages/disadvantages of using liquid hydrogen as fuel in both subsonic and supersonic commercial transport aircraft for initial operation in the 1990-2000 time period are discussed. A program to develop needed technologies and to resolve questions such as how to introduce the new fuel into commercial service with least trauma is outlined. (Author)

A75-42283 # An energy utility company's view of hydrogen energy. J. M. Burger (Public Service Electric and Gas Co., Newark, N.J.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S4-39 to S4-63. 14 refs.

Several areas where the use of hydrogen has been of recent interest to electric and gas utilities are briefly examined. These are electrical peak-leveling systems with hydrogen as a storable medium, the production of hydrogen as a marketable product in either limited or large quantities, and the use of hydrogen for energy transmission. The relationship of these applications to utility operations is discussed generally and some numerical estimates on costs are given. Some research and development needs implied by cost considerations are indicated. (Author)

A75-42284 # Automotive hydrogen engines, and onboard storage methods. W. D. Van Vorst and J. G. Finegold (California University, Los Angeles, Calif.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S4-65 to S4-90. 31 refs.

A75-42285 # Economics of hydrogen energy systems. K. C. Hoffman (Brookhaven National Laboratory, Upton, N.Y.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-

Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S5-3 to S5-16. AEC-sponsored research.

An economic analysis of hydrogen energy systems is conducted. The analysis is performed by partitioning the national energy system into electrical and nonelectrical energy forms and considering the efficacy of hydrogen relative to electricity in specific end uses on the basis of the ratio of electrical-energy units needed to substitute for one hydrogen-energy unit. A possible partition range for the energy system is plotted together with typical efficacy ratios. An anticipated course is considered for incorporating hydrogen fuel into the energy system. The cost and efficiency are evaluated of various processes for the production, transport, and storage of hydrogen. It is found that hydrogen systems are generally less efficient than electrical systems except for the thermochemical production system, which can be competitive with electricity if 50% production efficiency can be attained. F.G.M.

A75-42286 # A technology assessment of the hydrogen economy concept. E. M. Dickson, J. W. Ryan, and M. H. Smulyan (Stanford Research Institute, Menlo Park, Calif.). In: Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975. Coral Gables, Fla., University of Miami, 1975, p. S5-19 to S5-39. NSF-sponsored research.

A75-42531 Massive production of hydrogen by a thermo-electrochemical method. J. O. Bockris (Flinders University, Adelaide, Australia). *Energy Conversion*, vol. 14, July 1975, p. 81-85. 25 refs.

Electrolytic hydrogen is thought to be too expensive. The suggestion that cyclical chemical methods of producing hydrogen (driven by heat) would lower its price compared with the electrolytic product is improbable. The best way to use heat to produce hydrogen is to raise the temperature of an electrochemical cell containing a solid electrolyte to about 1000 C. About 47 per cent of the energy needed to obtain hydrogen would then arise from the heat source. A reduction in ionic resistance of stable solid electrolyte membranes by about one order of magnitude would be necessary. With various alternative schemes assuming present and near-future costs, the price of thermo-electrochemical hydrogen is then between \$1.87 and \$3.55 per 1,000,000 BTU (1974 dollars). (Author)

A75-42532 High intensity wind belts as massive energy sources. J. O. Bockris (Flinders University, Adelaide, Australia). *Energy Conversion*, vol. 14, July 1975, p. 87-91. 26 refs.

Calculation of the year-average energy available from wind generators involves a factor which relates the cube of the mean annual wind (A) to the mean of the cubes of the instantaneous wind velocities (B). B/A is 2.7. The practical equation for electricity obtained after conversion to hydrogen, passage, and reconversion to electricity, yields a power of 5MW per 100-m radius rotor in a location where the mean annual wind is 30 kph. The practicality of wind rotors of 100 m or equivalent radius needs proving. Designs are proposed. Electrolysis of seawater evolves chlorine and its reconversion to oxygen is not a difficulty, but an extra cost. Hydrogen transfer up to 4000 km would be economic. The concept of large sea-borne rotors in high velocity wind belts with long distance hydrogen transmission offers a more readily attainable (and more environmentally acceptable) prospect than atomic or solar possibilities. (Author)

A75-42533 Fuel as an agricultural crop. J. Levitt (Institute of Soils and Water, Bet Dagan, Israel). *Energy Conversion*, vol. 14, July 1975, p. 93-96. 7 refs.

An immediately available method is described for converting the unharvested part of a crop into fuel to replace fossil fuel. In the form of charcoal, it could supply all the energy needed for raising, harvesting and marketing the crop, plus a considerable surplus. The ultimate aim should be to supply all the energy needs of agriculture from the photosynthetically produced by-products of crops. The fuel shortage today is widely recognized to be a political problem, a

business problem, an engineering problem, but few people recognize it as an agricultural problem. There are two reasons for agriculturists to become involved in the fuel problem: (1) modern agriculture consumes tremendous quantities of fuel, and (2) fuel can be produced as an agricultural crop. (Author)

A75-42973 # Getting at the big facts in transportation. D. Christensen and M. Pikarsky. *Astronautics and Aeronautics*, vol. 13, Sept. 1975, p. 46-53. 27 refs.

An analysis is conducted of the relative amount of petroleum consumed by private automobiles and public transportation. It is pointed out that transportation consumes over 50% of the nation's oil and that the driver-alone vehicle in the trip to and from work burns over 50% of that large share of energy. An investigation shows that public transportation is more efficient than the private car. Approaches for reducing oil consumption are discussed, taking into account an expansion of the public transit system. G.R.

A75-43459 An Al p-silicon MOS photovoltaic cell. E. J. Charlson and J. C. Lien (Missouri, University, Columbia, Mo.). *Journal of Applied Physics*, vol. 46, Sept. 1975, p. 3982-3987. 27 refs.

A MOS photovoltaic diode, consisting of Al on p-type silicon with a thin interfacial layer of SiO₂, has been found to have good conversion efficiency for solar radiation. Measurements of capacitance versus voltage, current versus voltage, and photocurrent per absorbed photon indicate a most probable surface barrier height of 0.85 eV, approximately twice as large as that for the normal Al p-silicon diode. A single-layer antireflection coating of silicon monoxide or zinc sulfide was found to increase the short-circuit current by approximately 50%. Double-layer coatings of zinc sulfide over silicon monoxide gave nearly the same increase with a shift of the maximum diode response to the near-infrared. Absolute light-conversion efficiencies of 8% at one sunlight level were obtained with short-circuit current densities as high as 26.5 mA/sq cm. (Author)

A75-43510 Solar energy conversion by water photodissociation. V. Balzani, L. Moggi, M. F. Manfrin, F. Bolletta (Bologna, Università, Bologna, Italy), and M. Gleria (CNR, Laboratorio de Fotochimica e Radiazioni d'Alta Energia, Bologna, Italy). *Science*, vol. 189, Sept. 12, 1975, p. 852-856. 25 refs. Research supported by the Consiglio Nazionale delle Ricerche of Italy and NSF.

Some aspects of the photochemical conversion of solar energy by simple nonbiological systems are discussed. The basic concepts of direct and catalyzed photodissociation of water are outlined. Water dissociation in closed-cycle processes based on endothermic photochemical reactions offers a potential solution to the problem of solar energy conversion. It is shown that transition metal complexes whose excited state chemistry is extremely rich are in principle suitable catalysts for cycles of this type. The most significant cycles are those involving metal hydrido complexes or binuclear complexes in which the two metal atoms are bound into a macrocyclic ligand. S.D.

A75-43860 # Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization (O vliianii geometricheskogo razvitiia poverkhnosti katoda na udel'nuui moshchnost' termoemissionnogo preobrazovatel'ia s poverkhnostnoi ionizatsiei). Iu. A. Dunayev, V. I. Babanin, A. S. Mustafaev, V. I. Sitnov, and A. Ia. Ender (Akademiia Nauk SSSR, Fiziko-Tekhnicheskii Institut, Leningrad, USSR). *Zhurnal Tekhnicheskoi Fiziki*, vol. 45, July 1975, p. 1486-1489. 9 refs. In Russian.

A75-43881 # Thermal performance analysis of the stationary reflector/tracking absorber /SRTA/ solar concentrator. J. F. Kraider (Environmental Consulting Services, Inc., Boulder, Colo.). (American Society of Mechanical Engineers, Paper 75-HT-FFF, 1975.) *ASME, Transactions, Series C - Journal of Heat Transfer*, vol.

97, Aug. 1975, p. 451-456. 11 refs.

The performance of a novel solar energy concentrating system consisting of a fixed, concave spherical mirror and a sun-tracking, cylindrical absorber is analyzed in detail. The effects of mirror reflectance, concentration ratio, heat transfer fluid flow rate, radiative surface properties, incidence angle, an evacuated absorber envelope, and insolation level upon thermal performance of the concentrator are studied by means of a mathematical model. The results of the study show that high-temperature heat energy can be collected efficiently over a wide range of useful operating conditions. The analysis indicates that mirror surface reflectance is the single most important of the principal governing parameters in determining system performance. Efficiency always increases with concentration ratio although the rate of increase is quite small for concentration ratios above 50. High fluid flow rate (i.e., lower operating temperature), an evacuated envelope, or a highly selective surface can enhance performance under some conditions. (Author)

A75-43976 Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings. Conference supported by the National Bureau of Standards, National Science Foundation, et al. Edited by K. D. Timmerhaus (Colorado, University, Boulder, Colo.; National Science Foundation, Engineering Div., Washington, D.C.). New York, Plenum Press (Advances in Cryogenic Engineering, Volume 19), 1974. 538 p. \$32.50.

A75-43977 # Cryogenic H₂ and national energy needs. J. Hord (National Bureau of Standards, Cryogenics Div., Boulder, Colo.). In: *Cryogenic Engineering Conference, Atlanta, Ga., August 8-10, 1973, Proceedings*. New York, Plenum Press, 1974, p. 1-11. 81 refs.

National energy needs and resources are considered, taking into account as potential long-term abundant energy sources breeder fission reactors, fusion reactors, and solar power. Only solar power emerges as an abundant nonpolluting energy source with minimal threat to man. Energy storage problems could be solved by producing molecular hydrogen as a synthetic fuel. Cryogenic hydrogen is attractive as a transportation fuel, has certain potential advantages in hydrogen-electric utility systems, and is unexcelled in performance as an aerospace fuel. Aspects regarding the production of cryogenic hydrogen are discussed along with questions of liquefaction, storage, transmission, applications in utilities, applications in transportation, and uses in aerospace applications. G.R.

A75-43978 # The economics of liquid hydrogen supply for air transportation. J. E. Johnson (Union Carbide Corp., New York, N.Y.). In: *Cryogenic Engineering Conference, Atlanta, Ga., August 8-10, 1973, Proceedings*. New York, Plenum Press, 1974, p. 12-22. 8 refs.

Studies reported by Hallet (1968) have shown that large-scale projects can produce liquid hydrogen at prices that could make this fuel competitive if appropriate load factors and low-cost energy sources are available. An investigation is conducted concerning the prospects for an early application of liquid hydrogen which could substantially contribute toward easing the fuel shortage. Near-term benefits of liquid hydrogen would be greatest in aircraft operation. An analysis of the economics of liquid hydrogen takes into account a conversion of coal to hydrogen and a conversion of fission energy to hydrogen. It is concluded that a liquid hydrogen aviation fuel capability offers the best domestic alternate fuel strategy to counter overpricing and overdependence on imported hydrocarbon liquid fuel for air transportation. G.R.

A75-43979 # Cryogenic engineering and fusion power. C. E. Taylor (California, University, Livermore, Calif.). In: *Cryogenic Engineering Conference, Atlanta, Ga., August 8-10, 1973, Proceedings*. New York, Plenum Press, 1974, p. 28-34. 11 refs. AEC-sponsored research.

In order to reduce the consumption of power for the magnets of a fusion power plant to acceptable proportions, it is necessary that fusion reactors must use either cryogenically cooled or superconducting coils. The cryogenic aspects of reactor design are discussed. It is found that the most difficult cryogenic engineering problems of fusion reactors are mainly those caused by the large size of the superconducting magnets. Major approaches to fusion power are considered. G.R.

A75-44005 # Solar cells for power generation on communication satellites. M. P. R. Panicker, M. J. Nair, and M. K. Mukherjee (Indian Space Research Organization, Vikram Sarabhai Space Centre, Trivandrum, India). (*Institution of Engineers (India), Seminar on Modern Trends in Communication Electronics, Hyderabad, India, Apr. 21, 1974.*) *Institution of Engineers (India), Journal, Electronics and Telecommunication Engineering Division*, vol. 55, Apr. 1975, p. 68, 69; Discussion, p. 69.

The different types of power systems that could be used on a satellite are described briefly and the effects of each system are mentioned. Solar cells with chemical batteries being the most optimum combination at present, the advantages of thin film cadmium sulphide (CdS) cells are described. The construction details of a CdS cell with the problems encountered while processing such a cell are also mentioned. Power-to-weight ratio of CdS thin film cells is found to be the most advantageous feature for their application in satellites. (Author)

A75-44736 Plasma physics and controlled nuclear fusion research 1974; Proceedings of the Fifth International Conference, Tokyo, Japan, November 11-15, 1974. Volumes 1 & 2. Vienna, International Atomic Energy Agency, 1975. Vol. 1, 724 p.; vol. 2, 791 p. In English, Russian, and French. Price of volume 1, \$44; volume 2, \$47.

Various studies on the tokamak experiment, open confinement systems, low-beta toroidal systems, fusion reactor design problems, and inertial confinement are presented. Specific objects of the analyses include research on a tokamak with an axisymmetric divertor and impurity problems in tokamak devices, the effect of corrugation of the longitudinal magnetic field on the ion component of plasma in tokamaks, neutral beam injection experiments in Ormak, a study of the hot electron plasma in the minimum magnetic configuration B Circe, kink instabilities for shaped tokamaks in toroidal geometry, excitation of ion cyclotron harmonic waves by injection of a 10-keV ion beam into a plasma, the ion velocity distribution in a toroidal plasma with large Larmor radii, the effect of random density fluctuations on parametric interactions in a plasma, laser-plasma experiments relevant to laser-produced implosions, and gas-blanket studies in toroidal arcs. S.J.M.

A75-44751 Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Parts A & B. Conference sponsored by NSF, ARPA, and University of Miami. Edited by T. N. Veziroglu (Miami University, Coral Gables, Fla.). New York, Plenum Press, 1975. Pt. A, 714 p.; pt. B, 718 p. Price of two parts, \$95.

The papers report on current world-wide efforts toward a universal hydrogen-energy economy with emphasis on solar, thermochemical, and thermal production of hydrogen. Topics include primary energy sources, hydrogen storage and transmission, hydrogen production using nuclear and geothermal energy, metal hydride storage, large-scale production of hydrogen from water, hydrogen automotive and aviation fuel and engine systems, hydrogen-fueled gas-dynamic lasers, and environmental impacts of a hydrogen economy. F.G.M.

A75-44752 # Is massive solar energy conversion a practical prospect. J. O. Bockris (South Australia, Flinders University, Adelaide, Australia). In: Hydrogen energy; Proceedings of the

Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974, Part A. New York, Plenum Press, 1975, p. 9-34. 44 refs.

Prospective methods of conversion of solar energy to electricity are related to the photovoltaic method, the photogalvanic method, photothermic methods, photosynthesis, the optical concentrator-boiler method, the utilization of winds, and the use of ocean thermal gradients. The selection of materials in photovoltaics is considered. The principle of operation of photothermic methods and the problems which have to be solved to develop a feasible process are also discussed. Attention is given to the type of technology needed for lowering costs in photovoltaic conversion, the practicality of cadmium sulfide, and questions of solar-hydrogen economy. It is pointed out that a solar-hydrogen economy could probably be built on either the solar concentrator or the ocean-thermal gradient. G.R.

A75-44753 # A tower-top point focus solar energy collector. A. F. Hildebrandt and L. L. Vant-Hull (Houston, University, Houston, Tex.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 35-44. 10 refs. NSF Grant No. GI-39456.

Temperatures above 1000 C appear possible with a large segmented Fresnel mirror consisting of independent hydraulically or electrically steered heliostats constructed of flat mirrors. In order that the redirected solar radiation from a square mile be intercepted, a central receiver must be elevated well above the mirror field on a tower of about 450 meters height. A square-mile collector would produce heat at a peak rate of 500 MWT (megawatts thermal) in the winter and 700 MWT in the summer. (Author)

A75-44754 # Reliability of low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy. L. D. Partain and M. M. Sayed (Delaware, University, Newark, Del.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 45-55. 12 refs. NSF-supported research.

Basic procedures of cell construction are briefly examined. It is pointed out that the manufacturing process is adaptable to automation leading to a low-cost production of the cell. The conduction of accelerated life tests is discussed and the nature of the cell degradation processes is considered. It is concluded that the production of high efficiency, low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy appears to be technically and economically feasible. G.R.

A75-44755 # Geothermal energy as a resource in a hydrogen energy economy. F. Maslan and T. J. Gordon. In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 57-85. 32 refs. NSF Grant No. C-836.

The major characteristics of the development of geothermal energy are examined. The location of geothermal resources and their geology, a description of a typical geothermal power plant, relevant environmental considerations, technologically feasible levels of geothermal energy resources development in the United States, and the combination of geothermal energy with the hydrogen energy economy are discussed. The forecast of technical feasibility is based on a careful review of a methodological sequence to be utilizable in the 1985-2000 time interval. S.J.M.

A75-44756 # The effect of atmospheric turbulence on wind-mill performance. T. E. Base (Western Ontario, University, London, Canada). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 87-105. 22 refs.

Theoretical and experimental studies have been made to determine the effects of free-stream turbulence structure on the performance of a simple airscrew windmill. A modified blade-

element method was developed to predict the fluctuating life forces on the rotor blades, and computed vortex models of turbulence were used to represent the fluctuating velocity field. Eventually, the computer program will enable large-rotor-diameter windmill performance studies to be conducted and comparisons to be made with small test rotors. (Author)

A75-44757 # Nuclear water splitting and high temperature reactors. H. Barnert and R. Schulten (Kernforschungsanlage Jülich GmbH, Jülich, West Germany). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 115-128. 7 refs.

The economic and organizational aspects of nuclear hydrogen production are discussed. The political and financial importance of energy independence is stressed, and the relatively low cost of nuclear fuel and reactor operation is pointed out. Environmental effects are investigated and found to be minimal. The superiority of hydrogen to alternative energy carriers, such as electricity, is demonstrated. S.J.M.

A75-44758 # High-temperature nuclear reactors as an energy source for hydrogen production. J. D. Balcomb and L. A. Booth (California, University, Los Alamos, N. Mex.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 129-136. AEC-sponsored research.

Application of current high-temperature reactor technology to hydrogen production is reviewed. The requirements and problems of matching a thermochemical hydrogen-production cycle to a nuclear heat source are discussed. Possibilities for extending the temperature of reactors upward are outlined. The major engineering problem is identified as the development of a high-temperature process heat exchanger separating the nuclear heat source from the chemical process. (Author)

A75-44759 # Hydrogen production with a high-temperature gas-cooled reactor /HTGR/. R. N. Quade and A. T. McMain (General Atomic Co., San Diego, Calif.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 137-154.

Use of the HTGR (high-temperature gas-cooled reactor) as a major supplier of electric energy has been established. However, the total market for energy forms other than electricity is large and represents a new potential use for nuclear reactors. Of the many ways an HTGR can be applied to a chemical process to produce hydrogen, two are discussed in detail. One is for steam hydrocarbon reforming, which might be considered a thermochemical open-cycle process; the other is water-splitting, a thermochemical closed-cycle process. (Author)

A75-44760 # Hydrogen production from decomposition of water by means of nuclear reactor heat. S. Dörner and C. Keller (Gesellschaft für Kernforschung mbH, Karlsruhe, West Germany). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 155-166. 20 refs.

A closed-cycle process is described for the production of hydrogen from water by means of nuclear heat. The following steps are needed: dissolution of a metal, preferably Ag, in hydrohalogenic acids; transformation of the silver halide into silver and oxygen by means of alkaline hydroxides; splitting the alkaline halide into the basic and acid components by a chemical reaction or by electrolysis. A critical discussion, however, shows that it cannot be determined at present whether this process can be realized in practice. (Author)

A75-44761 # Aqueous homogeneous reactor for hydrogen production. W. Kerr and D. P. Majumdar (Michigan, University, Ann Arbor, Mich.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March

18-20, 1974. Part A. New York, Plenum Press, 1975, p. 167-181. 14 refs.

Hydrogen production by radiolysis of water in aqueous reactors is described. Three reactor designs are considered, and the essential features of each are described. The use of thermal neutron leakage into an aqueous blanket surrounding the main power-generating part of the reactor is treated. The potential of a low-power reactor for production of hydrogen is evaluated. The design of a system to extract the hydrogen generated by the fission fragments and other charged particles is considered. (Author)

A75-44762 # Wind capture and diversion through pneumatic energy recovery with large capacity aerogenerators. P. E. Coulter (Florida International University, Miami, Fla.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 183-196.

An investigation of a novel design approach to capturing and containing wind in a useable energy form in a 1.5- to 2.5-megawatt power range. Rotor blade, air entrainment and transmission, and tower design are graphically described. Methods of energy conversion and output reliability are discussed, followed by concluding remarks concerning research and development needs relative to anticipated application of the large-capacity aerogenerator. (Author)

A75-44763 # Sea thermal power as a hydrogen and methanol generator. J. H. Anderson (Sea Solar Power, Inc., York, Pa.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 197-207.

Arguments are presented in favor of sea thermal power as a viable, inexpensive source of energy for the production of fuels such as hydrogen and methanol. The basic principles of operation of a sea thermal power plant and the economics of sea thermal power plant technology are considered in detail. Ocean thermal power plants can be constructed more rapidly than nuclear plants or fossil plants, and operating costs should also be lower. S.J.M.

A75-44764 # Ocean based solar-to-hydrogen energy conversion macro system. W. J. D. Escher (Escher Technology Associates, St. Johns, Mich.) and J. A. Hanson (Oceanic Institute, Waimalano, Hawaii). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 209-229. 11 refs.

Mechanized ocean thermal power production of hydrogen fuel is investigated. Hydrogen's natural advantages of transportability and storability are the basis for the choice of this energy carrier over electricity. World production of fossil fuels is expected to peak between 2030 and 2080, at which time reliable and economic nonfossil-based energy supplies will be available. Ocean basing of large-scale 'central' solar energy conversion facilities (as opposed to conventional desert locations) offers significant advantages: virtually unlimited collection area, enormous thermal sink, immediate source of feedstock water, excellent logistics, low-friction bearing surface, and availability of ocean thermal gradient mode. Ocean basing also offers several coproduction possibilities, particularly that of open sea mariculture. S.J.M.

A75-44765 # Thermochemical water cracking using solar heat. C. J. Swet (Johns Hopkins University, Silver Spring, Md.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 231-242. 9 refs.

Direct solar radiation is shown to be a potentially superior source of energy for the thermochemical production of hydrogen from water, especially in a regionally self-sufficient hydrogen economy. Its impact on chemical-cycle selection, conversion efficiency, operating mode, plant siting, plant capacity, and product cost is compared with that of a nuclear heat source. Conceptual designs and development goals are suggested. (Author)

A75-44766 # Photolysis of water as a solar energy conversion process - An assessment. S. N. Paleocrassas (Tri-State College, Angola, Ind.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 243-253. 14 refs.

One of the less conventional solar-energy conversion methods is the photocatalytic decomposition of H₂O to generate H₂ and O₂ directly. This paper presents an assessment of photolysis of water by sunlight. Calculations are used to establish efficiency upper limits for this type of energy-conversion method using three different photocatalysts: compound salts, compound semiconductors, and photosynthetic dyes. The efficiencies were estimated to be 3 percent, 28 percent, and 7 percent, respectively. (Author)

A75-44767 # The technology and economics of hydrogen production from fusion reactors. J. Powell, F. J. Salzano, and W. A. Sevan (Brookhaven National Laboratory, Upton, N.Y.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 255-277. 16 refs.

The technology, economics, and environmental effects of producing synthetic fuels (H₂ gas, H₂ liquid, and methanol) based on fusion (CTR) reactors are assessed. Four United States energy systems (2020 A.D.) with different degrees of CTR implementation are compared: in System A, no CTR input is assumed; in System B, CTRs replace 50 percent of nuclear-fission electricity; in System C, CTRs supply all electrical demand, produce synthetic fuels to replace all oil and gas imports, and eliminate strip mining; and in System D, CTRs supply all electrical demand and virtually all fuel demand. CTR reactor costs are analyzed in detail for a range of containment parameters, reactor outputs, and first well loadings for DT and catalyzed DD fuel cycles. (Author)

A75-44769 # An economic perspective on hydrogen fuel. J. E. Johnson (Union Carbide Corp., New York, N.Y.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 299-308.

The economic aspects of the production of different energy carriers are reviewed. Synthetic kerosene, hydrogen, methane, ammonia, and methanol are considered as energy media. Two major factors are discussed: (1) the capital investment required to provide the facilities to convert fuel to energy; and (2) the total resources consumed in accomplishing a given task efficiently. Various applications of these forms of energy are investigated, including domestic heating, automotive applications, air transportation, and electricity generation. S.J.M.

A75-44770 # The utilization of solar energy for hydrogen production by cell-free system of photosynthetic organisms. A. Mitsui (Miami, University, Miami, Fla.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 309-316. 11 refs.

The production of hydrogen by a cell-free system of photosynthetic organisms is discussed. This represents a potential source of energy that does not exploit traditional energy resources but utilizes available solar radiation. Screening of tropical and subtropical marine photosynthetic bacteria and algae which exhibit a high activity for the photoproduction of hydrogen is also proposed. (Author)

A75-44771 * # An analysis of hydrogen production via closed-cycle schemes. R. E. Chao (Puerto Rico, University, Mayaguez, P.R.) and K. E. Cox (New Mexico, University, Albuquerque, N. Mex.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 317-330. 12 refs. Grant No. NGT-44-005-114.

A thermodynamic analysis and state-of-the-art review of three

basic schemes for production of hydrogen from water: electrolysis, thermal water-splitting, and multi-step thermochemical closed cycles is presented. Criteria for work-saving thermochemical closed-cycle processes are established, and several schemes are reviewed in light of such criteria. An economic analysis is also presented in the context of energy costs. (Author)

A75-44772 # Hydrogen as energy storage element. L. W. Zelby (Oklahoma, University, Norman, Okla.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 339-343. 6 refs.

A wind power system for the residential sector, based on a minimum wind velocity of 10 km/h (the average wind speed in about half of the continental United States) and using hydrogen as its energy storage medium, is proposed. This system is advantageous in that it is self-contained and employs off-the-shelf components. The estimated cost of the system, including installation, is about \$5000; at current rates, this figure could be amortized in about 10 years. The windmill drives a generator which operates an electrolysis plant to produce the hydrogen. A storage battery is included in the design for temporary overloads. S.J.M.

A75-44773 # On methods for the large-scale production of hydrogen from water. J. O. Bockris (South Australia, Flinders University, Adelaide, Australia). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 371-403. 37 refs.

The thermodynamic and kinetic aspects of the electrochemical production of hydrogen from water are examined, taking into account the advantage of higher operational temperatures and approaches for reducing the overpotential. The hydrogen production costs for classical electrolysis cells could be significantly reduced with the aid of an emerging technology. The development of high temperature electrolysis is discussed along with methods of low-potential electrolysis utilizing thermal assistance. The electrolysis of HI, cuprous chloride, and ferrous and ferric chloride is considered. Attention is given to anode depolarization, photo-electrochemical methods, photosynthesis, and plasma torch photolysis. It is concluded that light-oriented methods of going directly to hydrogen appear to be very promising and deserve wide-ranging support. G.R.

A75-44774 # Electrolytic hydrogen generators. J. B. Laskin (Teledyne, Inc., Timonium, Md.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 405-415.

The use of three types of electrolytic hydrogen generators is detailed. In all of the systems, water is dissociated in a module made of multiple electrolysis cells connected electrically in series. In each cell, the anode and cathode are separated by a gas-impermeable porous matrix electrolyte frame. Electrolyte is circulated through the module to replace dissociated water and remove waste heat. The types of generators differ primarily in their size: the smallest weighs 80 pounds and measures 26 in. by 14 in. by 10 in., the intermediate system is 33 by 74 by 64 inches and generates hydrogen at 17 cents/100 SCF, and the largest unit produces hydrogen at 14 cents/100 SCF while taking up 260 sq ft of floor space. S.J.M.

A75-44775 # Electrolysis of sea water. L. O. Williams (Martin Marietta Aerospace, Denver, Colo.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 417-424. 6 refs.

Preliminary results of direct electrolysis of natural sea water for hydrogen production purposes are presented. These results are obtained to determine whether hydrogen and oxygen can be evolved from sea water in a relatively pure form, along with the electrical parameters necessary for this evolution. Major conclusions are that hydrogen can be produced from sea water by direct electrolysis, that

chlorine production predominates over oxygen at the anode, that oxygen can be evolved at the anode together with chlorine at current densities of 90 mA per sq cm, and changes at the cathode give rise to insoluble precipitates on the cathode and in the surrounding sea water. Factors hindering large-scale hydrogen production by electrolysis of sea water are discussed. S.D.

A75-44776 * # Hydrogen generation through static-feed water electrolysis. F. C. Jensen and F. H. Schubert (Life Systems, Inc., Cleveland, Ohio). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 425-439. NASA-supported research.

A static-feed water electrolysis system (SFWES), developed under NASA sponsorship, is presented for potential applicability to terrestrial hydrogen production. The SFWES concept uses (1) an alkaline electrolyte to minimize power requirements and materials compatibility problems, (2) a method where the electrolyte is retained in a thin porous matrix eliminating bulk electrolyte, and (3) a static water-feed mechanism to prevent electrode and electrolyte contamination and to promote system simplicity. (Author)

A75-44777 # Hydrogen generation by solid-polymer electrolyte water electrolysis. L. J. Nuttall, A. P. Fickett, and W. A. Titterton (General Electric Co., Lynn, Mass.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 441-455.

A water electrolysis technology based on a solid-polymer electrolyte (SPE) concept is presented for applicability to large-scale hydrogen production in a future energy system. High cell-current density operation is selected for the application, and supporting cell test-performance data are presented. The inherent system advantages of the acid SPE electrolysis technology are explained. System performance predictions are made through the year 2000 along with plant-capital and operating-cost projections. (Author)

A75-44778 * # Evaluation of multi-step thermochemical processes for the production of hydrogen from water. J. E. Funk, W. L. Conger, and R. H. Carty (Kentucky University, Lexington, Ky.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 457-469. 12 refs. Grant No. NGR-18-001-086.

A75-44779 # Considerations on iron-chloride-oxygen reactions in relation to thermochemical water-splitting. G. De Beni (EURATOM and Comitato Nazionale per l'Energia Nucleare, Centro Comune di Ricerche, Ispra, Italy). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 471-482. 10 refs.

A75-44780 # Thermochemical hydrogen production research at Lawrence Livermore Laboratory. R. G. Hickman, O. H. Krikorian, and W. J. Ramsey (California University, Livermore, Calif.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 483-498. 25 refs. AEC-sponsored research.

Three novel closed-cycle processes for the thermochemical production of hydrogen from water are under study at the Lawrence Livermore Laboratory. The first cycle is based upon selenium and its compounds, the second on mercury, and the third on methane and methanol. None of these cycles involves halogens, and reaction temperatures are limited to 700 C. Although still in the conceptual stages, some preliminary experiments have been conducted on the first two processes, with the main effort on the first process. (Author)

A75-44781 # Analysis of thermochemical water-splitting cycles. J. B. Pangborn and J. C. Sharer (Illinois Institute of Technology, Chicago, Ill.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 499-515. 9 refs.

A brief description is given of a research program concerned with the derivation, evaluation, and experimental investigation of closed-cycle chemical reaction sequences for splitting water into hydrogen and oxygen. Thermodynamics and water-splitting efficiencies are considered and efficiency calculations for thermochemical cycles are discussed. The evaluation procedure outlined makes it possible to obtain realistic estimates of potentially achievable energy efficiencies for the conversion of heat to hydrogen by splitting water. The most efficient process examined accepts heat at 925 C and cannot exceed about 61 per cent energy efficiency. G.R.

A75-44782 # A search for thermochemical water-splitting cycles. J. L. Russell, Jr. and J. T. Porter (General Atomic Co., San Diego, Calif.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 517-529.

A description is given of an exhaustive computer-aided search for water-splitting cycles. SPLIT, a family of computer programs, has been written with the objective to perform a search for few-step, thermodynamically permissible, water-splitting cycles. The computer procedure for writing a reaction between two compounds is discussed along with questions concerning the thermodynamic evaluation and the search procedure in the case of two-step, three-step, and four-step cycles. G.R.

A75-44783 # Low thermal flux glass-fiber/metal vessels for LH2 storage systems. C. A. Hall and D. E. Spond (Martin Marietta Aerospace, Denver, Colo.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 561-574.

Composite tanks and tubes have been developed that consist of thin metal liners overwrapped with glass-fibers. Because the glass-fiber is a very good thermal insulator and the thin metal liner has a small cross-sectional area, the longitudinal heat conductivity is considerably reduced when compared to an all-metal design. The composite overwrapped tanks and tubes are also damage resistant and lightweight. Fabrication techniques and the use of composites to help solve the problems associated with the development of LH2 power transportation vehicles are discussed. (Author)

A75-44784 # An engineering-scale energy storage reservoir of iron titanium hydride. G. Strickland, J. J. Reilly, and R. H. Wiswall, Jr. (Brookhaven National Laboratory, Upton, N.Y.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part A. New York, Plenum Press, 1975, p. 611-620.

Research supported by the Public Service Electric and Gas Company of New Jersey and AEC.

A hydrogen reservoir containing 14 lb of H2 in the form of 893 lb of granular iron titanium hydride was constructed and tested. The reservoir will be used by Public Service Electric and Gas Company of New Jersey to study the feasibility of storing off-peak electrical energy through the use of a water electrolyzer, a hydride reservoir and a fuel cell stack. The internal functional components of the stainless steel vessel consist of a barrier in the form of porous metal tubes, and heat exchanger tubes. Details of construction, preparation of the hydride, and performance tests made at BNL are described. (Author)

A75-44787 # Engine performance with gasoline and hydrogen - A comparative study. J. B. Finegold and W. D. Van Vorst

(California, University, Los Angeles, Calif.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 685-696. 10 refs. Research supported by the U.S. Department of Transportation.

An experimental investigation of the performance of an internal combustion engine using hydrogen instead of gasoline has been carried out. The minimal modifications necessary for operation based on hydrogen are discussed. Operation with hydrogen resulted in an increase in brake thermal efficiency of 25 to 100 percent over that obtained with gasoline, while oxides-of-nitrogen emissions were reduced 90 to 97 percent. Some form of charge dilution is essential when operating with hydrogen at high power output, and the spark plug gap should be set significantly narrower. (Author)

A75-44789 # Backfire control techniques for hydrogen-fueled internal combustion engines. F. E. Lynch (Billing Energy Research Corp., Provo, Utah). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 717-726. 12 refs.

The commonly cited causes of backfires, such as hot spots caused by preignition, are inadequate to explain backfires under many circumstances. A viable hypothesis is formed through consideration of high-temperature particulate matter in the residual cylinder gases. Various methods for controlling backfires are surveyed from the viewpoint of thermal explosion theory. Some novel engine constructions, which are effective in suppressing backfires, are offered in support of a residual gas-quenching technique. (Author)

A75-44791 * # Hydrogen for the subsonic transport. P. F. Korycinski and D. B. Snow (NASA, Langley Research Center, Hampton, Va.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 819-838. 12 refs.

Relations between air travel and fuel requirements are examined. Alternate fuels considered in connection with problems related to a diminishing supply of petroleum include synthetic jet fuel, methane, and hydrogen. A cruise flight of a subsonic aircraft on a hydrogen-fueled jet engine was demonstrated in 1957. However, more development work is required to provide a sound engineering base for a complete air transportation system using hydrogen as fuel. Aircraft designs for alternate fuels are discussed, giving attention to hydrogen-related technology already available and new developments which are needed. G.R.

A75-44792 # Liquid hydrogen as a fuel for future commercial aircraft. R. D. Lessard (United Aircraft Research Laboratories, East Hartford, Conn.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 839-857. 28 refs.

A realistic cost is established for liquid hydrogen delivered to the aircraft, and the question is evaluated of whether liquid hydrogen at this cost level would be competitive with conventional aircraft fuels. It is found that the least expensive commercial method for producing hydrogen is coal gasification. However, barring any major unforeseeable increases in the price of crude oil obtained from petroleum or derived from coal or oil shale, it does not appear that liquid hydrogen produced by any of the present or proposed processes could supplant conventional aircraft fuel in commercial aircraft before the year 2000. (Author)

A75-44794 # Utilization of hydrogen as an appliance fuel. J. C. Sharer and J. B. Pangborn (Illinois Institute of Technology, Chicago, Ill.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March

18-20, 1974. Part B. New York, Plenum Press, 1975, p. 875-887. 5 refs. Research sponsored by the Southern California Gas Co.

This paper treats some aspects of utilizing hydrogen as an appliance fuel. Catalytic combustion techniques, attainable efficiencies, burner exhaust emissions, and the advantages and disadvantages of using hydrogen to fuel appliances are discussed.

(Author)

A75-44795 # Surface electronic properties and the search for new hydrogen oxidation catalysts. G. E. Laramore, J. E. Houston, and R. L. Park (Sandia Laboratories, Albuquerque, N. Mex.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 889-899. 28 refs. AEC-supported research.

The development of cheap substitutes for the 'noble' metals as oxidation catalysts provides alternatives to direct combustion in the utilization of hydrogen as an energy source. Current likely candidates are the transition-metal carbides which have many of the desirable properties of the 'noble' metals with respect to hydrogen oxidation and hydrogenolysis. In an attempt to understand this phenomenon and to systematize the search for new catalytic materials, the surface electronic properties of tungsten, tungsten carbide, and platinum are measured and compared. (Author)

A75-44796 # Hydrogen as an energy carrier. R. G. Murray (Oklahoma State University, Stillwater, Okla.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 901-914. 7 refs.

The physical and chemical properties of hydrogen make it a nearly optimum fuel. The only serious drawback to hydrogen as a fuel is its low energy density on a volume basis. Hydrogen-utilization devices are examined, taking into account hydrogen-air combustors, a water-modified hydrogen-oxygen burner for providing steam, air-breathing gas turbines, rocket engines, the hydrogen-oxygen fuel cell, and reciprocating engines. An investigation shows that the overall feasibility for usage of hydrogen both as a fuel and a chemical by future society is quite favorable. G.R.

A75-44797 # On the role of hydrogen in electric energy storage. F. J. Salzano, E. A. Cherniavsky, R. J. Isler, and K. C. Hoffman (Brookhaven National Laboratory, Upton, N.Y.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 915-932. 23 refs.

The general requirements for electric utility energy storage devices are discussed and a description is given of a specific type of storage concept involving the production of hydrogen, the storage of the hydrogen, and the reconversion of the hydrogen to electricity during periods of peak demand. It is found that under conditions of a cheap abundant supply of oil hydrogen storage electric peaking plants or any other storage device more expensive than pumped storage are not competitive with the gas turbine for electric peaking applications. Hydrogen storage peaking plants are, however, an economic alternative for peaking applications when the oil supply is constrained. G.R.

A75-44798 # Hydrogen-energy storage for electrical utility systems. C. J. Kippenhan and R. C. Corlett (Washington, University, Seattle, Wash.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 933-947. 14 refs.

A purely electrical system is considered in the investigation, taking into account a system in which electric energy only is available to produce hydrogen. It is assumed that the only end

product will be useful electrical energy at some later time. A system outline is presented and questions concerning the theory and the technology of water electrolysis are discussed. Hydrogen storage and associated problems are considered along with the approaches available to recover the electrical energy by a hydrogen recombination process. The capital costs of a hydrogen-energy system are found to be comparable to those involved in an expansion of base-load capacity. G.R.

A75-44799 # An economic study of electrical peaking alternatives. W. R. Parrish (National Bureau of Standards, Boulder, Colo.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 949-968. 30 refs.

Results are given of a feasibility study of alternatives for producing peak power. Fuel cells, batteries, and superconducting magnetic storage are considered as well as gas turbines and pumped storage. The fuels considered are hydrogen from coal or electrolysis, synthetic natural gas, and methanol. Fuel storage alternatives include liquid, compressed gas, and (for hydrogen) metallic hydride. (Author)

A75-44800 # An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H₂O₂/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes. S. J. Townsend and W. W. Koziak (SJT Consultants, Ltd., Thornhill, Ontario, Canada). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 983-989.

A75-44801 # Air Force experience in the use of liquid hydrogen as an aircraft fuel. B. C. Dunnam (USAF, Aero Propulsion Laboratory, Wright-Patterson AFB, Ohio). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 991-1010.

The Air Force began to show interest in liquid hydrogen as an aircraft fuel in about 1943. The use of hydrogen appeared particularly attractive in connection with studies concerning the development of a high altitude reconnaissance aircraft in the 1954-1958 time period. Investigations and development work leading to the construction of test engines operating with liquid hydrogen are discussed, taking into account related studies concerned with the production, storing, handling, and transportation of hydrogen fuel. During the time from 1963 to 1967 a pilot plant for producing hydrogen slurry, a mixture of solid and liquid, was developed. Other investigations reported were related to a study of the use of liquid hydrogen for the C-5A aircraft and for vehicles with velocities exceeding Mach 5. G.R.

A75-44805 # Hydrogen distribution profiling. R. A. Langley, S. T. Picraux, and F. L. Vook (Sandia Laboratories, Albuquerque, N. Mex.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1089-1103. 8 refs. AEC-supported research.

A technique using nuclear microanalysis has been developed to determine deuterium concentration versus depth profiles in the near-surface regions of solids. The technique uses an incident He-3 beam and detects the nuclear reaction products from the reaction He-3(d,p) He-4, as well as the Rutherford-scattered He-3 from atoms of the solid. By energy analysis of the He-4 recoils, the deuterium concentration-depth profile can be determined. Details and results of the technique are presented for ErD₂. Using the same reaction the lattice location of D-2 in single crystals can be determined. The

technique utilizes deuterium implantation followed by analysis with a channeled He-3 beam. Results are presented for D-2 in tungsten.

(Author)

A75-44806 # Future United States demand patterns and the use of hydrogen. L. T. Blank (Texas, University, El Paso, Tex.) and R. K. Riley (Missouri, University, Rolla, Mo.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1105-1122. 20 refs.

The future energy demands under the concepts of saturation and conservation are forecast for the common use areas. Details of conservation efforts in each area are given. Convertibility to hydrogen is estimated for each use area based on conservative demand projections. The estimates are made for the energy demand which is readily convertible and possibly convertible to the use of hydrogen fuel. (Author)

A75-44807 # Social and environmental context of the hydrogen economy. J. D. Salmon (Virginia Polytechnic Institute and State University, Blacksburg, Va.) and J. G. Witwer (Oklahoma, University, Norman, Okla.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1123-1135. 11 refs.

A hydrogen-energy study conducted in 1973 at the Johnson Space Center utilized interdisciplinary teams to identify social-level impacts of the hydrogen economy. This paper presents some of the findings and some extensions of that work. A matrix evaluation scheme was used so that informed judgment could be directed to the social impacts of hydrogen by combining social and technical considerations. These results provide background for some implementation scenarios. (Author)

A75-44808 # Environmental impact of a suitable nuclear power reactor used to provide a process heat system to synthesize fuels. J. A. Richardson (Burns and Roe, Inc., Oradell, N.J.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1137-1156. 9 refs.

Nuclear power reactors could produce electricity and provide hydrogen and oxygen with the aid of a water-electrolysis procedure. The regulatory requirements for nuclear power reactors are examined and the effects of a typical 1100 MWE nuclear power reactor on the environment are investigated. Attention is given to the radioactive wastes produced, the boiling reactor, solid waste, liquids, and gases. Conditions in the case of a pressurized water reactor are also investigated. Problems related to the transportation of radioactive waste are discussed along with the environmental impact of the required cooling operations. G.R.

A75-44809 # How might the hydrogen economy affect our resources and environment. H. J. Plass, Jr. (Miami, University, Coral Gables, Fla.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1157-1176. 9 refs.

Several systems for the production, distribution and utilization of hydrogen are compared with corresponding systems not using hydrogen, but having the same energy resource base. For the systems being compared, estimates are made of rates of consumption of energy resources, and of the forms and extent of environmental damage resulting from the use of the particular system. Except for solar energy, the resource depletion rates and environmental costs of hydrogen systems are greater than those of their non-hydrogen counterparts. (Author)

A75-44810 # The energy crises. F. Schulman (Fred Schulman Associates, Silver Spring, Md.). In: Hydrogen energy;

Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B.
New York, Plenum Press, 1975, p. 1181-1192. 7 refs.

The energy crises facing America involve complex technical, environmental, political, financial, tax, and diplomatic aspects. This paper covers some of these interrelationships as they relate to (1) the nature of the oil crisis and how the U.S. got into it; (2) the Arab oil weapon and its effects on the U.S.; (3) what can be done about it, both short and long term; (4) effects on foreign relations; and (5) the Soviet role in this complex situation. Determined action can overcome current and future energy crises. (Author)

A75-44811 # Hydrogen - Mechanisms and strategies of market penetration. A. S. Manne and C. Marchetti (International Institute for Applied Systems Analysis, Laxenburg, Austria). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1193-1208.

A description is given of a model for quantifying the benefits of a use of hydrogen in the energy sector. A model for optimizing the level and the structure of the research effort is also presented. A series of sensitivity analyses are conducted. In all cases, even with the most pessimistic assumptions concerning a nongrowing, slow-learning society, the prospective benefits appear high. Compared with these benefits, the costs of exploratory research are low enough to justify the support of parallel projects during the next five years. G.R.

A75-44812 # Technical problems facing the hydrogen economy. D. P. Gregory (Illinois Institute of Technology, Chicago, Ill.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1209-1217.

Problems affecting a use of hydrogen as fuel are related to a price which has to be competitive to that of other fuels, questions regarding the compatibility of hydrogen with appliances and burners, aspects of hydrogen availability, and the characteristics of the conversion procedure. An investigation is conducted regarding the nuclear energy capacity available for hydrogen production. A national program is proposed for creating a basis for a hydrogen economy. Recommended program objectives include a reduction in the cost of hydrogen by electrolysis, the production of cheap hydrogen from coal to provide an incentive for the use of hydrogen as a fuel, and the demonstration of hydrogen utilization in industrial burners and domestic appliances. G.R.

A75-44813 # The hydrogen economy and the law. T. C. Cady (West Virginia University, Morgantown, W. Va.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1219-1238. 36 refs.

The characteristics of the energy law are examined, taking into account property concepts and ownership, aspects of eminent domain and condemnation, the regulation of the American energy system, and questions of federal preemption as a developing trend in energy law. The environmental law is also considered along with international law problems. Attention is given to questions pertaining to law and jurisdiction with regard to plants located in the area of the territorial sea, the contiguous zone, the continental shelf, and the high seas. G.R.

A75-44814 # An engineering assessment of the hydrogen economy. J. O. Mingle, N. D. Eckhoff (Kansas State University of Agriculture and Applied Science, Manhattan, Kan.), L. A. Rash (Beach Aircraft Corp., Wichita, Kan.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1239-1249. 12 refs.

An assessment is made of the feasibility of meeting production

and storage requirements for a hydrogen economy encompassing the East Coast of the United States. The timing of engineering facilities sufficient to insure adequate hydrogen production and distribution is shown to be critical. The manpower requirements are shown to place an extreme burden on the projected engineering resources. (Author)

A75-44815 # Ultimate energy, the ultimate fuel, and the hydrogen link in the electrical energy system. C. M. Summers. In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1251-1264.

This paper considers some of the long-range potential solutions for the energy dilemma. An estimate is given for the ultimate energy we can tolerate in the United States; the ultimate source of energy is discussed; hydrogen is suggested as the ultimate fuel and as an important link in our electrical energy system; and some thoughts are given regarding national and state energy objectives. (Author)

A75-44816 # Sources and methods for methanol production. T. B. Reed (MIT, Cambridge, Mass.) and R. M. Lerner (MIT, Lexington, Mass.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1265-1278. 9 refs.

Methanol and methyl fuel promise to be useful clean fuels for internal combustion engines and other liquid fuel applications. The various sources for synthesis of methanol are surveyed, and methods of synthesis are discussed. Various factors affecting production and use economics are listed and production cost from coal, lignin, waste and wood are estimated. (Author)

A75-44817 # The nuclear electric economy. P. N. Ross (Westinghouse Electric Corp., East Pittsburgh, Pa.). In: Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Part B. New York, Plenum Press, 1975, p. 1287-1307.

Figures on current and projected use of energy resources and on rate of depletion of oil, natural gas, and coal reserves are given, and developments in energy-conserving technology such as heat pumps, temperature amplifiers, and improved electrochemical batteries are discussed. An energy budget is outlined for the year 2000 with a shift of emphasis from direct use of natural energy resources to their use in electricity generation. The bulk of energy needs are to be met by generation of electricity from coal and uranium. C.K.D.

A75-45060 # A technique for calibrating photometric curves obtained in solar concentrator tests (Metodika tarirovki fotometriческих kрivыkh, poluchennykh pri solnechnykh ispytaniyakh kontsentratorov). E. V. Tver'ianovich, V. V. Madaev, Ia. T. Shermazanian, and A. V. Vartanian (Vsesoiuznyi Nauchno-Issledovatel'skii Institut Istochnikov Toka, Moscow, USSR). *Geliotekhnika*, no. 3-4, 1975, p. 15-19. In Russian.

A75-45061 # Investigation of a solar concentrator with hexahedral glass facets (Issledovanie solnechnogo kontsentratora s shestigrannymi stekliannymi fatsetami). A. K. Alimov, D. N. Alavutdinov, and A. Abduazizov (Akademii Nauk Uzbekskoi SSR, Fiziko-Tekhnicheskii Institut, Tashkent, Uzbek SSR). *Geliotekhnika*, no. 3-4, 1975, p. 20-22. 5 refs. In Russian.

A75-45062 # A nearly perfect solar energy concentrator made up of tapered mirror facets with constant transverse curvature (Priblizhennyi kontsentrator solnechnoi energii, sostoiashchii iz zerkal'nykh klinovidnykh fatsetov s postoiannoй poperechnoi kрiviznoi). A. Sh. Sharafi, G. Ia. Umarov, and A. Abduazizov (Akademii Nauk Uzbekskoi SSR, Fiziko-Tekhnicheskii Institut, Tashkentskii Gosudarstvennyi Universitet, Tashkent, Uzbek SSR). *Geliotekhnika*, no. 3-4, 1975, p. 35-38. In Russian.

A75-45063 # Effectiveness of using chemically reacting working media in a solar gas-turbine installation (Ob effektivnosti

primeneniia khimicheskii reagentov i ushchikh rabochikh tel v solnechnoi gazoturbinnoi ustanovke). V. V. Chikovani, M. S. Dzitoev, and G. I. Krylov. *Geliotekhnika*, no. 3-4, 1975, p. 80-87. 5 refs. In Russian.

—A thermodynamic method for analyzing the cycles of solar gas-turbine installations is developed on the basis of the fundamental laws of thermodynamics of systems of variable composition. The thermodynamic analysis shows that the cycle efficiency of solar gas-turbine installations employing a chemically reacting working fluid is appreciably higher than that of the classical Brayton cycle, particularly at low permissible temperatures of the working fluid in front of the turbine. V.P.

A75-45064 # Estimates of the reliability of energy-supply systems employing solar energy (Ob otsenakh nadezhnosti sistem energosnabzheniia pri ispol'zovanii energii solntsa). R. B. Salieva (Tashkentskii Institut Sviazi, Tashkent, Uzbek SSR). *Geliotekhnika*, no. 3-4, 1975, p. 119-124. In Russian.

A method of obtaining reliability estimates, using quantitative indices is demonstrated by the example of the power supply of a relay line station equipped with solar cells, electrical accumulators, and diesel generator units. Causes of failure in the power supply from solar cells are analyzed. V.P.

A75-45386 Ion-beam implosion of fusion targets. M. J. Clauser (Sandia Laboratories, Albuquerque, N. Mex.). *Physical Review Letters*, vol. 35, Sept. 29, 1975, p. 848-851. 14 refs.

The performance of ion-beam-irradiated fusion targets consisting of a high-density spherical shell containing DT gas has been calculated. Breakeven with 10-MeV protons irradiating 1-2-mm-diam targets can be produced with a beam current around 10 MA. Results for various target sizes and other beam particles and voltages are also discussed. (Author)

A75-45508 Solar energy - An overview. J. M. Cherne (TRW Systems, Redondo Beach, Calif.). (*American Vacuum Society, Symposium on Films for Solar Energy, Yorktown Heights, N.Y., May 21, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, Sept.-Oct. 1975, p. 975-983.

A survey of the potential of solar energy as a viable alternative for fossil fuels is presented. The present status of the six classes of solar energy conversion systems - (1) heating and cooling of buildings, (2) solar-thermal electric power, (3) photovoltaic power, (4) ocean thermal-gradient power, (5) bioconversion, and (6) wind energy conversion - is discussed and projections of energy costs are presented for each of these areas of development. (Author)

A75-45509 Outlook for Si photovoltaic devices for terrestrial solar-energy utilization. M. Wolf (Pennsylvania, University, Philadelphia, Pa.). (*American Vacuum Society, Symposium on Films for Solar Energy, Yorktown Heights, N.Y., May 21, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, Sept.-Oct. 1975, p. 984-999. 22 refs.

The feasibility of silicon solar cells for large scale energy conversion is examined. In this context the availability of silicon and the cost of fabrication of devices are discussed. It is proposed that a complete rethinking of solar array processing is necessary to achieve large reduction in production costs. (Author)

A75-45511 Principles and applications of selective solar coatings. J. Jurisson, R. E. Peterson, and H. Y. B. Mar (Honeywell Systems and Research Center, Minneapolis, Minn.). (*American Vacuum Society, Symposium on Films for Solar Energy, Yorktown Heights, N.Y., May 21, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, Sept.-Oct. 1975, p. 1010-1015. 7 refs. NSF Contract No. C-957.

Several ways that selective coatings can be used to enhance the performance of solar energy collection systems are reviewed. Coatings discussed include vacuum-deposited, electroplated, and paint-type selective solar absorber coatings and vacuum-deposited and chemically etched antireflection and infrared reflecting coatings

for glass. The optical and physical requirements for the coatings, as well as their effectiveness at increasing solar collector performance, are discussed. (Author)

A75-45512 Optical coatings for collection and conservation of solar energy. J. H. Apfel (Optical Coating Laboratory, Inc., Santa Rosa, Calif.). (*American Vacuum Society, Symposium on Films for Solar Energy, Yorktown Heights, N.Y., May 21, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, Sept.-Oct. 1975, p. 1016-1022.

An optical coating applied to a surface can cause radiation incident on the surface to be divided into transmission, reflection, and absorption in a prescribed manner. Thus, coatings affect the control of radiation and enhance the collection, conversion, and conservation of solar energy. (Author)

A75-45513 Solar-energy materials preparation techniques. D. M. Mattox (Sandia Laboratories, Albuquerque, N. Mex.). (*American Vacuum Society, Symposium on Films for Solar Energy, Yorktown Heights, N.Y., May 21, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, Sept.-Oct. 1975, p. 1023-1031. 90 refs. ERDA-supported research.

The application of materials to the thermal control of structures, photothermal/electrical conversion, and photovoltaic conversion are reviewed. Applications include solar and infrared reflectors, optical filters, transparent conductors, bulk semiconductor materials, semiconductor films, and selective solar absorbers. The use of thin films in many conservation and photothermal applications is presently economical, but the economics of photothermal/electrical and photovoltaic conversion is still being investigated. The means of obtaining selective solar absorbers which have a high solar absorptance and low IR emittance are discussed, and specific data on an electrodeposited black-chrome selective absorber is presented. It is shown that solar-electric generating plants must be constructed at a cost of about \$50/sq m to be competitive with other electrical generating plants, and that a meaningful impact on the electrical energy economy will require a fabrication rate of greater than 50 square miles per year. (Author)

A75-45514 Solar-energy conversion at high solar intensities. C. E. Backus (Arizona State University, Tempe, Ariz.). (*American Vacuum Society, Symposium on Films for Solar Energy, Yorktown Heights, N.Y., May 21, 1975.*) *Journal of Vacuum Science and Technology*, vol. 12, Sept.-Oct. 1975, p. 1032-1041. 22 refs.

The concentration of sunlight offers distinct advantages for solar-electrical generation either by thermal conversion or by photovoltaics. A large variety of concentration techniques are available with concentration ratios of 1-1000. Concentration is required for thermal conversion systems to attain the high temperatures needed for efficiencies in the desired range of about 25%-35%. The projected costs for some of the solar thermal systems (especially the central receiver and the fixed mirror) indicate that they could be economically competitive in the southwestern states. The southwest may be required for these high-concentration systems to overcome the main disadvantage of concentration, which is the use of the direct component of sunlight only. Other concerns of high-intensity systems are in tracking requirements, reflective surface accuracy, and material lifetimes of both the reflecting and absorbing components. (Author)

A75-45647 # A potassium topping cycle for public utility power plants. W. F. Zimmerman, G. C. Wesling, and R. J. Rossbach (General Electric Co., Evendale, Ohio). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1235.* 12 p. 44 refs.

A potassium topping cycle power plant proposed for utility power is an excellent example of the effective use of prior space program development efforts. During the 1960's the government sponsored the development of nuclear powered Rankine cycle systems for the generation of power in space. Over 10,000 hours of potassium vapor turbine operation were accumulated in superalloy

systems operating in an air environment. Much additional effort and supporting technology were developed in areas which were required to support the development of metal vapor turbine space power systems. It has been suggested that the technology be used to increase the operating temperature and, thus, the thermal efficiency of utility power plants. A recent study of such systems indicates electric power can be generated at higher efficiency with controlled thermal and air pollution and with considerable conservation in coal and water resources. (Author)

A75-45648 # MHD electrical power generation from fossil fuels. K. E. Tempelmeyer (Tennessee, University, Tullahoma, Tenn.). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1236.* 11 p. 8 refs.

The generation in electrical power by magnetohydrodynamic (MHD) techniques was pioneered in the U.S. in the early 1960's. At present, the major activities are underway in the U.S.S.R., the U.S., and Japan. Each of these countries now have large scale active programs for MHD central plant power generation using different fossil fuels. The effort in the Soviet Union centers about the use of natural gas; coal-fired systems are being investigated in the U.S. while Japan uses oil. All of these efforts are directed toward the development of open-cycle systems but the development problems are different because of the different types of fuel being used. This paper will review the status of these various problems and outline the prospects for their solutions. (Author)

A75-45649 # Electrochemical heat engines for direct electric power generation and energy storage. G. R. B. Elliott, W. J. Trela, and G. E. Dials (California, University, Los Alamos, N. Mex.). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1237.* 8 p. 7 refs. ERDA-supported research.

Batteries can be operated in heat engine cycles analogous to the cycles of usual mechanical heat engines but without the mechanical motion of pistons, turbines, etc. These electrochemical cycles can be used for direct generation of electric power and for storage of energy. The Los Alamos Scientific Laboratory is in the initial stages of development of such engines which can accept heat in the temperature range of 1700-900 K, then drop the temperature to the range 800-600 K while doing useful electrochemical work. These systems offer promise as topping cycles for steam turbines, and they also could be used for mine-mouth generation of electric power following in situ gasification of coal - here the rejected heat from the generation can be used in endothermic processes underground. Such processes include preliminary drying of the coal bed, frequently a necessary step in in situ gasification, as well as coal pyrolysis to produce a substitute feedstock for petroleum refineries of the future, plus gasification itself. (Author)

A75-45651 # Solar residential electrification with high performance heat engines. R. M. Salter (Rand Corp., Santa Monica, Calif.). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1239.* 12 p. 45 refs.

Application of high-performance closed-cycle heat engines to solar energy conversion for residences and other buildings is considered. Stirling and recuperated Brayton cycles are investigated with the former favored due to commonality in construction with conventional small Otto cycle engines. Typical top temperatures of these cycles is near best compromise between thermodynamic efficiency vs solar collection efficiency. The overall system includes an array of sun-following paraboloidal collectors connected by sodium heat pipes. Both heat and electrical buffering, control problems, accoutrements (such as heat pumps), other heat sources, and other electrical sources are examined. Analogous conversion of furnace fuel energy into electricity is considered. (Author)

A75-45656 * # Propulsion technology needs for advanced space transportation systems. J. W. Gregory (NASA, Lewis Research Center, Rocket Systems Branch, Cleveland, Ohio). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1246.* 21 p. 16 refs.

Plans have been formulated for chemical propulsion technology programs to meet the needs of advanced space transportation systems during the two decades from 1980 to the year 2000. The many possible vehicle applications have been reviewed and cataloged to isolate the common threads of primary propulsion technology that will satisfy near term requirements in the first decade and at the same time establish the technology groundwork for various potential far term applications in the second decade. Two thrust classes of primary propulsion engines are apparent: (1) 5,000 to 30,000 pounds thrust for upper stages and space maneuvering; (2) large booster engines of over 250,000 pounds thrust. Six major classes of propulsion systems and the important subdivisions of each class have been identified. The relative importance of each class is discussed in terms of the number of potential applications, the likelihood of that application materializing, and the criticality of the technology needed. Specific technology programs are described and scheduled to fulfill the anticipated primary propulsion technology requirements of the period. (Author)

A75-45659 # Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems. R. R. Holman, J. M. Tobin, and W. E. Young (Westinghouse Electric Corp., Pittsburgh, Pa.). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1258.* 6 p. 7 refs.

The nuclear technology reactors developed and tested in the Nuclear Engine Rocket Vehicle Application (NERVA) program operated with fuel exit gas temperatures in excess of 2600 K. This experience provided a significant ultra-high temperature technology base and design insight for commercial power applications. Design approaches to accommodate fission product retention and other key prevailing requirements are examined in view of the basic overriding functional requirements, and some interesting reconsiderations are suggested. Predicted overall system performance potentials for a 2000 K MHD conversion system and reactor parameter requirements are compared and related to existing technology status. Needed verification and development efforts are suggested. A reconsideration of basic design approaches is suggested that could open the door for immediate development of ultrahigh temperature nuclear heat sources for advanced energy systems. (Author)

A75-45661 # Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems. G. H. Farberman and R. E. Thompson (Westinghouse Astronuclear Laboratory, Pittsburgh, Pa.). *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1261.* 12 p.

A75-45663 # Terrestrial and space applications of the migma controlled fusion concept. R. Ho. *American Institute of Aeronautics and Astronautics and Society of Automotive Engineers, Propulsion Conference, 11th, Anaheim, Calif., Sept. 29-Oct. 1, 1975, AIAA Paper 75-1263.* 6 p. 16 refs.

Approaches for the heating of ions with the aid of colliding beam technology are considered and a description is given of the self colliding beam technology and the migma principle. The utilization of the described principle for fusion reactions is discussed. In an analysis of migma space propulsion applications it was found that migma propulsion compares favorably with hypothetical fission or solar powered spacecraft. Terrestrial and migma applications offer also a number of advantages. G.R.

A75-45814 * Report on studies of space to earth microwave power transmission systems. A. Edwards, Jr. (Raytheon Advanced Development Laboratory, Sudbury, Mass.) and R. M. Schuh (NASA, Lewis Research Center, Space Flight Systems Study Office, Cleveland, Ohio). *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper 75-005*. 38 p. 13 refs. Contract No. NAS3-17835.

The studies reported include a preliminary analysis, conceptual design, technical and economic evaluation, and planning for a technology development, a ground demonstration, and an orbital test program. The concept investigated involves a transmitting antenna in geosynchronous orbit which beams microwave power to a ground antenna where it is rectified to DC power. The amplatron and the klystron are considered as devices for converting DC power to RF power at microwave frequencies. G.R.

A75-45819 Deployable Symphonie solar generator. H. H. Schultz (Société Européenne de Propulsion Vernon, Eure, France) and J.-C. Vermalle (Société Nationale Industrielle Aérospatiale, Cannes, France). *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper 75-009*. 13 p.

The developmental history of the Symphonie satellite solar generator is reviewed. Design restraints on the solar generator, original concepts and feasibility studies, general characteristics of the chosen design solution, development tests, qualification tests, tests on a modified launch vehicle, and verification tests are discussed. A brief description of the Symphonie telecommunications satellite as a whole precedes the discussion. S.J.M.

A75-45822 # Thrust vector control by magnetic field. M. Shepshelovich and Y. Manheimer-Timnat (Technion - Israel Institute of Technology, Haifa, Israel). *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper 75-027*. 29 p. 7 refs.

Possibilities are discussed for the practical application of a magnetic field to the problem of thrust control and vectoring of an MHD-generator rocket engine. Two alternative techniques are considered: the introduction of 'magnetic nozzles' and the use of thermal choking. The performance of these techniques is compared analytically, and it is shown that thermal choking is more advantageous since it requires a smaller current density. Possible designs for both systems are considered, and effective thrust vectoring with solid propellants is examined. F.G.M.

A75-45829 Economic analysis of space-based electric power generation and transmission systems. E. J. Greenblat (ECON, Inc., Princeton, N.J.). *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper 75-006*. 18 p.

An economic evaluation is conducted of a space solar power station (SSPS) project considered by an American aerospace corporation. Underlying economic considerations for determining the 'cost' of electricity to users from a given power plant are discussed. An economic analysis of the initial program plan is considered along with an analysis of technology choices and the potential economic benefits of an SSPS. On the basis of the reported evaluation it is concluded that the SSPS concept can be regarded as potentially economically viable. G.R.

A75-45875 # Storage of energy in kinetic batteries for an earth resources satellite (Stockage d'énergie sur batteries cinétiques pour un satellite de ressources terrestres). J. P. Passani. *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper ST-75-09*. 39 p. 10 refs. In French.

A plan for the storage of energy (e.g., solar energy) in a rotating

flywheel is proposed. This design is especially useful for energy storage in satellites. The gyroscopic effect of the flywheel is shown to have no significant effect on the pilot-ability of the satellite. A comparison with battery-powered systems shows that satellite lifetimes are increased, satellite weights are decreased, and power supply-based satellite actuation possibilities are increased with the flywheel as compared to the Ni-Cd cells. Computer management of these systems will provide a great deal of adaptability to different energy demand patterns. S.J.M.

A75-45885 # Space and energy - Some legal problems (Espace et énergie - Quelques problèmes juridiques). A. W. Stoebner. *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper*. 15 p. In French.

Three areas of possible conflict between terrestrial and space use of energy are examined. The first area is economic evaluation of the earth by spatial means. The second concerns harnessing solar energy. Evaluation and exploitation of extraterrestrial environments and resources constitute the third category. In the first area are included meteorology, telecommunications, and remote sensing; the second category deals mainly with the installation of very large energy-converting and transmitting space stations; and the third centers around the right of a nation with advanced technology to appropriate extraterrestrial resources to the exclusion of underdeveloped countries. S.J.M.

A75-45893 # The utilization of space as a source of energy for the earth. S. Estradé (Barcelona, Polytechnic University, Barcelona; PROMAR S.A., Spain). *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper*. 21 p. 6 refs.

A study of energy sources outside the earth is conducted in connection with the desirability to obtain a clean and practically inexhaustible source of energy for terrestrial and space applications. Attention is given to orbital helioelectric plants, the earth's magnetic field and the Van Allen radiation belts, energy in inter-stellar matter, cosmo-driven plants, the utilization of the moon, and problems of energy transportation. Juridical considerations regarding the utilization of energy from space are discussed. Stimuli for accelerating space energy research are considered along with questions related to the rivalry between states. G.R.

A75-45903 # The satellite solar power station - A step toward the industrial use of space. P. E. Glaser (Arthur D. Little, Inc., Cambridge, Mass.). *International Astronautical Federation, International Astronautical Congress, 26th, Lisbon, Portugal, Sept. 21-27, 1975, Paper 75-003*. 27 p. 12 refs.

The option for using satellite solar power stations for large-scale power generation on earth, collecting and converting solar energy into microwave energy, transmitting it to the earth's surface, and transforming it into electricity is reviewed. The current state of technology and the necessary developments for accomplishing these functions are discussed, and the results of recent microwave transmission and rectification demonstration tests are mentioned. The requirements for earth-to-orbit transportation are presented. Considerations are given to cost projections, resource use, and economic comparisons. Environmental issues, including impact of waste heat release, space vehicle exhaust, noise pollution and location of antenna sites, are listed. Biological effects and radio frequency interference are explored. The time frame for accomplishing the operational system is outlined. (Author)

A75-45920 Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record. Conference sponsored by IEEE, AIChE, ANS, SAE, ACS, AIAA, ASME, International Solar Energy Society, American Power Conference, and Electrochemical Society. New York, Institute of Electrical and Electronics Engineers,

Inc., 1975, 1557 p. \$50.

The topics considered are related to solar buildings, fuel cells, liquid metal fast breeder reactors, energy storage and components, automotive engines, solar heating and cooling, urban systems, nuclear power systems, and thermionic energy conversion. Attention is also given to photovoltaic conversion, lithium batteries, topping cycles, unique engines, a review of U.S. government and foreign energy programs, molten salt/solid electrolyte batteries, synthetic liquid fuels from coal and oil shale, energy conservation, thermoelectric systems, solar utilization, aqueous batteries, alternative fuels, isotope power systems, Stirling cycle engines, wind systems, space solar systems, Brayton cycle systems, hydrogen, biomedical power, space and remote power systems, and heat pipe applications.

G.R.

A75-45921 Technical and economic evaluation of solar heating and cooling of buildings. R. O. Turbyfill and A. D. Cohen (General Electric Co., King of Prussia, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1-6. NSF Grant No. C-855.

Aspects of weather data development for the evaluation are considered, taking into account the division of the country into separate solar climate regions and business economic areas. A system of seventeen building models representing the various categories of buildings was selected. The reference buildings were used as a basis for the reported evaluation studies. It was found that solar heating and cooling is technically feasible now, and with the advent of mass production in hardware could become economically viable in the early 1980s. Significant savings in fossil fuels would occur by the end of the century.

G.R.

A75-45922 Solar One, two years experience. K. W. Böer, J. H. Higgins, and J. K. O'Connor (Delaware University, Newark, Del.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 7-13. 9 refs. Research supported by the Delmarva Power and Light Co., Pennsylvania Power and Light Co., Atlantic City Electric Co., Baltimore Gas and Electric Co., Tampa Electric, Ohio Edison, Southern California Edison, and American Public Power Association.

The Delaware Solar One laboratory has been in operation for approximately two years and results of its solar thermal and electrical system are reported. It could provide substantially in excess of 50% solar heat and shows the feasibility to provide up to 15 kw/h per clear summer day of its electric energy needs from CdS/Cu₂S solar cells of approximately 4% conversion efficiency (620 sq ft roof coverage is simulated). These encapsulated cells have shown no degradation. Highly efficient solar collectors are developed with air as the heat transport fluid. The thermal storage uses heat of fusion and has maintained an acceptable storage capacity throughout its operation. An analysis summary is presented with key data points of the system.

(Author)

A75-45923 Operational experience - Solar heating a Boston school. J. E. Notstein (General Electric Co., King of Prussia, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 14-18. 7 refs.

The solar heating system considered consists of a solar collector array, a thermal energy storage tank, two air heating coils, two pumps, two heat recovery/dump heat exchangers, various motorized valves, piping, instrumentation, and control devices. On the basis of an evaluation of the operational experience with this heating system it is concluded that solar heating is effective and feasible in the Boston area. A solar heating system should provide over 2/3 of the heating requirements.

G.R.

A75-45924 A large mechanical contracting corporation solar heats its own offices. T. A. King, E. F. Nerf, Jr. (Mueller Associates, Inc., Baltimore, Md.), and W. A. Touchard, Jr. (Poole and Kent Co., Baltimore, Md.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 19-22.

The considered solar heating system provides a minimum of 50 per cent of the heating requirements of a 1500 square foot building. Commercially available equipment is used. The collector system employs water as the working fluid. Problems of freeze protection are considered along with details concerning the heat storage arrangements and the space heating system. Questions concerning the cost effectiveness of the solar heating system are investigated, taking into account costs for competitive heating systems and the importance of a reduction in the price of solar collectors.

G.R.

A75-45925 The nation's first private industrial solar heating system - General Electric's Valley Forge Space Center. W. J. Haggerty (General Electric Co., Valley Forge, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 23-28.

The solar heating system collector array is installed on a portion of the roof of the building. The solar collectors face southward with a tilt of 45 degrees from the vertical. The array consists of 203 flat plate collectors with a surface area of 4872 square feet. Aspects of system design are discussed along with structural details, the collector array, the mechanical components, and the control system. Instrumentation is provided to analyze system performance, obtain data on specific system components, evaluate variations in collector configuration, and obtain detailed solar collector performance data.

G.R.

A75-45926 Solar heating and cooling of Army buildings. W. R. Terrill, A. Kirpich (General Electric Co., King of Prussia, Pa.), and D. C. Hittle (U.S. Army, Construction Engineering Research Laboratory, Champaign, Ill.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 29-37.

The U.S. Army initiated a study program to evaluate the potential application of solar energy for the heating and cooling of Army buildings. The program includes the definition of the preliminary design of a solar heating system to be retrofitted into an existing building. A system concept is also to be defined for a combined solar heating and cooling system for an incorporation into a new building. Details of the study program are discussed, taking into account the characteristics of the selected buildings, the analysis methods, and details regarding the preliminary design of the considered systems.

G.R.

A75-45927 An integrated solar heated and cooled mobile home. S. L. Macklis and S. A. Haas (General Electric Co., Valley Forge, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 38-42.

The primary goal of the considered program was to use the solar energy data and technology base available from existing solar installations to demonstrate the feasibility of mobile home heating and cooling using solar energy. Major accomplishments of the first phase of the program include an overall system study of a solar heating and cooling system designed specifically for use with a mobile home. The solar collector system is discussed along with the heating and cooling system, the control system, and aspects of instrumentation and data acquisition. A preliminary economic analysis is also conducted.

G.R.

A75-45929 The economic incentive for introducing electric storage devices into the national energy system. C. Braun, E. A.

Cherniavsky, and F. J. Salzano (Brookhaven National Laboratory, Upton, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 82-90. 10 refs. ERDA-sponsored research.

Requirements for electric utility energy storage devices are related to the variations in the demand for electricity on a daily, weekly, and seasonal basis. No specific device is identified in the reported study and a 'black box' storage device having a characteristic efficiency and cost is considered. It is pointed out that a significant analysis must take the entire electric utility system into account. This condition is satisfied by the linear programming model which is discussed. The model encompasses the entire energy system including all alternative resources and both electric and nonelectric demands. A break-even capital cost study for electric storage devices is described. G.R.

A75-45930 Energy storage by flywheels. R. I. Fullman (GE Research and Development Center, Schenectady, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 91-100. 45 refs.

The purpose of this report is to estimate the best performance and cost effectiveness that are likely to be attainable in the storage of energy by flywheels. Its emphasis is on identifying safe design values for the properties of candidate rotor materials, and on the relationship of these properties to the rotor's maximum energy storage density. Approximate allowance is made for the weight, volume, and cost of components other than the rotor itself, but no attempt is made to provide an independent assessment of requirements for bearings, seals, vacuum pumps, etc. Some areas for further development are suggested, and applications are identified in which flywheel energy storage is most likely to be useful. (Author)

A75-45931 Energy storage by high-pressure, moderate-temperature electrolytic techniques. H. J. Allison and W. L. Hughes (Oklahoma State University, Stillwater, Okla.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 104-110. 7 refs. NSF Grant No. GI-39457.

General design constraints for energy storage systems are considered along with basic information related to the hydrogen-oxygen electrolytic reaction. Advantages of high-pressure and elevated temperature operation are examined. Conventional high-pressure, moderate temperature hydrogen-oxygen electrolysis cells consist essentially of parallel plate electrodes separated by a solution of an electrolyte, usually KOH. Certain problems with these cells and approaches to overcome the difficulties are discussed. A description is given of an electrolysis system which was designed to minimize the considered problems. The system can operate at a maximum pressure of 3000 psi and a maximum temperature of 400 F. G.R.

A75-45932 Thermal energy storage. M. Telkes (Delaware University, Newark, Del.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 111-115. 14 refs.

Various thermal storage materials are compared and their theoretical and actual performance limitations are summarized. Solid/liquid phase change reactions (heat of fusion materials, or heat sinks) are described, especially in solar heating applications. Inexpensive materials are available that are nontoxic, noncorrosive and nonflammable. The problems of supercooling, or of unwanted labile crystal forms can be controlled by heterogeneous nucleating materials or devices. Results are presented with sodium thiosulfate pentahydrate melting around 49 C (120 F). Its heat of fusion is 50 kcal/kg (90 Btu/lb); its volumetric heat storage capacity is 9,300

Btu/cu ft. Estimated cost of the material for the storage of one million Btu is \$770, additional cost of containers increases this to about \$1,500 per million Btu. The result of heat transfer tests are reported as obtained in a calorimetric device. This material has been used in Solar-One, the experimental solar building at the University of Delaware. (Author)

A75-45933 Application of rocket engine technology to energy. A. D. Lucci and D. R. Hodson (Rockwell International Corp., Rocketdyne Div., Canoga Park, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 116-124.

A description is given of a compact steam generator (CSG) designed for peak shaving for a large utility. It supplies a nominal steam load of 132,000 lb/hr at 330 psia and 600 F, and burns natural or propane gas with oxygen giving a nonpolluting exhaust. It is pointed out that the concept stems principally from the technology developed for rocket engine thrust chambers. Liquid fuel and oxidizer are introduced into a combustion chamber where they are burned at elevated pressure. A general physical description of the CSG system installation is provided. Attention is given to questions of equipment design and system operation. G.R.

A75-45934 Advanced heat transfer methods for geothermal power applications. L. Awerbuch and S. C. May (Bechtel, Inc., San Francisco, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 125-130. 5 refs.

A binary cycle for the extraction of geothermal energy is considered. Heat from the fluid of a geothermal well is transferred to a secondary fluid. The secondary fluid is heated to a supercritical condition and expanded through a turbine to generate electricity. Studies concerning the heat exchanger requirements for a 10-MW (net) electrical power generating plant were conducted. Other considerations being equal, the cost of the heat transfer equipment can be minimized by utilizing high overall heat transfer coefficients. Attention is given to the advantages obtained by employing the overall heat transfer coefficients of various heat transfer methods in preheaters, evaporators, and condensers. G.R.

A75-45936 Solar heat pump comfort heating systems. T. A. V. Cassel (Bechtel, Inc., San Francisco, Calif.), H. G. Lorsch (Franklin Institute Research Laboratories, Philadelphia, Pa.), and N. Lior (Pennsylvania University, Philadelphia, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 162-170. 25 refs. NSF Grant No. GI-29729.

This paper is addressed to the development of an advanced and energy-efficient heating system which integrates solar energy collectors, a thermal energy storage device, a vapor compression heat pump, an auxiliary heat source, controls, and a residence. Using simulation programs written in interactive APL computer language, two proposed solar heat pump systems were modeled for a 1500 square foot Philadelphia, Pennsylvania residence, and were compared to models of direct solar and conventional heating systems over an entire heating season. Comparisons were made on three criteria: resource energy utilization efficiency, effect on electric utilities, and consumer investment incentives. (Author)

A75-45937 Optimum properties of working fluids for solar powered heat pumps. L. I. Stiel, R. A. Allen, and K. P. Murphy (Allied Chemical Corp., Specialty Chemicals Div., Buffalo, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 171-177. 7 refs. NSF-supported research.

In this study, the effect of the thermodynamic properties of the working fluid on the performance of a solar powered heat pump has been analyzed. The system consists of a vapor compression cooling or heating cycle combined with a Rankine power cycle. Values of the input fluid properties which result in optimum efficiencies have been determined for upper temperatures of 180 and 300 F. Cycle and overall efficiencies have also been calculated for approximately 20 halocarbons and other substances. The fluids are classified by boiling points, and the results are tabulated for operation both in cooling and heating modes. Plots are also presented indicating the variation of the efficiencies with cycle parameters. (Author)

A75-45938 Study on parameter variations for solar powered lithium bromide absorption cooling. W. Bessler and C. N. Shen (Rensselaer Polytechnic Institute, Troy, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 178-185. 6 refs.

The investigation reported is concerned with the use of solar energy for powering an absorption-cycle refrigeration system for the cooling of buildings. The cooling system considered employs a lithium bromide water solution. Questions of system operation were studied with the aid of a mathematical model. The computerized simulation procedure was used in connection with realistic solar heat supply and cooling load data. The solution of the problem-system model is discussed, taking into account initial conditions, aspects of concentration and flow, questions of storage and mixing, and the cooling performance. Problems of systems control are also explored. It is concluded that the concept of latent heat storage, as investigated, appears to provide a feasible approach for the cooling of buildings. G.R.

A75-45939 Design and operation of a solar-powered turbocompressor air-conditioning and heating system. F. R. Biancardi, M. D. Meader, W. A. Blecher, and J. B. Hall (United Technologies Research Center, East Hartford, Conn.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 186-194. 18 refs. ERDA-supported research.

The turbocompressor Rankine-cycle system concept for solar-powered heating and cooling utilizes a single working fluid and a common condenser for both the power and cooling loops. Hot fluid from the solar collector/storage system is used to vaporize a working fluid in the vapor generator of the power loop. The vapor is expanded through a turbine which produces mechanical power to drive a compressor. Questions of cycle selection are discussed along with the characteristics of ejector systems, mechanical expander-compressor systems, single-fluid systems, dual-fluid systems, and problems of working fluid selection. G.R.

A75-45940 Development of a 540-sq-ft prototype faceted fixed mirror solar concentrator. J. R. Williams (Georgia Institute of Technology, Atlanta, Ga.) and S. F. Hutchins (Scientific Atlanta, Inc., Doraville, Ga.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 195-201. 8 refs. NSF Grant No. G1-43936.

A new type of solar collector has been assembled and tested at Georgia Tech which promises to provide heat at about the same cost as commercially available flat-plate collectors, but at a much higher temperature. The higher temperature permits higher COP air conditioning and heat pump operation, with a resulting decrease in the collector area required and lower air conditioning equipment costs as compared with systems using flat plate collectors. In addition, this focusing collector can supply low-grade steam and other industrial process heat at temperatures to several hundred degrees Centigrade.

Using air as the heat-transfer medium, collection temperatures in excess of 400 C have already been achieved using the 540-sq-ft FFMC at Georgia Tech. These Data indicate that an average collection efficiency of at least 50% at the design temperature of 260 C should be achieved using an improved heat exchanger currently under construction. (Author)

A75-45941 A computer program to determine the optimum configuration of solar assisted building heating and cooling systems based upon life-cycle cost. D. R. Fairbanks (Charles Stark Draper Laboratory, Inc., Cambridge, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 202-209. 5 refs.

A75-45942 Solid polymer electrolysis fuel cell status report. L. J. Nuttall (General Electric Co., Aircraft Equipment Div., Wilmington, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 210-217.

The electrolyte used in current solid polymer electrolyte (SPE) fuel cells is a thin (10 mil) sheet of a perfluoro linear polymer to which sulfonic acid radicals have been chemically linked. Ionic conductivity results from the mobility of hydrated hydrogen ions. The SPE fuel cells, which were first used operationally in the Gemini spacecraft, have been improved in recently completed fuel cell technology programs. Enhanced performance and reduced manufacturing costs make the solid polymer electrolyte fuel cell an attractive candidate for many ground power applications in addition to its continued use in the aerospace field. G.R.

A75-45943 Phosphoric acid fuel cell stack development. S. G. Abens, B. S. Baker, R. DiPasquale, and I. Michalko (Energy Research Corp., Danbury, Conn.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 218-221. Grant No. DAAK02-74-C-0367.

It is pointed out that most fuel cell systems are currently probably not economically feasible because of the way components are manufactured. A description is given of techniques which have been developed to reduce the costs of fuel cell manufacture, taking into account the production of three key fuel cell components. Attention is given to the manufacture of the electrodes, the acid fuel cell matrix, and the bipolar plates. G.R.

A75-45944 1.5 and 3KW indirect methanol-air fuel cell power plants. S. S. Kurpit (U.S. Army, Mobility Equipment Research and Development Center, Fort Belvoir, Va.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 222-228.

A 1.5KW methanol-air fuel cell power plant was completed and tested during the early part of 1974. The power plant consists of two major subsystems. The fuel conditioning subsystem converts the aqueous methanol feed to hydrogen, and the fuel cell subsystem converts the hydrogen to electrical power. The fuel cell subsystem consists of a phosphoric acid electrolyte cell stack. The phosphoric acid electrolyte is contained in a soft porous phenolic resin mat between the electrodes. The success encountered with this unit provided the basis for a decision to design, fabricate, and evaluate a 3KW power plant. G.R.

A75-45946 The EPA-Van - A clean energy system for the home. S. J. Bunas (U.S. Environmental Protection Agency, Control Systems Laboratory, Research Triangle Park, N.C.), M. F. Collins, and P. L. Terry (Engelhard Minerals and Chemicals Corp., East Newark, N.J.). In: Energy 10; Annual Intersociety Energy Con-

version and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 241-246. 5 refs.

In the design of the EPA-Van system three approaches were combined for reducing air pollution and conserving energy. These approaches are related to better home construction, the use of solar energy, and a utilization of new, low-polluting devices such as fuel cells and catalytic appliances. Heavy insulated walls, floors, and ceiling are to be employed in the construction of the home. The solar energy system includes a collector mounted on the roof. A solution of ethylene glycol and water is heated as it circulates in tubes. The solar energy system is integrated with an electrically driven heat pump.

A75-45947 **The annual cycle energy system.** H. C. Fischer. In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 251-259. Research sponsored by the U.S. Department of Housing and Urban Development and Federal Energy Administration.

The annual cycle energy system (ACES) obtains heat by freezing water during the heating season. A one-direction heat pump is used to deliver the heat to the building. The ice is used to provide air conditioning during the summer. The cycle is repeated each year and the only major energy expenses are related to the cost of operating the heat pump during the winter. Questions concerning the provision of hot water are discussed along with problems regarding the ice freezing coils. Attention is also given to ice bin requirements, ice bin structures, the heat leakage into an ice bin, the application of ACES to large central systems, and economic considerations.

A75-45948 **Design study for a coal-fueled closed cycle gas turbine system for MIUS applications.** A. P. Fraas, R. S. Holcomb, M. E. Lackey, and J. J. Tudor (Oak Ridge National Laboratory, Oak Ridge, Tenn.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 260-268. 10 refs. Research sponsored by the U.S. Department of Housing and Urban Development.

The general requirements of a modular integrated utility system (MIUS) are examined. Probably the most notable differences when compared to central station applications are related to the low power output and the need for semiunattended operation. System design conditions are presented in a table and the development of a conceptual design is discussed. A description of a furnace design is provided, taking into account questions of fabrication and accessibility, the economizer, aspects of tube differential thermal expansion and thermal stress, bed pulsation, tube vibration problems, and the furnace casing construction. Questions of system design are also considered, giving attention to the turbine-generator unit, ducting between the furnace and the gas turbine, and the coal feed system.

A75-45949 * **Application of fuel cells with heat recovery for integrated utility systems.** V. Shields (NASA, Johnson Space Center, Houston, Tex.) and J. M. King, Jr. (United Technologies Corp., Power Systems Div., Windsor, Conn.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 278-281.

This paper presents the results of a study of fuel cell powerplants with heat recovery for use in an integrated utility system. Such a design provides for a low pollution, noise-free, highly efficient integrated utility. Use of the waste heat from the fuel cell powerplant in an integrated utility system for the village center complex of a new community results in a reduction in resource consumption of 42 percent compared to conventional methods. In addition, the system has the potential of operating on fuels produced from waste materials (pyrolysis and digester gases); this would provide further reduction in energy consumption. (Author)

A75-45950 **Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes.** J. W. Tatom, A. R. Colcord, J. A. Knight, L. W. Elston, P. H. Har-Oz (Georgia Institute of Technology, Atlanta, Ga.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 282-289. U.S. Environmental Protection Agency Contract No. 68-02-1485.

A75-45951 * **The UF6 Breeder - A solution to the problems of nuclear power.** J. R. Williams, J. D. Clement, and J. A. Rust (Georgia Institute of Technology, Atlanta, Ga.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 308-313. 28 refs. Grants No. NsG-7067; No. NsG-1168.

One of the major advantages of uranium hexafluoride reactors for power generation is the simplified fuel reprocessing scheme which the gaseous fuel makes possible. Critical experiments related to the development of the reactors for electric power generation are discussed along with UF6 breeder reactor studies. Previous energy conversion studies are reported, taking into account gas turbine power plants, thermionic conversion, and MHD conversion. Thermodynamic cycle analyses show that high efficiencies can be achieved using UF6 as the working fluid for Rankine or Brayton cycles without requiring excessive temperatures.

A75-45953 **Thermal power conversion systems for fusion plants.** P. H. Sager, Jr. (General Atomic Co., San Diego, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 320-328. 27 refs.

The utilization of the energy provided by a fusion reactor would involve the extraction of thermal energy from the reactor blanket and the conversion of this heat into usable electrical energy. Coolants which have been considered include water, liquid metals, gases, and molten salts. The merits of several types of gases and liquid metals are considered. Various types of power conversion systems are compared, taking into account thermal efficiency, system complexity, inherent safety, development requirements, projected availability, projected reliability, projected specific capital cost, and improvement potential.

A75-45954 **The growth of thermionic energy conversion.** G. N. Hatsopoulos and F. N. Huffman (Thermo Electron Corp., Waltham, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 342-350. 36 refs.

A thermionic energy converter converts heat into electricity without an employment of moving parts. Thermionic conversion can be used with either fossil fuel, solar energy, or nuclear energy sources. The basic principles of thermionic energy conversion are examined, taking into account a hydropower analogy, the space charge problem, and the barrier index. The evolution of thermionic technology is considered. Prospects of thermionic conversion methods for the future are discussed, giving attention to performance improvements and applications.

A75-45955 * **The ERDA thermionic program.** G. A. Newby (ERDA, Space Nuclear Systems Div., Washington, D.C.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 351-355. NASA-ERDA-sponsored research.

A rationale for increased Federal support of thermionic research is considered and the objectives and milestones of the thermionic

program of the U.S. Energy Research and Development Administration (ERDA) are examined. The ERDA program is to provide very high specific power systems needed for planned future NASA nuclear electric propulsion missions. Another objective is the enhancement of the overall thermal conversion efficiency of the present utility power plants from approximately 35% to 50% or more. Attention is given to key problem areas, taking into account inadequate analytical tools, the reduction of the plasma arc-drop losses, aspects of hot shell materials development, and the coordination of the participating groups programmatic activities. G.R.

A75-45956 * NASA thermionic converter research and technology program. J. G. Lundholm (NASA, Office of Aeronautics and Space Technology, Research Div., Washington, D.C.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 356-360.

This paper describes the NASA/ERDA research and technology program that was initiated in mid-FY 1974 with the objective of doubling the efficiency of thermionic power conversion with decreased emitter temperature. Also discussed are the potential uses of thermionic power conversion systems. Emphasis in this paper is placed on potential space applications, especially nuclear-electric propulsion (NEP). Possible development schedules are shown that would allow NEP systems to be ready for use in the 1990 time period for missions to the outer planets. (Author)

A75-45957 * Electrodes for thermionic energy conversion. F. Ruffeh, A. H. Sommer, and F. N. Huffman (Thermo Electron Corp., Waltham, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 361-366. 5 refs. NASA-supported research; Contract No. AT(11-1)-3056.

Problems concerning an application of thermionic energy conversion methods are related to the high heat source temperatures currently required for practical power densities and efficiencies. A description is given of advances made in the development of improved emitter and collector surfaces as a basis for the reduction of operating temperatures. The controlled addition of oxygen has resulted in a considerable improvement of emitter performance. Improvements in converter performance have been obtained by a reduction of the collector work function. Attention is given to fundamental studies, simulated converter environment tests, and variable spacing converter experiments. G.R.

A75-45960 Collector work function improvements and the development of low temperature thermionic converters. M. v. Bradke and R. Henne (Deutsche Forschungs- und Versuchsanstalt für Luft- und Raumfahrt Institut für Energiewandlung und Elektrische Antriebe, Stuttgart, West Germany). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 382-386. 16 refs.

A new technique for measuring the work functions of solar thermal collectors in a vapor atmosphere where a dynamic equilibrium exists between adsorption and desorption has been applied to collectors in Ba or Cs vapors. The most significant results were obtained with Cs adsorption on oxidized electrode surfaces. On oxidized tungsten, for instance, a stable surface with a minimum work function value of about 1.05 eV (lower than for pure tungsten) was produced. Thus 1.2 eV should be the work function of a Mo-collector in operating, low-temperature, low-pressure Cs-diodes by means of the saturated-back emission. S.J.M.

A75-45961 CdS/Cu₂S solar cells, their potential and limitations. K. W. Böer, H. C. Hadley, Jr., J. E. Phillips, and A. Rothwarf

(Delaware, University, Newark, Del.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 387-391. NSF Grant No. AER-72-03489.

A review is given of typical CdS/Cu₂S solar cells, the physics of the cell operation and possible limiting factors. Indications are given for the potential of these cells in respect to possible conversion efficiencies (in excess of 15%), life expectancies (in excess of 20 years), and production yields (in excess of 90%, within a 1% efficiency band). (Author)

A75-45962 Design considerations in Schottky solar cells. W. A. Anderson, A. E. Delahoy, and S. M. Vernon (Rutgers University, New Brunswick, N.J.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 400-403. 11 refs. Research sponsored by Exxon Corp., Rutgers University, and NSF.

Schottky solar cells have been fabricated using Cr Schottky metal on p-type silicon. AMI sunlight efficiency of 6-9.5% has been measured on cells 1-3 sq cm in area. Computer studies predict a quantum efficiency of 0.71 for the Schottky cell, which compares well to experimental data from 0.35 to 1.1 microns. Increased temperature decreases open circuit voltage by 2.5 mV/C and fill factor by 0.4%/C similar to previously published data on p-n silicon cells. Performance degradation with temperature cycling to 120 C has not been detected. Proper contact design and a 20 ohm/sheet Schottky metal sheet resistance produce a 0.21 ohm total resistance for a 4-finger cell. (Author)

A75-45963 Concentrated photovoltaic power generation systems. J. P. Spratt and R. F. Schwarz (GE Space Sciences Laboratory, King of Prussia, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 404-412. 8 refs.

It is shown theoretically that concentration of sunlight reduces the cost of terrestrial photovoltaic power conversion systems, as long as cell series resistance can be substantially reduced below present levels. Heterojunctions are in principle suitable for achieving this lowered resistance; a new type of heterojunction has been proposed which will be capable of reducing the resistance by a factor of 10 or more. The adoption of such a device could result in a thousandfold increase in energy concentration and a corresponding decrease in the cost of the photovoltaic conversion systems. S.J.M.

A75-45964 The practical lithium/poly-carbonmonofluoride battery system. M. Fukuda and T. Iijima (Matsushita Electric Industrial Co., Ltd., Central Research Laboratories, Kadoma, Osaka, Japan). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 413-417. 9 refs.

Lithium/poly-carbonmonofluoride cells of both cylindrical and button types have been developed for practical applications. These cells have energy densities about five times as high as those of conventional carbon-zinc batteries. By the use of an improved LiBF₄/B.L. + THF electrolyte, high discharge performance can be obtained at very low temperatures (0 C). Cell potentials for these devices are in the 3-volt range. They have the additional advantages of flat discharge characteristics, long shelf life, and ease of manufacture. S.J.M.

A75-45972 Topping cycle applications of thermionic conversion. F. N. Huffman, T. O. P. Speidel, and J. P. Davis (Thermo Electron Corp., Waltham, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Insti-

tute of Electrical and Electronics Engineers, Inc., 1975, p. 496-502. 11 refs. Contract No. AT(11-1)-3056.

Increased efficiency of electric power plants can be expected to come primarily from topping Rankine cycles with advanced conversion systems which utilize the thermodynamic availability between the heat source temperature and the conventional utilization temperature. Thermionic converters are an attractive topping possibility since they are static and modular, and have the potential of high efficiency. Studies of incorporating thermionic converters to top fossil fuel power plants have been initiated with the goal of minimum perturbation to conventional systems. Placement of the converters on the water wall, superheater and reheater gives a projected plant efficiency of 46 percent (compared to a base plant efficiency of 36 percent). The reject heat from the thermionic converters can also be coupled to the steam generating components via air convection. This arrangement simplifies many practical problems. Initial studies indicate that efficiencies of over 50 percent are possible with this arrangement. (Author)

A75-45973* Thermionic topping of electric power plants. E. J. Britt, G. O. Fitzpatrick, and N. S. Rasor (Rasor Associates, Inc., Sunnyvale, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 503-512. 17 refs. ERDA-NASA-sponsored research.

The most likely use of thermionic conversion is in the form of a topping cycle combined with a steam-turbogenerator plant. A specific reference system is chosen in which the thermionic topping cycle occurs in thermionic heat exchangers referred to as large, modular thermionic units to which heat is transferred from a separate heat source and which reject their heat to a conventional steam turboelectric system. Results of analysis show that the performance and cost criteria for practical thermionic topping of large electric power plants are well within the reach of demonstrated and foreseeable converter capabilities. Thermionic topping has many significant advantages over unconventional cycles proposed for topping applications, including level of demonstrated and projected performance and lifetime, development time, and design simplicity. S.D.

A75-45974 Conceptual design and economics of an MHD pilot plant. P. D. Bergman, J. I. Joubert, D. Bienstock (ERDA, Pittsburgh Energy Research Center, Pittsburgh, Pa.), and K. D. Plants (ERDA, Pittsburgh Energy Research Center, Pittsburgh, Pa.; U.S. Bureau of Mines, Morgantown, W. Va.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 513-523. 46 refs.

Cycle analyses and preliminary cost estimates are presented for two proposed design configurations of a 300 MWT coal-burning, open-cycle magnetohydrodynamic pilot plant. Cycle efficiencies ranged from 43 to 46% with a basic pilot plant cost of \$98 to \$114 million. A directly fired design option is recommended as the preferred path to pursue, because it is completely coal-based, and avoids the large-scale utilization of scarce and expensive clean liquid and gaseous fuels for power generation. Related topics including the use of oxygen enrichment, provision for a back-up system, and pilot plant scale-up are discussed. (Author)

A75-45977 High-efficiency electrochemical plant. M. S. S. Hsu, W. E. Morrow, Jr., and J. B. Goodenough (MIT, Lexington, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 555-563. 24 refs. USAF-sponsored research.

Preliminary engineering analysis indicates that high-temperature

(1200-1500 K) electrolysis of water and recombination of the products in a medium-temperature (530 K) fuel cell can achieve a practical efficiency exceeding 50% at an acceptable cost. A solid electrolyte is chosen for the electrolytic cell. The Bacon fuel cell, which offers high efficiency and automatic replenishing of water vapor into the cycle, is presently a unique choice in realizing a high-efficiency electrochemical cycle. Both high-temperature, gas-cooled reactors and conventional combustion processes were taken as heat sources. Unconventional heat sources such as concentrated solar energy can also be used. A regenerative counterflow heat exchanger and a waste-heat power plant serve as the essential energy-conserving devices. An important feature of this cycle is the flexibility of operation that can be achieved by adding hydrogen storage. Switching among power-generating, load-averaging, and hydrogen-generating modes can then be done by simple gas-flow valves.

(Author)

A75-45978 Study of an electrofluidic generator. R. Pape (Illinois Institute of Technology, Chicago, Ill.), S. Hong, and S. L. Soo (Illinois, University, Urbana, Ill.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 564-568. 15 refs. NSF-supported research.

An electrofluidic generator combines an electrofluidynamic (EFD) generator and a fluidic oscillator to produce power from the kinetic energy of a gas. Based on an original disclosure of Pape, the study shows feasibility of an electrofluidic generator to produce ac at high voltage. Since an ac power source is readily transmitted and integrated to an existing power system, the electrofluidic generator makes possible large-scale power generation via EFD. The electrofluidic system can convert energy efficiently at moderate temperatures from nuclear or chemical sources. A most immediate application is for utilizing the fines of coal produced by automated mining and hoisting system to produce low-cost electric power without the need for water. (Author)

A75-45979 Dielectric power conversion. J. E. Drummond (Maxwell Laboratories, Inc., San Diego, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 569-575. 8 refs.

If two changes can be wrought in the way thermal energy is converted to electrical energy in capacitors, the efficiency of dielectric power conversion (DPC) could be increased by three orders of magnitude becoming a new resource for development of total power conversion systems. The needed changes are (1) replacement of arbitrary thermal cycles by a large-scale Carnot cycle using electrical charge as the working fluid, and (2) replacement of the single cell dielectric power converter by a stack of such cells separated by thermal switches through which heat cascades. Means of effecting these changes are discussed. Details of 60 Hz operation of a single DPC from a steady heat source are given showing electrical power output density of 5 watts per gram of dielectric. The limiting efficiency of cascaded dielectric converters (CDC) is shown to be about 47%. A combined system using a CDC as a bottoming cycle for a gas turbine might achieve 57%. The R & D needed to bring these partly tested principles to engineering and economic reality are discussed. (Author)

A75-45980 The selection and use of energy storage for solar thermal electric application. J. E. Raetz, C. R. Easton, and R. J. Holl (McDonnell Douglas Astronautics Co., Huntington Beach, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 576-582. NSF-supported research.

This study summarizes research work done in establishing economic guidelines for candidate energy storage systems (thermal and electrical) and identifies economically attractive concepts. A

procedure is proposed for assessing the impact of various energy impact concepts in terms of their influence on plant economics. It is shown that the use of thermal storage can reduce the annual cost of electricity produced by a solar plant, provided an inexpensive method is adopted. In this respect, a thermal storage system using an intermediate heat transfer fluid is functionally outlined. It is found that in addition to merely storing thermal energy for deferred operation, the described system can be used to minimize many of the undesirable transients that would otherwise be imposed on the turbine. Improvement in plant efficiency by means of thermal storage concepts using elevated temperature (over 600 F) and two-temperature storage did not offset the added costs related to the higher-temperature fluid and extra equipment. S.D.

A75-45981 Solar-heated-air turbine generating systems. P. O. Jarvinen (MIT, Lexington, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 583-592. 8 refs. Research sponsored by the Massachusetts Institute of Technology and U.S. Air Force.

The feasibility of large-scale solar electrical power generation using open-cycle heated air turbines in conjunction with a tower-mounted, pressurized, central receiver/heliostat system is investigated. Such a system requires no cooling towers and may be sited away from cooling water supplies. A regenerative open cycle/solar gas turbine approach is chosen since it offers higher overall thermal efficiency than a simple cycle and because peak efficiency is achieved at a pressure ratio of about 4 to 1, which minimizes design considerations of the pressurized receiver. The feasibility of the heated air receiver is demonstrated and structural design, heat transfer and efficiency aspects of a windowless cavity receiver which provides 1800 F heated air are discussed. It is concluded that a central receiver solar thermal heated air gas turbine power plant is feasible and that future efforts should be directed at the development of the most effective receiver possible in order to minimize heliostat collector field area and system cost. (Author)

A75-45982 The design of a solar cavity steam generator for electrical power generation. T. Tracy and T. Howerton (Martin Marietta Aerospace, Denver, Colo.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 593-600. NSF Grant No. AER-74-07570.

The preliminary design, principles of operation, and performance analysis of a 100,000-kWe solar power plant are presented. The power generation station is surrounded by eight mirror fields, with a tower-mounted-cavity steam generator at the south end of each field. Control concepts and effects of thermal cycling on component design are discussed. A model of the cavity, compatible with the French solar test facility capability of 1000 kWt, is designed and analyzed in detail. Major conclusions are that a solar cavity radiation receiver with a thermal efficiency (heat into steam/solar energy into cavity) of more than 95% can be designed without using a window in the aperture, and that thermal computer programs developed for space programs are highly valuable tools in the design and analysis of solar power plants. S.D.

A75-45984 Ground based solar energy technology advances. G. R. Woodcock and D. L. Gregory (Boeing Aerospace Co., Seattle, Wash.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 607-612.

Competitive busbar output costs for intermediate or base-load solar power plants can be achieved only when the costs of the concentrating heliostats is below \$4.00 per square foot of reflecting area. In addition, the heliostats must resist various weather factors and have a long relatively maintenance-free life. A concept is derived

for a 'weather-decoupled' heliostat fabricated primarily from tensioned plastic films. The plastic-film enclosure (dome) over the reflector reduces the heliostat efficiency; however, this is easily compensated by increasing the total heliostat area. Other system effects do not appear to have a significant impact, leading to an overall cost advantage for this type of heliostat. (Author)

A75-45992 Industrial process heat from solar energy. J. A. Day, A. F. Clark, W. C. Dickinson, and A. Iantuono (California University, Livermore, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 750-758. 7 refs. ERDA-sponsored research.

The paper is concerned with the analysis and design of a shallow solar-pond water heating facility intended to provide hot water to a uranium leaching operation. The discussion covers the pond description and alternatives, pond performance equations, and parameter variations as to mass flow rate, total mass, water depth, batch versus continuous-flow mode of operation, and some other relevant characteristics. The payoff derived by selecting a combination solar-fossil-fuel system over an all fossil-fuel system is examined along with the effects of system variation on system costs. Major conclusions are that it is most cost effective to heat all of the water used daily to some intermediate temperature as opposed to heating part of it to 140 F, that hot water storage is cost effective, that the daily heat collected is insensitive to flow rate for a daily fixed mass of water required, and that filling and emptying times are at sunrise and 3 hr before sunset, + or - 1/2 hr. S.D.

A75-45993 Continuous duty solar energy system concepts. R. Ramakumar (Oklahoma State University, Stillwater, Okla.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 759-764. 26 refs. NSF Grant No. G1-39457.

The concepts underlying the design of two continuous-duty solar energy systems for the near and distant future are outlined. In the system proposed for near-term future, solar heat and wind energy are used as inputs, with the outputs being in electrical, thermal, and fuel forms; solar thermal collectors and concentrators are employed to convert solar energy directly into heat for steam production purposes. The system proposed for long-term future is an enlarged version of the near-future system, with additional inputs in the form of sunlight and ocean thermal gradients. Technical aspects of these systems are discussed in terms of solar thermal conversion, field-modulated generator system, aeroturbines and supporting structures, electrolysis and energy storage, aphodid burner, solar sea power plant, photovoltaic conversion, and manufacture of synthetic fuels. Some economic aspects of important units are discussed. Estimates of generation costs indicate that the proposed systems show promise of being competitive in the coming decades. S.D.

A75-45994 Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy. T. Ohta, S. Asakura, M. Yamaguchi, and N. Kamiya (Yokohama National University, Yokohama, Japan). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 772-778.

A hybrid system is proposed for hydrogen production from water on the basis of solar light and thermal energy. The system consists of a photochemical reactor, an electrolyzer, and a thermoelectric generator. Hydrogen production is made possible by the combination of a glass cell for photochemical reactions and a light-focusing apparatus for the thermoelectric generator. Photochemical reaction is carried out using a mixture of Fe(2+) and molecular iodine, which is transparent to the red light used for heating the 32 thermocouples used in the system. It is shown that

the wide wavelength range of solar light can be utilized to decompose water with a total efficiency within the range 30-35%. S.D.

A75-45995 New dimensions in water heating in the Northwest - A study of solar energy utilization. P. M. Soot, W. R. Goldbach (Pacific Power and Light Co., Inc., Portland, Ore.), and C. B. Winn (Colorado State University, Fort Collins, Colo.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 779-785. 7 refs.

A75-45996 Solar sea power plants /SSPP/. A. M. Strauss (Cincinnati, University, Cincinnati, Ohio). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 786-795. 61 refs.

The current state of knowledge about the design and construction of demonstration solar sea power plants (SSPP) is reviewed. Open-cycle and closed-cycle SSPP design concepts are discussed. Consideration of structural strength, corrosion resistance, manufacturing and assembly difficulties, initial cost and maintenance suggests that concrete is the best choice for SSPP construction at any ocean depth above the thermocline. The characteristics of Nitinol engine powered SSPP are examined. It is shown that SSPP is a cost-effective nonpolluting system associated with a highly efficient mariculture economy. Recommendations are set forth as to the choice of siting, materials, the Nitinol SSPP, the Claude cycle SSPP, the closed-cycle SSPP, working fluids, turbines, cold water, and mooring and anchoring. S.D.

A75-45997 Nickel-hydrogen secondary battery. M. Klein (Energy Research Corp., Danbury, Conn.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 803-806.

The nickel-hydrogen secondary battery system has attracted interest due to its potential long cycle life and insensitivity to overcharge and reversal. Over the past three years a number of design approaches have been studied and experimental data has been generated on both components and lightweight cells. The single cylindrical cell with stacked disk electrodes has emerged in the most favored approach. Two size cells are now available and are being subjected to test and evaluation by a number of organizations. The cells are a 20 ampere-hour size, 2-1/2-inch diameter cylinder and a 50 ampere-hour size 3-1/2-inch diameter. This paper presents the ERC advanced single cell designs and experimental test results on both components and complete cells under a variety of test conditions.

(Author)

A75-45998 Nickel-hydrogen as an alternative to lead-acid and nickel-cadmium systems in non-space applications. L. E. Miller (Eagle-Picher Industries, Inc., Electronics Div., Joplin, Mo.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 807-810.

A low cost, nickel-hydrogen battery design concept is proposed. System cost reduction is achieved through utilization of the multiple cell per single battery pressure vessel concept, standardization of components, ease of manufacture and an inherent system design versatility with an ability to meet varied user requirements with only minor modifications. Utilizing current hermetically-sealed, aerospace nickel-cadmium systems as a cost comparison, it is projected that the proposed design concept will reduce nickel-hydrogen system cost from approximately 25% greater to approximately 50% less than current sealed nickel-cadmium system cost. (Author)

A75-45999 Redox thermogalvanic cells for direct energy conversion. B. W. Burrows (Battelle, Geneva, Switzerland). In:

Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 821-827. 24 refs.

The behavior of nonisothermal galvanic cells has been investigated under conditions of current drain in order to assess their feasibility as devices for the direct conversion of heat into electricity. The cells were based on the ferrous-ferric redox couple with inert Pt electrodes in aqueous supporting electrolyte. It was found that a steady-state power output could be maintained indefinitely as long as a temperature differential remained fixed. The maximum power outputs were, however, limited to values less than 0.05mW per sq cm for temperature differentials of 50 C. The power outputs were limited to these low values by the nature of the potential losses in the thermogalvanic cells, which were found to be principally due to mass-transfer or concentration polarization. (Author)

A75-46000 Energy from agriculture. J. A. Alich, Jr. and R. E. Inman (Stanford Research Institute, Menlo Park, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 834-841.

The feasibility and overall energy yield of biomass energy production are assessed. Candidates for cultivable species are tabulated and include sunflower, sorghum, corn, sugarcane, poplar, eucalyptus, and tropical rainforest complex. Energy consumption in running an energy plantation is estimated by individual operation (field tasks, irrigation, farm chemical manufacture, farm machinery manufacture, etc.); it comes to about 24.5 million Btu per acre-year, as compared to 450 million Btu per acre-year total yield. Thus the operation of these plantations appears feasible. The main problem would probably be water supply, since areas (such as the southwest) with enough sunlight for prolific plant growth have a concomitant lack of rainfall. S.J.M.

A75-46001 The economics of the production of liquid fuel and fertilizer by the fixation of atmospheric carbon and nitrogen using nuclear power. S. Baron (Burns and Roe, Inc., Oradell, N.J.) and M. Steinberg (Brookhaven National Laboratory, Upton, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 842-848. 20 refs.

A75-46006 Nuclear heat source for cryogenic refrigerators in space. B. Raab, A. Schock, and W. G. King (Fairchild Space and Electronics Corp., Germantown, Md.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 894-900. 5 refs. ERDA-supported research.

To supply the heat input required by space-borne cryogenic refrigerators, a possible design for a reliable Pu-238 radioisotope heat source, based on state-of-the-art technology, is described. The isotope heat source, which makes use of existing fuel elements, would replace electrical heaters powered by solar panels and batteries, without requiring redesign of the refrigerators. The heat source contains all necessary safety features, and also a simple thermal control system to permit refrigerator shut-down for indefinite duration. A system for thermal interfacing with the spacecraft, the booster, and ground support is also described. The isotope heaters are compared with solar-electric heaters for the same application, and found to result in very significant weight and size savings. (Author)

A75-46009 Harnessing wind power in developing countries. R. Ramakumar (Oklahoma State University, Stillwater, Okla.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

¹New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 966-973. 19 refs.

This paper discusses the possibilities of harnessing wind power in developing countries to mitigate the burdens imposed by high price of imported fuel and to augment their total energy supply. Special emphasis is given to the use of variable-speed constant-frequency field modulated generator systems to tap wind energy in constant frequency ac form for use in conjunction with conventional utility systems and with isolated conventional generating units. Estimated competitive cost limits are worked out for wind energy systems in comparison with conventional fuel burning systems and with utility supplied electrical energy for pumping water for irrigation and for household electricity in the Arab Republic of Egypt and in the Republic of India. (Author)

A75-46010 Wind and solar thermal combinations for space heating. J. G. McGowan, W. E. Heronemus, and G. Darkazali (Massachusetts, University, Amherst, Mass.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 974-980. 18 refs.

This paper presents the results of an analytical study that was carried out to model and to determine the feasibility of a residential heating system for the Northeastern section of the United States, designed to be powered or augmented by a wind generator system. In addition to windpowered electrical resistance heating systems (with and without thermal energy storage), the possibility of combining these systems with a flat plate solar collector is investigated. In addition to the detailed analytical results, a description of an experimental system, built on the University of Massachusetts campus, is presented. (Author)

A75-46012 Tornado-type wind energy system. J. T. Yen (Grumman Aerospace Corp., Bethpage, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 987-994. 9 refs.

A multimewatt wind power system design is proposed, featuring a closed-bottom tower and a flywheel. Experimental data on scaled-down models are tabulated and compared with conventional wind turbines. Wind energy is directed by vertical vanes to form a vortex within the tower. This vortex creates a low-pressure core directly above a horizontal turbine located at the throat of an inlet that is open at the bottom. S.J.M.

A75-46013 Efficient thermo-mechanical generation of electricity from the heat of radioisotopes. E. H. Cooke-Yarborough and F. W. Yeats (Atomic Energy Research Establishment, Harwell, Oxon, England). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1003-1011. 8 refs.

A prototype radioisotope-powered thermoelectric generator is described, and preliminary results obtained with it are reported. These results, together with those obtained from higher-powered nonisotopic thermoelectric generators, are employed to calculate the characteristics and performance of thermomechanical radioisotope generators capable of using strontium-90 from nuclear waste. The best performance predicted is a coupling efficiency of 9%, with a growth potential up to 11% at 800 C. S.J.M.

A75-46014 A 100 watt Stirling electric generator for solar or solid fuel heat sources. W. T. Beale and C. F. Rankin, Jr. (Sunpower, Inc., Athens, Ohio). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1020-1022. 6 refs.

A75-46015 A comparison of the COMSAT violet and non-reflective cells. J. F. Allison, R. A. Arndt, and A. Meulenber (COMSAT Laboratories, Clarksburg, Md.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1038-1040. 6 refs. Research sponsored by the Communications Satellite Corp.

Properties of a new solar cell, known as the nonreflective cell, are described and compared to characteristics of the violet cell and the conventional cell. The nonreflective cell has much lower reflectance, higher current-voltage characteristics, higher short-circuit current, and better wavelength response than previous cells. Its peak power output is 85 mW, corresponding to an efficiency of 15.6 percent, and it produces 21 mW/sq cm under AMO illumination. S.J.M.

A75-46016 * SEPS solar array design and technology evaluation. R. V. Elms, Jr. (Lockheed Missiles and Space Co., Inc., Sunnyvale, Calif.) and L. E. Young (NASA, Marshall Space Flight Center, Huntsville, Ala.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1041-1047. Contract No. NAS8-30315.

The technology developments required and a preliminary design of a lightweight 25 kW solar array for the solar electric propulsion stage (SEPS) have been defined. The requirements for a 65 W/Kg SEPS solar array system requires significant component weight reductions over present state-of-the-art flexible solar arrays in both electrical and structural-mechanical designs. A requirement for operation from 0.3 au to 6.0 au presents a wide range of temperature environments as well as severe combined thermal/vacuum/UV radiation environments. Additional requirements are capability for partial array retraction operation, and capability for full retraction and automatic preloading for survival of the Shuttle reentry environment. An assessment of current lightweight flexible solar array technology is made against the SEPS solar array requirements and new technology requirements are defined. A preliminary design and the operating characteristics of a flat-fold solar array system meeting the SEPS requirements is presented. A full-width, 10-ft-tall functional array model, including representative welded electrical modules and a model astromast, was fabricated and tested. (Author)

A75-46017 * The ATS-6 power system - An optimized design for maximum power source utilization. T. A. LaVigna (NASA, Goddard Space Flight Center, Greenbelt, Md.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1048-1055. 7 refs.

The modified power system design adopted for the ATS-6 satellite is described. This design featured a shunt-boost configuration to provide direct power from the solar array to the loads for maximum efficiency. In addition, shunt power dissipators were used, not only as a means of power system regulation, but also for thermal control. A brief description of the spacecraft and of the initial series regulator power system design (which was unable to meet mission requirements) precedes the discussion. The shunt boost system provides excellent utilization of array power with an 8 to 10% increase in efficiency over the original configuration; good array-battery static and dynamic load sharing; excellent flexibility in accommodating mission requirements; and low electromagnetic interference. S.J.M.

A75-46018 Orbital solar energy technology advances. G. R. Woodcock and D. L. Gregory (Boeing Aerospace Co., Kent, Wash.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1057-1064. 5 refs.

Power satellites to generate electricity for use on earth will become feasible if economical solutions to five primary technical problems can be found: massive transportation from the earth to a low assembly orbit, assembly operations in that orbit, powersat transportation to the high assembly orbit, efficient power generation, and an efficient, environmentally acceptable power transmission system. We baseline a '1990 technology' total powersat system which provides a preliminary solution to these problems. This system employs solar concentration and thermal engines for power generation. Low orbit transportation is accomplished with a vertical takeoff/vertical land single stage to orbit freighter. High orbit transportation uses electric power generated by the powersat modules themselves to operate electric thrusters. Ground and orbital facilities to support powersat production are described. The effects of gravity gradients on powersat assembly and transportation are discussed. Potential technology advances for advanced powersats are identified. (Author)

A75-46019 * Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/. R. D. Gable and H. J. Lloyd (AiResearch Manufacturing Co., Phoenix, Ariz.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1071-1076. Contract No. NAS3-18517.

The design of and results of tests on the mini-Brayton rotating unit (mini-BRU) are presented. Results demonstrate the flat performance trends of the mini-BRU system. The system is 'all-purpose'; it is essentially a closed Brayton cycle engine. A power spectrum comprised between 2.1 and 1.4 kWe and recuperator sizes of 106 or 75 lbs are envisioned for the final in-use configuration. S.J.M.

A75-46022 Hydrogen production by electrolysis - Present and future. A. J. Konopka and D. P. Gregory (Institute of Gas Technology, Chicago, Ill.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1184-1193. 23 refs. Contract No. N00014-67-A-0202-0046.

This paper surveys present and future predicted electrolysis systems in terms of three criteria: energy efficiency, which is related to the cell's operating voltage; capital cost of the plant, which is related to cell hydrogen production rate; and lifetime and maintenance requirements, which involve construction materials and operating conditions. Factors affecting electrolyzer design include operating parameters, electrodes, and diaphragms or cell separators. The current state-of-the-art is reviewed as regards tank electrolyzers and filter-press electrolyzers. S.J.M.

A75-46023 Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies. G. Kissel, S. Srinivasan (Brookhaven National Laboratory, Dept. of Applied Science, Upton, N.Y.), M. H. Miles (Middle Tennessee State University, Murfreesboro, Tenn), and P. W. T. Lu. In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1194-1198. 6 refs. ERDA-sponsored research.

Investigations were carried to determine the nature and extent of correlations between various properties of electrolytic hydrogen production cells. Studies centered on (1) a comparison of cell potential and current density in acid and alkaline water electrolysis cells; (2) the effect of increasing temperature on the performance of these cells; (3) the effect of temperature on hydrogen and oxygen overpotentials at nickel electrodes in concentrated potassium hydroxide electrolytes; and (4) an evaluation of separator materials, to replace asbestos, for carrying out the electrolysis of water in alkaline solution at temperatures in the 150 C range. Maximizing surface area by impregnating noble metal catalyst particles in solid polymer electrolytes resulted in a considerable reduction of activation overpotential. Cell potential decreased from 2.05 to 1.7 V in the

alkaline cell and from 2.35 to 2.05 V in the acid cell as the temperature was increased from 25 to 82 C. S.J.M.

A75-46024 Electrical generation by wind power. R. T. Smith (Southwest Research Institute, San Antonio, Tex.) and T. S. Jayadev (Wisconsin, University, Milwaukee, Wis.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1246-1250. 12 refs. NSF Grant No. GZ-2932.

Various proposed schemes for wind-powered generation of electricity are reviewed. These schemes are classified as either constant-speed, constant-frequency (CSCF) or variable-speed, constant-frequency (VSCF). Included in the first category are synchronous generators and induction generators; the second group contains ac commutator generators, ac-dc-ac links, and field-modulated generators with subsequent demodulation. Optimum selection of a generating scheme should be based on suitability for interconnection with the power grid and minimization of energy generation cost. S.J.M.

A75-46025 * Electrical generating equipment and electric utility requirements for high-power wind generator systems. P. J. Romanelli (General Electric Co., Valley Forge, Pa.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1251-1257. 10 refs. Contract No. NAS3-19403.

A75-46026 Wind power system optimization. M. C. Smith (Michigan State University, East Lansing, Mich.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1258-1263. Research supported by the Michigan State University.

It is shown that wind power system optimization can be achieved by consideration of the four quantities of average annual energy extracted, wind statistics, efficiency of conversion of wind energy to shaft rotation energy and the cost characteristics of the wind interaction elements (blades), the electric generator and the remaining system components. The problem reduces to the determination of two dimensionless parameters as a function of the wind statistics. These parameters determine the optimum blade diameter and the generator size. Example wind statistics and an example optimization problem are given. (Author)

A75-46027 * Comparison and evaluation of nuclear power plant options for geosynchronous power stations. J. R. Williams (Georgia Institute of Technology, Atlanta, Ga.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1264-1274. 49 refs. Grant No. NGR-11-002-181.

The suitability of eleven types of nuclear fission reactors in combination with five potential energy conversion systems for use in geosynchronous power plants is evaluated. Gas turbine, potassium Rankine liquid metal MHD, and thermionic energy conversion systems are considered. The existing technology of reactors in near-term, intermediate-term, and long-term classes is discussed, together with modifications for use in large-scale power production in space. Unless the temperature is high enough for MHD, reactors which heat gases are generally more suitable for use with gas turbines. Those which heat liquid metals will be more useful for potassium Rankine or liquid metal MHD conversion systems. C.K.D.

A75-46028 * Design and test of a flywheel energy storage unit for spacecraft application. A. Cormack, III, J. E. Notti, Jr., and

M. L. Ruiz (Rockwell International Corp., Downey, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1275-1280. Research supported by the Rockwell Independent Research and Development Funds; Contract No. NAS1-13008.

This paper summarizes the design and test of a development flywheel energy storage device intended for spacecraft application. The flywheel unit is the prototype for the rotating assembly portion of an Integrated Power and Attitude Control System (IPACS). The paper includes a general description of the flywheel unit; specific design characteristics for the rotor and bearings, motor-generators, and electronics; an efficiency analysis; and test results for a research unit. (Author)

A75-46034 High efficiency power conversion cycles using hydrogen compressed by absorption on metal hydrides. J. R. Powell, F. J. Salzano, W.-S. Yu, and J. S. Milau (Brookhaven National Laboratory, Upton, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1339-1347. 10 refs.

A new power conversion cycle is analyzed which uses H₂ gas as a working fluid in a regenerative closed Brayton cycle. In the proposed cycle, H₂ is compressed by cyclic absorption/desorption on a metal hydride bed instead of being mechanically compressed. Two thermal inputs are used: a low temperature input supplied by low grade solar geothermal heat, which operates the hydride compressor, and a high temperature heat input supplied by a nuclear reactor or fossil combustor. Almost all of the high temperature heat input can be converted to electricity using current fossil or reactor technology. Approximately 3 KW (th) of low grade heat input is required per KW (e) output. Besides conserving scarce nuclear and fossil resources, the proposed cycle should result in reduced capital costs for electric generation plants, as well as substantially lower total electric generation costs. Where low grade heat sources are available, existing power plants can be retro-fitted with the proposed cycle, which would increase output by a factor of 2 or more. (Author)

A75-46035 Hydrogen sponge heat pump. S. Wolf (U.S. Navy, Naval Underwater Systems Center, Newport, R.I.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1348-1351.

A heat pump with potentially higher performance and higher heat output temperatures than conventional cycles is described. Heat is transferred by the exothermic adsorption on and endothermic desorption from a lanthanum pentanickel sponge, with periodic flow reversal when saturation occurs. The pressure at which transfer takes place is a function of sponge temperature, with a relatively low (100 psi) pressure differential necessary to obtain a useful temperature differential (55 C). Substantial cost reductions are demonstrated in comparison with equivalent oil fired furnace heating systems. Coefficients of performance for a Carnot Cycle system, an F-12 Freon heat pump system and the hydrogen sponge heat pump system for real and reversible adiabatic compressors are calculated, and advantages up to 23% in favor of the hydrogen sponge system are shown. C.K.D.

A75-46036 The rate limiting processes for the sorption of hydrogen in LaNi₅. O. Boser and D. Lehrfeld (North American Philips Laboratories, Briarcliff Manor, N.Y.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1363-1369. 10 refs. Contract No. F33615-73-C-3003.

A hydrogen-compressor module based on the sorption of hydrogen in LaNi₅ is described, and the rate limiting process is

determined for the sorption of hydrogen in the same material. The most significant features of the compressor are outlined together with its working cycle, and results are reported for tests of the heat-up and desorption input-heat requirements of the LaNi₅ module. The sorption-rate measurements indicate that 80% of a charge of hydrogen will be absorbed in about 11 sec at room temperature and in about 1.5 sec at 90 C. F.G.M.

A75-46037 A technology assessment of the hydrogen economy concept. E. M. Dickson, J. W. Ryan, and M. H. Smulyan (Stanford Research Institute, Menlo Park, Calif.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.

New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1370-1379. NSF-sponsored research.

The building block concept referring to economic scale considerations is described and the natural building blocks for hydrogen production, conversion, distribution, and demand are examined as a basis for the evaluation of important factors concerning a hydrogen economy. The relative economics of hydrogen are discussed along with important noneconomic conditions affecting the evolution of a hydrogen economy. It is concluded that for a variety of reasons the transition process toward an electric/hydrogen economy, if it is to take place, will probably be slow. G.R.

A75-46038 A detailed analysis of the hydriding characteristics of LaNi₅. C. E. Lundin and F. E. Lynch (Denver, University, Denver, Colo.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1380-1385. 20 refs. Contract No. F44620-74-C-0020.

The storage of hydrogen constitutes one major problem which has to be solved for an application of hydrogen gas as an alternative to fossil fuels. The use of metal alloy absorbers for storing hydrogen is currently being studied. The investigation reported is concerned with the properties of LaNi₅ which is considered for the storage of hydrogen in the form of metal hydrides. Attention is given to the pressure-temperature-composition relationships, the thermodynamic properties deduced therefrom, the phase equilibria, the hysteresis effects, and the kinetics of desorption. G.R.

A75-46040 Evaluation of solar-assisted Rankine cycle concept for the cooling of buildings. H. M. Curran and M. Miller (Hittman Associates, Inc., Columbia, Md.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1391-1398. NSF Grant No. C-858.

A75-46041 Heat pipe thermal recovery units. M. A. Ruch (Q-dot Corp., Dallas, Tex.). In: Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record. New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1507-1510.

The heat pipe is an evaporation/condensation device which can transfer large quantities of heat with very small temperature differences. A multiplicity of heat pipes arranged as a counterflow heat exchanger between two airstreams finds useful applications in thermal energy recovery. Three general classes of applications can be identified: (1) using energy recovered from process exhaust to regenerate the process, (2) using energy from process exhaust to heat comfort make-up air during the winter months, and (3) using comfort exhaust to preheat comfort make-up air during the winter months and/or precool comfort make-up air during the summer months. Installations of each class are described. (Author)

A75-46042 High temperature heat pipes for energy conservation. A. Basiulis and J. H. Johnson (Hughes Aircraft Co.,

Electron Dynamics Div., Torrance, Calif.). In: *Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.* New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1511-1515. 5 refs.

The characteristics of different heat recovery systems are examined, taking into account regenerator types, shell and tube heat exchangers, a secondary fluid heat exchanger, a plate-fin heat exchanger, and a heat pipe heat exchanger. Heat exchangers for high temperature energy recovery are evaluated. It is found that the heat pipe unit potentially offers better heat transfer, lower pressure drop, lower maintenance cost, and possibly lower installation cost. High temperature heat pipe materials are discussed. For the temperature range from 800 to 1800 F, heat pipe working fluids are available and only reliable envelope materials are needed. G.R.

A75-46043 Heat pipe applications development in Europe. O. Brost and W. D. Münzel (Stuttgart, Universität, Stuttgart, West Germany). In: *Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.* New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1516-1527. 27 refs.

Heat pipes for the cryogenic temperature range are considered along with low temperature heat pipes, heat pipes in the mid-temperature range, and heat pipes in the high temperature range. A description of structures for high performance heat pipes is presented. The characteristics of isothermal spaces obtained by the use of simple heat pipes are examined, taking into account isothermal inserts, isothermal furnaces, and thermal conductivity and heat flux measurements using heat pipes. Problems of heat flux transformation and temperature controlled heat pipes are also discussed. G.R.

A75-46044 Laser application of heat pipe technology in energy related programs. R. J. Carbone (California, University, Los Alamos, N. Mex.). In: *Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.* New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1528-1532. 13 refs.

It is pointed out that the unique characteristics of uniform density, small temperature gradient, thermal stability, and high thermal conduction in a heat pipe may provide the only means to accomplish undistorted beam transmission required for the optical and near ultraviolet spectral output in certain laser applications. The operating conditions for vapor-vapor or vapor-gas mixtures are discussed along with questions regarding the selected optical application of the heat pipe. A potential laser medium that could be useful for laser fusion or isotope separation is molecular mercury. G.R.

A75-46045 Application of heat pipes to solar collectors. W. B. Bienert, D. S. Trimmer, and D. A. Wolf (Dynatherm Corp., Cockeysville, Md.). In: *Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, Newark, Del., August 18-22, 1975, Record.* New York, Institute of Electrical and Electronics Engineers, Inc., 1975, p. 1533-1539. 11 refs. ERDA-NSF-sponsored research.

A description is given of a development program concerned with heat pipe applications in the case of solar-to-thermal energy conversion concepts. Highly reflecting parabolic trough-like mirrors are used to concentrate the solar flux on a coated heat pipe. Heat pipe requirements are examined and aspects regarding the selection of a working fluid are investigated. Questions of hydrodynamics and heat transfer are considered. A study is conducted of the feasibility and merit of incorporating heat pipes into flat plate solar collectors. G.R.

A75-46548 Availability and propulsion. J. M. Clarke (Noel Penny Turbines, Inc., England) and J. H. Horlock (Salford Univer-

sity, Salford, Lancs., England). *Journal of Mechanical Engineering Science*, vol. 17, Aug. 1975, p. 223-232. 9 refs.

The first and second laws applied to steady-flow systems are expressed in forms which emphasize the distinction between energy, which is conserved, and available energy, which is depleted in real processes. These forms are applied to propulsive systems using, as a velocity datum, the propulsion unit itself and, alternatively, the atmosphere at rest. The maximum thrust power obtainable from the combustion of the fuel is shown to be dependent on the composition, state and velocity of the fuel and also on the composition and state of the environment in which the unit works. An illustrative calculation of the losses in a turbojet engine in flight reveals that in this case 16.64 per cent of the fuel's available energy is obtained as thrust power, 54.25 per cent is rejected by the exhaust, 2.33 per cent is dissipated by aerodynamic losses and the remainder (26.78 per cent) is lost by combustion. Available-energy calculations are seen as providing a consistent framework within which losses can be compared within machines, between machines of different types for the same job and with perfection in the form of the completely reversible machine. (Author)

A75-46721 * Technique for producing 'good' GaAs solar cells using poor-quality substrates. H. J. Hovel and J. M. Wooddall (IBM Thomas J. Watson Research Center, Yorktown Heights, N.Y.). *Applied Physics Letters*, vol. 27, Oct. 15, 1975, p. 447-449. 7 refs. NASA-supported research.

Relatively good GaAs solar cells can be made from poor-quality substrates by making the junction deep (greater than 1 micron) instead of shallow and by 'leaching' both the pGaAs and nGaAs regions during the growth process. AMO efficiencies of 14.7% (19% AM1) have been obtained from substrates with starting substrate diffusion lengths of 0.6 micron. (Author)

A75-46951 Indium tin oxide-coated silicon as a selective absorber. R. B. Goldner and H. M. Haskal (Tufts, University, Medford, Mass.). *Applied Optics*, vol. 14, Oct. 1975, p. 2328, 2329. 7 refs.

It is shown that by coating a silicon solar absorber with a thin indium tin oxide (ITO) layer, its selectivity is considerably increased. The thin coating acts as both an antireflection coating for solar radiation and as a reflector for thermal infrared radiation. The antireflecting property can be attributed to the fact that the refractivity of the coating closely index-matches silicon and vacuum over much of the solar spectrum; while the infrared reflecting property, to the high concentration of free carriers and their high optical mobility. Spectral reflectance results are presented for two ITO-coated silicon samples and for uncoated silicon. B.J.

A75-47081 # Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge. W. J. D. Escher (Escher Technology Associates, St. Johns, Mich.). In: *Advances in cryogenic engineering. Volume 20.* New York, Plenum Press, 1975, p. 70-81. 10 refs.

The paper reviews past experience with hydrogen aircraft and engines and examines the issue of the potential technical impact of liquid hydrogen fuel on future commercial aircraft design. The engineering aspects of liquid hydrogen compared to conventional hydrocarbon aircraft fuel are studied, and several conceptual designs created by the aircraft industry which reflect approaches for integrating hydrogen fuel into the aircraft are presented. The liquid hydrogen tank will tend to be larger, more expensive, and heavier than that for conventional fuel, but these disadvantages are expected to be outweighed by hydrogen's superior ability as a fuel. Hydrogen provides a potential for much higher 'space heating rates', which suggests the opportunity to considerably shorten engine combustor lengths and, important from the NOx formation standpoint, associated dwell times. P.T.H.

A75-47495 Liquid hydrogen - Fuel of the future. R. Jensen (Lockheed-California Co., Burbank, Calif.). *Society of Allied*

Weight Engineers, Annual Conference, 34th, Seattle, Wash., May 5-7, 1975, Paper 1065. 43 p. 18 refs.

Liquid hydrogen is compared to petroleum-based fuels for propulsion of various types of vehicles. For supersonic aircraft, a lighter, less costly design can be achieved through the use of this cryogenic fuel. Takeoff weight can be reduced by more than 40%, operational empty weight and cost by more than 20%. For subsonic, medium-range aircraft, takeoff and operational weights can be reduced by 20% and 10%, respectively. A brief review of the methods used to produce this fuel of the future leads to an outline of the ways in which our needs may be met. For the near term, LH2 can be manufactured from coal or lignite. In the not-too-distant future, nuclear power or solar collectors can generate large quantities of hydrogen by electrolysis or by thermochemical splitting of water. A comparison of relative hazards shows that LH2 is actually safer to use than petroleum fuels. (Author)

A75-47509 Weight contribution to fuel conservation for terminal area compatible aircraft. G. W. Hanks (Boeing Co., Seattle, Wash.). *Society of Allied Weight Engineers, Annual Conference, 34th, Seattle, Wash., May 5-7, 1975, Paper 1091.* 25 p. 6 refs.

The contribution to reductions in fuel consumption by potential weight characteristics of advanced aircraft are considered, and trades between weight reduction versus increased aerodynamic and operating efficiency are discussed. Direct reductions in fuel use may be obtained by application of advanced technology in structure and airfoils, proper engine choice, and revised environmental control features. Weight penalties involved in wing planform optimization are countered by increased aerodynamic efficiency. Results of studies of an M = 0.80, 200 passenger, 5556 km design incorporating advanced structure, airfoils, and propulsion show 21.6% reductions in operational empty weight and takeoff gross weight as compared to a conventional design. Features for reduction of congestion and emissions offer fuel reduction potential; noise reduction devices carry weight and fuel-use penalties. Implementation of the described fuel reduction approaches will yield an estimated 25% reduction in fuel consumption. C.K.D.

A75-47511 # Solar-thermal electric power generation using a system of distributed parabolic trough collectors. J. W. Ramsey (Honeywell Systems and Research Center, Minneapolis, Minn.), E. M. Sparrow, and E. R. G. Eckert (Minnesota, University, Minneapolis, Minn.). *ASME, AICHE, CSChE, and CSME, Heat Transfer Conference, San Francisco, Calif., Aug. 11-13, 1975, AICHE Paper 12.* 35 p. 5 refs.

The paper describes a solar-thermal collection and transport system for electric power generation. The system employs water as the working fluid; steam at 60 bars pressure and 276 C is generated locally by distributed parabolic solar collectors. A transfer loop conveys the steam to a central site at which the power plant is situated. The design of the collector and the operating characteristics of three transfer loop configurations are described. Results of experiments performed at a desert test site using a scale model of a solar collector module are presented. The data establish the efficiency of the collector both in the absence of heat losses and under normal operating conditions. The findings of life tests being performed on samples of candidate solar reflector surfaces are reported. (Author)

A75-47512 # High temperature air preheaters for open cycle MHD energy conversion systems. F. A. Hals, R. E. Gannon, F. E. Becker, and H. Steinle (Avco Everett Research Laboratory, Inc., Everett, Mass.). *ASME, AICHE, CSChE, and CSME, Heat Transfer Conference, San Francisco, Calif., Aug. 11-13, 1975, AICHE Paper 16.* 59 p. 34 refs. Research supported by the Electric Power Research Institute, Baltimore Gas and Electric Co., Boston Edison Co., Consolidated Edison Company of New York, NEGEA Service Corp., New England Power Co., Northeast Utilities Service Co., Avco Corp., and ERDA.

The paper studies the use of refractory type regenerative preheaters which have been under development for reaching preheat temperatures from 2000-3000 F or higher. There are two types of high temperature air preheaters: one type classified as directly fired, utilizes the heat energy in the MHD generator exhaust gas for preheating of the combustion air; the other type classified as indirectly fired utilizes a separate fuel as the heat source. Design criteria and operating characteristics of both of these two types of high temperature preheaters for MHD power systems are reviewed. The status in the air preheater development work is summarized which includes results from experimental preheater operation and from corrosion studies of candidate refractory materials for use in preheaters. (Author)

A75-47525 # Direct contact heat exchangers in geothermal power production. I. Sheinbaum (Ben Holt Co., Pasadena, Calif.). *ASME, AICHE, CSChE, and CSME, Heat Transfer Conference, San Francisco, Calif., Aug. 11-13, 1975, ASME Paper 75-HT-52.* 10 p. 21 refs. Members, \$1.00; nonmembers, \$3.00.

The direct contact cycle can be advantageously utilized in the production of power from liquid dominated geothermal resources. The heat from the geothermal resource is transferred to a selected working fluid by direct countercurrent contact in a vertical perforated trayed tower. The direct contactor is divided into three heat transfer zones where heat is extracted from the hot water by liquid-liquid contact, mixed phase boiling and vapor liquid contact. A procedure is presented for optimizing the cycle, sizing the direct contactor and evaluating the number of cross temperature contacts and tray efficiencies in each of the heat transfer zones. The relationship between heat transfer and mass transfer is indicated for the perforated trayed tower. (Author)

A75-47526 # Moderately concentrating flat-plate solar energy collectors. R. B. Bannerot and J. R. Howell (Houston, University, Houston, Tex.). *ASME, AICHE, CSChE, and CSME, Heat Transfer Conference, San Francisco, Calif., Aug. 11-13, 1975, ASME Paper 75-HT-54.* 11 p. 19 refs. Members, \$1.00; nonmembers, \$3.00. NSF Grant No. GI-41003.

The radiative characteristics of a family of solar collectors consisting of East-West aligned trapezoidal grooves with reflecting walls are determined. Optimal designs based on one-reflection maximum concentration of direct insolation are analyzed for seasonal variations in noon-time solar incidence. The effect of off-design performance is examined. Comparison of such collectors with other high-performance collectors is made. It is concluded that geometrical modification will produce behavior improvement of the same order as that produced by a very good spectrally selective surface. Choice would be determined by relative cost and durability. Combining the geometrical effect with a spectrally selective surface in a simple collector model yields noon-time efficiencies on the order of fifty percent with the absorber plate temperature 93 C above ambient. (Author)

A75-47527 # The role of heat transfer in solving geothermal energy problems to accelerate its effective application. E. F. Wehlage (International Society for Geothermal Engineering, Whittier, Calif.). *ASME, AICHE, CSChE, and CSME, Heat Transfer Conference, San Francisco, Calif., Aug. 11-13, 1975, ASME Paper 75-HT-57.* 12 p. 20 refs. Members, \$1.00; nonmembers, \$3.00.

Heat exchange equipment difficulties now make a formidable barrier to future geothermal use. Both binary cycle units and refrigeration systems look dependent on the resolution of existing difficulties in heat transfer systems for geothermal service. (Author)

A75-47798 * # Preliminary results of the large experimental wind turbine phase of the national wind energy program. R. L. Thomas and J. E. Sholes (NASA, Lewis Research Center, Cleveland, Ohio). *Oklahoma State University, Frontiers of Technology Conference, Stillwater, Okla., Oct. 1, 2, 1975, Paper.* 13 p. 5 refs.

A major phase of the wind energy program is the development of reliable wind turbines for supplying cost-competitive electrical

energy. This paper discusses the preliminary results of two projects in this phase of the program. First an experimental 100 kW wind turbine design and its status are reviewed. Also discussed are the results of two parallel design studies for determining the configurations and power levels for wind turbines with minimum energy costs. These studies show wind energy costs of 7 to 1.5 c/kWH for wind turbines produced in quantities of 100 to 1000 a year and located at sites having average winds of 12 to 18 mph. (Author)

A75-47802 * # Plans and status of the NASA-Lewis Research Center wind energy project. R. Thomas, R. Puthoff, J. Savino, and W. Johnson (NASA, Lewis Research Center, Cleveland, Ohio). *Institute of Electrical and Electronics Engineers and American Society of Mechanical Engineers, Joint Power Conference, Portland, Ore., Sept. 28-Oct. 1, 1975, Paper. 30 p. 8 refs.*

This report describes that portion of the national five-year wind energy program that is being managed by the NASA-Lewis Research Center for the ERDA. The Lewis Research Center's Wind Power Office, its organization and plans and status are briefly described. The three major elements of the wind energy project at Lewis are the experimental 100 kW wind-turbine generator; the first generation industry-built and user-operated wind turbine generators; and the supporting research and technology tasks which are each briefly described. (Author)

A75-47803 * # The NASA-Lewis/ERDA Solar Heating and Cooling Technology Program. J. P. Couch and H. S. Bloomfield (NASA, Lewis Research Center, Cleveland, Ohio). *International Solar Energy Society and American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Workshop on the Use of Solar Energy for the Cooling of Buildings, Los Angeles, Calif., Aug. 4-6, 1975, Paper. 14 p. 20 refs.*

The NASA Lewis Research Center plans to carry out a major role in the ERDA Solar Heating and Cooling Program. This role would be to create and test the enabling technology for future solar heating, cooling, and combined heating/cooling systems. The major objectives of the project are to achieve reduction in solar energy system costs, while maintaining adequate performance, reliability, life, and maintenance characteristics. The project approach is to move progressively through component, subsystem, and then system technology advancement phases in parallel with continuing manufacturing cost assessment studies. This approach will be accomplished principally by contract with industry to develop advanced components and subsystems. This advanced hardware will be tested to establish 'technology readiness' both under controlled laboratory conditions and under real sun conditions. (Author)

A75-47804 * # Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator. R. W. Vernon (NASA, Lewis Research Center, Cleveland, Ohio). *International Solar Energy Society, Meeting, Los Angeles, Calif., July 28-Aug. 1, 1975, Paper. 14 p. 9 refs.*

A facility was constructed to evaluate solar collector performance outdoors for conditions that would be encountered by collectors if they were incorporated in a solar heating/cooling system. In addition to obtaining initial collector performance data, the outdoor facility will enable collector durability and degradation rates to be evaluated for operating periods of several months. The data obtained from the outdoor tests were compared to collector performance predicted on the basis of results obtained with a solar simulator. The performance measured outdoors was less than the predicted performance. (Author)

Page Intentionally Left Blank

STAR ENTRIES

N75-28503# National Academy of Sciences - National Research Council, Washington, D.C.

NATIONAL MATERIALS POLICY

Jan. 1975 216 p refs Proc. of a Joint Meeting of the Natl. Acad. of Sci.-Natl. Acad. of Eng., Washington, D. C., 25-26 Oct. 1973.

(Contracts NSF C-310; DI-BM-SO-133081)

(PB-240941/5; ISBN-0-309-02247-9) Avail: NTIS MF \$2.25; HC Natl. Acad. of Sci., Washington, D. C. CSCL 05D

A broad range of issues and strategies dealing with national policy on materials to complement present energy and environmental programs is covered. Information on the size of materials reserves, more efficient recovery of nonrenewable resources, and the creative use of wastes and pollutants to extend the useful life of materials is discussed. Recommendations on further university and industry contributions to materials science and engineering, and on priorities for research and development are given. GRA

N75-28508# Electric Power Research Inst., Palo Alto, Calif.
URANIUM RESOURCES TO MEET LONG TERM URANIUM REQUIREMENTS

Nov. 1974 123 p refs

(PB-239515/0; EPRI-SR-5) Avail: NTIS HC \$5.25 CSCL 08G

Comparison between uranium requirements and uranium resources, the uncertainty concerning the size of the nation's uranium resources, and the future levels of uranium consumption are discussed. Published AEC uranium statistics form the basis for all of the quantitative uranium resources analysis. The United States is essentially unexplored for uranium and much more information is necessary to adequately assess the uranium potential of the country. GRA

N75-28514# Bureau of Mines, Washington, D.C.

A SUMMARY OF SIGNIFICANT RESULTS IN MINING METALLURGY AND ENERGY, BUREAU OF MINES RESEARCH 1974

Mar. 1975 138 p

(PB-241084/2; BM-SP-1-75) Avail: NTIS MF \$2.25; SOD HC CSCL 08I

Research projects in the minerals and fossil fuels fields are summarized. Topics covered include: technology to increase the percentage of recovery of oil, coal, natural gas, copper, and other mineral products; the economics of recycling scrap metals, efficient utilization of virgin metals and minerals by extending their normal lifespan; and industrial uses for the wastes of mineral processing that constitute unsightly dumps and contribute to air, water, and land pollution. GRA

N75-28516 British Library Lending Div., Boston Spa (England).
SOVIET ENERGY POTENTIAL

M. Pervukhin [1974] 3 p Transl. into ENGLISH from Moskovskaya Pravda (Moscow), 21 Apr. 1974

(BLL-M-23413-(5828.4F)) Avail: British Library Lending Div., Boston Spa, Engl.: 1 BLL photocopy coupon

Various energy resources and their utilization in the U.S.S.R. are outlined. Coal, oil, gas, hydropower and atomic power are discussed. D.M.L.

N75-28517 AEG-Telefunken, Backnang (West Germany).

ANALYSIS OF TECHNOLOGICAL DEVELOPMENT PROBLEMS POSED BY USE OF ORBITAL SYSTEMS FOR ENERGY CONVERSION AND TRANSFER IN AND FROM SPACE Final Report [ANALYSE DER TECHNOLOGISCHEN ENTWICKLUNGSPROBLEME FUER DEN EINSATZ ORBITALER SYSTEME ZUR ENERGIEERZEUGUNG IM BZW. DER ENERGIEUEBERTRAGUNG AUS DEM WELTRAUM]

May 1975 502 p refs In GERMAN Prepared jointly with Dornier System and Tech. Univ. Berlin (Contract RV-1/1-V-67/74-PZ-BB-74)

Avail: Issuing Activity

Current American and European concepts of a solar satellite power station with associated technological problem areas was studied. Solar arrays, liquid gallium as a collecting contact, amplitrans and phased array earth antennas for microwave transmission and reception, respectively, and associated technological and theoretical implications, as well as typical spacecraft optimization problems are considered in detail. ESRO

N75-28518*# Little (Arthur D.), Inc., Cambridge, Mass.

FEASIBILITY STUDY OF SOLAR ENERGY UTILIZATION IN MODULAR INTEGRATED UTILITY SYSTEMS Final Report

30 Jun. 1975 187 p refs

(Contract NAS9-14524)

(NASA-CR-141929; ADL-78036) Avail: NTIS HC \$7.00 CSCL 10A

The feasibility and benefits were evaluated of solar thermal energy systems on Integrated Utility Systems. The effort included the identification of potential system concepts, evaluation of hardware status, and performance of weighted system evaluations to select promising system concepts deserving of further study. Author

Author

N75-28519*# National Aeronautics and Space Administration, Pasadena Office, Calif.

LOW-COST SOLAR ENERGY COLLECTION SYSTEM Patent Application

Charles G. Miller (JPL) and James B. Stephens, inventors (to NASA) (JPL) Filed 24 Jul. 1975 57 p

(Contract NAS7-100)

(NASA-Case-NPO-13579-1; NASA-Case-NPO-13580-1;

US-Patent-Appl-SN-598969) Avail: NTIS HC \$4.25 CSCL 10A

A fixed, linear, ground-based primary reflector is described which has an extended curved-sawtooth contoured surface covered with a metallized polymeric reflecting material; it reflects solar energy to a movably supported collector that is kept at the concentrated line focus of the reflector primary. The primary reflector was constructed by a process utilizing freeway paving machinery. The solar energy absorber is preferably a fluid-transporting pipe. Efficient utilization leading to high temperatures from the reflected solar energy was obtained by cylindrical shaped secondary reflectors that direct off-angle energy to the absorber pipe. Refocusing secondary reflectors which cause a series of discrete spots of highly concentrated solar energy to fall on the fluid-transporting pipe were used to obtain higher temperature levels. A seriatim arrangement of cylindrical secondary reflector stages and spot-forming reflector stages produces a high temperature solar energy collection system of greater efficiency. NASA

NASA

N75-28522# Army War Coll., Carlisle Barracks, Pa.
TECHNOLOGICAL FEASIBILITY OF ALTERNATIVE ENERGY SOURCES

Maurice L. Zweigle 28 Oct. 1974 30 p refs (AD-A005549) Avail: NTIS CSCL 05/3

The U.S. energy shortage is discussed. The technology of coal gasification or liquefaction, shale oil from oil shale, and geothermal energy recovery is presented in sufficient detail to show feasibility of these as energy source alternatives to petroleum crude. Technical trade publications data show that essentially all necessary process technology is known, although important improvements are possible, and have been proved at pilot plant scale. Conversion of coal to energy offers the best opportunity

for rapid development as a broad, in-house U.S. energy source. The other two should be developed as time and funds are available. GRA

N75-28524# Stanford Univ., Calif.
WORKSHOP ON FUNDAMENTAL RESEARCH IN HOMOGENEOUS CATALYSIS AS RELATED TO US ENERGY PROBLEMS Final Report

James P. Collman, Jack Halpern, Jack Norton, and James Roth
 6 Dec. 1974 43 p Workshop held at Stanford, Calif., 4-6 Dec. 1974

(Grant NSF MPS-04210)
 (PB-240177/6) Avail: NTIS HC \$3.75 CSCL 07D

Opportunities for the solution of energy problems by homogeneous catalysts were discussed along with recommendations for fundamental research that could accelerate these solutions. The following areas of research were recognized: (1) the homogeneous catalytic activation of saturated hydrocarbons; (2) selective oxidation of organic substances and the activation of oxygen; (3) the reduction of carbon monoxide, especially by hydrogen; (4) studies on multi-metal catalyst systems; (5) production of high energy substances; and (6) catalytic complexes involving unusual metal environments. GRA

N75-28527# National Center for Energy Management and Power, Philadelphia, Pa.

INTEGRATED SOLAR POWERED CLIMATE CONDITIONING SYSTEMS Semiannual Progress Report, 1 Jan. - 30 Jun. 1974

Jesse C. Denton Jul. 1974 67 p refs
 (Grant NSF GI-29729)

(PB-239759/4; NSF/RANN/SE/GI-29729/PR-74-2; NSF/RA/N-74-152(4)) Avail: NTIS HC \$4.25 CSCL 10B

Performance comparisons were made between direct solar heating, solar powered vapor compression and gas absorption heat pumps, electric resistance heating, and combustion furnace heating. Seasonal resource energy consumption for a Philadelphia single family residence was used as the measure of comparison. The attitudes of prospective purchasers toward using solar heating in their new homes were surveyed. Financial institutions were polled to determine whether they would grant additional loans on buildings equipped with solar heating systems in view of the expected operating cost savings. Government agencies were contacted to elicit plans for encouraging such loans. GRA

N75-28528# Mitre Corp., McLean, Va.

TRANSPORTATION ENERGY CONSERVATION: A PROGRAM PLAN OF POLICY-ORIENTED RESEARCH Final Report

Willard E. Fraize, Michael Lenard, and John Lieb Jan. 1975 77 p refs

(Contract FEA-C-04-50065-00)
 (PB-240734/4; MTR-6843) Avail: NTIS HC \$4.75 CSCL 10A

Transportation's role in energy conservation is reviewed. The Office of Transportation Research proposed research program to explore transportation energy use and alternative government policies related to transportation energy conservation is described. Project descriptions include estimated cost, suggested scheduling, priority designation, interrelationships with other projects and programs, and detailed task descriptions. GRA

N75-28529# Little (Arthur D.), Inc., Cambridge, Mass.
AN OVERVIEW OF ALTERNATIVE ENERGY SOURCES FOR LDCS

7 Aug. 1974 372 p refs
 (Contract AID/TA/C-1089)

(PB-239465/8; ADL-C-77105) Avail: NTIS MF \$10.00 CSCL 10A

An overview of alternative energy sources is presented which could be of significant value to lesser developed countries in adjusting to the impact of sharply higher world market prices of petroleum. It presents a highly condensed review of non-conventional energy technologies, together with some limited

commentary on the relevance of the more conventional technologies in new lesser developed country economic settings. It also provides a summary on a country-by-country basis of the current economic posture and energy resources array. GRA

N75-28530# Industrial Research Inst., Inc., New York.
INSTITUTIONAL AND LEGAL CONSTRAINTS TO COOPERATIVE ENERGY RESEARCH AND DEVELOPMENT Final Report

Mar. 1975 174 p
 (Contract DOC-4-35596)

(PB-240929/0; CTAB-75-2) Avail: NTIS HC \$6.25 CSCL 10A

Guidelines are provided for the design and operation of research and development consortia with a minimum risk of antitrust challenge. A platform is given for a government-industry dialog on the need for and the barriers to cooperative research and development. The results of a survey of Industrial Research Institute member companies which identifies industry's perceptions of the barriers to cooperative research and development ventures and describes eight illustrative case histories is presented. GRA

N75-28536# Wisconsin Univ., Madison. Inst. for Environmental Studies.

GLASS RECYCLING AND REUSE

Harold R. Samtur Mar. 1974 106 p refs
 (Grant NSF GI-29731)

(PB-239674/5; IES-17; NSF/RA/E-74-015) Avail: NTIS HC \$5.25 CSCL 13B

Methods are surveyed for recycling and/or reusing post-consumer glass products to determine which methods are most favorable. The following topics are included: the properties of glass, glass manufacture; analyses of alternatives to direct disposal of glass products; reuse of waste glass for glass manufacture; techniques for the separation of glass from municipal refuse; the development of degradable glass containers; returnable containers; and energy consumption for each of the major components of the glass cycle. GRA

N75-28539# National Science Foundation, Washington, D.C. Div. of Advanced Energy Research and Technology.

PROCEEDINGS OF THE CONFERENCE ON ENERGY CONSERVATION IN COMMERCIAL RESIDENTIAL AND INDUSTRIAL BUILDINGS

7 May 1974 340 p refs Conf. held at Columbus, Ohio, 5-7 May 1974; Sponsored by Ohio State Univ., Am. Soc. of Heating, Refrigerating and Air-conditioning Engr., Inc., and the Assoc. of Phys. Plant Admin. of Univ. and Coll.

(PB-240306/1; NSF/RA/N-74-123) Avail: NTIS HC \$9.50 CSCL 10A

Topics discussed are as follows: (1) Current energy conservation test projects, (2) energy conservation methods and associated problems in industry; (3) problems of energy conservation in existing buildings; (4) energy conservation methods in buildings; (5) computer programs and system simulations; (6) future changes in codes and buildings; and (7) possible research projects in energy conservation in the future. GRA

N75-28543# Minnesota Univ., Minneapolis.
RESEARCH APPLIED TO SOLAR THERMAL SYSTEMS Semiannual Progress Report, 1 Jan. - 31 Jun. 1974

E. M. Sparrow, J. W. Ramsey, and G. K. Wehner Jul. 1974 189 p refs Prepared in Cooperation with Dynatherm Corp.

and Honeywell, Inc., Minneapolis
 (Grant NSF GI-34871)

(PB-241089/2; NSF/RANN/SE/GI-34871/PR-74-2; NSF/RA/N-74-147; SAPR-4) Avail: NTIS MF \$7.00 CSCL 10B

Experiments of a scale model trough collector were performed at a desert test site. Absorbed solar energy was measured both for east/west and north/south orientations. The collector was found to absorb up to 61.5 percent of the available solar flux.

Continuing life tests of candidate solar concentrator surfaces indicated that certain surfaces showed no degradation in reflectance. Solar absorber coating/substrate structures have been devised for high temperature operation and a technique developed for enhancing coating life expectancy in air. Cost characteristics of three transfer loop systems were determined and the most cost effective one was identified. GRA

N75-28544# Minnesota Univ., Minneapolis.
RESEARCH APPLIED TO SOLAR THERMAL POWER SYSTEMS Semiannual Report, 1 Jul. - 31 Dec. 1974
 E. M. Sparrow, J. W. Ramsey, and G. K. Wehner Jan. 1975 112 p refs Prepared in cooperation with Dynatherm, Corp., Cockeysville, Md. and Honeywell, Inc., Minneapolis, Minn. (Grant NSF GI-34871)
 (PB-241090/O; NSF/RANN/SE/GI-34871/PR-74-4; NSF/RA/N-75-015; SAR-5) Avail: NTIS HC \$5.25 CSCL 10B

Experiments were conducted on the scalemodel parabolic trough collector module at a desert test site. Collector performance was measured for absorber tube operation over a range of temperature from 210 to 300C. Auger electron spectroscopy studies of the diffusion phenomena in various solar absorber coatings were continued. An experimental model of a solar boiler/heat exchanger was designed. Measurements were made of the thermal conductivity of a candidate pipeline insulation. A computer program was written and applied for determining the heat transfer characteristics of phase-change heat storage media. Preliminary data runs were made for a single-phase heat storage system. GRA

N75-28545# Delaware Univ., Newark. Inst. of Energy Conversion.

DIRECT SOLAR ENERGY CONVERSION FOR LARGE SCALE TERRESTRIAL USE Annual Report, 1 Jan. - 31 Dec. 1974
 K. W. Boer Jan. 1975 170 p refs
 (Grant NSF GI-34872)
 (PB-241007/4; NSF/RANN/SE/GI-34872/PR-74-4; NSF/RA/N-75-013) Avail: NTIS HC \$6.25 CSCL 10B

Major aspects of the development of the Cu₂S/CdS solar cell are presented. Results are reported in the following areas: (1) production of cells of conversion efficiency of 5% (2) Auger, Rutherford backscattering, and energy dispersive X-ray analysis; grain boundary and diffusion length studies; and Cu₂S synthesis; (3) diode analysis, spectral response, solar simulation, response uniformity, and junction capacitance; (4) life tests; and (5) diode and light generated currents and the heterojunction model. GRA

N75-28546# Federal Power Commission, Washington, D.C. Office of Energy Systems.

MEASURE FOR REDUCING ENERGY CONSUMPTION FOR HOMEOWNERS AND RENTERS
 25 Mar. 1975 24 p
 (PB-240472/1) Avail: NTIS HC \$3.25 CSCL 10A

A comprehensive set of measures is described that can lead to a large reduction in the quantity of fuel consumed by the typical residence. It is indicated that the savings given are not additive, since most energy conservation measures interact with one another. In addition, for the two most important areas of space heating and hot water heating, estimates of energy saved for the various options are given for different regions of the country. GRA

N75-28548# Bureau of Mines, Laramie, Wyo. Energy Research Center.

PRODUCING SNG BY HYDROGASIFYING IN SITU CRUDE SHALE OIL Report of Investigations, 1975
 Lawrence K. Barker Feb. 1975 43 p refs
 (PB-240841/7; BM-R1-8011) Avail: NTIS HC \$3.75 CSCL 08I

The effect of temperature and pressure on the yield and composition of gas which could be obtained from an in situ crude shale oil is determined along with the effect extended operating times would have on gasification. Tests were also made

to determine the temperature at which 90 volume-percent of the ethane was converted to methane and whether or not a cobalt-molybdate-on-alumina catalyst plays a significant part in conversion of light hydrocarbons. Both in situ crude shale oil and liquefied petroleum gas were used as feedstocks. Temperatures of 800 degrees to 1,400 degrees F, pressures of 500, 1,000, and 1,5000 psig, and operating times of 19 to 67 hours were used. A cobalt-molybdate-on-alumina catalyst was used for the catalyst experiments. GRA

N75-28551# American Bar Foundation, Chicago, Ill.
PROCEEDINGS OF A WORKSHOP ON SOLAR ENERGY AND THE LAW Interim Report
 William A. Thomas 1975 34 p Conference held at Arlington, Va., 10 Feb. 1975
 (Grant NSF APR74-21034)
 (PB-241051/2; NSF/RA/S-75-004) Avail: NTIS HC \$3.75 CSCL 10A

Topic areas discussed include: restrictions on building design and materials; access to sunlight; fiscal impediments and inducements; zoning; transferable development rights; and innovative land use laws. GRA

N75-28552# Little (Arthur D.), Inc., Cambridge, Mass.
THE BENEFITS/COSTS OF TERTIARY OIL RECOVERY Final Report
 Dec. 1974 51 p
 (Contract DI-BM-JO-155010)
 (PB-240463/O; ADL-C-77591; BM-OFR-4-75) Avail: NTIS HC \$4.25 CSCL 08I

The benefits of a secondary/tertiary research and development program were considered: (1) savings realized as a result of having cheaper supplementary oil available from tertiary recovery than would be otherwise available under uncertain alternative futures; (2) savings resulting from applying tertiary methods to stripper wells that would otherwise be closed and require more expensive reentry costs at a later time; (3) an alternative view of the benefits of tertiary recovery being equal to the full balance of payments value/barrel of recovered reserves, recovered at an earlier time; (4) value as emergency stockpile; and (5) insurance and portfolio values. GRA

N75-28964# National Planning Association, Washington, D.C.
DEMAND FOR SCIENTIFIC AND TECHNICAL MANPOWER IN ENERGY-RELATED INDUSTRIES: UNITED STATES 1970-1985 Final report

Ivars Gutmanis, Rita A. McBrayer, Richard P. McKenna, and Richard Kotz Oct. 1974 249 p refs
 (Grant NSF GR-32464)
 (PB-240865) Avail: NTIS HC \$7.50 CSCL 05I

Requirements for scientists and engineers in the domestic projection of energy in 1985 are reported. Estimates are included only for the following selected industries: electric power generation, transmission and distribution, petroleum and natural gas extraction, and petroleum refining, natural gas production, transmission, and distribution, coal mining; nuclear power production and radioactive waste disposal; manufacture of selected producers durable equipment for electric companies; and energy-related construction. GRA

N75-28967 Texas Univ., Arlington.
APPLICATION OF FAST SPARSE-MATRIX TECHNIQUES AND AN ENERGY ESTIMATION MODEL FOR LARGE TRANSPORTATION NETWORKS Ph.D. Thesis
 Howard Alanson Smolleck 1975 280 p
 Avail: Univ. Microfilms Order No. 75-14488

A near-optimal path assignment problem and the development of a model for rapidly estimating the total amount of energy consumed daily by automotive vehicles operating within a large metropolitan area is presented. The development of electric circuit models for large transportation networks and their applications was studied. An algorithm for network alterations and peculiarities

was investigated, and computational techniques for checking and correcting ill-conditioned highway network data were developed. A method for subdividing the highway network into primary and secondary subsystems, in a manner analogous to that used in the solution of electric power-flow problems, was formulated in order to increase solution speed and accuracy. A model for estimating the total vehicular energy consumption within a highway network based upon path assignments is shown.

Dissert. Abstr.

N75-29012* National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio.
THE LONG TERM ENERGY PROBLEM AND AERONAUTICS

Richard A. Rudey *In its* NASA/Univ. Conf. on Aeron. 1975 p 183-210 refs
CSSL 10B

The projected increase in energy consumption by transportation in general and civil aviation in particular is directly opposed to the dwindling supplies of natural petroleum crude oil currently used to produce aircraft fuels. This fact dictates the need to develop even more energy conservative aircraft and propulsion systems than are currently available and to explore the potential of alternative fuels to replace the current petroleum derived hydrocarbons. Advances in technology are described in the areas of improved component efficiency, aircraft and engine integration, control systems, and advanced lightweight materials that are needed to maximize performance and minimize fuel usage. Also, improved turbofan and unconventional engine cycles which can provide significant fuel usage reductions are described. These advancements must be accomplished within expected environmental constraints such as noise and pollution limits. Alternative fuels derived from oil shale and coal are described, and the possible technological advancements needed to use these fuels in aircraft engines are discussed and evaluated with relation to potential differences in fuel characteristics. Author

N75-29269# Illinois Univ., Urbana. Center for Advanced Computation.

ENERGY INTENSITY OF BARGE AND RAIL FREIGHT HAULING

May 1974 18 p refs
(Grant NSF GI-35179)

(PB-240012/5; UIUC-CAC-DN-74-127; NSF/RA/N-74-168)
Avail: NTIS HC \$3.25 CSSL 21D

Results of an energy comparison per ton mile of competing rail freight vs. inland barge freight, including the effects of circuitry and the use of probable competing rail lines instead of national average rail data are presented. GRA

N75-29270# Webb Inst. of Naval Architecture, Glen Cove, N.Y.

FUEL CONSERVATION IN SHIP OPERATIONS

Robert Zubaly Jan. 1975 46 p
(Contract MA-2-4214)

(COM-75-10486/1; NMRC-KP-133) Avail: NTIS HC \$3.75
CSSL 21D

A study of ways to reduce fuel consumption by both short-term and long-term changes in operational practices has been made, using two typical North Atlantic container fleets as models. Fuel saving strategies are evaluated, all involving reductions in ship speed. GRA

N75-29271# Little (Arthur D.), Inc., Cambridge, Mass.
TECHNOLOGY AND CURRENT PRACTICES FOR PROCESSING, TRANSFERRING AND STORING LIQUEFIED NATURAL GAS Final Report

D. Allan, S. Atallah, E. Drake, R. Hinckley, and S. Mathias Dec. 1974 205 p

(Contract DOT-OS-40171)
(PB-241048/8; ADL-C-78971) Avail: NTIS HC \$7.25 CSSL 21D

Current state-of-the-art safety information related to the design, location, construction, operation and maintenance of facilities required for liquefaction, transfer, storage, and revaporiza-

tion of natural gas is assembled and summarized. A detailed review of codes, standards and practices pertaining to LNG installations is presented along with an evaluation of present trends in LNG safety requirements. LNG safety research programs completed or in progress are described and key research results summarized. A methodology for quantitative assessment of risks associated with LNG facilities is outlined. GRA

N75-29546# Bureau of Mines, Twin Cities, Minn. Twin Cities Mining Research Center.

EXTRACTING MINERALS FROM GEOTHERMAL BRINES: A LITERATURE STUDY Information Circular, 1974

Rolland L. Blake Dec. 1974 30 p refs
(PB-240681/7; BM-IC-8638) Avail: NTIS HC \$3.75 CSSL 081

The Bureau of Mines is concerned with extracting minerals from residual geothermal brines after their heat content and some demineralized water have been recovered. The potential of the domestic geothermal mineral resources, is examined along with the technical problems involved. Possible effects on the environment from reservoir fluid withdrawal and reinjection are outlined. GRA

N75-29546*# National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio.

THE 100 kW EXPERIMENTAL WIND TURBINE GENERATOR PROJECT

Richard L. Puthoff and Paul Sirocky 1975 19 p refs Presented at the Wind Energy Workshop, Washington, D. C., 9-11 Jun. 1975; sponsored by ERDA

(NASA-TM-X-71758; E-8403) Avail: NTIS HC \$3.25 CSSL 10A

The Energy Research and Development Administration and the NASA Lewis Research Center engaged jointly in a Wind Energy Program which included the design and erection of a 100 kW wind turbine generator. This test machine consists of a rotor turbine, transmission, shaft, alternator, and tower. The rotor, measuring 125 feet in diameter and consisting of two variable pitch blades, operates at 40 rpm and generates 100 kW of electrical power at a wind velocity of 18 mph. The entire assembly is placed on top of a tower 100 feet above ground level. The machine was scheduled to be ready for operation in August, 1975. Author

N75-29548*# National Aeronautics and Space Administration, Marshall Space Flight Center, Huntsville, Ala.

SOLAR ENERGY POWER SYSTEM Patent Application

Billy K. Davis, inventor (to NASA) Filed 21 Mar. 1975 17 p (NASA-Case-MFS-21628-2; US-Patent-Appl-SN-561020) Avail: NTIS HC \$3.25 CSSL 10A

A solar energy vapor (Freon) powered system for generating electrical energy for outer space application is described. Features of the system include: storage of the heat absorbed from the sun by a thermal capacitor in which a mass of Pyrene liquifies when heat is applied and then solidifies to provide a heat output; an efficient solar boiler which uses an anodized titanium surface and a combination of shaped boiler tubes and complimentary reflectors; and a unique arrangement of heat recovery devices. The system provides efficiency in conversion of solar radiation into a heated work medium and in the generation of power from that medium. NASA

N75-29550# Booz-Allen and Hamilton, Inc., Bethesda, Md.
ALTERNATIVE STRATEGIES FOR OPTIMIZING ENERGY SUPPLY, DISTRIBUTION, AND CONSUMPTION SYSTEMS ON NAVAL BASES. VOLUME 3: ASSESSMENT OF TOTAL ENERGY SYSTEM APPLICATIONS AT NAVAL FACILITIES Final Report, Feb. - Nov. 1974

D. Kennedy, D. Wulfinghoff, and R. Shaw 20 Nov. 1974 146 p refs

(Contract N62399-73-C-0029)
(AD-A003590; CEL-CR-75.003-Vol-3) Avail: NTIS CSSL 10/2

The key topics investigated and discussed are: advanced research in Total Energy Systems; opportunities for heat recovery from prime movers at naval facilities; and feasibility of using in-port steaming to provide power for naval shore facilities.

GRA

N75-29552# Colorado Springs Dept. of Public Utilities, Colo. **ASSESSMENT OF A SINGLE FAMILY RESIDENCE SOLAR HEATING SYSTEM IN A SUBURBAN DEVELOPMENT SETTING** Semiannual Report, 1 Jul. - 31 Dec. 1974
James D. Phillips 10 Jan. 1975 108 p refs
(Grant NSF GI-44210)
(PB-240784/9; NSF/RA/G-74-028) Avail: NTIS HC \$5.25 CSCL 10A

The development is discussed of a solar-heated residence project in Colorado Springs, Colorado. The house and the heating system are described and the status of related information-gathering activities in areas affecting solar heating systems, such as legal, social acceptance, and economic considerations is reported. Outlines of the technical research being conducted, news clippings, and an analysis of the questionnaires completed by persons visiting the house in July, 1974, are included. GRA

N75-29553# Commerce Technical Advisory Board, Washington, D.C.

REVIEW OF PROJECT INDEPENDENCE BLUEPRINT: PANEL SUBCOMMITTEE REPORTS ON FEA-INTERAGENCY TASK FORCES

1975 308 p
(COM-75-10500/7) Avail: NTIS HC \$9.25 CSCL 10B

Data, assumptions, and background information used to develop Project Independence Blueprint are discussed. Topic areas covered include: energy demand/conservation; coal; oil; natural gas; nuclear energy; future energy sources; oil shale; transportation; water and environment; human resources; finance; and materials, equipment, and construction. GRA

N75-29555# Solar, San Diego, Calif. **SOLAR 10 kW TURBOALTERNATOR SILENT POWER PROGRAM** Final Report, Jan. - Oct. 1974
Jerry S. Todd Nov. 1974 175 p refs
(Contract DAAK02-71-C-0311)
(AD-A006549; ER-2497) Avail: NTIS CSCL 10/2

The report covers effort to design, fabricate and test an enclosure for the 10 kW turboalternator inaudible at 100 meters in a quiet environment. The report includes past effort, present design criteria, acoustical performance and operational capability. The enclosure did meet design intent, but was overweight. GRA

N75-29558# Army War Coll., Carlisle Barracks, Pa. **OIL AND US POLICY**
Robert L. Day 15 Dec. 1974 33 p refs Revised
(AD-A006473; MIRM-74-11-Rev) Avail: NTIS CSCL 05/4

The paper analyzes the rapidly growing demand for energy by the industrialized nations of the world, and the growing importance of Middle East oil. Today, Western Europe and Japan are heavily dependent on Middle East oil, and with U.S. oil production at or near peak capacity, the United States must now also look to the Middle East for ever-increasing amounts of oil--at least through 1985. Russian influence in the international oil market, financial impact of increased imports, the changing role of the international oil companies and available alternatives are discussed. U.S. vulnerability to possible short-term supply interruptions and to longer term shortfalls are projected, and remedial measures discussed. GRA

N75-29559# Reynolds, Smith and Hills, Jacksonville, Fla. **ENERGY CONSERVATION STUDY OF VETERANS ADMINISTRATION HOSPITALS. STAGE 1: BASE LINE SURVEY** Final Report
Feb. 1974 122 p refs
(Contract V-594P-454)
(PB-241095/9) Avail: NTIS HC \$4.25 HC also available from NTIS \$22.00/set of 4 reports as PB-241094-SET CSCL 10A

A base line survey is presented that identifies and unifies all elements of energy consumption and establishes significant energy parameters at three V.A. hospitals. GRA

N75-29560# Reynolds, Smith and Hills, Jacksonville, Fla. **ENERGY CONSERVATION STUDY OF VETERANS ADMINISTRATION HOSPITALS. STAGE 2: OPERATIONAL STUDY** Final Report

Feb. 1974 58 p
(Contract V-594P-454)
(PB-241096/7) Avail: NTIS HC \$5.25 HC available from NTIS \$22.00/set of 4 reports as PB-241094-SET CSCL 10A

The programming specifications are presented for a computer-based energy data reporting system to measure and compare management of energy usage for all V.A. hospitals. GRA

N75-29561# Reynolds, Smith and Hills, Jacksonville, Fla. **ENERGY CONSERVATION STUDY OF VETERANS ADMINISTRATION HOSPITALS. STAGE 3: HOSPITAL ENERGY CONTROL SYSTEM** Final Report

Feb. 1974 92 p refs
(Contract V-594P-454)
(PB-241097/5) Avail: NTIS HC \$4.75 HC also available from NTIS \$20.00/set of 4 reports as PB-241094-SET CSCL 10A

The philosophy, the design, the mathematical details and sample results of the Hospital Energy Control System, a computerized reporting system for monitoring both energy consumption and its conservation, at all V.A. hospitals are presented. A method is included of self-scoring for use by the hospital staff in objectively determining the severity of their own correctional problems. These self-evaluating check lists provide a means of determining each hospital's existing state of thermal integrity and the needed motivation for energy conservation.

Author

N75-29562# Reynolds, Smith and Hills, Jacksonville, Fla. **ENERGY CONSERVATION STUDY OF VETERANS ADMINISTRATION HOSPITALS. STAGE 4: BASIC DETAIL DATA FOR STAGE 1, 2, AND 3** Final Report

Feb. 1974 594 p
(Contract V-594P-454)
(PB-241098/3) Avail: NTIS HC \$9.50 HC also available from NTIS \$20.00/set of 4 reports as PB-241094-SET CSCL 10A

For abstract, see N75-29561.

N75-29570# Colorado Springs Dept. of Public Utilities, Colo. Dept. of Public Utilities.

ASSESSMENT OF A SINGLE FAMILY RESIDENCE SOLAR HEATING SYSTEM IN A SUBURBAN DEVELOPMENT SETTING Monthly Report

James D. Phillips 10 Nov. 1974 38 p
(Grant NSF GI-44210)
(PB-240553/8; NSF/RA/G-74-018) Avail: NTIS HC \$3.75 CSCL 13A

Briefly discussed are problems and costs relating to a solar house heating system that is on automatic control. GRA

N75-29587# Chicago Univ., Ill. Center for Urban Studies. **ENVIRONMENTAL REGULATIONS AND ENERGY FOR HOME HEATING**

Alan S. Cohen, John L. Gardner, and Gideon Fishelson 1974 12 p Prepared in cooperation with Argonne Natl. Lab., Ill. (Grants NSF AG-352; NSF GI-32989A2)
(PB-240699/9; NSF/RA/E-74-027) Avail: NTIS HC \$3.25 CSCL 21D

This report considers the effects of residential fuel policies on: (1) costs to tenants, landlords, coal distributors and others affected by the regulation, (2) price of fuels, (3) human health and material property, and (4) air quality. The policies compared are: (1) no restrictions, (2) a low sulfur law banning the use of fuels having more than a one percent sulfur content, (3) a coal ban, still allowing oil with no more than a one percent sulfur

content, and (4) a complete ban on the use of coal and oil. Implications for national energy and environmental policies are discussed. GRA

N75-29596# Exxon Research and Engineering Co., Linden, N.J.
EVALUATION OF POLLUTION CONTROL IN FOSSIL FUEL CONVERSION PROCESSES: GASIFICATION.
SECTION 1: CO2 ACCEPTOR PROCESS Final Report
 C. E. Jashing and E. M. Magee Dec. 1974 68 p refs
 (Contract EPA-68-02-0629)
 (PB-241141/1; EPA-650/2-74-009D) Avail: NTIS HC \$4.25 CSCL 07A

Results are given of a review of the CO2 Acceptor Coal Gasification Process from the standpoint of its effect on the environment. The quantities of solid, liquid, and gaseous effluents are estimated, where possible, as well as the thermal efficiency of the process. For the purpose of reducing environmental impact, a number of possible process modifications or alternatives are proposed and new technology needs are pointed out. GRA

N75-29597# Environmental Protection Agency, Research Triangle Park, N.C. Office of Air Quality Planning Standards.
REPORT TO CONGRESS ON CONTROL OF SULFUR OXIDES
 Feb. 1975 68 p refs
 (PB-241021/5; EPA-450/1-75-001; APTIC-75097) Avail: NTIS HC \$4.25 CSCL 13B

The compliance status of existing coal-fired steam electric power plants is discussed along with alternative methods for compliance with applicable emission regulations. Compliance alternatives include the use of low-sulfur coal, physical coal desulfurization, flue-gas desulfurization, coal gasification, fluidized-bed boilers, supplementary control systems, and energy recovery from solid waste. A review is presented showing the current status of existing coal-fired plants in terms of the sulfur content of coal purchased during the first half of 1974, the involvement of power companies in litigation challenging the applicable regulations, and the programs for achieving compliance with sulfur regulations in State Implementation Plans. GRA

N75-29962# Mathematics and Computation Lab., McLean, Va.
THE MCL-THUROW MODEL SUPPLEMENT Final Report
 Patricia R. Devine Feb. 1975 117 p
 (PB-241113/0; GSA/OP/MCL-TR-96) Avail: NTIS HC \$5.25 CSCL 05C

Changes and additions to the model, notably the updating to a 1972 model and the extension of the Personal Consumption Expenditures submodel are reported. A new module in the Contingency Impact Analysis System is also described. GRA

N75-29963# Little (Arthur D.), Inc., Cambridge, Mass.
ECONOMIC IMPACT OF SHORTAGES ON THE FERTILIZER INDUSTRY Final Report
 Jan. 1975 259 p
 (Contract FEA-C-50068-00)
 (PB-240418/4; ADLC-77382; FEA/EI-50068) Avail: NTIS HC \$8.50 CSCL 07A

Information is provided on the basic structure, characteristic, and problems of the fertilizer industry. Particular emphasis is placed on fuel use and substitutability as well as the impact of fertilizer on farm production. GRA

N75-30331# GCA Corp., Bedford, Mass. Technology Div.
WASTE AUTOMOTIVE LUBRICATING OIL REUSE AS A FUEL Socioeconomic Environmental Studies Series.
 Steven Chansky, James Carroll, Benjamin Kincannon, James Sahagian, and Norman Surprenant Sep. 1974 218 p
 (Contract EPA-68-01-1859)
 (PB-241357/3; EPA-600/5-74-032) Avail: NTIS; SOD HC CSCL 21D

This study evaluates the technical, economic, and environmental feasibility of automotive waste oil reuse as a fuel. The supply and potential marketability of waste oil fuel is considered in relationship to existing and projected fossil fuel usage in the United States. Its use will alleviate a serious waste oil disposal problem. The physical and chemical properties of waste oil are presented and serve as the basis for subsequent assessment of waste oil usage options: the use of untreated waste oil as a blended fuel oil or as a supplement to coal combustion and the use of waste oil following treatment to alleviate technical and environmental impacts. Various treatment methods are discussed and their cost and effectiveness assessed. The reduction of environmental impacts by the use of particulate emission control system and industrial utilization of fuel and control equipment are discussed. GRA

N75-30438*# Duke Univ., Durham, N.C. Dept. of Electrical Engineering.
DESIGN OF ENERGY STORAGE REACTORS FOR dc-TO-dc CONVERTERS Ph.D. Thesis
 De Yu Chen 18 Aug. 1975 188 p refs
 (Grant NGL-34-001-001)
 (NASA-CR-143327) Avail: NTIS HC \$7.00 CSCL 09C

Two methodical approaches to the design of energy-storage reactors for a group of widely used dc-to-dc converters are presented. One of these approaches is based on a steady-state time-domain analysis of piecewise-linearized circuit models of the converters, while the other approach is based on an analysis of the same circuit models, but from an energy point of view. The design procedure developed from the first approach includes a search through a stored data file of magnetic core characteristics and results in a list of usable reactor designs which meet a particular converter's requirements. Because of the complexity of this procedure, a digital computer usually is used to implement the design algorithm. The second approach, based on a study of the storage and transfer of energy in the magnetic reactors, leads to a straightforward design procedure which can be implemented with hand calculations. An equation to determine the lower-bound volume of workable cores for given converter design specifications is derived. Using this computer lower-bound volume, a comparative evaluation of various converter configurations is presented. Author

N75-30524* National Aeronautics and Space Administration, Pasadena Office, Calif.
ELECTRIC POWER GENERATION SYSTEM DIRECTORY FROM LASER POWER Patent
 Katsunori Shimada, inventor (to NASA) (JPL) Issued 12 Aug. 1975 7 p Filed 27 Mar. 1974 Supersedes N74-19702 (12-11, p 1250) Sponsored by NASA
 (NASA-Case-NPO-13308-1; US-Patent-3,899,696;
 US-Patent-Appl-SN-455165; US-Patent-Class-310-4;
 US-Patent-Class-331-DIG.1) Avail: US Patent Office CSCL 20E

A pool of liquid cesium is spaced apart from a collector in an enclosed vessel. A laser beam is directed to the liquid cesium pool. The beam is focused to provide sufficient laser power density at the liquid cesium surface to vaporize some of the liquid cesium and ionize the vaporized cesium, and thereby form cesium ions and free electrons. The work function of the collector is different from that of cesium. When the work function is higher, the formed ions are attracted to the collector, and the electrons are attracted by the liquid cesium. Electrons and ions are attracted by the collector and liquid cesium respectively when the work function of the collector is less than that of cesium. Thus, a potential difference is generated by the liquid cesium pool and the collector, sufficient to apply electric power to a load. Official Gazette of the U.S. Patent Office

N75-30646# Federal Power Commission, Washington, D.C.
NATURAL GAS ACT, 1 MARCH 1974
 1 Mar. 1974 58 p
 Avail: SOD HC \$0.70

Legislation is presented which regulates the transportation of natural gas in interstate commerce, the sale in interstate commerce of natural gas for resale for ultimate public consumption, and the natural gas companies engaged in such transportation or sale. J.M.S.

N75-30648# Joint Publications Research Service, Arlington, Va.

SCIENTIFIC RESEARCH IN POWER ENGINEERING

V. M. Fil'kov and A. A. Troitskiy 8 Aug. 1975 22 p refs
Transl. into ENGLISH from Teploenerg (Moscow), no. 5, 1975 p 8-11

(JPRS-65422) Avail: NTIS HC \$3.25

Data are reported on scientific research of the U.S. and U.S.S.R. in the power engineering field. Author

N75-30649# National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio.

LIQUID-METAL BINARY CYCLES FOR STATIONARY POWER

Martin Gutstein, Edward R. Furman, and George M. Kaplan
Washington Aug. 1975 33 p refs
(NASA-TN-D-7955; E-8023) Avail: NTIS HC \$3.75 CSCL 10A

The use of topping cycles to increase electric power plant efficiency is discussed, with particular attention to mercury and alkali metal Rankine cycle systems that could be considered for topping cycle applications. An overview of this technology, possible system applications, the required development, and possible problem areas is presented. Author

N75-30659# Energy and Environmental Analysis, Inc., Arlington, Va.

PROJECTED REGIONAL ENERGY AVAILABILITY IN 1985
Final Report, 1 Jul. 1974 - 15 Jan. 1975

15 Jan. 1975 100 p
(Contract DAAK02-75-C-0080; DA Proj. 4A7-62719-A-886)
(AD-A008938) Avail: NTIS CSCL 10/1

Fixed Army facility energy requirements, in the context of national and regional energy trends through 1985, are evaluated. The national energy outlook in terms of the availability and price of various sources of energy is discussed. Demand and price forecasts are made for each energy source for each of nine census regions. Fixed Army Facility energy demands are forecasted within the nine regions by type of energy required. GRA

N75-30660# Office of the Chief of Engineers (Army), Washington, D.C. Studies Group.

ARMY INSTALLATION ENERGY REQUIREMENTS IN CONUS Final Report

Jan. 1975 147 p refs
(AD-A008951) Avail: NTIS CSCL 10/1

This report displays data relevant to current (FY 73) energy consumption and gives estimates of projected 1990 energy requirements at 75 Army installations in the Continental U.S. The current (FY 73) consumption of electrical energy is characterized by 10 energy regions and by type of installation. The totals for fuel consumption are presented by region, type of fuel, and size of boiler and heating plants. Future electrical energy requirements for troop installations were estimated based on projected populations combined with FY 73 per capita consumption at each installation. Estimates for other installations were based on an estimated or assumed activity level. This study estimates a 7.2% increase in electrical energy requirements by 1990 and a 3.4% reduction in fuel requirements. GRA

N75-30665# National Academy of Sciences - National Research Council, Washington, D.C.

MATERIALS TECHNOLOGY IN THE NEAR-TERM ENERGY PROGRAM

Dec. 1974 129 p refs
(Grant NSF C-310)
(PB-240942/3; ISBN-0-309-02322) Avail: NTIS HC \$5.75 CSCL 10B

Materials research and development is reported that could affect energy supply and demand during the period prior to 1985. Assessed are major energy programs that can have significant impact within the time frame, including coal gasification and liquefaction, oil shale, high temperature gas turbines, and the use of critical elements. The capital investment estimates and the impact of materials technology in each are discussed. Other energy programs are also discussed, including nuclear power reactors, energy storage, and geothermal, nuclear, and solar energy sources. GRA

N75-30667# Minnesota Univ., Minneapolis. Dept. of Management Sciences.

REGIONAL IMPACTS OF ALTERNATIVE ENERGY ALLOCATION STRATEGIES

Wilbur R. Maki and Peter C. Knobloch 1 May 1974 27 p refs
Presented at 6th Ann. Meeting of the Mid-Continent Regional Sci. Assoc., Urbana, Ill., 5-6 Apr. 1974
(PB-241125/4; MEA/RIAE-74/8) Avail: NTIS HC \$3.75 CSCL 05B

The impacts are considered of the energy crisis and its shortages on the energy management decision process, and the specific gainers and losers of allocation strategies, with tradeoffs in costs of having or not having energy information. Input/output models are discussed, as are industrial/household-use data for operational decision making; energy stocks and flow, facility locations with their impacts, as well as data collection and analysis as they relate to industrial growth and employment and to services and materials, are reviewed. Economic tradeoffs of individual allocation criteria are estimated. The input/output framework is used to achieve consistency in the total set of economic variables in the economic information for energy planning. GRA

N75-30668# National Academy of Sciences - National Research Council, Washington, D.C. Building Research Advisory Board.

SOLAR HEATING/COOLING OF BUILDINGS: CURRENT BUILDING COMMUNITY PROJECTS Interim Report

1974 47 p
(Contract NSF C-310)
(PB-241117/1) Avail: NTIS HC \$3.75 CSCL 13A

Brief descriptions of 21 projects involving the use of solar energy for heating and cooling buildings are presented. GRA

N75-30944# Minnesota Univ., Minneapolis. Dept. of Management Sciences.

A REGIONAL ENERGY INFORMATION SYSTEM FOR MINNESOTA: A PRELIMINARY DESIGN

Norman L. Chervany, J. David Naumann, Ralph Krishnan, Daniel Quillin, and John Schmitt Jan. 1975 135 p Sponsored by Minnesota Energy Agency, St. Paul
(PB-241124/7; MEA/REIS-7502) Avail: NTIS HC \$5.75 CSCL 05B

A state's (Minnesota's) energy system, with its socio-economic plans that take energy constraints into consideration, is reviewed for policy makers. Four types of data, (1) energy supply/distribution/consumption data, (2) demographic data, (3) economic data, and (4) engineering data are found to be needed to support the short run energy allocation problems and long run energy planning problems. Preliminary design of a regional energy information system in this report. The system is designed to collect, store, and report the supply/distribution/consumption data. This data category was focused on primarily. Timely, valid data on energy supply, distribution, and consumption are technically feasible to obtain. GRA

N75-30945# Minnesota Univ., Minneapolis. Dept. of Management Sciences.

MASTER PLAN FOR REIS IMPLEMENTATION Final Report

Peter C. Knobloch Aug. 1974 52 p Sponsored by Minnesota Energy Agency, St. Paul
(PB-241126/2; MEA/REIS/WP-7408) Avail: NTIS HC \$4.25 CSCL 05B

Implementation requirements of the regional energy informa-

tion system (REIS) and provision of a brief cost/benefit analysis of the proposed system is discussed. Divided into four sectors (problems, requirements, the present system, and the proposed implementation of REIS), the development of a demonstration data base, its implementation and that of the regional input-output model as a tool for decision makers are subjects of the report. The accounting subsystem and energy flow network model are two main components; the need to identify specific problems, to gather information on source, energy type, location, use, time with cross classification, the structure of REIS with parameter subsystem, and a description of the study area (N.E. Minnesota) are included. GRA

N75-30946# Minnesota Univ., Minneapolis. Dept. of Management Sciences.

DESIGN CONSIDERATIONS FOR A COMPREHENSIVE REGIONAL ENERGY INFORMATION SYSTEM

J. D. Naumann, P. C. Knobloch, and N. L. Chervany 1 Jul. 1974 35 p Sponsored by Minnesota Energy Agency, St. Paul (PB-241123/9; MEA/REIS/WP-7401) Avail: NTIS HC \$3.75 CSCL 05B

The regional energy information systems (REIS) concerns itself with decision making on substate, state, and regional levels in emergencies, for tactical decisions, and long-range strategic policies by both government and industry. Effective access to energy information is critical, and REIS is designed to provide a standardized data base with design goals, constraints, parameters, and schedules. The REIS system is being developed; many states, the FEA, and other agencies are developing energy information systems. Shareability of data must be sought, and both technical and procedural requirements for this are discussed, and a plan for action is presented. GRA

N75-30948# National Bureau of Standards, Washington, D.C. NATIONAL BUREAU OF STANDARDS ANNUAL REPORT: FISCAL YEAR 1974 Final Report

Dick Franzen, ed. Mar. 1975 36 p Supersedes NBS-SP-397 (COM-75-10465/3; NBS-SP-418; NBS-SP-397) Avail: NTIS MF \$2.25; SOD HC as C13.10:418 CSCL 05B

The document described how resources were utilized during fiscal year 1974 and highlights major achievements. Brief discussions are included of accomplishments within major program areas. The report serves as (1) an annual account of NBS activities and (2) promotional information about NBS. The table of contents includes: standards for daily living; expanding measurement capabilities; toward solving the energy problem; improving man's environment; striving for safer products; aiding health care; advancing computer technology; public interests; government projects; industry cooperation; and information services. GRA

N75-31074# National Aeronautics and Space Administration. Lewis Research Center, Cleveland, Ohio.

FUEL-CONSERVATIVE ENGINE TECHNOLOGY

James F. Dugan, Jr., John E. McAulay, Thaine W. Reynolds, and William C. Strack *In its Aeron. Propulsion* 1975 p 157-190

CSCL 21E

Aircraft fuel consumption is discussed in terms of its efficient use, and the conversion of energy from sources other than petroleum. Topics discussed include: fuel from coal and oil shale, hydrogen deficiency of alternate sources, alternate fuels evaluation program, and future engines. F.O.S.

N75-31185 AEG-Telefunken, Hamburg (West Germany). Dept. of Space Technology and New Technologies.

SOLAR GENERATOR AND POWER SYSTEMS FOR COMMUNICATION SATELLITES

Rainer Hehnen and Joachim Rath *In ESRO European Capabilities for Space Appl.* 1975 14 p

State of the art and development activities on solar generators are discussed. Power conditioning and power storage equipment, including onboard equipment and electrical ground support equipment, are also considered. ESRO

N75-31285# Politecnico di Torino (Italy). Ist. di Macchine e Motori per Aeromobili.

CONTRIBUTION TO THE IMPROVEMENT OF THE REGULATING PROCESS OF IGNITION CONTROLLED ENGINES [CONTRIBUTO AL MIGLIORAMENTO DELLA CARATTERISTICA DI REGOLAZIONE DEI MOTORI AD ACCENSIONE COMANDATA]

Enrico Antonelli and Guido Colasurdo Jul. 1974 50 p refs In ITALIAN

(Publ-165) Avail: NTIS HC \$3.75

A search for new methods of automobile fuel saving was carried out using a device to anticipate the closing of the aspiration valve. The corresponding mechanical set up is detailed and the method for determining the closure law is discussed by means of a specific fluid dynamic model: the equations are numerically solved. Special care is devoted to boundary values at cylinder level, valve level, and ducts, and to initial conditions and main engine characteristics. For velocities between 1000 and 6000 rpm the net theoretical saving is of the order of a few percent. ESRO

N75-31341 Texas Univ., Austin.

AN ASSESSMENT OF THE APPLICABILITY OF HIGH VOLTAGE AC CIRCUIT BREAKERS TO INDUCTIVE ENERGY STORAGE Ph.D. Thesis

Robert Bruce McCann 1975 147 p

Avail: Univ. Microfilms Order No. 75-16707

High voltage ac circuit breakers are attractive candidates for the current interrupter in Inductive Energy Storage (IES) systems with energy transfer times of 0.5 to 50 ms. The various types of high voltage circuit breakers are considered, and vacuum circuit breakers are selected as the most desirable for IES applications. In designing the IES circuits, it is assumed that the circuit breakers must be operated within the appropriate 60 Hz ratings. Two IES systems are considered as examples: a fusion feasibility experiment based on a staged theta pinch; and the turbulent heating of a proposed Tokamak fusion feasibility device. An optimization model is developed which considers economic as well as engineering factors in determining the conditions under which ac circuit breakers are applicable to IES. For inductive loads it is found that energy delivery times as short as about 1.0 ms are practical while for resistive loads this might be extended to 500 microns. In either case, the energy transfer time should not be less than twenty times greater than the circuit breaker dionization time. Dissert. Abstr.

N75-31558# Committee on Commerce (U. S. Senate).

OIL AND GAS DEVELOPMENT AND COASTAL ZONE MANAGEMENT

Washington GPO 1974 454 p refs Hearings before Natl. Ocean Policy Study of Comm. on Commerce, 93d Congr., 2d Sess., 23-25 Apr., 2 May and 22 May 1974 (GPO-37-347) Avail: Comm. on Commerce

Oil and gas extraction on the outer continental shelf is discussed along with the environmental, economic and social impact upon the coastal zone. Topics discussed include land and natural resources, oil drilling and exploration, nuclear power plants and oil leasing. M.J.S.

N75-31562# Massachusetts Inst. of Tech., Cambridge. See Grant Project Office.

THE OCS (OUTER CONTINENTAL SHELF) PETROLEUM PIE Final Report

J. W. Devanney 28 Feb. 1975 132 p refs

(Grant NOAA-NG-43-72)

(COM-75-10599/9; MITSG-75-10; NOAA-75041105) Avail: NTIS HC \$5.75 CSCL 08I

This report analyzes a range of alternatives for managing Outer Continental Shelf (OCS) petroleum from the point of view of national income, public income, and developer income. The economic value of the resource is reviewed, and estimates of unit resource costs obtained for a range of find sizes, water depths and design wave heights. The basic result is that the economic rent associated with yet-to-be-discovered OCS

petroleum could easily be in the hundreds of billions of dollars. Management alternatives examined include work obligation permitting, bonus bidding, royalty bidding, profits bidding, and public exploratory drilling followed by bonus bidding. Special emphasis is given the latter option and the ramifications and problems of this system examined in some detail. GRA

N75-31566# Select Committee on Small Business (U. S. House). **ENERGY DATA REQUIREMENTS OF THE FEDERAL GOVERNMENT. PART 4: PROPANE AND CRUDE OIL; CONFLICTS OF INTEREST**

Washington GPO 1974 507 p refs Hearings before Subcomm. on Activities of Regulatory Agencies of Permanent Select Comm. on Small Business, 93d Congr., 2d Sess., 24-26 Sep.; 2-3 Oct. 1974

(GPO-41-639) Avail: Subcomm. on Activities of Regulatory Agencies

Energy data on which Federal government energy policy in the propane and crude oil allocation program is based are examined. Factors discussed include: lack of data and economic analysis and the existence of a potential conflict of interest. Economic justifications underlying the propane and crude oil allocation regulations are examined. It is recommended that all conflicts of interest be investigated and that the existing conflict of interest statutes be vigorously enforced. J.M.S.

N75-31567# Committee on Science and Astronautics (U. S. House).

SOLAR ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1974

Washington GPO 1974 384 p refs Hearings on H.R. 15612 before Subcomm. on Energy of Comm. on Sci. and Astronaut., 93d Congr., 2d Sess., No. 42, 30 Jul. and 2 Aug. 1974

(GPO-39-827) Avail: Subcomm. on Energy

Hearings were held before the Subcommittee on Energy of the Committee on Science and Astronautics of the U.S. House of Representatives on July 30 and August 2, 1974 to discuss H.R. 15612, a bill on solar energy research, development, and demonstration. The objective of this bill is to further the conduct of research, development, and demonstrations in solar energy technologies, to establish a solar energy coordination and management project, to amend the National Science Foundation Act of 1950 and the National Aeronautics and Space Act of 1958, to provide for scientific and technical training in solar energy, to establish a Solar Energy Research Institute, to provide for the development of suitable incentives to assure the rapid commercial utilization of solar energy, and for other purposes.

Author

N75-31568# National Aeronautics and Space Administration. Lewis Research Center, Cleveland, Ohio.

SOLAR COLLECTOR PERFORMANCE EVALUATION WITH THE NASA-LEWIS SOLAR SIMULATOR-RESULTS FOR AN ALL-GLASS-EVACUATED-TUBULAR SELECTIVELY-COATED COLLECTOR WITH A DIFFUSE REFLECTOR

Frederick Simon Apr. 1975 30 p refs

(NASA-TM-X-71695; E-8289) Avail: NTIS HC \$3.75 CSCL 10A

A solar collector was tested in a solar simulator for inlet temperatures of temperatures of 70 to 200 F, flux levels of 230 and rate of 7 lb/(hr)(sq. ft), and incident angles of 0 deg, 33 deg, and 52 deg. Test results plotted in a form suggested by analysis indicate a very low heat loss coefficient. The collector shows excellent performance on an all-day performance basis, and also for conditions corresponding to temperatures required in solar Rankine systems and/or for low flux level radiation.

Author

N75-31570# Old Dominion Univ., Norfolk, Va. School of Engineering.

INVESTIGATION OF CURRENT UNIVERSITY RESEARCH CONCERNING ENERGY CONVERSION AND CONSERVATION IN SMALL SINGLE-FAMILY DWELLINGS Final Technical Report, 7 Apr. - 7 Aug. 1975

G. R. Grossman and A. S. Roberts, Jr. 7 Aug. 1975 87 p refs

(Grant NsG-1172)

(NASA-CR-143430; TR-75-T11) Avail: NTIS HC \$4.75 CSCL 10A

An investigation was made of university research concerning energy conversion and conservation techniques which may be applied in small single-family residences. Information was accumulated through published papers, progress reports, telephone conversations, and personal interviews. A synopsis of each pertinent investigation is given. Finally, a discussion of the synopses is presented and recommendations are made concerning the applicability of concepts for the design and construction of NASA-Langley Research Center's proposed Technology Utilization House in Hampton, Virginia. Author

N75-31571*# Georgia Inst. of Tech., Atlanta. Engineering Experiment Station.

BENEFIT-COST METHODOLOGY STUDY WITH EXAMPLE APPLICATION OF THE USE OF WIND GENERATORS Final Report

R. P. Zimmer, C. G. Justus, R. M. Mason, S. L. Robinette, P. G. Sassone, and W. A. Schaffer Jul. 1975 411 p refs

(Contract NAS3-17827)

(NASA-CR-134864; A-1645) Avail: NTIS HC \$10.50 CSCL 10A

An example application for cost-benefit methodology is presented for the use of wind generators. The approach adopted for the example application consisted of the following activities: (1) surveying of the available wind data and wind power system information, (2) developing models which quantitatively described wind distributions, wind power systems, and cost-benefit differences between conventional systems and wind power systems, and (3) applying the cost-benefit methodology to compare a conventional electrical energy generation system with systems which included wind power generators. Wind speed distribution data were obtained from sites throughout the contiguous United States and were used to compute plant factor contours shown on an annual and seasonal basis. Plant factor values (ratio of average output power to rated power) are found to be as high as 0.6 (on an annual average basis) in portions of the central U. S. and in sections of the New England coastal area. Two types of wind power systems were selected for the application of the cost-benefit methodology. A cost-benefit model was designed and implemented on a computer to establish a practical tool for studying the relative costs and benefits of wind power systems under a variety of conditions and to efficiently and effectively perform associated sensitivity analyses. Author

N75-31573*# National Aeronautics and Space Administration. Lyndon B. Johnson Space Center, Houston, Tex.

TECHNOLOGY SURVEY OF ELECTRICAL POWER GENERATION AND DISTRIBUTION FOR MIUS APPLICATION

William L. Gill and Tony E. Redding Jul. 1975 72 p refs

(NASA-TM-X-58127; JSC-08661) Avail: NTIS HC \$4.25 CSCL 10B

Candidate electrical generation power systems for the modular integrated utility systems (MIUS) program are described. Literature surveys were conducted to cover both conventional and exotic generators. Heat-recovery equipment associated with conventional power systems and supporting equipment are also discussed. Typical ranges of operating conditions and generating efficiencies are described. Power distribution is discussed briefly. Those systems that appear to be applicable to MIUS have been indicated, and the criteria for equipment selection are discussed. Author

N75-31575# National Bureau of Standards, Boulder, Colo. Inst. for Basic Standards.

SELECTED TOPICS ON HYDROGEN FUEL Final Report

W. R. Parrish, R. O. Voth, J. G. Hust, T. M. Flynn, and J. Hord May 1975 215 p refs

(COM-75-10819/5; NBS-SP-419) Avail: NTIS MF \$2.25; SOD HC as C13.10:419 CSCL 21D

A summary report on selected hydrogen-fuel topics is given. These data were prepared to identify cost and technical barriers to the commercial use of hydrogen fuel and to generate reference data for policy-planning, decision-making and design. Cryogenic

hydrogen fuel technology is emphasized in the economic and systems analyses. Research and development needs within selected areas of NBS competence are identified and future research plans are outlined. GRA

N75-31579# Oceanic Foundation, Waimanalo, Hawaii.
SEAWARD EXTENSION OF URBAN SYSTEMS: THE FEASIBILITY OF OFFSHORE COAL-FIRED ELECTRICAL POWER GENERATION

Isao Roy Yumori Jan. 1975 125 p
 (Grant NOAA-04-3-158-29)
 (COM-75-10582/4; UNIHI-SEAGRANT-CR-75-02; TR-7;
 NOAA-75041807) Avail: NTIS HC \$5.25 CSCL 10B

With dwindling supplies and escalating costs of petroleum, coal appears to offer the most attractive near-term energy resource, particularly for stationary electrical power generation. This report explores three configurations of offshore coal-fired electrical power plants in the 500 Mw capacity range and chooses a pylon moored barge configuration for more detailed study. Ocean siting is technically feasible and, since certain ocean siting economic advantages (assembly line production and inexpensive fuel delivery, and the obviated need for site preparation and cooling towers) can balance the increased costs of marine structures and underwater cables, it can be economically attractive as well. GRA

N75-31580# Defense Documentation Center, Alexandria, Va.
ENERGY CONVERSION Report Bibliography, Aug. 1973 - Nov. 1974

Apr. 1975 145 p refs
 (AD-A009600; DDC-TAS-75-6) Avail: NTIS CSCL 10/1
 This bibliography presents a brief scattering of abstracts of DOD research reports concerned with energy conversion GRA

N75-31581# Illinois Univ., Urbana. Water Resources Center.
PROCEEDINGS OF THE WORKSHOP ON RESEARCH NEEDS RELATED TO WATER FOR ENERGY

Glenn E. Stout Nov. 1974 299 p refs Workshop held at Indianapolis, 20-22 Oct. 1974
 (Contract DI-14-31-0001-4271)
 (PB-241346/6; UIIU-WRC-74-0093; W75-07089;
 OWRT-X-147(4271)(1)) Avail: NTIS HC \$8.75 CSCL 10A

Development of large scale energy conversion facilities and their impact on water resources in the Ohio River, Great Lakes and Upper Mississippi River basins was studied at an interdisciplinary workshop. Within limits determined by available water resources and minimization of environmental impact, participants identified areas in which research will be needed if energy conversion facilities are developed. Coal gasification and liquefaction received special emphasis. Included are two papers on coal conversion processes and related water requirements, nine papers with commentaries related to main topic and reports of discussion groups which identify research needs and rank them in importance. GRA

N75-31582# Federal Energy Administration, Washington, D.C.
 Office of Energy Data Policy.
SOLAR ENERGY PROJECTS OF THE FEDERAL GOVERNMENT

Howard L. Magnus Jan. 1975 133 p refs
 (PB-241620/4; FEA/C-75/247) Avail: NTIS HC \$6.25 CSCL 10A

This report identifies 171 solar energy projects administered by 14 different Federal agencies between July 1973 and January 1975. Solar categories included are: heating and cooling of buildings; wind energy conversion; solar thermal conversion; ocean thermal conversion; photovoltaic electric power systems; and bioconversion to fuels. An introductory chapter provides an overview and analysis of the Federal effort in solar energy and categorizes projects by agency, the amount of funding, and the major program areas. Appendices provide brief summaries of each of the 171 projects. GRA

N75-31610# Pennsylvania State Univ., University Park. Center for the Study of Environmental Policy.

FINANCIAL INCENTIVES AND POLLUTION CONTROL: A CASE STUDY

Terry A. Ferrar, Alan B. Brownstein, John D. Simpson, and Sally Streiter Apr. 1975 59 p refs
 (Contract EPA-68-01-2250)
 (PB-241479/5; EPA-600/5-75-007) Avail: NTIS HC \$4.25 CSCL 13B

Confronted with shortages of low-sulfur content residual fuel oil, several air pollution control authorities in the northeastern states were forced to relax air quality standards during the winters of 1972-73 and 1973-74. The authorities did so by granting variances to their sulfur-content standards for residual fuel oil. The characteristics of these variances provide the social test-tube or this analysis. The report examines alternative policies such as direct regulation, fuel-oil surcharges, emission taxes and quantity control. GRA

N75-31910# Institut Franco-Allemand de Recherches, St. Louis (France).

PROGRESS OF ISL RESEARCH ON ENERGY CONVERSION IN FERROELECTRIC CERAMICS OF THE TYPE Pb(Zr_xTi_{1-x})O₃ [ETAT ACTUEL DES RECHERCHES A L'ISL SUR LES PROBLEMES DE CONVERSION D'ENERGIE A L'AIDE DE CERAMIQUES FERROELECTRIQUES DU TYPE Pb(Zr_xTi_{1-x})O₃]

F. Bauer 22 Oct. 1974 8 p refs In FRENCH Presented at the Reunion Franc. de Ferroelectricite, Nantes, France, 27 Sep. 1974
 (ISL-29/74) Avail: NTIS HC \$3.25

Adiabatic depolarization of prepolarized ferroelectric ceramics by a plane shockwave was studied. The shock wave at the interface of a missile has a velocity of 200 m/s and the ceramic has an intensity of 20 kbar and lasts a few microseconds. The electric energy liberated by a 10 mm diameter and 0.5 mm thickness Pb(Zr 0.965 Ti0.035)(03+1percent Nb205) disk attained 4500 V after 100 ns and decreased thereafter while pressure remains on a plateau value. Phase transitions or nonlinear piezoelectric behavior are hypothesized. ESRO

N75-31918# Committee on Labor and Public Welfare (U. S. Senate).

EFFECTS OF THE ENERGY CRISIS ON EMPLOYMENT DISLOCATION, 1974

Washington GPO 1974 101 p Hearing before Subcomm. on Labor of Comm. on Labor and Public Welfare, 93d Congr., 2d Sess., 12 Feb. 1974
 (GPO-35-761) Avail: Subcomm. on Labor

The impact of the energy crisis on the state of New Jersey is discussed. Testimony is provided on the impact of the energy crisis on the state of New Jersey. Topics discussed include: unemployment due to plant closings and inability to get to work; public and private transportation; price of gasoline and oil; and necessity of conservation. J.M.S.

N75-31953# Committee on Interior and Insular Affairs (U. S. House).

PROVIDING FOR A NATIONAL FUELS AND ENERGY CONSERVATION POLICY, ESTABLISHING AN OFFICE OF ENERGY CONSERVATION IN THE DEPARTMENT OF THE INTERIOR, AND FOR OTHER PURPOSES

Haley Washington GPO 10 Dec. 1974 12 p Rept. to accompany H. R. 11343 presented by the Comm. on Interior and Insular Affairs, 93d Congr., 2d Sess., 10 Dec. 1974
 (H-Rept-93-1546; GPO-38-006) Avail: US Capitol, House Document Room

Amended provisions of the bill for a national fuels and energy conservation policy are presented. The bill provides for the establishment of an energy conservation program to regulate the national rate of growth in energy use and a Council on Energy Policy. Major elements of the program are described and analyzed. J.M.S.

N75-31954# Committee on Public Works (U. S. Senate).
THE NEED FOR A NATIONAL MATERIALS POLICY, PART 1

Washington GPO 1974 463 p refs Hearings before Panel on Materials Policy of Subcomm. on Environ. Pollution of Comm. on Public Works, 93d Congr., 2d Sess., 11-13 Jun. 1974 (GPO-39-885) Avail: Subcomm. on Environ. Pollution

Testimony is provided on policy issues related to the creation of a national materials recovery policy. Emphasis is placed on disposal of hazardous wastes, such as, toxic chemical, biological, and radioactive wastes, waste utilization and the relationship of the Federal government with State and local governing bodies in solid waste management and resource recovery. Other topics discussed include: waste reduction, recycling, environment protection, and resource and energy conservation. J.M.S.

N75-31955# Committee on Public Works (U. S. Senate).
THE NEED FOR A NATIONAL MATERIALS POLICY, PART 2

Washington GPO 1974 786 p refs Hearings on S. 3560, S. 3549, S. 1086, S. 3277, and S. 3954 before Panel on Materials Policy of Subcomm. on Environ. Pollution of Comm. on Public Works, 93d Congr., 2d Sess., 9-11 Jul. and 15-16 Jul. 1974

(GPO-40-687) Avail: Subcomm. on Environ. Pollution
 Legislative proposals that attempt to deal with the solid waste management and resource recovery problem facing American cities are reviewed. Waste management and utilization is discussed in terms of energy conversion, conservation, and recovery. Factors discussed include: waste reduction, recycling, pyrolysis, composting, improved waste disposal techniques, efficient use of natural resources, and materials recovery. J.M.S.

N75-31956# Committee on Public Works (U. S. Senate).
THE NEED FOR A NATIONAL MATERIALS POLICY, PART 3

Washington GPO 1974 992 p refs Hearings on S. 3560, S. 3549, S. 1086, S. 3277, and S. 3954 before Panel on Materials Policy of Subcomm. on Environ. Pollution of Comm. on Public Works, 93d Congr., 2d Sess., 17-18 Jul. 1974 (GPO-40-687) Avail: Subcomm. on Environ. Pollution

Testimony is given by the private sector on recommendations for solid waste disposal and utilization legislation. Factors discussed include: materials recovery, marketing of by-products; recycling, hazardous wastes disposal, and increased use of recovered materials by the Federal government. J.M.S.

N75-31957# Committee of Conference (U. S. Congress).
SPECIAL ENERGY RESEARCH AND DEVELOPMENT APPROPRIATION ACT, 1975

Washington GPO 30 Jun. 1974 5 p H. R. 14434 enacted into law by the 93d Congr., 30 Jun. 1974 (Pub-Law-93-322; GPO-38-139) Avail: US Capitol, House Document Room

An act making appropriations for energy research and development activities of certain departments, independent executive agencies, bureaus, offices, and commissions for the fiscal year ending June 30, 1975, and for other purposes is described. Author

N75-31958# Committee on Commerce (U. S. Senate).
OUTER CONTINENTAL SHELF OIL AND GAS LEASING OFF SOUTHERN CALIFORNIA: ANALYSIS OF ISSUES

Washington GPO Nov. 1974 99 p refs Prepared for the Comm. on Commerce pursuant to S. Res. 222, 93d Congr., 2d Sess., 12 Nov. 1974 (GPO-41-659) Avail: SOD HC \$1.35

A brief history of the development of Southern California offshore continental shelf (OCS) oil and gas is given along with an outline of the Department of the Interior's OCS leasing procedures. The implications of the Interior's lease sale proposal for the coastal zone of Southern California are examined. Significant issues discussed include: role of coastal states in the Federal decisionmaking as to the siting and location of oil and gas leases; role of coastal zone management in the offshore

leasing program; justification, in terms of national energy needs, availability of manpower and materials, and possible alternatives, for leasing the OCS; for nominating areas for lease in Southern California at this time. Findings and recommendations are included. J.M.S.

N75-31959# Committee on Commerce (U. S. Senate).
OUTER CONTINENTAL SHELF OIL AND GAS DEVELOPMENT AND THE COASTAL ZONE

Washington GPO Nov. 1974 206 p refs Rept. pursuant to S. Res. 222 prepared by Comm. on Commerce, 93d Congr., 2d Sess., Nov. 1974 (GPO-39-356) Avail: SOD HC \$2.15

Major issues involved in leasing of the outer continental shelf are presented, and improvements in current procedures and practices are recommended. Topics discussed include information needs, exploratory and geological data, environmental and socio-economic impact on the Coastal Zone and on ocean resources, federal management and leasing policies, local control, production and transportation technology, and shortages of drilling rigs, equipment, and manpower. M.J.S.

N75-31960# Committee on Government Operations (U. S. Senate).

TO ESTABLISH AN ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION AND A NUCLEAR ENERGY COMMISSION

Washington GPO 1974 649 p refs Hearings on S. 2744 before Subcomm. on Reorganization, Res., and Intern. Organ. of Comm. on Govt. Operations, 93d Congr., 1st Sess., 4-5 Dec. and 10 Dec. 1973 (GPO-28-963) Avail: SOD HC \$4.45

Testimony regarding the formation of the Energy Research and Development Administration and Nuclear Energy Commission is presented. A number of important considerations are discussed, including energy shortages, the necessity for conservation and development of alternative energy sources, various types of available energy resources, environmental protection, agency operations, involvement of private industry, and public safety. D.M.L.

N75-31961# Committee on Commerce (U. S. Senate).
SCIENCE AND TECHNOLOGY APPLICATIONS ACT OF 1974

Washington GPO 1974 65 p refs Joint hearing on S. 2495 amendment no. 1537 before Comm. on Commerce and Comm. on Aeron. and Space Sci., 93d Congr., 2d Sess., 11 Jul. 1974 (GPO-41-407) Avail: Comm. on Commerce

A bill is discussed which recognizes science and technology as a primary national resource, and provides for their efficient utilization in the resolution of current and potential national problems. Some of the problems discussed include: The threat of worldwide famine and the importance of continuing agricultural research and of related technological development in industry as well as in government; the need for new technologies to prevent or reverse the deterioration of our environment; the need to find new sources of energy; the modernization of out transportation systems as an essential part of maintaining a benign environment; the need to advance the science and technology required to provide general access to health care of high quality and to reduce the incidence of disease; the maintenance and improvement of government policies to ensure that American science, technology, and industry continue to flourish. Author

N75-31962# California State Div. of Mass Transportation, Sacramento.

ENERGY USE OF PUBLIC TRANSIT SYSTEMS Final Report

Timothy J. Healy 1 Aug. 1974 64 p refs (PB-241351/6; DMT-002) Avail: NTIS HC \$4.25 CSCL 21D

The amount of energy used by a variety of transit modes operating under different conditions was determined. Projections of energy availability in California through 1985 and 1990 are reviewed and the implications for transportation are discussed.

A short summary of the ways in which vehicles use energy, and an analysis of the resulting implications for energy-limiting or conserving strategies are given. Energy consumption data for a wide variety of vehicles operating in a number of modes are compared in a way that allows the reader (planner) to know relative energy requirements of different systems. GRA

N75-32470# Transportation Systems Center, Cambridge, Mass. **STUDY OF POTENTIAL FOR MOTOR VEHICLE FUEL ECONOMY IMPROVEMENT. FUEL ECONOMY TEST PROCEDURE PANEL REPORT NO. 6** Special Congressional Report, Jun. - Oct. 1974

Harold G. Miller 10 Jan. 1975 82 p refs Prepared in cooperation with Comm. on Com., Comm. on Interstate and Foreign Com. and EPA, Washington, D. C. (PB-241776/4; DOT-TSC-OST-75-15) Avail: NTIS HC \$4.75; also avail. \$29.00/set of 8 reports as PB-241769-SET CSCL 21D

This report presents the test procedures recommended for insuring compliance with fuel economy regulations. Discussions included are: (a) driving variables pertinent to the establishment of a meaningful, reproducible test methodology; (b) test and measurement methods which are applicable to fuel economy certification tests; (c) current test procedures in use by industry and the federal government, and (d) recommendations for a standardized Federal test procedure. GRA

N75-32471# Transportation Systems Center, Cambridge, Mass. **STUDY OF POTENTIAL FOR MOTOR VEHICLE FUEL ECONOMY IMPROVEMENT. TECHNOLOGY PANEL REPORT NO. 4** Special Congressional Report, Jun. - Oct. 1974

Harold G. Miller 10 Jan. 1975 167 p refs Prepared in cooperation with Comm. on Com., Comm. on Interstate and Foreign Com., and EPA, Washington, D. C. (PB-241774/9; DOT-TSC-OST-75-13) Avail: NTIS HC \$6.25; also avail: \$29.00/set of 8 reports as PB-241769-SET CSCL 21D

The authors evaluate individual technologies which could produce improved automobile fuel economy in the areas of vehicle improvement (reduced weight and aerodynamic drag), transmission improvement, engine improvements and reduced performance acceleration. Potential 1980 fuel savings are estimated for each of these technologies. The more promising of these technologies are combined in several different configurations to produce estimates of potential automobile fuel savings possible by 1980. GRA

N75-32587# Joint Economic Committee (U. S. Congress). **ENERGY STATISTICS**

Washington GPO 1974 452 p refs Hearings before Subcomm. on Priorities and Economy in Govt. of Joint Economic Comm., 93d Congr., 1st and 2d Sess., 14 and 21 Jan. 1974 2d Sess., 14 and 21 Jan. 1974 (GPO-37-143) Avail: SOD HC \$3.85

The hearings to determine the facts on oil production, reserves, inventories, and consumption are reported. Topics discussed include: mandatory oil import control program; oil import question; reserves of crude oil, natural gas liquids, and natural gas. F.O.S.

N75-32590# Lockheed Missiles and Space Co., Palo Alto, Calif. **FULL-SCALE TESTING OF HIGH-VOLTAGE PHOTOCELLS OF FOTOVOLT TYPE AT ELEVATED LIGHT FLUX LEVELS**

U. A. Arifov, M. Gaibnazarov, B. N. Dzhaliyov, A. I. Kulagin, A. P. Landsman, and D. S. Strebkoi 1974 7 p refs Transl. into ENGLISH from Geliotekhnika, Akad. Nauk Uz. SSR (Tashkent), no. 6, 1974 p 3-9

Avail: NTIS HC \$3.25; National Translations Center, John Crerar Library, Chicago, Ill. 60616

Photoelectric batteries were investigated for use in solar power plants operating under high radiant flux density at high temperatures. The energy distribution in the focal and out-of-focus planes of a paraboloidal concentrator are presented along with the results

of measuring the volt-ampere characteristics at diverse solar ray concentrations. It is shown that a diminution of the spreading and contact resistances of photocells will permit taking off hundreds of times more power in useful load than that for the customary frontal photocells. F.O.S.

N75-32592*# National Aeronautics and Space Administration. Lewis Research Center, Cleveland, Ohio.

THE NASA-LEWIS/ERDA SOLAR HEATING AND COOLING TECHNOLOGY PROGRAM

James P. Couch and Harvey S. Bloomfield 1975 15 p refs Presented at Workshop on the use of Solar Energy for the Cooling of Buildings, Los Angeles, 4-6 Aug. 1975; Cosponsored by Intern. Solar Energy Soc. and the Am. Soc. of Heating, Refrig., and Air-Conditioning Engineers (NASA-TM-X-71800; E-8478) Avail: NTIS HC \$3.25 CSCL 10A

Plans by NASA to carry out a major role in a solar heating and cooling program are presented. This role would be to create and test the enabling technology for future solar heating, cooling, and combined heating/cooling systems. The major objectives of the project are to achieve reduction in solar energy system costs, while maintaining adequate performance, reliability, life, and maintenance characteristics. The project approach is discussed, and will be accomplished principally by contract with industry to develop advanced components and subsystems. Advanced hardware will be tested to establish 'technology readiness' both under controlled laboratory conditions and under real sun conditions. Author

N75-32593*# National Aeronautics and Space Administration. Lewis Research Center, Cleveland, Ohio.

COST AND SIZE ESTIMATES FOR AN ELECTROCHEMICAL BULK ENERGY STORAGE CONCEPT

Marvin Warshay and Lyle O. Wright 1975 12 p refs Presented at Energy Storage Session of the 148th Meeting of the Electrochemical Soc., Dallas, 5-9 Oct. 1975 (NASA-TM-X-71805; E-8138) Avail: NTIS HC \$3.25 CSCL 10C

Preliminary capital cost and size estimates were made for an electrochemical bulk energy storage concept. The electrochemical system considered was an electrically rechargeable flow cell with a redox couple. On the basis of preliminary capital cost estimates, size estimates, and several other important considerations, the redox-flow-cell system emerges as having great promise as a bulk energy storage system for power load leveling. The size of this system would be less than 2 percent of that of a comparable pumped hydroelectric plant. The capital cost of a 10-megawatt, 60- and 85-megawatt-hour redox system is estimated to be \$190 to \$330 per kilowatt. The other important features of the redox system contributing to its load leveling application are its low adverse environmental impact, its high efficiency, its apparent absence of electrochemically-related cycle life limitations, and its fast response. Author

N75-32594*# National Aeronautics and Space Administration. Lewis Research Center, Cleveland, Ohio.

PRELIMINARY RESULTS OF THE LARGE EXPERIMENTAL WIND TURBINE PHASE OF THE NATIONAL WIND ENERGY PROGRAM

Ronald L. Thomas, Thomas Sholes, and John E. Sholes 1975 25 p refs Presented at Frontiers of Technol. Conf., Stillwater, Oklahoma, 1-2 Oct. 1975; Sponsored by Oklahoma State Univ. (NASA-TM-X-71796; E-8475) Avail: NTIS HC \$3.25 CSCL 10B

The preliminary results of two projects in the development phase of reliable wind turbines designed to supply cost-competitive electrical energy were discussed. An experimental 100 kW wind turbine design and its status are first reviewed. The results of two parallel design studies for determining the configurations and power levels for wind turbines with minimum energy costs are also discussed. These studies predict wind energy costs of 1.5 to 7 cents per kW-h for wind turbines produced in quantities of 100 to 1000 per year and located at sites having average winds of 12 to 18 mph. Author

N75-32595# National Aeronautics and Space Administration, Lewis Research Center, Cleveland, Ohio.

INITIAL COMPARISONS OF SOLAR COLLECTOR PERFORMANCE DATA OBTAINED OUT-OF DOORS AND WITH A SOLAR SIMULATOR

Richard W. Vernon 1975 14 p refs Presented at 1975 Intern. Solar Energy Soc. Meeting, Los Angeles, 28 Jul. - 1 Aug. 1975

(NASA-TM-X-71626; E-8472) Avail: NTIS HC \$3.25 CSCL 10B

A facility was constructed to evaluate solar collector performance outdoors for conditions that would be encountered by collectors if they were incorporated in a solar heating/cooling system. In addition to obtaining initial collector performance data, the outdoor facility will enable collector durability and degradation rates to be evaluated for operating periods of several months. The data obtained from the outdoor tests were compared to collector performance predicted on the basis of results obtained with a solar simulator. The performance measured outdoors was less than the predicted performance. Author

N75-32596# Naval Academy, Annapolis, Md. Environmental Protection Research and Development Team.

CONVERTING CELLULOSIC WASTE TO FUEL: A LITERATURE REVIEW Interim Report, 1 Jul. 1974 - 1 Feb. 1975

Mark M. Bundy Feb. 1975 23 p refs (AD-A009400; USNA-EPRD-9) Avail: NTIS CSCL 07/1

Preliminary findings show five processes that will convert discarded cellulosic material into a useable fuel. These processes, virtue of its size and energy density a well-developed hurricane should be able to influence the distribution of trace constituents in the lower stratosphere, at least locally if not on a global basis. The authors describe the results of the first attempt to determine the influence of a hurricane on the vertical profile of aerosol within a 500 mile radius of the center of the storm. Aerosol profiles were obtained over hurricane Gilda in October of 1973. The results show a relatively clean upper troposphere which has been tentatively attributed to a removal process associated with the storm itself. GRA

N75-32598# Naval Postgraduate School, Monterey, Calif. **ELECTRICAL ENERGY ALLOCATIONS AT NAVY AND MARINE CORPS BASES M.S. Thesis**

Alexander Shalar Mar. 1975 123 p refs (AD-A009821) Avail: NTIS CSCL 10/1

Navy and Marine Corps bases in the continental United States derive almost all of their electricity from public utility companies. For this thesis, the conditions of service of select public utility companies in one part of the United States, the West Coast, were investigated. Particular attention was devoted to the utility companies: plans to allocate electricity to their customers if an emergency or a fuel shortage should occur. The second major area investigated was the internal management of electricity within Navy and Marine Corps bases. The load shedding plans of about 80 bases were reviewed, and from these, guidelines were developed for the preparation of an optimal load shedding plan. Also, a unique approach to electrical allocation was developed. The approach is based on the utility theory of economics. GRA

N75-32601# Kell, Alterman, Runstein, and Thomas, Portland, Oreg.

POWER SHORTAGE CONTINGENCY PROGRAM FOR THE PACIFIC NORTHWEST. LEGISLATIVE, REGULATORY AND INSTITUTIONAL ASPECTS

Leon Jourolmon 1975 402 p refs (PB-241323/5; W75-06977) Avail: NTIS HC \$10.50 CSCL 10A

Principles are evaluated which are applied when use of electricity must be rationed either because of critical levels of streamflow or because of slippage of generator schedules, or both. The legal structure controlling the marketing of power throughout the Columbia Basin is examined. GRA

N75-32602# Electric Power Research Inst., Palo Alto, Calif. **EVALUATION OF FIXED BED, LOW BTU COAL GASIFICATION SYSTEMS FOR RETROFITTING POWER PLANTS Interim Report**

D. A. Waitzman, H. L. Faucett, E. E. Kindahl, S. V. Tomlinson, and D. E. Nichols Feb. 1975 281 p refs Sponsored by Electric Power Res. Inst., Palo Alto, Calif.

(PB-241672/5; TVA-Bull-Y-91; EPRI-203-1) Avail: NTIS HC \$8.75 CSCL 10B

Seven alternative systems are considered: (1) Wellman-Galusha/Benfield System, (2) Wellman-Galusha/Stretford System, (3) Wellman-Galusha/Iron Oxide System, (4) Wellman-Galusha/Iron Oxide/Fines Gasification System, (5) Lurgi/Benfield System, (6) Lurgi/Stretford System, and (7) Lurgi/Iron Oxide System. Conceptual designs and capital and operational cost estimates are provided for six of the systems including associated coal handling, fines removal and sales (or gasification in the Wellman-Galusha/iron oxide/fines gasification system), air compression and boiler modifications. The report estimates the cost of and describes low-Btu, fixed-bed gasification plants that might be operated in the near future on retrofitted power plants, and compares fixed-bed gasification with stack gas cleaning processes. GRA

N75-32603# Bureau of Mines, Pittsburgh, Pa. Pittsburgh Mining and Safety Research Center.

IN SITU COMBUSTION OF COAL FOR ENERGY Technical Progress Report

Robert F. Chaiken Nov. 1974 16 p refs Previously announced as N75-11464

(PB-241892/9; 8M-TPR-84; N75-11464) Avail: NTIS HC \$3.25 CSCL 081

A concept of efficient thermal energy generation through the in situ combustion of coal, and the on-site conversion of that energy to electricity is discussed and shown to offer distinct advantages in the utilization of our coal reserves. Analysis of data from previous underground coal gasification projects suggest that coal can be efficiently burned underground and that the burning process should be maintainable for time periods sufficient to power a commercial electricity generation plant. A discussion is presented related to the requirements of a 100 megawatt (thermal) demonstration in-situ combustor, and some of the important problem areas that have to be resolved prior to implementation of the concept. GRA

N75-32606# Kellogg (M. W.) Co., Houston, Tex. Research and Engineering Development.

IDENTIFICATION AND CHARACTERIZATION OF THE USE OF MIXED CONVENTIONAL AND WASTE FUELS Final Report

Gopal K. Mathur Feb. 1975 65 p (Contract EPA-68-02-1308)

(PB-241821/8; EPA-650/2-75-017) Avail: NTIS HC \$4.25 CSCL 10A

The major objective of this study was to identify and classify types and properties of mixed fuels presently in use, and types of stationary processes using mixed fuels. Types of fuels presently in use, and types of stationary processes using mixed fuels. Types of mixed fuels include mixed oils; oil and gas; coal and oil; coal and gas; by-product gases and fuels; by-product chemical waste; and mixtures of chemical wastes and conventional fossil fuels. The scope of the task covered industries in the category of utilities, petroleum refineries, petrochemical, chemical processing (excluding fertilizer), glass, cement and textile. A list of manufacturers of mixed fuel burners was developed. GRA

N75-32607# Dow Chemical Co., Freeport, Tex.

ENERGY CONSUMPTION: PAPER, STONE/CLAY/GLASS/CONCRETE, AND FOOD INDUSTRIES Final Report, Aug. 1974 - Mar. 1975

John T. Reding and Burchard P. Shepherd Apr. 1975 60 p refs

(Contract EPA-68-02-1329)

(PB-241926/5; EPA-650/2-75-032-c) Avail: NTIS HC \$4.25 CSCL 10A

N75-32627

Energy-intensive steps or operations for commonly used manufacturing processes are examined. Results of the analyses are in the form of energy consumption block diagrams, energy-intensive equipment schematic diagrams, and tables that indicate the causes of energy losses, as well as possible conservation approaches. GRA

N75-32627# Exxon Research and Engineering Co., Linden, N.J. **EVALUATION OF POLLUTION CONTROL IN FOSSIL FUEL CONVERSION PROCESSES. LIQUEFACTION: SECTION 2. SRC PROCESS** Final Report
C. E. Jahnig Mar. 1975 88 p refs
(Contract EPA-02-0629)
(PB-241792/1; GRU.8DJ.75; EPA-650/2-74-009-f) Avail:
NTIS HC \$4.75 CSCL 07A

Results are given of a review of the Solvent Refined Coal (SRC) process from the standpoint of its potential for affecting the environment. Estimates are included of the quantities of solid, liquid, and gaseous effluents as well as the thermal efficiency of the process. A number of possible process modifications of alternatives are proposed which could facilitate pollution control or increase thermal efficiency. Technology needs are indicated. GRA

N75-33410# Transportation Systems Center, Cambridge, Mass. **STUDY OF POTENTIAL FOR MOTOR VEHICLE FUEL ECONOMY IMPROVEMENT. SAFETY IMPLICATIONS PANEL REPORT NO. 2** Special Congressional Report, Jun. - Oct. 1974

Harold G. Miller 10 Jan. 1975 45 p refs Sponsored in part by Committee on Commerce (U.S. Senate), Committee on Interstate and Foreign Commerce (U.S. House), and EPA, Washington, D.C.

(PB-241772/3; DOT-TSC-OST-75-11) Avail: NTIS HC \$3.75; also available in a set of 8 reports as PB-241769-SET HC \$29.00 CSCL 21D

This report contains four individual analyses related to the safety impact of increased small car usage and automobile weight reductions to improve fuel economy: (1) fuel economy as a function of weight, performance, and driving schedule; (2) traffic control for safety and fuel economy; (3) weight versus safety; and (4) effects of speed limits on fuel economy and safety. GRA

N75-33411# Transportation Systems Center, Cambridge, Mass. 21D **STUDY OF POTENTIAL FOR MOTOR VEHICLE FUEL ECONOMY IMPROVEMENT. TRUCK AND BUS PANEL REPORT NO. 7** Special Congressional Report, Jun. - Oct. 1974

Harold G. Miller 10 Jan. 1975 112 p refs Sponsored in part by Committee on Commerce (U.S. Senate), Committee on Interstate and Foreign Commerce (U.S. House), and EPA, Washington D.C.

(PB-241777/2; DOT-TSC-OST-75-16) Avail: NTIS HC \$5.25; also available in a set of 8 reports as PB-241769-SET HC \$29.00

Special consideration is given to the potential improvement of truck and bus fuel economy implementable by the 1980 production year. Vehicles considered are those with gross vehicle weight ratings of 10,000 pounds or more. GRA

N75-33491# Beychok (Milton R.), Irvine, Calif. **PROCESS AND ENVIRONMENTAL TECHNOLOGY FOR PRODUCING SNG AND LIQUID FUELS** Environmental Protection Technology Series

Milton R. Beychok Mar. 1975 152 p
(Contract EPA-68-03-2136)
(PB-242774/8; EPA-660/2-75-011) Avail: NTIS HC \$6.25; SOD HC as SN-055-001-01017 CSCL 07A

The process technology and environmental factors involved in the emerging industries for providing new supplemental energy supplies from nonconventional sources are discussed. It includes: (1) the production of substitute natural gas (SNG) from coal, crude oil and naphtha, (2) importing overseas gas supplies in

the form of liquefied natural gas (LNG) and as liquid methanol, (3) the regasification of LNG, (4) the production of liquid fuels from oil shale, and (5) the liquefaction of coal to produce clean fuels. The technology of oil and gas processing, heat balances, fuel combustion and stack gases, thermal efficiencies, and water balances is assessed. GRA

N75-33494# National Aeronautics and Space Administration. Lewis Research Center, Cleveland, Ohio. **INCORPORATING ENERGY CONSERVATION TECHNIQUES IN THE OPERATION OF EXISTING LeRC R AND D FACILITIES**

W. C. Nieberding 1975 20 p Presented at Annual NASA Facilities Conf., Pasadena, Calif., 21-24 Oct. 1975
(NASA-TM-X-71813) Avail: NTIS HC \$3.25 CSCL 10B

A general discussion of various methods which can be used to reduce energy consumption is presented. A very brief description of Lewis Research Center facilities is given and the energy reduction methods are discussed relative to them. Some specific examples (ie; automated equipment and data systems) of the implementation of the energy reduction methods are included. Author

N75-33495# Committee on Science and Technology (U. S. House).

SOLAR HEATING AND COOLING DEMONSTRATION ACT OF 1974: OVERSIGHT HEARINGS

Washington NASA 1975 986 p refs Hearings before Subcomm. on Energy Res., Develop. and Demonstration of Comm. on Sci. and Technol., 94th Congr., 1st Sess., No. 13, 13-15 May 1975

(GPO-55-414) Avail: Subcomm. on Energy Res., Develop. and Demonstration

Oversight hearings made before the Subcommittee on Energy Research, Development and Demonstration of the Committee on Science and Technology of the U.S. House of Representatives on May 13-15, 1975 were described. These dealt with Public Law 93-409, the Solar Heating and Cooling Demonstration Act of 1974, and included discussions on the following subjects: solar heating, air conditioning, solar energy, electric power, energy consumption, energy costs, energy policy for Florida. Y.J.A.

N75-33498# National Academy of Sciences - National Research Council, Washington, D.C.

SEMINAR ON INDUSTRIAL ENERGY CONSERVATION AND SEMINAR ON SOLAR SPACE HEATING AND COOLING Staff Summary Report

1975 28 p Seminar held at Seoul (Republic of Korea), 13-15 Nov. 1974; sponsored jointly by Rep. of Japan and Natl. Acad. of Sci. - Natl. Res. Council, Washington, D. C.

(Contract AID/CSD-2584)
(PB-241462/1) Avail: NTIS HC \$3.75 CSCL 10A

The proceedings of two workshops on energy conservation and solar heating and heating are summarized. Topics discussed include: the technical and economic aspects of energy conservation, and application of industrial energy conservation techniques in terms of effectiveness, cost, and social acceptability. J.M.S.

N75-33499# Michigan Univ., Ann Arbor. Highway Safety Research Inst.

STUDY ON THE EFFECTS OF THE ENERGY CRISIS AND 55 MPH SPEED LIMIT IN MICHIGAN Final Report

James Oday, Daniel J. Minahan, and Dan Golomb Apr. 1975 61 p Prepared in cooperation with Mich. Office of Highway Safety Planning, Lansing

(PB-241843/2; UM-HSRI-SA-75-9) Avail: NTIS HC \$4.25 CSCL 13L

The report is a presentation of the findings and conclusions derived from an analysis of Michigan traffic accident data and related data for the periods before, during, and after the peak energy crisis months of 1974. A major objective of this study was to identify the effect of the speed limits imposed as a result of the energy shortage. Some other causative factors relating to traffic crashes also were investigated. The report differs from others in that it seeks to define the cause-effect relationships

specifically within Michigan, rather than nationally. Also by concentrating the study to a single state, it was possible to get more consistent data across several measures--exposure, accident data, speed data--resulting in a more detailed analysis. GRA

N75-33502# Massachusetts Univ., Amherst. Energy Alternatives Program.

HOT WATER HYDRAULICS OF THE GULF STREAM SITED OTGM

Daniel Seluk and Robert H. Kirchhoff Mar. 1975 77 p refs (Grant NSF GI-34979)

(PB-242151/9; NSF/RANN/SE/GI-34979/TR/75/2;

NSF/RA/N-75-027) Avail: NTIS HC \$4.75 CSCL 10B

The results are presented of a study to determine if the kinetic energy of the Gulf Stream can be used as a pump for the evaporators in an ocean thermal energy system. The proposed evaporator is of the plate fin heat exchanger type but calculations for the staggered tube type boiler have also been developed. The flow field for both types of evaporators is assumed to be similar to that of a screen submerged in an infinite two dimensional potential flowfield. The problem is then reduced to determining the pressure loss coefficient for each arrangement. Momentum and thermal recovery in the wake of ocean pumped plants are investigated, and graphs are presented to allow the determination of downstream plant spacing. GRA

N75-33503# Dow Chemical Co., Freeport, Tex.

ENERGY CONSUMPTION: THE PRIMARY METALS AND PETROLEUM INDUSTRIES Final Report, Aug. 1974 - Mar. 1975

John T. Reding and Burchard P. Shepherd Apr. 1975 59 p refs

(Contract EPA-68-02-1329)

(PB-241990/1; EPA-650/2-75-032-B) Avail: NTIS HC \$4.25 CSCL 10A

Results are reported of a study of energy consumption in the primary metals and petroleum industries. It analyzes energy-intensive steps or operations for commonly used manufacturing processes. Results of the analyses are in the form of energy consumption block diagrams, energy-intensive equipment schematic diagrams and tables that indicate the causes of energy losses, as well as possible conservation approaches. GRA

N75-33504# Stein (Richard G.) and Associates, New York. **RESEARCH DESIGN CONSTRUCTION AND EVALUATION OF A LOW ENERGY UTILIZATION SCHOOL RESEARCH PHASE 1 Interim Report**

Richard G. Stein and Carl Stein 15 Aug. 1974 297 p refs (Grant NSF GI-39612)

(PB-242217/8; NSF/RA/N-74-117) Avail: NTIS HC \$8.75 CSCL 10A

A re-examination of the education determinants that have influenced energy consumption in the past, is presented along with a review of the technical performance of building components. Results indicate that substantial energy savings can be achieved in schools. Since educational buildings represent 7% of the building area in total U.S. construction these savings are considerable. GRA

N75-33505# Mitre Corp., Bedford, Mass.

A SYSTEMS APPROACH TO INNOVATIVE SOLUTIONS TO THE ENERGY PROBLEM Final Report

Phillip R. Vance Dec. 1973 279 p refs

(Grant NSF DI-39519)

(PB-242189/9; NSF/RA/R-73-008; NSF/RD1-8) Avail: NTIS HC \$8.75 CSCL 10A

The formation of an institutional mechanism is described whose objectives are to increase the level of non-federal support for energy related research and development, to stimulate the innovation process, and to facilitate the transition of research and development products from laboratory to operational use. Research and development project activities undertaken in cooperation with research directors of the three largest electric

utilities, public officials, and university experts in New England are described. The projects cover such topics as fossil fuel switching systems. Operational and pending agreements for cost-sharing by appropriate companies are cited, as are criteria for the measurement of the impact of the efforts undertaken in this experiment in cooperative research and development. GRA

N75-33506# Massachusetts Inst. of Tech., Cambridge. Energy Lab.

PROJECT INDEPENDENCE REPORT: A REVIEW OF US ENERGY NEEDS UP TO 1985

Jerry A. Hausman Apr. 1975 60 p refs

(PB-242142/8; MIT-EL-75-009) Avail: NTIS HC \$4.25 CSCL 10A

A review and assessment of the Federal Energy Administration's Project Independence Report is undertaken. Special emphasis is placed in the energy mode and its forecast of U.S. energy needs up through 1985. Biases are pointed out and the uncertainty of the final result is emphasized. GRA

N75-33507# Stanford Research Inst., Menlo Park, Calif. Center for the Study of Social Policy.

PLAUSIBILITY OF A RESTRICTED ENERGY USE SCENARIO

Joe E. Armstrong and Willis W. Harman 8 Jan. 1975 211 p refs

(Contract C-5-35546)

(COM-75-10749/0; CSSP-3705-8) Avail: NTIS HC \$7.25 CSCL 10A

The consequences are examined of high and modest scenario projections of energy usage in the United States with and without adoption of modest energy conservation measures. The objectives of the overall study are: (1) to establish the plausibility that for a variety of reasons the United States may choose or find itself forced to accept at some point in the future a low or even static growth in energy usage (2) to explore the validity of the use of past trends and inter-element relationships for the economic, social, and technical projections up to and beyond 1990; and (3) to assess the feasibility of key characteristics of a comprehensive energy conservation plan. GRA

N75-33508# Massachusetts Univ., Amherst.

AN ANALYSIS OF THE FLUID MOTION INTO THE CONDENSER INTAKE OF A 400 mW(e) OCEAN THERMAL DIFFERENCE POWER PLANT

Peter A. Mangarella Mar. 1975 27 p refs

(Grant NSF GI-34979)

(PB-242569/2; NSF/RANN/SE/GI-34979/TR/75/3;

NSF/RA/N-75-029) Avail: NTIS HC \$3.75 CSCL 10B

The report addresses the following questions regarding the operation of an intake device in a complex stratified flow typical of the Gulf Stream: (1) would flow into such an intake create disruption of the thermocline if placed in depths of the order of 300-800 meters thereby withdrawing warm surface waters which would adversely affect the condenser operation, (2) if a finite withdrawal layer is created by such a device, what is the size and configuration of the layer, (3) what is the effect of such a withdrawal layer on the average temperature of the water so withdrawn, and can this average temperature be predicted, and (4) what is the possibility of entraining bottom deposits from such an intake device and can some criteria be developed for avoiding scouring. GRA

N75-33509# Hawaii Univ., Honolulu. Dept. of Ocean Engineering.

AN EVALUATION OF OCEANOGRAPHIC AND SOCIOECONOMIC ASPECTS OF A NEARSHORE OCEAN THERMAL ENERGY CONVERSION PILOT PLANT IN SUBTROPICAL HAWAIIAN WATERS Final Report, 1 May 1974 - 31 Jul. 1975

Karl H. Bathen 30 Apr. 1975 312 p refs

(Grant NSF AER74-17521-A01)

(PB-242167/5; NSF/RANN/SE/AER74-17521-A01/FR;

NSF/RA/N-75-028) Avail: NTIS HC \$9.25 CSCL 10B

Ocean thermal energy conversion (OTEC) proof-of-concept/

pilot plant studies in subtropical waters are discussed. The three-part socio-economic program is concerned with examining the legal aspects of a nearshore OTEC plant. The applicable law, federal interests, licenses and permits, opposing interests, legislative experience and site considerations are considered. An attempt is made to characterize the existing socio-economic conditions in the Kona (Keahole) area by examining the social infrastructure, local population, labor force, income and education, Kona electrical demand, and potential impact of a new power source. An input-output analysis for the Kona area was completed to model and further predict the impact of a new energy source on the economy of Hawaii County. GRA

N75-33511# Massachusetts Inst. of Tech., Cambridge. Energy Lab.
THE FUTURE OF THE US NUCLEAR ENERGY INDUSTRY
 Paul L. Joskow and Martin L. Baughman Apr. 1975 59 p refs
 (Grant NSF SIA-73-07871-A02)
 (PB-242164/2; MIT-EL-75-006; NSF/RA/N-75-033) Avail:
 NTIS HC \$4.25 CSCL 18E

A regional supply-demand-regulatory model of the U.S. electric utility industry is used to evaluate the derived demand for commercial nuclear reactors, raw uranium, and enrichment requirements for the period 1975-1995. The structure of the domestic nuclear energy industry is outlined and the engineering-economic supply-demand system used for the analyses is described. Conclusions of analysis for alternative assumptions about air quality regulations, peak-load pricing, costs of uranium resources, and future costs of capital to the electric utility industry are included. GRA

N75-33515# RAND Corp., Santa Monica, Calif.
DIRECT AND INDIRECT ENERGY DEMAND MODELS FOR DoD
 C. C. Mow Jun. 1974 32 p. refs Presented at 33d Military Operations Res. Symp. (MORS), West Point, New York, 25-27 Jun. 1974
 (AD-A010968; P-5273) Avail: NTIS

To properly assess the impact of the energy shortage on national security, it is essential to have an insight into how energy is used in support of the military. This report presents some of the results of the energy demand models currently being developed under ARPA sponsorship. Two energy models are described: (1) Direct energy model: A USAF Energy Consumption Projection Model; (2) Indirect energy demand model: Energy Consumption by Industries in Support of National Defense. GRA

N75-33749# National Bureau of Standards, Washington, D.C. Applied Mathematics Div.
THE NBS COMPUTERIZED CARPOOL MATCHING SYSTEM: USER'S GUIDE Final Technical Report
 Judith F. Gilsinn and Susan Landau Dec. 1974 65 p
 (COM-75-10691/4; NBSIR-74-633) Avail: NTIS HC \$4.25 CSCL 13B

The report includes flowcharts, input/output formats, and program listings for the programs, plus details of the manual process for coordinate coding. The matching program produces, for each person desiring it, a list of others residing within a pre-specified distance of him, and is thus applicable to a single work destination having primarily one work schedule. The system is currently operational on the UNIVAC 1108 computer and was run in March of 1974, producing lists for about 950 employees in less than four minutes computer time. Subsequent maintenance of the system will be carried out by the NBS Management and Organization Division. GRA

N75-33931# Center for Naval Analyses, Arlington, Va. Warfare Analysis Group.
THE ECONOMIC IMPACT OF AN INTERRUPTION IN UNITED STATES PETROLEUM IMPORTS: 1975 - 2000
 Randall G. Holcombe Nov. 1974 112 p refs
 (Contract N00014-68-A-0091)
 (AD-A010914; NWAG-Research-Contrib-245) Avail: NTIS CSCL 05/3

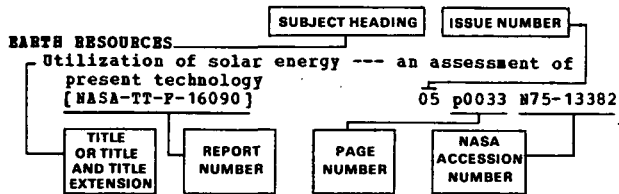
The objective of this paper is to estimate the economic impact of a possible interruption in petroleum imports during the period from 1975 to the year 2000. It begins by incorporating the data of the recent oil embargo into an input-output model of the U.S. economy, in order to assess the economic impact of the interruption in imports. The model will be used as a framework for estimating the impact of all sizes of oil import interruptions, from small interruptions to a complete cutoff of imports. Several different scenarios of petroleum supply and demand are developed; indicating the uncertainties in our energy future, but also reflecting the fact that there are many policy options that can be chosen in order to encourage -- and discourage -- self-sufficiency in energy. GRA

N75-33932# Massachusetts Inst. of Tech., Cambridge. Energy Lab.
THE ECONOMICS OF THE NATURAL GAS SHORTAGE (1960-1980)
 Paul W. MacAvoy and Robert S. Pindyck Sep. 1974 264 p refs
 (Grant NSF GI-34936)
 (PB-242166/7; MIT-EL-74-011; NSF/RA/N-74-204) Avail:
 NTIS HC \$8.50 CSCL 21D

An econometric policy model of the natural gas industry is described. The structure of the model is given in detail, as is the estimation of the model's equations. The model is then used in a variety of policy simulations to analyze the past and probable future behavior of the natural gas industry under alternative FPC regulatory policies. GRA

SUBJECT INDEX

Typical Subject Index Listing



The subject heading is a key to the subject content of the document. The title or title and title extension provides the user with a brief description of the subject matter. The report number helps to indicate the type of document cited (e.g. NASA report, translation, NASA contractor report). The issue page and accession numbers are located beneath and to the right of the title e.g. 05 p0033 N75-13382. Under any subject heading the accession numbers are arranged in sequence with the *IAA* accession numbers appearing first.

A

- ABSORBERS (EQUIPMENT)**
Modeling of solar absorption air conditioning 07 p0117 A75-34932
- ABSTRACTS**
NSF-RANN energy abstracts. A monthly abstract journal of energy research, volume 2, no. 4 [ORNL-EIS-74-52-VOL-2-4] 05 p0029 N75-11469
NSF-RANN energy abstracts [ORNL-EIS-74-52-VOL-2-5] 06 p0068 N75-16092
- AC GENERATORS**
The Harwell thermo-mechanical generator 05 p0009 A75-10579
Superconducting synchronous machine 06 p0061 A75-27967
Theoretical study of the energy output of two magnetohydrodynamic generators 07 p0125 A75-38568
Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/ 08 p0193 A75-46019
- ACOUSTIC INSTABILITY**
Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator 06 p0045 A75-19959
- ACOUSTICS**
Acoustic array methods for instrumentation of in situ coal gasification [UCID-16591] 06 p0104 N75-20875
- ADDITIVES**
Effect of impurity doping concentration on solar cell output 07 p0124 A75-37404
- ADHESIVES**
Investigations and selection of components and materials for flexible solar generator 06 p0050 A75-24182
- AERODYNAMIC COEFFICIENTS**
Evaluation of the energy perfection of the different forms of transport --- aerodynamic coefficients and lift drag ratio [AD-1006562] 07 p0137 N75-23392
- AERODYNAMIC CONFIGURATIONS**
Impact on aerodynamic design 06 p0075 N75-16982
Fuel conservation possibilities for terminal area compatible aircraft [NASA-CR-132608] 06 p0091 N75-19224
- AERODYNAMIC STABILITY**
Unsteady aerodynamics of variable pitch vertical axis windmill [AIAA PAPER 75-649] 06 p0063 A75-28604
- AERODYNAMICS**
Applied aerodynamics of wind power machines --- rotor blades (turbomachinery) [PB-238595/3] 07 p0133 N75-22669
- AEROSPACE ENGINEERING**
The heat pipe - Its development, and its aerospace applications 05 p0015 A75-15054
The application of aerospace technology in the cryogenics field 06 p0048 A75-23239
Applications of aerospace technology in the electric power industry 06 p0079 N75-17197
- AEROSPACE ENVIRONMENTS**
The utilization of space as a source of energy for the earth 08 p0183 A75-45893
Nickel-cadmium cells [NASA-CR-143715] 07 p0128 N75-21792
Summary of high efficiency silicon solar cell meeting held at NASA-Lewis [NASA-TM-X-71729] 07 p0138 N75-23681
Natural environment design criteria for the Solar Electric Propulsion Stage (SEPS) [NASA-TM-X-64929] 07 p0138 N75-23682
- AEROSPACE INDUSTRY**
Technology application at Rockwell International 06 p0078 N75-17189
- AEROSPACE SCIENCES**
Research and technology operating plan summary: Fiscal year 1975 research and technology program --- space programs, energy technology, and aerospace sciences [NASA-TM-X-70410] 06 p0096 N75-20155
- AEROSPACE SYSTEMS**
Mission and organization of the DFVLR: Two years of integrated society of German aeronautical and space flight research [NASA-TT-F-16086] 05 p0035 N75-13882
Transfer of space technology to industry 06 p0078 N75-17195
- AGRICULTURE**
Solar stills for agricultural purposes 07 p0115 A75-33972
Fuel as an agricultural crop 08 p0172 A75-42533
Energy and fixed nitrogen from agricultural residues [BNWL-SA-5070] 06 p0103 N75-20874
Economic impact of shortages on the fertilizer industry [PB-240418/4] 08 p0204 N75-29953
- AIR CONDITIONING**
Energy carriers in space conditioning and automotive applications - A comparison of hydrogen, methane, methanol and electricity 05 p0005 A75-10540
Selection and evaluation of the University of Florida's solar powered absorption air conditioning system [ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
Assessment of Rankine cycle for potential application to solar-powered cooling of buildings [ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890
Simulation of a solar heating and cooling system --- for houses 06 p0048 A75-23018
Solar operation of ammonia-water multistage air conditioning cycles in the tropics 06 p0048 A75-23021

AIR CONDITIONING EQUIPMENT

SUBJECT INDEX

- Modeling of the CSU heating/cooling system --- Colorado State University solar house computer simulation 07 p0109 A75-29473
- Pilot solar air-conditioning plant and results of its use 07 p0111 A75-31512
- Technical and economic evaluation of solar heating and cooling of buildings 08 p0184 A75-45921
- Solar One, two years experience --- prototype home thermal and electrical system 08 p0184 A75-45922
- Operational experience - Solar heating a Boston school 08 p0184 A75-45923
- A large mechanical contracting corporation solar heats its own offices 08 p0184 A75-45924
- Solar heating and cooling of Army buildings 08 p0184 A75-45926
- An integrated solar heated and cooled mobile home 08 p0184 A75-45927
- Design and operation of a solar-powered turbocompressor air-conditioning and heating system 08 p0186 A75-45939
- Development of a 540-sq-ft prototype faceted fixed mirror solar concentrator 08 p0186 A75-45940
- Solar heating and cooling of buildings, phase 0. Volume 2: Final report [PB-235423/1] 05 p0042 N75-15190
- Solar heating and cooling of buildings, phase 0: Feasibility and planning study. Volume 3, book 1, appendix A, task 1: Development of requirements. Appendix B, task 2: Systems definition [PB-235433/0] 05 p0042 N75-15191
- Solar heating and cooling of buildings. Phase 0: Final report, volume 1 [PB-235427/2] 05 p0042 N75-15192
- Solar heating and cooling of buildings. Phase 0: Final report. Volume 2: Appendices A-N [PB-235428/0] 05 p0042 N75-15193
- Solar heating and cooling of buildings. Phase 0: Final report. Volume 3: Appendices O-Y [PB-235429/8] 05 p0042 N75-15194
- Solar heating and cooling of buildings. Phase 0: Final report. Executive summary [PB-235426/4] 05 p0042 N75-15195
- Solar heating and cooling of buildings. Phase 0: Feasibility and planning study. Volume 1: [PB-235431/4] 06 p0069 N75-16101
- Solar heating and cooling of buildings. Phase 0: Feasibility and planning study. Volume 2: Technical report [PB-235432/2] 06 p0069 N75-16102
- Solar heating and cooling of buildings, phase 0. Volume 3: Appendices [PB-235424/9] 06 p0070 N75-16103
- Solar heating and cooling of buildings, phase 0. Volume 1: Executive summary [PB-235422/3] 06 p0070 N75-16107
- Solar heating and cooling of buildings. Phase 0. Feasibility and planning study. Volume 3, book 2, appendix c, task 3: Assessment of capture potential. Appendix d, task 4: Social and environmental study [PB-235434/8] 06 p0070 N75-16108
- Air conditioning of office buildings with all-electric supply. Part 1: Technical conception [OA-TBANS-938-PT-1] 06 p0074 N75-16970
- Comparison of computer programs used for modeling solar heating and air conditioning systems for buildings [LBL-3066] 06 p0079 N75-17279
- Control system design and simulation for solar heated structures [LA-UR-74-1085] 06 p0082 N75-17813
- Solar heating and cooling of buildings study conducted for department of the Army. Volume 1: Executive summary and implementation plans [AD-A002576] 06 p0104 N75-20879
- Solar heating and cooling of buildings study conducted for Department of the Army. Volume 2: Technical report [AD-A002563] 06 p0104 N75-20880
- Feasibility demonstration of a solar powered turbocompressor air conditioning and heating system [PB-238570/6] 07 p0130 N75-21816
- Solar residential heating and cooling system development test program [NASA-TH-X-64924] 07 p0135 N75-22903
- Modeling of solar heating and air conditioning [PB-239189/4] 07 p0136 N75-22926
- Formulation of a data base for the analysis, evaluation and selection of a low temperature solar powered air conditioning system [PB-238683/7] 07 p0136 N75-22928
- Development of flat-plate solar collectors for the heating and cooling of buildings [NASA-CR-134804] 07 p0154 N75-26495
- Summary of NASA Lewis Research Center solar heating and cooling and wind energy programs [NASA-TH-X-71745] 07 p0154 N75-26497
- Solar heating and cooling experiment for a school in Atlanta [PB-240611/4] 07 p0155 N75-26510
- Design and test report for transportable solar laboratory program [PB-240609/8] 07 p0156 N75-26512
- Assessment of a single family residence solar heating system in a suburban development setting [PB-240784/9] 08 p0203 N75-29552
- Solar heating/cooling of buildings: Current building community projects [PB-241117/1] 08 p0205 N75-30668
- AIR CONDITIONING EQUIPMENT**
- A prototype solar powered, Rankine Cycle system providing residential air conditioning and electricity 05 p0004 A75-10523
- Solar air conditioning systems using Rankine power cycles - Design and test results of prototype three ton unit 07 p0117 A75-34931
- Modeling of solar absorption air conditioning 07 p0117 A75-34932
- The University of Florida solar powered intermittent ammonia/water absorption air conditioner 07 p0118 A75-34936
- Cooling with the sun's heat - Design considerations and test data for a Rankine Cycle prototype 08 p0167 A75-39409
- Solar absorption air conditioning alternatives 08 p0167 A75-39410
- Cooling a light industrial building in Puerto Rico using solar energy [ATAA PAPER 75-612] 08 p0170 A75-41178
- The annual cycle energy system --- winter ice for summer air conditioning 08 p0187 A75-45947
- AIR COOLING**
- Thermodynamics of multistage air-cooled gas turbine 06 p0050 A75-23817
- An ecologic solar heated and cooled home 07 p0118 A75-34937
- Workshop Proceedings on Solar Cooling for buildings, held in conjunction with the Semiannual Meeting of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) [PB-239419/5] 07 p0144 N75-24145
- AIR POLLUTION**
- Combustion R&D - Key to our energy future --- pollution reduction using hydrocarbon fuels 05 p0009 A75-10596
- Meteorological factors and dispersion of pollutants in the atmosphere - A preliminary study about a large power plant 06 p0045 A75-21150
- Trace elements by instrumental neutron activation analysis for pollution monitoring 08 p0166 A75-39335
- Utilization of hydrogen as an appliance fuel 08 p0178 A75-44794
- The EPA-Van - A clean energy system for the home --- mobile test station for nonpolluting systems 08 p0186 A75-45946
- Development of coal fired fluidized-bed boilers [PB-235899/2] 06 p0065 N75-15668
- Development of coal fired fluidized-bed boilers [PB-235898/4] 06 p0065 N75-15669

SUBJECT INDEX

AIRCRAFT ENGINES

- Reduction of atmospheric pollution by the application of fluidized-bed combustion [PB-235840/6] 06 p0072 N75-16151
- Compilation of air pollutant emission factors, second edition, supplement no. 3 --- fuel combustion and consumption [PB-235736/6] 06 p0073 N75-16152
- The action of EDF in the prevention of atmospheric pollution --- by expanding nuclear electric power generation [BLL-CE-TRANS-6500-(9022.09)] 06 p0083 N75-17833
- Study of industrial uses of energy relative to environmental effects [PB-237215/9] 06 p0084 N75-17853
- Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle [ORNL-NSP-EP-30] 06 p0090 N75-18769
- The bioenvironmental impact of air pollution from fossil-fuel power plants [PB-237720/8] 06 p0090 N75-18782
- Inspection and maintenance of light-duty gasoline powered motor vehicles: A guide for implementation --- emissions inspection program [PB-236587/2] 06 p0090 N75-18784
- Field surveillance and enforcement guide for petroleum refineries [PB-236669/8] 06 p0090 N75-18786
- The collaborative study of EPA methods, 5, 6, and 7 in fossil fuel-fired steam generators [PB-237695/2] 06 p0091 N75-18788
- Background information for standards of performance: Coal preparation plants. Volume 2: Summary and test data [PB-237696/0] 06 p0091 N75-18797
- Environmental aspects of methanol as vehicular fuel: Health and environmental effects [UCRL-76076] 06 p0095 N75-19867
- Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process [PB-237113/6] 06 p0095 N75-19879
- Changes in the global energy balance --- atmospheric composition and the effect of air pollution [PB-238075/6] 06 p0106 N75-20936
- Economic-environmental power dispatch 07 p0128 N75-21791
- Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis [PB-238879/1] 07 p0131 N75-22201
- Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment --- air pollution monitoring [NASA-CR-142823] 07 p0141 N75-24121
- Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Mansfield River site --- a proposed oil refinery site [NASA-CR-142821] 07 p0141 N75-24122
- Characterization of sulfur recovery from refinery fuel gas [PB-239777/6] 07 p0151 N75-25326
- Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment [PB-239582/0] 07 p0153 N75-26489
- Solids emission from power station furnaces --- industrial pollution control [BLL-CE-TRANS-6524-(9022.09)] 07 p0157 N75-26528
- Assessment of the potential of clean fuels and energy technology [PB-239970/7] 07 p0162 N75-27583
- Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination [PB-240492] 07 p0162 N75-27612
- Air pollution: Conference on Low Pollution Power Systems Development [PB-240564/5] 07 p0162 N75-27618
- Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines --- air pollution control [PB-240776/5] 07 p0162 N75-27619
- Report to Congress on control of sulfur oxides [PB-241021/5] 08 p0204 N75-29597
- Financial incentives and pollution control: A case study [PB-241479/5] 08 p0208 N75-31610
- Identification and characterization of the use of mixed conventional and waste fuels --- fuel consumption/air pollution [PB-241821/8] 08 p0211 N75-32606
- Evaluation of pollution control in fossil fuel conversion processes. Liquefaction: Section 2. SRC process [PB-241792/1] 08 p0212 N75-32627
- AIR QUALITY**
- The bioenvironmental impact of air pollution from fossil-fuel power plants [PB-237720/8] 06 p0090 N75-18782
- AIR TRANSPORTATION**
- Certain problems of fuel consumption in air transport 05 p0011 A75-11372
- Air transportation energy consumption - Yesterday, today, and tomorrow [AIAA PAPER 75-319] 06 p0047 A75-22515
- Lighter than air - A look at the past, a look at the possibilities 06 p0056 A75-25995
- The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978
- Hydrogen for the subsonic transport --- aircraft design and fuel requirements 08 p0178 A75-44791
- Transportation vehicle energy intensities. A joint DOT/NASA reference paper --- energy consumption of air and ground vehicles [NASA-TN-X-62404] 05 p0035 N75-13690
- AIRCRAFT CONTROL**
- Impact on aerodynamic design 06 p0075 N75-16982
- AIRCRAFT DESIGN**
- Next generation transports will emphasize fuel savings 05 p0011 A75-11426
- Fuel outlook dictating technical transport research 05 p0011 A75-11427
- Conceptual design of reduced energy transports [AIAA PAPER 75-303] 06 p0047 A75-22508
- 'Time is energy' /Henson and Stringfellow Memorial Lecture/ --- VTOL aircraft developments 07 p0112 A75-32324
- The Shell natural gas airship, and other L.T.A. activities by Aerospace Developments [AIAA PAPER 75-932] 07 p0121 A75-37008
- Design of short haul aircraft for fuel conservation [SAE PAPER 750587] 08 p0169 A75-40502
- Future hydrogen fueled commercial transports [SAE PAPER 750615] 08 p0169 A75-40521
- Hydrogen for the subsonic transport --- aircraft design and fuel requirements 08 p0178 A75-44791
- Weight contribution to fuel conservation for terminal area compatible aircraft [SAE PAPER 1091] 08 p0196 A75-47509
- Impact on aerodynamic design 06 p0075 N75-16982
- Future long-range transports: Prospects for improved fuel efficiency [NASA-TN-X-72659] 06 p0079 N75-17339
- Fuel conservation possibilities for terminal area compatible aircraft [NASA-CR-132608] 06 p0091 N75-19224
- AIRCRAFT ENGINES**
- Powerplant energy management --- transport aircraft engine thrust control [AIAA PAPER 74-1066] 05 p0001 A75-10259
- Gas turbine engines - A state-of-the-art review 05 p0009 A75-10840
- An engine project engineer's view of advanced secondary power systems [SAE PAPER 740884] 05 p0019 A75-16925
- Engine development program for the APL remotely piloted vehicle [AD-787507] 06 p0065 N75-15658

AIRCRAFT FUELS

SUBJECT INDEX

- Impact of future fuels on military aero-engines
06 p0075 N75-16981
- Preliminary study of advanced turbofans for low energy consumption [NASA-TM-X-71663] 06 p0084 N75-18241
- AIRCRAFT FUELS**
- The use of hydrogen in commercial aircraft - An assessment 05 p0006 A75-10542
- Alternative fuels for aviation 07 p0121 A75-36719
- Evaluation of the overall fuel mass penalty of an aircraft system 07 p0121 A75-36720
- The fuel scene and its impact on the economics of airline operations 08 p0165 A75-39018
- Fuel conservation possibilities for terminal area compatible transport aircraft [AIAA PAPER 75-1036] 08 p0171 A75-41698
- Aviation usage of liquid hydrogen fuel - Prospects and problems 08 p0172 A75-42282
- The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978
- Hydrogen for the subsonic transport --- aircraft design and fuel requirements 08 p0178 A75-44791
- Liquid hydrogen as a fuel for future commercial aircraft 08 p0178 A75-44792
- Air Force experience in the use of liquid hydrogen as an aircraft fuel 08 p0179 A75-44801
- Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge 08 p0195 A75-47081
- Liquid hydrogen - Fuel of the future --- for aircraft [SAWE PAPER 1065] 08 p0195 A75-47495
- The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development 06 p0075 N75-16977
- Alternative fuels for aviation 06 p0075 N75-16980
- Impact of future fuels on military aero-engines 06 p0075 N75-16981
- Impact on aerodynamic design 06 p0075 N75-16982
- United States transportation fuel economics (1975 - 1995) [NASA-TM-X-3197] 06 p0107 N75-21154
- Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137654] 07 p0134 N75-22901
- Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137653] 07 p0134 N75-22902
- The long term energy problem and aeronautics 08 p0202 N75-29012
- Fuel-conservative engine technology 08 p0206 N75-31074
- AIRCRAFT PARTS**
- F-15 secondary power systems [SAE PAPER 740885] 06 p0048 A75-22948
- AIRCRAFT PERFORMANCE**
- Rating aircraft on energy 05 p0015 A75-14346
- Extended energy management methods for flight performance optimization [AIAA PAPER 75-30] 05 p0021 A75-18269
- Floating vs flying - A propulsion energy comparison 06 p0056 A75-25987
- Evaluation of the overall fuel mass penalty of an aircraft system 07 p0121 A75-36720
- AIRCRAFT STABILITY**
- Impact on aerodynamic design 06 p0075 N75-16982
- AIRFOILS**
- A wind energy conversion system based on the tracked-vehicle airfoil concept 05 p0004 A75-10518
- AIRLINE OPERATIONS**
- The fuel scene and its impact on the economics of airline operations 08 p0165 A75-39018
- Fuel conservation possibilities for terminal area compatible transport aircraft [AIAA PAPER 75-1036] 08 p0171 A75-41698
- AIRSHIPS**
- Floating vs flying - A propulsion energy comparison 06 p0056 A75-25987
- Lighter than air - A look at the past, a look at the possibilities 06 p0056 A75-25995
- A non-polluting powerplant for large airships [AIAA PAPER 75-927] 07 p0121 A75-37005
- The Shell natural gas airship, and other L.T.A. activities by Aerospace Developments [AIAA PAPER 75-932] 07 p0121 A75-37008
- AIRSPACE**
- Legal economic, and energy considerations in the use of underground space [PB-236755/5] 06 p0080 N75-17749
- ALABAMA**
- Degasification of the Mary Lee coalbed near Oak Grove, Jefferson County, Alabama, by vertical borehole in advance of mining [BM-RI-7968] 05 p0028 N75-11462
- Petroleum in Alabama --- including exploration, production, and economics [PB-237353/8] 06 p0085 N75-18442
- Coal in Alabama [PB-236583/1] 06 p0088 N75-18736
- Natural gas in Alabama [PB-236582/3] 06 p0088 N75-18737
- ALASKA**
- The effect of Alaskan crude oil and selected hydrocarbon compounds on embryonic development of the Pacific oyster, *Crassostrea gigas* 06 p0090 N75-18764
- The potential for developing Alaskan coals for clean export fuels, phase 1 [PB-238539/1] 07 p0127 N75-21786
- ALKALI HALIDES**
- Corrosion studies of materials for auxiliary equipment in MHD power plants 06 p0055 A75-24384
- ALKALINE BATTERIES**
- Porous matrix structures for alkaline electrolyte fuel cells 07 p0123 A75-37243
- ALLOCATIONS**
- Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority [GPO-32-403] 05 p0026 N75-10859
- Oversight: Mandatory petroleum allocation programs, part 1 [GPO-30-060] 05 p0039 N75-15158
- Oversight: Mandatory petroleum allocation programs, part 2 [GPO-31-519] 05 p0039 N75-15159
- Fuel availability and allocation in the United States [GPO-31-711] 06 p0067 N75-16081
- Electrical energy allocations at Navy and Marine Corps bases [AD-A009821] 08 p0211 N75-32598
- ALTERNATING CURRENT**
- An assessment of the applicability of high voltage AC circuit breakers to inductive energy storage 08 p0206 N75-31341
- ALUMINUM COMPOUNDS**
- High-efficiency graded band-gap Al_xGa_{1-x}As-GaAs solar cell 06 p0058 A75-27519
- ALUMINUM NITRIDES**
- Aluminum nitride and silicon nitride for high-temperature vehicular gas turbine engines 05 p0011 A75-11362
- AMMONIA**
- The economics of the production of liquid fuel and fertilizer by the fixation of atmospheric carbon and nitrogen using nuclear power 08 p0191 A75-46001
- Low to high temperature energy conversion system --- using ammonia [NASA-CASE-NPO-13510-1] 06 p0074 N75-16972

SUBJECT INDEX

AUTOMOBILE ENGINES

- Solar kine: Answer to the agricultural energy challenge of our time 06 p0086 N75-18721
- ANISOTROPIC MEDIA**
Metals and composites in superflywheel energy storage systems 06 p0047 A75-22523
- ANNUAL VARIATIONS**
The annual cycle energy system --- winter ice for summer air conditioning 08 p0187 A75-45947
- ANTARCTIC REGIONS**
Exploration of Antarctica: Past and present [BLL-M-23343-(5828.4F)] 06 p0080 N75-17722
- ANTIKNOCK ADDITIVES**
Limit lead in gasoline [GPO-29-660] 05 p0023 N75-10259
Impact of motor gasoline lead additive regulations on petroleum refineries and energy resources, 1974-1980, phase 1 [PB-234185/7] 05 p0025 N75-10601
Hydrocarbon power fuel from the gasoline boiling range --- antiknock additives [NASA-TT-P-16399] 07 p0147 N75-24957
- ANTIREFLECTION COATINGS**
High efficiency silicon solar cells 06 p0052 A75-24217
Thin film coatings in solar-thermal power systems 06 p0056 A75-25679
A 15% efficient antireflection-coated metal-oxide-semiconductor solar cell 07 p0119 A75-36275
Principles and applications of selective solar coatings 08 p0181 A75-45511
Optical coatings for collection and conservation of solar energy 08 p0181 A75-45512
A comparison of the COMSAT violet and non-reflective cells 08 p0192 A75-46015
Indium tin oxide-coated silicon as a selective absorber --- for solar radiation 08 p0195 A75-46951
- AQUIPERS**
Steady state free convection in an unconfined geothermal reservoir 05 p0009 A75-11069
- ARCHITECTURE**
Space and energy conservation housing prototype unit development [NASA-CR-143201] 07 p0160 N75-27567
- ARCTIC REGIONS**
A heat pump powered by natural thermal gradients 05 p0006 A75-10550
Improving the oil storage system of western Siberia [AD-A002717] 06 p0092 N75-19705
Submarine tanker concepts and problems [COM-75-10009/9] 07 p0132 N75-22264
- ARID LANDS**
Solar powered pump [NASA-CASE-NPO-13567-1] 07 p0133 N75-22746
The impact of energy development on water resources in arid lands. Literature review and annotated bibliography [PB-240008/3] 07 p0157 N75-26550
- ARMED FORCES (UNITED STATES)**
Projected regional energy availability in 1985 [AD-A008938] 08 p0205 N75-30659
- ARRAYS**
Summary of results of solar power arrays for the concentration of energy study [PB-238003/8] 06 p0089 N75-18756
- ASYMMETRY**
Design analysis of asymmetric solar receivers [SAND-74-0124] 06 p0076 N75-16986
- ATLANTIC OCEAN**
Energy exchange at the surface of the western North Atlantic Ocean [AD-A007296] 07 p0146 N75-24285
Atlantic outer continental shelf energy resources: An economic analysis [COM-75-10330/9] 07 p0152 N75-26484
- ATMOSPHERIC COMPOSITION**
Changes in the global energy balance --- atmospheric composition and the effect of air pollution [PB-238075/6] 06 p0106 N75-20936
- ATMOSPHERIC DIFFUSION**
Meteorological factors and dispersion of pollutants in the atmosphere - A preliminary study about a large power plant 06 p0045 A75-21150
- ATMOSPHERIC ENERGY SOURCES**
The economics of the production of liquid fuel and fertilizer by the fixation of atmospheric carbon and nitrogen using nuclear power 08 p0191 A75-46001
- ATMOSPHERIC HEATING**
Interaction between the fuel-energy complex and the environment 07 p0110 A75-29800
- ATMOSPHERIC TURBULENCE**
The effect of atmospheric turbulence on windmill performance 08 p0174 A75-44756
- ATOM CONCENTRATION**
Hydrogen distribution profiling --- embrittlement of storage vessel surfaces 08 p0179 A75-44805
- ATS 6**
The ATS-6 power system - An optimized design for maximum power source utilization 08 p0192 A75-46017
Cost competitiveness of a solar cell array power source for ATS-6 educational TV terminal [NASA-TM-X-71720] 07 p0140 N75-24110
- ATTITUDE CONTROL**
French activity in electric propulsion 07 p0120 A75-36539
Design and test of a flywheel energy storage unit for spacecraft application 08 p0193 A75-46028
- AUTOCLAVING**
Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments [PB-236305/9] 05 p0040 N75-15169
- AUTOMATIC CONTROL**
Fundamentals of automatic control of space nuclear power plants --- Russian book 06 p0048 A75-23229
- AUTOMATIC TEST EQUIPMENT**
Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage 07 p0125 A75-38648
- AUTOMOBILE ACCIDENTS**
Study on the effects of the energy crisis and 55 mph speed limit in Michigan [PB-241843/2] 08 p0212 N75-33499
- AUTOMOBILE ENGINES**
Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline 05 p0008 A75-10574
Liquid hydrogen as an automotive fuel 06 p0048 A75-23238
Methanol as fuel for vehicle engines 06 p0050 A75-23506
Methane gas engines for commercial vehicles and busses 06 p0050 A75-23507
The Stirling engine for vehicle propulsion 06 p0050 A75-23509
Automotive hydrogen engines, and onboard storage methods 08 p0172 A75-42284
State of the art and prospects for electric vehicles [BLL-OA-TRANS-1250-(6196.3)] 06 p0074 N75-16712
Inspection and maintenance of light-duty gasoline powered motor vehicles: A guide for implementation --- emissions inspection program [PB-236587/2] 06 p0090 N75-18784
- A study of technological improvements in automotive fuel consumption. Volume 1: Executive summary [PB-238693/6] 07 p0132 N75-22481**
- A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion [PB-238694/4] 07 p0132 N75-22482**
- A study of technological improvements in automobile fuel consumption. Volume 3A: Appendixes 1 - 111 [PB-238695/1] 07 p0133 N75-22483**

AUTOMOBILE FUELS

SUBJECT INDEX

A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7 [PB-238696/9] 07 p0133 N75-22484

The role for Federal R and D on alternative automotive power systems [PB-238771/0] 07 p0137 N75-23391

The oxidation of ethylene in automotive engine exhaust gas; an experimental investigation 07 p0138 N75-23719

Aerodynamic design of a free power turbine for a 75 KW gas turbine automotive engine [NASA-TM-X-71714] 07 p0140 N75-24106

Air pollution: Conference on Low Pollution Power Systems Development [PB-240564/5] 07 p0162 N75-27618

Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines --- air pollution control [PB-240776/5] 07 p0162 N75-27619

Increased fuel economy in transportation systems by use of energy management. Volume 1: General results and discussion [PB-240220/4] 07 p0163 N75-27970

Contribution to the improvement of the regulating process of ignition controlled engines [PUBL-165] 08 p0206 N75-31285

Study of potential for motor vehicle fuel economy improvement. Fuel economy test procedure panel report no. 6 [PB-241776/4] 08 p0210 N75-32470

Study of potential for motor vehicle fuel economy improvement. Technology panel report no. 4 [PB-241774/9] 08 p0210 N75-32471

AUTOMOBILE FUELS

Some LNG vehicle developments --- for automotive conversion systems and fueling stations 06 p0048 A75-23236

Feasibility study of alternative fuels for automotive transportation. Volume 1: Executive summary [PB-235581/6] 05 p0041 N75-15187

Feasibility study of alternative fuels for automotive transportation. Volume 2: Technical section [PB-235582/4] 05 p0041 N75-15188

Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices [PB-235583/2] 05 p0041 N75-15189

Development of high specific energy batteries for electric vehicles [ANL-8058] 06 p0076 N75-16990

Environmental aspects of methanol as vehicular fuel: Health and environmental effects [UCRL-76076] 06 p0095 N75-19867

Synthetic fuels for ground transportation with special emphasis on hydrogen [NASA-TM-X-72652] 06 p0103 N75-20868

AUTOMOBILES

Energy carriers in space conditioning and automotive applications - A comparison of hydrogen, methane, methanol and electricity 05 p0005 A75-10540

Energy efficiency of current intercity passenger transportation modes [AIAA PAPER 75-314] 06 p0047 A75-22513

Time factors in slowing down the rate of growth of demand for primary energy in the United States 06 p0059 A75-27780

Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651] 05 p0030 N75-12441

Transportation vehicle energy intensities. A joint DOT/NASA reference paper --- energy consumption of air and ground vehicles [NASA-TM-X-62404] 05 p0035 N75-13690

Analytical description of the modern steam automobile [NASA-TM-X-72199] 05 p0035 N75-14134

Caltech seminar series on energy consumption in private transportation [PB-235348/0] 05 p0040 N75-15179

Caltech seminar series on energy consumption in private transportation: Administrative summary [PB-235349/8] 05 p0041 N75-15184

High energy battery program at Argonne National Laboratory [ANL-8064] 06 p0076 N75-16984

Development of lithium/sulfur cells for application to electric automobiles [CONF-740805-7] 06 p0094 N75-19829

Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report [PB-238877/5] 07 p0131 N75-22199

Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections [PB-238878/3] 07 p0131 N75-22200

Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis [PB-238879/1] 07 p0131 N75-22201

Technological improvements to automobile fuel consumption. Volume 1: Executive summary [PB-238677/9] 07 p0132 N75-22478

Technological improvements to automobile fuel consumption. Volume 2A: Sections 1 through 23 [PB-238678/7] 07 p0132 N75-22479

Technological improvements to automobile fuel consumption. Volume 2B: Sections 24 and 25 and appendixes A through I [PB-238679/5] 07 p0132 N75-22480

Nickel-zinc batteries for hybrid vehicle operation [PB-239710/7] 07 p0156 N75-26514

Study of potential for motor vehicle fuel economy improvement. Safety implications panel report no. 2 [PB-241772/3] 08 p0212 N75-33410

AUXILIARY POWER SOURCES

Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc [ASHE PAPER 74-WA/ENER-6] 05 p0016 A75-16838

An engine project engineer's view of advanced secondary power systems [SAE PAPER 740884] 05 p0019 A75-16925

P-15 secondary power systems [SAE PAPER 740885] 06 p0048 A75-22948

AXIAL FLOW PUMPS

Solar sea power --- axial flow pumps [PB-236997/3] 06 p0082 N75-17821

AXIAL FLOW TURBINES

Aerodynamic design of a free power turbine for a 75 KW gas turbine automotive engine [NASA-TM-X-71714] 07 p0140 N75-24106

Ocean thermal difference power plant turbine design [PB-239371/8] 07 p0150 N75-25318

B

BACKFIRE

Backfire control techniques for hydrogen-fueled internal combustion engines 08 p0178 A75-44789

BACTERIA

The utilization of solar energy for hydrogen production by cell-free system of photosynthetic organisms 08 p0176 A75-44770

BARIUM TITANATES

Dielectric power conversion 08 p0189 A75-45979

BEDROCK

Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544

BEDS (PROCESS ENGINEERING)

Gasification of solid wastes in fixed beds [ASHE PAPER 74-WA/PWR-10] 05 p0018 A75-16882

BERNARD CELLS

Natural convection in enclosed spaces - A review of application to solar energy collection [ASHE PAPER 74-WA/HT-12] 05 p0017 A75-16860

BETA PARTICLES

Advanced betavoltaic power sources 05 p0007 A75-10563

BIBLIOGRAPHIES

Coal processing: Gasification, liquefaction, desulfurization: A bibliography, 1930 - 1974 [TID-3349] 05 p0023 N75-10578

NSF-Bann energy abstracts: A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-1] 05 p0024 N75-10592

- Hydrogen future fuel: A literature survey issued quarterly, issue no: 6 --- bibliographies
05 p0027 N75-11110
- NSF-RANN energy abstracts. A monthly abstract journal of energy research, volume 2, no. 4 [ORNL-EIS-74-52-VOL-2-4] 05 p0029 N75-11469
- The gasification of coal: A bibliography [PB-234294/7] 05 p0034 N75-13400
- Coal petrography and petrology. A bibliography 1964 - 1973
[PB-236351/3] 06 p0072 N75-16123
- Development of a process for producing an ashless low sulfur fuel from coal. Volume 4. Product studies. Part 2: Annotated bibliography on mineral fiber production from coal minerals [PB-237763/8] 06 p0095 N75-19839
- Solar energy: A bibliography [TID-3351] 06 p0103 N75-20871
- NSF-RANN energy abstracts. A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-6] 07 p0146 N75-24532
- Mineral resources and the environment. Appendix to section 4: Report of panel on demand for fuel and mineral resources [PB-239583/8] 07 p0153 N75-26490
- Hydrogen-future fuel-A bibliography (with emphasis on cryogenic technology) [COM-75-10289/7] 07 p0155 N75-26509
- Energy: An annotated bibliography [NASA-TM-X-66766] 07 p0159 N75-27557
- Energy: An annotated bibliography [NASA-TM-X-72433] 07 p0159 N75-27558
- Energy conversion [AD-A009600] 08 p0208 N75-31580
- BINARY MIXTURES**
Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle [ORNL-NSF-EP-30] 06 p0090 N75-18769
- BIOCHEMICAL FUEL CELLS**
The introduction of the principles of biological energy supply in future technical systems 06 p0050 A75-23511
- Photoproduction of hydrogen via microbial and biochemical processes 08 p0171 A75-42279
- BIOMASS ENERGY PRODUCTION**
Energy from agriculture --- biomass energy conversion 08 p0191 A75-46000
- BOILERS**
Theoretical determination of the temperature in a solar water heater /steady state/ 07 p0112 A75-31513
- Application of rocket engine technology to energy 08 p0185 A75-45933
- Solar thermal subsystem specification study [PB-238005/3] 06 p0083 N75-17829
- Survey of gas and oil burners for use with NSF/RANN-ORNL potassium boiler [ORNL-NSF-EP-45] 06 p0087 N75-18728
- Where the boilers are: A survey of electric utility boilers with potential capacity for burning solid waste as fuel [PB-239392/4] 07 p0143 N75-24135
- Conference proceedings, Steam Power Plant Workshop [PB-239514/3] 07 p0144 N75-24148
- Solar energy for process steam generation [PB-238109/3] 07 p0145 N75-24154
- BOROSILICATE GLASS**
Glass-Si heterojunction solar cells [PB-239282/7] 07 p0145 N75-24156
- BOUNDARY VALUE PROBLEMS**
Effect of inhomogeneity of conductivity on end effect in a sectional MHD generator 07 p0119 A75-36233
- BRAYTON CYCLE**
Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/ 08 p0193 A75-46019
- BREEDER REACTORS**
Optimization of fusion power density in the two-energy-component tokamak reactor 07 p0124 A75-37836
- The UF₆ Breeder - A solution to the problems of nuclear power 08 p0187 A75-45951
- Clinch River Breeder Reactor: A combined power and fuel source [CONF-740609-4] 05 p0038 N75-14593
- BRINES**
Materials screening program for the LLL geothermal project [UCRL-75353] 06 p0082 N75-17815
- BROMIDES**
Study on parameter variations for solar powered lithium bromide absorption cooling 08 p0186 A75-45938
- BUBBLES**
Investigation of bubble formation in arteries of gas-controlled heat pipes [AIAA PAPER 75-655] 07 p0114 A75-32913
- BUILDINGS**
Solar heating and cooling of buildings 06 p0059 A75-27783
- Cooling by solar heat --- heating and cooling system for buildings [AIAA PAPER 75-609] 06 p0062 A75-28590
- Solar heating and cooling 07 p0111 A75-31269
- Energy, environment and building --- Book 07 p0111 A75-31448
- Solar energy and architecture 07 p0112 A75-31698
- Heating buildings with solar energy 07 p0117 A75-34933
- Retrofitting existing housing for energy conservation: An economic analysis [COM-75-50049/6] 07 p0135 N75-22914
- Energy conservation: A case study for a large manufacturing plant [PB-239302/3] 07 p0151 N75-25323
- Development of flat-plate solar collectors for the heating and cooling of buildings [NASA-CR-134804] 07 p0154 N75-26495
- Residential energy consumption and small scale options of energy systems for space heating [PB-239941/8] 07 p0154 N75-26501
- Proceedings of the Conference on Energy Conservation in Commercial, Residential and Industrial Buildings [PB-240306/1] 08 p0200 N75-28539
- BURNERS**
Oxides of nitrogen control techniques for appliance conversion to hydrogen fuel 05 p0006 A75-10541
- Design installation and operation of a 25 ton-a-day coal gasification process development unit for the agglomerating burner-gasification [PB-237625/9] 06 p0087 N75-18734
- Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines --- air pollution control [PB-240776/5] 07 p0162 N75-27619

C

- CADMIUM COMPOUNDS**
Research on cadmium stannate selective optical films for solar energy applications [PB-236208/5] 06 p0071 N75-16117
- CADMIUM SELENIDES**
Efficient CuInSe₂/CdS solar cells 07 p0119 A75-36274
- CADMIUM SULFIDES**
CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- Progress in the development of cadmium sulphide terrestrial solar batteries 06 p0052 A75-24224
- Further progress in the technology of silk screened CdS solar cells 06 p0052 A75-24225
- Development of very low cost solar cells for terrestrial power generation 06 p0052 A75-24226
- Solar cells for power generation on communication satellites 08 p0174 A75-44005
- CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- Direct solar energy conversion for large scale terrestrial use [PB-236193/9] 06 p0071 N75-16115

CALIBRATING

SUBJECT INDEX

- Environmental aspects of cadmium sulfide usage in solar energy conversion. Part 1: Toxicological and environmental health considerations, a bibliography [PB-238285/1] 06 p0105 N75-20884
- CALIBRATING**
A technique for calibrating photometric curves obtained in solar concentrator tests 08 p0180 A75-45060
- CALIFORNIA**
Electricity conservation measures in the commercial sector: The Los Angeles experience [R-1592-PEA] 05 p0034 N75-13388
California energy workshop: Developing a plan of action to meet the energy crisis in California --- oil recovery, nuclear electric power generation, and offshore energy sources [PB-237045/0] 06 p0082 N75-17822
Meeting California's energy requirements, 1975 - 2000 07 p0149 N75-25297
- CALORIMETERS**
Method of calibrating a solar power plant with a paraboloidal mirror 07 p0116 A75-34315
- CANADA**
A review of the status of MHD power generation technology including suggestions for a Canadian MHD research program [UTIAS-39] 05 p0035 N75-13641
Conservation in Alberta, 1973 07 p0158 N75-27532
- CAPACITORS**
Dielectric power conversion 08 p0189 A75-45979
- CAPILLARY FLOW**
An investigation of heat-pipe wick characteristics 05 p0012 A75-12914
Capillary flow through heat-pipe wicks [AIAA PAPER 75-661] 07 p0114 A75-32919
- CARBON DIOXIDE**
Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment [PB-239582/0] 07 p0153 N75-26489
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process [PB-241141/1] 08 p0204 N75-29596
- CARBON DIOXIDE LASERS**
Interferometric tuning of a 15-atm CO2 laser 06 p0058 A75-27518
Conversion of electrical energy into laser radiation energy in high pressure mixtures of molecular gases 07 p0133 N75-22722
- CARBON 12**
Carbon isotopes in oil-gas geology [NASA-TT-F-682] 07 p0160 N75-27563
- CARBON 13**
Carbon isotopes in oil-gas geology [NASA-TT-F-682] 07 p0160 N75-27563
- CARBONATES**
Determination of carbonate minerals of Green River formation oil shales, Piceance Creek Basin, Colorado [PB-240669/2] 07 p0159 N75-27554
- CARDIOVASCULAR SYSTEM**
Development and evaluation of a Stirling-Cycle energy conversion system [PB-239086/2] 07 p0136 N75-22918
- CARGO SHIPS**
Fuel conservation in ship operations [CON-75-10466/1] 08 p0202 N75-29270
- CARNOT CYCLE**
A heat pump powered by natural thermal gradients 05 p0006 A75-10550
A generalization of the Carnot theorem - The theorem of useful power 06 p0057 A75-26448
- CARRIER INJECTION**
Silicon solar cells for highly concentrated sunlight 07 p0120 A75-36363
- CATALYSIS**
Utilization of hydrogen as an appliance fuel 08 p0178 A75-44794
- Proceedings of the Workshop on Needs for Fundamental Research in Catalysis as Related to the Energy Problem [PB-236683/9] 06 p0078 N75-17006
- CATALYSTS**
Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795
Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems [PB-240177/6] 08 p0200 N75-28524
- CELL ANODES**
Predicted energy densities for nickel-hydrogen and silver-hydrogen cells embodying metallic hydrides for hydrogen storage 05 p0008 A75-10572
- CELLULOSE**
Conversion of cellulosic wastes to oil [PB-240839/1] 07 p0161 N75-27572
Converting cellulosic waste to fuel: A literature review [AD-A009400] 08 p0211 N75-32596
- CEMENTS**
Industrial energy study of the hydraulic cement industry [PB-237142/5] 06 p0087 N75-18730
- CERAMICS**
Aluminum nitride and silicon nitride for high-temperature vehicular gas turbine engines 05 p0011 A75-11362
Recuperator development trends for future high temperature gas turbines --- heat exchanger design [ASME PAPER 75-GT-50] 07 p0116 A75-34607
Progress of ISL research on energy conversion in ferroelectric ceramics of the type Pb(Zr_{1-x}Ti_x)O₃ [ISL-29/74] 08 p0208 N75-31910
- CESIUM ENGINES**
French activity in electric propulsion 07 p0120 A75-36539
- CESIUM PLASMA**
MHD energy conversion systems [AIAA PAPER 74-1071] 05 p0001 A75-10263
Empirical method of designing the current-voltage characteristics for the discharge mode of a thermionic converter 06 p0057 A75-26332
- CESIUM VAPOR**
Collector work function improvements and the development of low temperature thermionic converters 08 p0188 A75-45960
Electric power generation system directory from laser power [NASA-CASE-WPO-13308-1] 08 p0204 N75-30524
- CHANNEL FLOW**
Recent MHD generator testing at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-7] 05 p0016 A75-16839
Investigation of the optimal MHD-generator characteristics for combinational open-cycle MHD power generators --- using one dimensional channel flow model 07 p0119 A75-36260
- CHARCOAL**
Coal processing by electrofluids [PB-236588/0] 06 p0088 N75-18743
- CHEMICAL ANALYSIS**
Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage 07 p0125 A75-38648
Report to congress on petrochemicals --- analyzing supply/demand in industry [PB-238064/0] 06 p0097 N75-20478
Coal structure and reactivity [TID-26637] 06 p0097 N75-20805
Chemistry of organic sulfur compounds contained in petroleum and petroleum products, Volume 7 [TT-70-57759] 07 p0138 N75-23691
The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 N75-25327
- CHEMICAL COMPOSITION**
Waste lubricating oil research. A comparison of bench-test properties of re-refined and virgin lubricating oils --- materials recovery [PB-238124/2] 06 p0097 N75-20746

- Dependence of coal liquefaction behavior on coal characteristics
[PB-238522/7] 07 p0130 N75-21812
- The identification of gamma-valerolactone in waste from an oil-shale in situ retort --- determination of chemical composition by mass spectroscopy of effluents from crude oil shales causing water pollution
[PB-240098/4] 07 p0147 N75-24852
- CHEMICAL ENERGY**
Closed loop chemical systems for energy transmission, conversion and storage
05 p0005 A75-10538
- Energy supply in a closed cycle --- nuclear energy for nonelectrical use
06 p0049 A75-23503
- Solar tower thermo-chemical energy cycles
08 p0171 A75-42277
- Chemical to electromagnetic energy conversion techniques --- explosive flux compression technology
[Ad-783901] 05 p0026 N75-10609
- CHEMICAL ENGINEERING**
On methods for the large-scale production of hydrogen from water
08 p0176 A75-44773
- Analysis of thermochemical water-splitting cycles --- energy efficiency evaluation
08 p0177 A75-44781
- Applications of fusion power technology to the chemical industry
[BUL-18815] 05 p0029 N75-11730
- Data base for the industrial energy study of the industrial chemicals group
[PB-237845/3] 06 p0087 N75-18732
- CHEMICAL EXPLOSIONS**
A practical model law for chemical explosive fracture of oil shale
06 p0078 N75-17023
- CHEMICAL FUELS**
Prospects and scientific problems of the utilization of methods of direct electric power generation from chemical fuels /fuel cells/
05 p0012 A75-12911
- Methanol as fuel for vehicle engines
06 p0050 A75-23506
- Sources and methods for methanol production
08 p0180 A75-44816
- Utilization of plasma exhaust energy for fuel production
[COO-3028-7] 05 p0028 N75-11465
- CHEMICAL PROPULSION**
Propulsion technology needs for advanced space transportation systems
[AIAA PAPER 75-1246] 08 p0182 A75-45656
- CHEMICAL REACTIONS**
Efficiencies of electrolytic and thermochemical hydrogen production
06 p0045 A75-20300
- Recommended research program in geothermal chemistry
[WASH-1344] 06 p0077 N75-16997
- CHEMICALS**
Industrial energy study of the Industrial chemicals group
[PB-236322/4] 06 p0071 N75-16111
- CHROMIUM ALLOYS**
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys
[LBL-2764] 06 p0066 N75-15781
- CIRCUIT BREAKERS**
An assessment of the applicability of high voltage AC circuit breakers to inductive energy storage
08 p0206 N75-31341
- CITIES**
Net radiation and other energy-related maps from remotely sensed imagery
07 p0121 A75-36811
- CIVIL AVIATION**
Total energy use for commercial aviation in the US
[ORNL-NSF-EP-68] 05 p0023 N75-10039
- CLEAN ENERGY**
Coal-gas combustion in industrial gas turbines
[AIAA PAPER 74-1114] 05 p0010 A75-11286
- Progress in coal gasification
05 p0013 A75-12993
- Tidal power and its integration into the electric system
05 p0013 A75-12994
- Coal gasification - A review of status and technology
06 p0059 A75-27781
- Shale from oil shale economically
08 p0168 A75-40182
- The utilization of space as a source of energy for the earth
08 p0183 A75-45893
- The EPA-Van - A clean energy system for the home --- mobile test station for nonpolluting systems
08 p0186 A75-45946
- Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes
08 p0187 A75-45950
- Evaluation of coal conversion processes to provide clean fuels, part 1 --- coal conversion to clean fuels
[PB-234202/0] 05 p0025 N75-10600
- Clean power generation from coal
[PB-234188/1] 05 p0035 N75-13401
- Conference proceedings: Power Generation-Clean Fuels Today
[PB-237661/4] 06 p0087 N75-18735
- Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report
[PB-238877/5] 07 p0131 N75-22199
- Assessment of the potential of clean fuels and energy technology
[PB-239970/7] 07 p0162 N75-27583
- CLIMATOLOGY**
Interaction between the fuel-energy complex and the environment
07 p0110 A75-29800
- Changes in the global energy balance --- atmospheric composition and the effect of air pollution
[PB-238075/6] 06 p0106 N75-20936
- CLOSED CYCLES**
An analysis of hydrogen production via closed-cycle schemes --- thermochemical processings from water
08 p0176 A75-44771
- Thermochemical hydrogen production research at Lawrence Livermore Laboratory
08 p0177 A75-44780
- Design study for a coal-fueled closed cycle gas turbine system for MHS applications --- Modular Integrated Utility System
08 p0187 A75-45948
- CLOUD COVER**
Determining potential solar power sites in western hemisphere ocean and land areas based upon satellite observations of cloud cover
07 p0118 A75-35461
- COAL**
Evaluation of coal conversion processes to provide clean fuels, part 1 --- coal conversion to clean fuels
[PB-234202/0] 05 p0025 N75-10600
- Evaluation of coal conversion processes to provide clean fuels, part 2
[PB-234203/8] 05 p0025 N75-10604
- Degasification of the Mary Lee coalbed near Oak Grove, Jefferson County, Alabama, by vertical borehole in advance of mining
[BH-RI-7968] 05 p0028 N75-11462
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments
[PB-236305/9] 05 p0040 N75-15169
- Development of coal fired fluidized-bed boilers
[PB-235899/2] 06 p0065 N75-15668
- Development of coal fired fluidized-bed boilers
[PB-235898/4] 06 p0065 N75-15669
- Energy conversion from coal utilizing CPU-400 technology
[PB-235817/4] 06 p0068 N75-16093
- Pollution-free electrochemical power generation from low grade coal
[PB-236162/4] 06 p0070 N75-16109
- Coal petrography and petrology. A bibliography 1964 - 1973
[PB-236351/3] 06 p0072 N75-16123
- Conceptual design of a heat pipe methanator --- conversion of synthesis coal gas to methane
[LA-5596] 06 p0074 N75-16774

COAL GASIFICATION

SUBJECT INDEX

- The reserve base of bituminous coal and anthracite for underground mining in the Eastern United States
 [PB-237815/6] 06 p0085 N75-18713
- Survey of gas and oil burners for use with NSF/RANN-ORNL potassium boiler
 [ORNL-NSF-EP-45] 06 p0087 N75-18728
- Coal in Alabama
 [PB-236583/1] 06 p0088 N75-18736
- Fuel and energy consumption in the coal industries
 [PB-237151/6] 06 p0088 N75-18744
- Methane in the Pittsburgh coalbed, Washington County, Pennsylvania
 [PB-237848/7] 06 p0089 N75-18760
- Background information for standards of performance: Coal preparation plants. Volume 2: Summary and test data
 [PB-237696/0] 06 p0091 N75-18797
- Intra industry capability to substitute fuels
 [PB-237605/1] 06 p0093 N75-19814
- Coal structure and reactivity
 [TID-26637] 06 p0097 N75-20805
- Regional economics: A subset of simulation of the effects of coal-fired power development in the four corners region
 06 p0107 N75-21153
- The potential for developing Alaskan coals for clean export fuels, phase 1
 [PB-238539/1] 07 p0127 N75-21786
- Coal combustion and desulfurization in a rotating fluidized bed reactor
 [BML-19308] 07 p0129 N75-21799
- The direct production of hydrocarbons from coal-steam systems
 [PB-239356/9] 07 p0138 N75-23740
- Design optimization in underground coal systems
 [PB-239075/5] 07 p0145 N75-24153
- Economic system analysis of coal preconversion technology
 [PB-239383/3] 07 p0151 N75-25325
- Methane emission from U.S. Coal mines in 1973, a survey
 [PB-240154/5] 07 p0152 N75-25354
- Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment
 [PB-239582/0] 07 p0153 N75-26489
- Mineral resources and the environment. Appendix to section 4: Report of panel on demand for fuel and mineral resources
 [PB-239583/8] 07 p0153 N75-26490
- Sulfur in coals
 [TT-70-57216] 07 p0155 N75-26503
- Refractory materials for coal-fueled MHD power generation
 [PB-239607/5] 07 p0157 N75-26524
- An analysis of constraints on increased coal production
 [PB-240613/0] 07 p0157 N75-26525
- The influence of the petrology of the Karagandin coals on their methane contents
 [BLL-BTS-9309] 07 p0158 N75-27511
- Determine utility of ERTS-1 to detect and monitor area strip mining and reclamation --- southeastern Ohio
 [E75-10327] 07 p0158 N75-27515
- COAL GASIFICATION**
- Coal-gas combustion in industrial gas turbines
 [AIAA PAPER 74-1114] 05 p0010 A75-11286
- Progress in coal gasification
 05 p0013 A75-12993
- Coal gasification by Atomics International's Rockgas process
 [ASME PAPER 74-WA/PWR-11] 05 p0018 A75-16883
- The production of gaseous energy carriers from fossil fuels
 06 p0049 A75-23502
- Hydrogen as energy carrier in industry and household
 06 p0049 A75-23505
- Application of thermodynamic and material- and energy-balance calculations to gasification processes
 06 p0055 A75-24785
- Coal gasification - A review of status and technology
 06 p0059 A75-27781
- The economics of coal-based synthetic gas
 08 p0168 A75-39925
- Coal processing: Gasification, liquefaction, desulfurization: A bibliography, 1930 - 1974
 [TID-3349] 05 p0023 N75-10578
- Preliminary evaluation of underground coal gasification at Hanna, Wyoming
 [BM-TPR-82] 05 p0025 N75-10599
- Char oil energy development
 [PB-233263/3] 05 p0025 N75-10603
- Process environment effects on heat pipes for fluid-bed gasification of coal
 [LA-UR-74-984] 05 p0029 N75-12252
- Evaluation of coal-gasification technology. Part 1: Pipeline-W quality gas
 [PB-234036/2] 05 p0034 N75-13396
- The gasification of coal: A bibliography
 [PB-234294/7] 05 p0034 N75-13400
- Evaluation of coal-gasification technology. Part 2: Low and intermediate BTU fuel gases
 [PB-234042/0] 05 p0036 N75-14273
- Application study of a nuclear coal solution gasification process for Oklahoma coal, volume 1
 [PB-236156/6] 05 p0037 N75-14279
- Revised cost estimate for the LLL in situ coal gasification concept
 [UCRL-51578] 05 p0039 N75-15166
- Bureau of Mines energy program, 1973 --- discovery and production of oil, gas, and fluid fuels
 [PB-234682/3] 05 p0040 N75-15172
- Char oil energy development
 [PB-234018/0] 05 p0040 N75-15173
- A process for cleaning and removal of sulfur compounds from low Btu gases --- coal gasification
 [PB-236522/9] 06 p0065 N75-15768
- Hydrogen as a fuel --- analysis of problems involved in generation, transportation, and utilization
 [AD-787484] 06 p0066 N75-15818
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 1: Market analysis
 [PB-236631/8] 06 p0071 N75-16113
- Low Btu gasification high temperature-low temperature H2S removal comparison effect on overall thermal efficiency in a combined cycle power plant
 [PB-235780/4] 06 p0072 N75-16125
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 2: Current and projected demand, supply and price of energy in the United States
 [PB-236632/6] 06 p0078 N75-17007
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 3: Current and projected demand, supply and price of energy in the United States, schedules
 [PB-236633/4] 06 p0078 N75-17008
- Coal refining
 [ORNL-TR-2827] 06 p0086 N75-18724
- Design installation and operation of a 25 ton-a-day coal gasification process development unit for the agglomerating burner-gasification
 [PB-237625/9] 06 p0087 N75-18734
- Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
 [PB-237116/9] 06 p0088 N75-18739
- Low-BTU gasification of coal for electric power generation
 [PB-236972/6] 06 p0088 N75-18740
- Coal processing by electrofluids
 [PB-236588/0] 06 p0088 N75-18743
- Advanced coal gasification system for electric power generation
 [PB-236971/8] 06 p0089 N75-18747
- Fracture-induced permeability: Present situation and prospects for coal
 [UCID-16593] 06 p0094 N75-19830
- A SASOL type process for gasoline, methanol, SHG, and low-Btu gas from coal
 [PB-237670/5] 06 p0095 N75-19838
- Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process
 [PB-237113/6] 06 p0095 N75-19879

- Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: Lurgi process
[PB-237694/5] 06 p0096 N75-19880
- Methodical approach to temperature and pressure measurements for in situ energy-recovery processes [UCID-16631] 06 p0097 N75-20693
- Acoustic array methods for instrumentation of in situ coal gasification [UCID-16591] 06 p0104 N75-20875
- Large diameter 300 PSI gasifier. Preliminary engineering report. Volume 1: Description [PB-238360/2] 06 p0105 N75-20889
- Liquid plugging in in situ coal gasification processes [UCRL-51686] 07 p0127 N75-21480
- Methyl alcohol production by in situ coal gasification [UCID-51600] 07 p0128 N75-21797
- Technical evaluation services, clean liquid and/or solid fuels from coal [PB-237216/7] 07 p0129 N75-21803
- Low-temperature evolution of hydrocarbon gases from coal [PB-238322/2] 07 p0139 N75-24074
- Hydrogen production from coal [NASA-CR-142816] 07 p0141 N75-24113
- Demonstration plant, clean boiler fuels from coal. Volume 3: Preliminary design/economics analysis [PB-238529/2] 07 p0142 N75-24127
- Technology and use of lignite [PB-238666/2] 07 p0142 N75-24131
- Symposium proceedings: Environmental Aspects of Fuel Conversion Technology [PB-238304/0] 07 p0145 N75-24179
- Mass spectrometric analysis of product water from coal gasification [PB-240835/9] 07 p0158 N75-27120
- Technological feasibility of alternative energy sources --- a discussion of coal gasification, geothermal energy, and shale oil [AD-A005549] 08 p0199 N75-28522
- Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process [PB-241141/1] 08 p0204 N75-29596
- Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants [PB-241672/5] 08 p0211 N75-32602
- COAL LIQUEFACTION**
- Coal processing: Gasification, liquefaction, desulfurization: A bibliography, 1930 - 1974 [TID-3349] 05 p0023 N75-10578
- Evaluation of coal-gasification technology. Part 2: Low and intermediate BTU fuel gases [PB-234042/0] 05 p0036 N75-14273
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments [PB-236305/9] 05 p0040 N75-15169
- Synthetic oil from coal [PB-234460/4] 05 p0040 N75-15176
- Pressurized fluidized bed combustion [PB-235591/5] 06 p0065 N75-15772
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 1: Market analysis [PB-236631/8] 06 p0071 N75-16113
- Use of methanol in transportation --- coal liquefaction methods [UCID-16528] 06 p0077 N75-16996
- Coal refining [ORNL-TR-2827] 06 p0086 N75-18724
- Development of a process for producing an ashless low sulfur fuel from coal. Volume 4. Product studies. Part 2. Annotated bibliography on mineral fiber production from coal minerals [PB-237763/8] 06 p0095 N75-19839
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 3 Products from coal minerals [PB-237764/6] 06 p0095 N75-19840
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 4. Sulfur removal from coal minerals [PB-237765/3] 06 p0095 N75-19841
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 5. Developmental and rate studies in processing of coal minerals [PB-237766/1] 06 p0095 N75-19842
- Dependence of coal liquefaction behavior on coal characteristics [PB-238522/7] 07 p0130 N75-21812
- Solvent refined coal studies [PB-238532/6] 07 p0134 N75-22897
- Low-temperature evolution of hydrocarbon gases from coal [PB-238322/2] 07 p0139 N75-24074
- Demonstration plant, clean boiler fuels from coal. Volume 3: Preliminary design/economics analysis [PB-238529/2] 07 p0142 N75-24127
- Technology and use of lignite [PB-238666/2] 07 p0142 N75-24131
- Symposium proceedings: Environmental Aspects of Fuel Conversion Technology [PB-238304/0] 07 p0145 N75-24179
- Preparation of gas turbine engine fuel from synthetic crude oil derived from coal [AD-A007923] 07 p0147 N75-24966
- The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 N75-25327
- Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COED process [PB-240371/5] 07 p0162 N75-27626
- Evaluation of pollution control in fossil fuel conversion processes. Liquefaction: Section 2. SRC process [PB-241792/1] 08 p0212 N75-32627
- COAL UTILIZATION**
- Small coal burning gas turbine for modular integrated utility systems 05 p0006 A75-10546
- The MHD power generation system with directly fired coal 05 p0009 A75-10577
- The economics of coal-based synthetic gas 08 p0168 A75-39925
- Design study for a coal-fueled closed cycle gas turbine system for MIUS applications --- Modular Integrated Utility System 08 p0187 A75-45948
- Conceptual design and economics of an MHD pilot plant 08 p0189 A75-45974
- The National Coal Conversion Act and the National Crude Oil Refinery Development Act [GPO-28-964] 05 p0027 N75-10861
- Clean power generation from coal [PB-234188/1] 05 p0035 N75-13401
- Energy conversion from coal utilizing CPU-400 technology [PB-237028/6] 06 p0083 N75-17828
- Coal refining [ORNL-TR-2827] 06 p0086 N75-18724
- Sulfur in coals [TT-70-57216] 07 p0155 N75-26503
- In situ combustion of coal for energy [PB-241892/9] 08 p0211 N75-32603
- COASTAL WATER**
- Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process [PB-236422/2] 06 p0077 N75-17003
- COATINGS**
- Solar selective surfaces made of semiconducting powders [ASME PAPER 74-WA/HT-13] 05 p0017 A75-16857
- Methodology of research of flat-plate solar collector absorptive coatings 07 p0117 A75-34935
- COAXIAL FLOW**
- Energy characteristics of coaxial plasma source [AD-787419] 06 p0073 N75-16368
- COLORADO**
- Economic impact of the oil shale industry in western Colorado [GPO-28-608] 05 p0024 N75-10588
- Primary data on economic activity and water use in prototype oil shale development areas of Colorado: An initial inquiry [PB-236039/4] 05 p0037 N75-14277

COMBUSTION

SUBJECT INDEX

- Determination of carbonate minerals of Green River formation oil shales, Piceance Creek Basin, Colorado
 [PB-240669/2] 07 p0159 N75-27554
- COMBUSTION**
- Development of coal fired fluidized-bed boilers
 [PB-235898/4] 06 p0065 N75-15669
- Energy conversion. 1: Non-propulsive aspects --- fuels and pyrotechnics
 [AD-A000077] 06 p0079 N75-17454
- An economic analysis of oil shale operations featuring gas combustion retorting
 [PB-237851/1] 06 p0093 N75-19813
- COMBUSTION CHAMBERS**
- Recent MHD generator testing at Avco Everett Research Laboratory, Inc
 [ASHE PAPER 74-WA/ENER-7] 05 p0016 A75-16839
- Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator
 06 p0045 A75-19959
- Survey of gas and oil burners for use with NSF/RANN-ORNL potassium boiler
 [ORNL-NSF-EP-45] 06 p0087 N75-18728
- COMBUSTION EFFICIENCY**
- Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline
 05 p0008 A75-10574
- Use of low grade solid fuels in gas turbines
 [ASHE PAPER 74-WA/ENER-5] 05 p0016 A75-16837
- Recuperator development trends for future high temperature gas turbines --- heat exchanger design
 [ASHE PAPER 75-GT-50] 07 p0116 A75-34607
- Experience in the first step of the mastery of the U-25 device
 06 p0081 N75-17793
- COMBUSTION PHYSICS**
- Combustion dynamics research for 'Project Independence'
 [AIAA PAPER 74-1069] 05 p0001 A75-10262
- Combustion R&D - Key to our energy future --- pollution reduction using hydrocarbon fuels
 05 p0009 A75-10596
- Pressurised fluidized bed combustion --- combustion physics, gas turbines
 [PB-236498/2] 06 p0065 N75-15769
- Impact of future fuels on military aero-engines
 06 p0075 N75-16981
- Summary report of workshop on Energy Related Basic Combustion Research
 [PB-236714/2] 06 p0079 N75-17456
- COMBUSTION PRODUCTS**
- The MHD power generation system with directly fired coal
 05 p0009 A75-10577
- Calculation of the electrical conductivity of the combustion products of the working medium in an open-cycle MHD generator
 07 p0112 A75-31568
- Compilation of air pollutant emission factors, second edition, supplement no. 3 --- fuel combustion and consumption
 [PB-235736/6] 06 p0073 N75-16152
- Impact of future fuels on military aero-engines
 06 p0075 N75-16981
- COMETS**
- Solar electric propulsion spacecraft power subsystem for an Encke comet rendezvous mission
 05 p0002 A75-10481
- COMMERCE**
- Elimination of duty on methanol imported for certain uses
 [H-REPT-93-998] 05 p0026 N75-10857
- Technology application at Rockwell International
 06 p0078 N75-17189
- Commerce today, volume 5, number 10 --- a discussion of international trade, economics, and energy conservation
 [COM-74-5094/10] 07 p0152 N75-25775
- COMMERCIAL AIRCRAFT**
- The use of hydrogen in commercial aircraft - An assessment
 05 p0006 A75-10542
- Next generation transports will emphasize fuel savings
 05 p0011 A75-11426
- Advanced subsonic transports - A challenge for the 1990's
 [AIAA PAPER 75-304] 06 p0049 A75-23251
- Future hydrogen fueled commercial transports
 [SAE PAPER 750615] 08 p0169 A75-40521
- Liquid hydrogen as a fuel for future commercial aircraft
 08 p0178 A75-44792
- Fuel conservation capability and effort by commercial air carriers
 [NASA-CR-137624] 05 p0039 N75-15157
- COMMERCIAL ENERGY**
- Hydrogen as energy carrier in industry and household
 06 p0049 A75-23505
- Methane gas engines for commercial vehicles and busses
 06 p0050 A75-23507
- Will superconducting magnetic energy storage be used on electric utility systems
 06 p0056 A75-25832
- Hydrogen sponge heat pump --- Carnot cycle system on lanthanum pentanickel
 08 p0194 A75-46035
- Energy use in the commercial and industrial sectors of the US economy, 1963
 [PB-235487/6] 06 p0070 N75-16104
- COMMUNICATION EQUIPMENT**
- Airborne windmills - Energy source for communication aerostats
 [AIAA PAPER 75-923] 08 p0165 A75-38868
- COMMUNICATION SATELLITES**
- A design parameter for assessing wicking capabilities of heat pipes
 [AIAA PAPER 74-1266] 05 p0010 A75-11107
- Latest developments of the circular solar array --- with deployment structure for central antenna communication satellite
 06 p0053 A75-24246
- Development of a flexible, fold-out solar array --- power to weight ratio for communication satellites
 06 p0053 A75-24252
- Solar cells for power generation on communication satellites
 08 p0174 A75-44005
- A comparison of the COMSAT violet and non-reflective cells
 08 p0192 A75-46015
- Economic radioisotope thermoelectric generator study program
 [IESD-3112-1] 05 p0036 N75-14269
- Economic radioisotope thermoelectric generator study program: Appendices.
 [IESD-3112-2] 05 p0036 N75-14270
- SENSE 2: Space applications of nuclear power. Volume 1: Commercial communications satellite
 [AEC-SNS-3063-3-VOL-1] 06 p0065 N75-15742
- Solar generator and power systems for communication satellites
 08 p0206 N75-31165
- COMMUNICATIONS TECHNOLOGY SATELLITE**
- Design and qualification of the CTS solar cell blanket --- onboard Canadian Communications Technology Satellite
 06 p0053 A75-24248
- COMPATIBILITY**
- Strontium fluoride research in heat source and compatibility tests --- waste utilization
 [BNWL-1845-2] 07 p0152 N75-25695
- COMPONENT RELIABILITY**
- The effect of sunshine testing on terrestrial solar cell system components
 07 p0123 A75-37396
- The effect of sunshine testing on terrestrial solar cell system components
 [NASA-TN-X-71722] 07 p0140 N75-24109
- COMPOSITE MATERIALS**
- Metals and composites in superflywheel energy storage systems
 06 p0047 A75-22523
- Low thermal flux glass-fiber/metal vessels for LH2 storage systems
 08 p0177 A75-44783
- Study of the costs and benefits of composite materials in advanced turbofan engines
 [NASA-CR-134696] 06 p0073 N75-16637
- Flywheel energy systems
 [SAND-74-0113] 07 p0129 N75-21802
- COMPOSITION (PROPERTY)**
- The influence of the petrology of the Karagandin coals on their methane contents
 [BLL-RTS-9309] 07 p0158 N75-27511

- COMPRESSED AIR**
 Energy storage underground --- hydroelectric pumped-storage and combustion turbine facilities 05 p0013 A75-12989
 Pumped air storage for electric power generation 05 p0013 A75-12990
- COMPRESSED GAS**
 Prospects for using dynamic thermocompression converter in solar power plants 05 p0020 A75-17076
 A technology assessment of the hydrogen economy concept 08 p0194 A75-46037
- COMPRESSION LOADS**
 Mechanical properties of oil shale from Anvil Point under conditions of uniaxial compression [SAND-74-0035] 06 p0092 A75-19390
- COMPRESSION TESTS**
 Mechanical properties of oil shale from Anvil Point under conditions of uniaxial compression [SAND-74-0035] 06 p0092 A75-19390
- COMPRESSOR EFFICIENCY**
 A compressor designed for the energy research and development agency automotive gas turbine program [NASA-TM-X-71719] 07 p0141 A75-24116
- COMPUTER PROGRAMMING**
 The NBS computerized carpool matching system: User's guide [COM-75-10691/4] 08 p0214 A75-33749
- COMPUTER PROGRAMS**
 The Energy Systems Optimization Computer Program /ESOP/ developed for Modular Integrated Utility Systems /MIUS/ analysis 05 p0006 A75-10551
 Effect of attitude constraints on solar-electric geocentric transfers [AIAA PAPER 75-350] 06 p0055 A75-24957
 The effect of atmospheric turbulence on windmill performance 08 p0174 A75-44756
 A computer program to determine the optimum configuration of solar assisted building heating and cooling systems based upon life-cycle cost 08 p0186 A75-45941
 Comparison of computer programs used for modeling solar heating and air conditioning systems for buildings [LBL-3066] 06 p0079 A75-17279
 Path to self-sufficiency directions and constraints, appendices --- a computer program that calculates energy resource requirements [PB-239100/1] 07 p0145 A75-24155
- COMPUTER TECHNIQUES**
 The role of computers in future propulsion controls 07 p0137 A75-23582
 National Bureau of Standards annual report: Fiscal year 1974 --- including a discussion of measuring instruments, energy, safety engineering, and computers [COM-75-10465/3] 08 p0206 A75-30948
- COMPUTERIZED DESIGN**
 A planning methodology for the analysis and design of wind-power systems 05 p0004 A75-10517
 Solar augmented home heating heat pump system 05 p0004 A75-10524
 Design study of the energy characteristics of thermonuclear electric power generating components and assemblies 06 p0064 A75-28893
 Design of energy storage reactors for dc-to-dc converters [NASA-CR-143327] 08 p0204 A75-30438
- COMPUTERIZED SIMULATION**
 A wind energy conversion system based on the tracked-vehicle airfoil concept 05 p0004 A75-10518
 Coal-gas combustion in industrial gas turbines [AIAA PAPER 74-1114] 05 p0010 A75-11286
 Dynamic simulation for performance analysis of solar heated and cooled buildings [ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
 Simulation of a solar heating and cooling system --- for houses 06 p0048 A75-23018
- SINSHAC** - A simulation program for solar heating and cooling of buildings 06 p0061 A75-28093
- Urban waste energy resources [AIAA PAPER 75-632] 06 p0062 A75-28598
 Modeling of the CSU heating/cooling system --- Colorado State University solar house computer simulation 07 p0109 A75-29473
 A method of simulation of solar processes and its application --- energy collection processes 07 p0109 A75-29474
 Numerical modeling of flat plate solar collectors [AIAA PAPER 75-739] 07 p0113 A75-32861
 Modeling and computer simulation of a microwave-to-dc energy conversion element 07 p0120 A75-36500
 Technical and economic evaluation of solar heating and cooling of buildings 08 p0184 A75-45921
 Solar heat pump comfort heating systems 08 p0185 A75-45936
 New dimensions in water heating in the Northwest - A study of solar energy utilization --- computer model 08 p0191 A75-45995
 The design and development of an interactive energy model [PB-236144/2] 06 p0070 A75-16110
 Electronic model of the U-25 device 06 p0081 A75-17794
 Profitability analysis of producing crude oil by waterflooding using a simulation technique [PB-237843/8] 06 p0088 A75-18738
 Using systems methods for analyzing integrated energy supply, summary [BLL-CE-TRANS-6473-(9022.09)] 07 p0153 A75-26491
 Increased fuel economy in transportation systems by use of energy management. Volume 1: General results and discussion [PB-240220/4] 07 p0163 A75-27970
- COMSAT PROGRAM**
 The COMSAT non-reflective silicon solar cell - A second generation improved cell 06 p0053 A75-24245
- CONDENSERS (LIQUIFIERS)**
 Transverse header heat pipe [AIAA PAPER 75-656] 07 p0114 A75-32914
- CONDUCTING FLUIDS**
 Theoretical study of the energy output of two magnetohydrodynamic generators 07 p0125 A75-38568
 Studies on improvement of the characteristics of MHD power generating channel --- conducting fluids [REPT-749] 07 p0148 A75-25293
- CONDUCTION**
 Solar energy absorber [NASA-CASE-MFS-22743-1] 05 p0024 A75-10585
- CONDUCTIVE HEAT TRANSFER**
 Solar radiation heat transfer to high temperature heat carriers [ASME PAPER 74-WA/HT-14] 05 p0017 A75-16861
 Utilization of tubular thermoelectric modules in solar generators 05 p0020 A75-17067
 Heat pipe thermal control set point shift 07 p0115 A75-33271
- REFERENCES**
 Intersociety Energy Conversion Engineering Conference, 9th, San Francisco, Calif., August 26-30, 1974, Proceedings 05 p0001 A75-10476
 Energy development; Proceedings of the Energy Sources Conference, Anaheim, Calif., July 14-19, 1974 05 p0012 A75-12986
 Nonconventional energy systems; Meeting, Duesseldorf, West Germany, June 20, 21, 1974, Reports 06 p0049 A75-23501
 Photovoltaic power generation; Proceedings of the International Conference, Hamburg, West Germany, September 25-27, 1974 06 p0051 A75-24213
 Corrosion problems in energy conversion and generation; Proceedings of the Symposium, New York, N.Y., October 15-17, 1974 06 p0054 A75-24376
 Energy Delta: Supply vs. demand; Proceedings of the Energy Symposium, San Francisco, Calif., February 25-27, 1974 06 p0059 A75-27778

- Remote sensing applied to energy-related problems; Proceedings of the Symposium-Course, Miami, Fla., December 2-4, 1974
07 p0118 A75-35451
- Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974
08 p0168 A75-40176
- Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975
08 p0171 A75-42276
- Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings
08 p0173 A75-43976
- Plasma physics and controlled nuclear fusion research 1974; Proceedings of the Fifth International Conference, Tokyo, Japan, November 11-15, 1974. Volumes 1 & 2
08 p0174 A75-44736
- Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Parts A & B
08 p0174 A75-44751
- Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record
08 p0183 A75-45920
- Basic research needs for tertiary oil recovery: Proceedings of a National Science Foundation Workshop
[PB-236726/6] 06 p0066 N75-16072
- Proceedings of the Solar Heating and Cooling for Buildings Workshop. Part 2: Panel sessions, March 23
[PB-235483/5] 06 p0069 N75-16095
- Proceedings of the Workshop on Bio-Solar Conversion
[PB-236142/6] 06 p0069 N75-16096
- Photovoltaic conversion of solar energy for Terrestrial Applications. Volume 1: Working group and panel reports
[PB-236163/2] 06 p0072 N75-16121
- The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development
06 p0075 N75-16977
- Proceedings of the first 1974 Technology Transfer Conference
[NASA-CR-142119] 06 p0078 N75-17188
- Utilizing fuel more efficiently in reheating and heat treatment furnaces
[BLL-M-21957-(5828.4P)] 06 p0080 N75-17467
- Workshop in Gas-Phase Molecular Interactions and the Nation's Energy Problem
[PB-236712/6] 06 p0086 N75-18718
- Proceedings of the Conference on Research for the Development of Geothermal Energy Resources
[NASA-CR-142556] 06 p0098 N75-20831
- Electric power for space satellites
[NASA-TN-X-66808] 07 p0137 N75-23678
- Technology and use of lignite
[PB-238666/2] 07 p0142 N75-24131
- Proceedings of 5th annual symposium: Energy Research and Development --- solar energy, windpower utilization, thermonuclear power generation
[AD-A007799] 07 p0144 N75-24142
- Proceedings of the Solar Thermal Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- Marine pollution monitoring (petroleum): Proceedings of a Symposium and Workshop held at the National Bureau of Standards
[COM-75-50071/0] 07 p0146 N75-24183
- Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems
[PB-240177/6] 08 p0200 N75-28524
- Proceedings of a Workshop on Solar Energy and the Law
[PB-241051/2] 08 p0201 N75-28551
- Seminar on Industrial Energy Conservation and Seminar on Solar Space Heating and Cooling
[PB-241462/1] 08 p0212 N75-33498
- CONGRESSIONAL REPORTS**
- Limit lead in gasoline
[GPO-29-660] 05 p0023 N75-10259
- Research, development, and the energy crisis
[GPO-27-032] 05 p0023 N75-10580
- Independent truckers and the energy crisis
[GPO-31-412] 05 p0023 N75-10581
- Economic impact of the oil shale industry in western Colorado
[GPO-28-608] 05 p0024 N75-10588
- Advanced nuclear research
[GPO-41-253] 05 p0026 N75-10764
- Effects of energy crisis on education, 1974
[GPO-27-765] 05 p0026 N75-10850
- Elimination of duty on methanol imported for certain uses
[H-REPT-93-998] 05 p0026 N75-10857
- Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority
[GPO-32-403] 05 p0026 N75-10859
- National Crude Oil Refinery Development Act, part 2
[GPO-35-578] 05 p0027 N75-10860
- The National Coal Conversion Act and the National Crude Oil Refinery Development Act
[GPO-28-964] 05 p0027 N75-10861
- Oil shale development, part 2
[GPO-30-368] 05 p0027 N75-11455
- Bioconversion --- of solar energy and solid waste energy into useable fuels
[GPO-37-403] 05 p0028 N75-11463
- Solar sea thermal energy
[GPO-37-476] 05 p0030 N75-12430
- Energy and environmental standards --- environmental standards and energy policy
[GPO-37-171] 05 p0030 N75-12431
- Solar photovoltaic energy
[GPO-39-576] 05 p0032 N75-13379
- Wind energy
[GPO-37-390] 05 p0033 N75-13387
- Conservation and efficient use of energy
[H-REPT-93-1634] 05 p0036 N75-14265
- Development, growth, and state of the nuclear industry
[GPO-33-873] 05 p0038 N75-15150
- The prospects for gasoline availability: 1974
[GPO-34-969] 05 p0039 N75-15155
- Oversight: Mandatory petroleum allocation programs, part 1
[GPO-30-060] 05 p0039 N75-15158
- Oversight: Mandatory petroleum allocation programs, part 2
[GPO-31-519] 05 p0039 N75-15159
- Prototype oil shale leasing program
[GPO-28-686] 05 p0039 N75-15160
- An assessment and analysis of the energy emergency
[GPO-25-382] 06 p0066 N75-16076
- Market performance and competition in the petroleum industry, part 1
[GPO-28-503] 06 p0066 N75-16077
- Fuel availability and allocation in the United States
[GPO-31-711] 06 p0067 N75-16081
- Energy from US and Canadian tar sands: Technical, environmental, economic, legislative, and policy aspects
[GPO-43-005] 06 p0067 N75-16083
- Transportation and the new energy policies: Truck sizes and weights, part 2
[GPO-29-802] 06 p0073 N75-16410
- Development of oil and gas on the Continental Shelf
[GPO-31-891] 06 p0075 N75-16973
- Synthetic Liquid Fuel Research and Development Act of 1974 --- energy conservation and cost analyses
[GPO-44-818] 06 p0103 N75-20867
- Solar energy research and development
[GPO-40-684] 07 p0139 N75-24104
- Energy imports and the US balance of payments
[GPO-28-965] 07 p0141 N75-24114
- The economics of energy and natural resource pricing
[GPO-48-071] 07 p0141 N75-24115
- Energy Reorganization Act of 1974 --- the Energy Research and Development Administration and Nuclear Energy Commission
[S-REPT-93-1252] 07 p0142 N75-24123
- Energy Reorganization Act of 1974
[S-REPT-93-980] 07 p0142 N75-24124
- Energy and foreign policy
[GPO-22-562] 07 p0142 N75-24125
- World oil developments and US oil import policies
[GPO-22-893] 07 p0148 N75-25294
- Solar Energy Research, Development, and Demonstration Act of 1974
[GPO-39-827] 07 p0149 N75-25299

SUBJECT INDEX

CONVERGENCE

Energy policy and resource management
 [GPO-33-634] 07 p0149 N75-25300

Energy legislation --- energy conservation and
 resources management
 [GPO-33-571] 07 p0149 N75-25301

Current energy shortages oversight series: Oil
 brokers; part 7
 [GPO-32-607] 07 p0161 N75-27576

Natural Gas Act, 1 March 1974
 08 p0204 N75-30646

Oil and gas development and coastal zone management
 [GPO-37-347] 08 p0206 N75-31556

Energy data requirements of the Federal
 Government. Part 4: Propane and crude oil;
 conflicts of interest
 [GPO-41-639] 08 p0207 N75-31566

Solar Energy Research, Development, and
 Demonstration Act of 1974
 [GPO-39-827] 08 p0207 N75-31567

Effects of the energy crisis on employment
 dislocation, 1974
 [GPO-35-761] 08 p0208 N75-31918

Providing for a national fuels and energy
 conservation policy, establishing an office of
 energy conservation in the Department of the
 Interior, and for other purposes
 [H-REPT-93-1546] 08 p0208 N75-31953

The need for a national materials policy, part 1
 [GPO-39-885] 08 p0209 N75-31954

The need for a national materials policy, part 2
 [GPO-40-687] 08 p0209 N75-31955

The need for a national materials policy, part 3
 [GPO-40-687] 08 p0209 N75-31956

Special Energy Research and Development
 Appropriation Act, 1975
 [PUB-LAW-93-322] 08 p0209 N75-31957

Outer continental shelf oil and gas leasing off
 southern California: Analysis of issues
 [GPO-41-659] 08 p0209 N75-31958

Outer continental shelf oil and gas development
 and the coastal zone
 [GPO-39-356] 08 p0209 N75-31959

To establish an Energy Research and Development
 Administration and a Nuclear Energy Commission
 [GPO-28-963] 08 p0209 N75-31960

Science and Technology Applications Act of 1974
 --- energy sources and environment protection
 [GPO-41-407] 08 p0209 N75-31961

Energy statistics
 [GPO-37-143] 08 p0210 N75-32587

Solar Heating and Cooling Demonstration Act of
 1974: Oversight hearings
 [GPO-55-414] 08 p0212 N75-33495

CONSERVATION

Caltech seminar series on energy consumption in
 private transportation
 [PB-235348/0] 05 p0040 N75-15179

Mineral resources and the environment. Appendix
 to section 1: Report of panel on materials
 conservation through technology
 [PB-239580/4] 07 p0153 N75-26487

CONSTRUCTION

Erecting gas storage facilities and oil centers
 [AD-A006559] 07 p0134 N75-22783

CONSTRUCTION MATERIALS

Metals and composites in superflywheel energy
 storage systems
 06 p0047 A75-22523

CONTINENTAL SHELVES

Offshore investigation: Producing shut-in leases
 as of January 1974, phase 2 --- an estimation of
 natural gas reserves in offshore wells
 05 p0027 N75-11458

Development of oil and gas on the Continental Shelf
 [GPO-31-891] 06 p0075 N75-16973

OCS oil and gas: An environmental assessment,
 volume 3 --- effect of natural phenomena on OCS
 gas and oil development
 06 p0083 N75-17836

OCS oil and gas: An environmental assessment,
 Volume 1
 06 p0083 N75-17837

OCS oil and gas: An environmental assessment,
 Volume 2
 06 p0084 N75-17838

OCS oil and gas: An environmental assessment,
 volume 4
 06 p0084 N75-17839

OCS oil and gas: An environmental assessment,
 volume 5
 06 p0084 N75-17840

Relationships between bidding and hydrocarbon
 production of the Federal Outer Continental
 Shelf (through 1970) --- offshore energy sources
 [PB-238188/7] 07 p0127 N75-21788

Atlantic outer continental shelf energy resources:
 An economic analysis
 [COM-75-10330/9] 07 p0152 N75-26484

Oil and gas development and coastal zone management
 [GPO-37-347] 08 p0206 N75-31556

Outer continental shelf oil and gas leasing off
 southern California: Analysis of issues
 [GPO-41-659] 08 p0209 N75-31958

Outer continental shelf oil and gas development
 and the coastal zone
 [GPO-39-356] 08 p0209 N75-31959

CONTOURS

Statistical estimation of wildcat well outcome
 probabilities by visual analysis of structure
 contour maps of Stafford County, Kansas
 06 p0092 N75-19778

CONTROLLED FUSION

Fusion reactors as future energy sources
 05 p0011 A75-11735

Fusion power research - Where do we stand
 05 p0013 A75-12995

Fusion power - Prospects and impact
 05 p0021 A75-18080

An electron beam initiated fusion neutron generator
 06 p0045 A75-19657

Laser compression of matter - Optical power and
 energy requirements
 06 p0046 A75-22352

Laser thermonuclear fusion
 07 p0112 A75-32617

Electronbeam heating for fusion
 07 p0120 A75-36295

Lasers for fusion
 08 p0166 A75-39333

Fusion power by magnetic confinement - Plans and
 the associated need for nuclear engineers
 08 p0170 A75-41433

Cryogenic engineering and fusion power ---
 superconducting magnet application to reactor
 design
 08 p0173 A75-43979

Plasma physics and controlled nuclear fusion
 research 1974; Proceedings of the Fifth
 International Conference, Tokyo, Japan, November
 11-15, 1974. Volumes 1 & 2
 08 p0174 A75-44736

The technology and economics of hydrogen
 production from fusion reactors
 08 p0176 A75-44767

Ion-beam implosion of fusion targets
 08 p0181 A75-45386

Terrestrial and space applications of the alpha
 controlled fusion concept
 [AIAA PAPER 75-1263] 08 p0182 A75-45663

Thermal power conversion systems for fusion plants
 08 p0187 A75-45953

New approaches to CTR: General relativistic power
 plants
 [UCRL-75443] 06 p0073 N75-16362

Man-made sun. Thermonuclear engineering
 developments
 [BLL-N-23333-(5828.4P)] 06 p0091 N75-19014

Synthetic fuels from fusion reactors
 [BLL-19351] 06 p0106 N75-21098

CONVECTIVE FLOW

A hot liquid energy storage system utilizing
 natural circulation
 [ASME PAPER 74-WA/HT-16] 05 p0017 A75-16862

The nature of the sunspot phenomenon. III - Energy
 consumption and energy transport. IV - The
 intrinsic instability of the magnetic
 configuration
 06 p0064 A75-29137

CONVECTIVE HEAT TRANSFER

Natural convection in enclosed spaces - A review
 of application to solar energy collection
 [ASME PAPER 74-WA/HT-12] 05 p0017 A75-16860

CONVERGENCE

Convergence and speed of calculations for
 thermoelectric heat pump
 05 p0020 A75-17084

COOK INLET (AK)
 Natural gas fields, Cook Inlet Basin, Alaska
 [PB-235767/1] 06 p0066 N75-16071

COOLING
 An intercell heat pipe for fuel cell and battery
 cooling
 [AD-782888] 05 p0027 N75-11226
 Solar Heating and Cooling Demonstration Act of
 1974: Oversight hearings
 [GPO-55-414] 08 p0212 N75-33495

COOLING SYSTEMS
 Solar energy storage within the absorption cycle
 [ASME PAPER 74-WA/HT-18] 05 p0017 A75-16864
 Selection and evaluation of the University of
 Florida's solar powered absorption air
 conditioning system
 [ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
 Assessment of Rankine cycle for potential
 application to solar-powered cooling of buildings
 [ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890
 Dynamic simulation for performance analysis of
 solar heated and cooled buildings
 [ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
 Solar collector performance evaluated outdoors at
 NASA-Lewis Research Center
 06 p0058 A75-27531
 Solar heating and cooling of buildings
 06 p0059 A75-27783
 A high-speed superconducting generator
 06 p0060 A75-27960
 SIMSHAC - A simulation program for solar heating
 and cooling of buildings
 06 p0061 A75-28093
 Cooling by solar heat --- heating and cooling
 system for buildings
 [AIAA PAPER 75-609] 06 p0062 A75-28590
 Design and construction of a residential solar
 heating and cooling system
 07 p0109 A75-29472
 Solar heating and cooling
 07 p0111 A75-31269
 Pilot solar air-conditioning plant and results of
 its use
 07 p0111 A75-31512
 Solar energy and architecture
 07 p0112 A75-31698
 Solar heating and cooling of buildings using heat
 pumps /Brief survey/
 07 p0116 A75-34321
 Modeling of solar absorption air conditioning
 07 p0117 A75-34932
 Optimization of the operating conditions of a
 combined generator-cooler thermoelement
 07 p0121 A75-37155
 Summary of NASA-Lewis Research Center solar
 heating and cooling and wind energy programs
 07 p0123 A75-37240
 Radiation cooling of structures with infrared
 transparent wind screens
 08 p0167 A75-39407
 Cooling with the sun's heat - Design
 considerations and test data for a Rankine Cycle
 prototype
 08 p0167 A75-39409
 Solar absorption air conditioning alternatives
 08 p0167 A75-39410
 Use of solar heat pumps for heating and air
 conditioning - A brief survey
 08 p0170 A75-41534
 Technical and economic evaluation of solar heating
 and cooling of buildings
 08 p0184 A75-45921
 Solar heating and cooling of Army
 buildings
 08 p0184 A75-45926
 An integrated solar heated and cooled mobile home
 08 p0184 A75-45927
 Study on parameter variations for solar powered
 lithium bromide absorption cooling
 08 p0186 A75-45938
 A computer program to determine the optimum
 configuration of solar assisted building heating
 and cooling systems based upon life-cycle cost
 08 p0186 A75-45941
 Evaluation of solar-assisted Rankine cycle concept
 for the cooling of buildings
 08 p0194 A75-46040
 Heat pipe applications development in Europe
 08 p0195 A75-46043

The NASA-Lewis/ERDA Solar Heating and Cooling
 Technology Program
 08 p0197 A75-47803
 Solar energy program plan for heating and cooling
 buildings
 [WASH-1337-5-DRAFT] 06 p0077 N75-16993
 Heat pumps in large buildings --- a refrigerating
 unit for heating and cooling
 [OA-TRANS-939] 06 p0078 N75-17184
 Study of active cooling for supersonic transports
 [NASA-CR-132573] 06 p0079 N75-17336
 Design and construction of a residential solar
 heating and cooling system
 [PB-237042/7] 06 p0082 N75-17823
 Use of solar energy in buildings in New York state
 [PB-236974/2] 06 p0083 N75-17825
 Assessment of the Rankine cycle for potential
 application to solar powered cooling of buildings
 [PB-238069/9] 06 p0089 N75-18755
 The development of a solar residential heating and
 cooling system
 [NASA-CR-142728] 07 p0140 N75-24107
 Seminar on Industrial Energy Conservation and
 Seminar on Solar Space Heating and Cooling
 [PB-241462/1] 08 p0212 N75-33498

COPPER SELLLENIDES
 Efficient CuInSe₂/CdS solar cells
 07 p0119 A75-36274

COPPER SULFIDES
 CdS-Cu₂S cells - An outlook for terrestrial
 applications
 06 p0052 A75-24223
 Progress in the development of cadmium sulphide
 terrestrial solar batteries
 06 p0052 A75-24224
 CdS/Cu₂S solar cells, their potential and
 limitations
 08 p0188 A75-45961

CORROSION
 Corrosion problems in energy conversion and
 generation; Proceedings of the Symposium, New
 York, N.Y., October 15-17, 1974
 06 p0054 A75-24376

CORROSION PREVENTION
 Concerning the use of a nitrogen-potassium gaseous
 mixture for protection of MHD-generator
 electrodes by suction
 07 p0112 A75-31569

CORROSION RESISTANCE
 Materials screening program for the LLL geothermal
 project
 [UCRL-75353] 06 p0082 N75-17815

CORROSION TESTS
 Corrosion studies of materials for auxiliary
 equipment in MHD power plants
 06 p0055 A75-24384

COST ANALYSIS
 Hydrogen cycle peak-shaving for electric utilities
 05 p0005 A75-10535
 The economics of nuclear power
 06 p0047 A75-22734
 Simulation of a solar heating and cooling system
 --- for houses
 06 p0048 A75-23018
 Parametric performance and cost models for solar
 concentrators
 07 p0109 A75-29476
 Fabricating paraboloidal high-temperature solar
 concentrators from mollified sectors
 07 p0122 A75-37166
 The fuel scene and its impact on the economics of
 airline operations
 08 p0165 A75-39018
 Liquid hydrogen as a fuel for future commercial
 aircraft
 08 p0178 A75-44792
 On the role of hydrogen in electric energy storage
 08 p0178 A75-44797
 Heat pipe manufacturing study
 [NASA-CR-139140] 05 p0023 N75-10347
 Effect of gas turbine efficiency and fuel cost on
 cost of producing electric power
 [PB-234159/2] 05 p0034 N75-13397
 Prototype oil shale leasing program
 [GPO-28-686] 05 p0039 N75-15160
 Study of the costs and benefits of composite
 materials in advanced turbofan engines
 [NASA-CR-134696] 06 p0073 N75-16637

SUBJECT INDEX

COST ESTIMATES

- Evaluation of thermal methods for recovery of viscous oils in Missouri and Kansas [PB-237831/3] 06 p0090 N75-18762
- Investment and operating costs of binary cycle geothermal power plants 06 p0101 N75-20855
- Synthetic Liquid Fuel Research and Development Act of 1974 --- energy conservation and cost analyses [GPO-44-818] 06 p0103 N75-20867
- United States transportation fuel economics (1975 - 1995) [NASA-TM-X-3197] 06 p0107 N75-21154
- Relationships between bidding and hydrocarbon production of the Federal Outer Continental Shelf (through 1970) --- offshore energy sources [PB-238188/7] 07 p0127 N75-21788
- Benefit-cost methodology study with example application of the use of wind generators [NASA-CR-134864] 08 p0207 N75-31571
- Selected topics on hydrogen fuel [COM-75-10619/5] 08 p0207 N75-31575
- COST EFFECTIVENESS**
- Cost effective designing for the economic RTG --- radioisotope thermoelectric generators 05 p0003 A75-10507
- Energy storage underground --- hydroelectric pumped-storage and combustion turbine facilities 05 p0013 A75-12989
- Progress in coal gasification 05 p0013 A75-12993
- Effectiveness of using semiconductor heat pumps under the conditions of the Turkaen SSR 05 p0020 A75-17083
- Material considerations involved in solar energy conversion 06 p0047 A75-22522
- The use of solar cells in the lighthouse service 06 p0054 A75-24255
- Lighter than air - A look at the past, a look at the possibilities 06 p0056 A75-25995
- Thermoelectric generators --- using semiconductor thermocouples 06 p0058 A75-27718
- Derivation of a total satellite energy system --- solar power station for terrestrial consumption [AIAA PAPER 75-640] 06 p0064 A75-29118
- Solar heating and cooling 07 p0111 A75-31269
- Optimal solar energy collector system 07 p0115 A75-33970
- Wind energy utilization prospects 07 p0117 A75-34928
- The high intensity solar cell - Key to low cost photovoltaic power 07 p0123 A75-37400
- Can hydrogen transmission replace electricity 08 p0165 A75-38863
- Shale from oil shale economically 08 p0168 A75-40182
- Solar climate control - Evaluating the commercial possibilities 08 p0168 A75-40297
- Design of short haul aircraft for fuel conservation [SAE PAPER 750587] 08 p0169 A75-40502
- Generation schemes for wind power plants 08 p0169 A75-40688
- Will hydrogen transmission replace electricity 08 p0172 A75-42281
- Economics of hydrogen energy systems 08 p0172 A75-42285
- A technology assessment of the hydrogen economy concept 08 p0172 A75-42286
- Getting at the big facts in transportation --- private and public transit efficiencies 08 p0173 A75-42973
- The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978
- Reliability of low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy 08 p0174 A75-44754
- An economic perspective on hydrogen fuel 08 p0176 A75-44769
- Outlook for Si photovoltaic devices for terrestrial solar-energy utilization 08 p0181 A75-45509
- The satellite solar power station - A step toward the industrial use of space [IAP PAPER 75-003] 08 p0183 A75-45903
- A large mechanical contracting corporation solar heats its own offices 08 p0184 A75-45924
- Energy storage by flywheels 08 p0185 A75-45930
- A computer program to determine the optimum configuration of solar assisted building heating and cooling systems based upon life-cycle cost 08 p0186 A75-45941
- Thermionic topping of electric power plants 08 p0189 A75-45973
- The selection and use of energy storage for solar thermal electric application 08 p0189 A75-45980
- Orbital solar energy technology advances 08 p0192 A75-46018
- A technology assessment of the hydrogen economy concept 08 p0194 A75-46037
- Preliminary results of the large experimental wind turbine phase of the national wind energy program 08 p0196 A75-47798
- Prospects for magnetohydrodynamic electric power plants in power engineering 06 p0081 N75-17791
- Economic and energy conservation relationship relevant to state of New York building design and contract awards [PB-237006/2] 06 p0082 N75-17824
- A SASOL type process for gasoline, methanol, SHG, and low-Btu gas from coal [PB-237670/5] 06 p0095 N75-19838
- Economic-environmental power dispatch 07 p0128 N75-21791
- Brief examination of the status of nuclear power in the republic, using 1974 costs [PEL-237E] 07 p0135 N75-22909
- The high intensity solar cell: Key to low cost photovoltaic power [NASA-TM-X-71718] 07 p0140 N75-24108
- Utilization analysis of energy systems [PB-239291/8] 07 p0144 N75-24144
- Integrated solar powered climate conditioning systems [PB-239759/4] 08 p0200 N75-28527
- The benefits/costs of tertiary oil recovery [PB-240463/0] 08 p0201 N75-28552
- COST ESTIMATES**
- A planning methodology for the analysis and design of wind-power systems 05 p0004 A75-10517
- The use of hydrogen as an energy carrier 05 p0015 A75-15795
- An econometric analysis of fuel selection for power generation 06 p0055 A75-24751
- Evaluation of central solar tower power plant 07 p0116 A75-34531
- An energy utility company's view of hydrogen energy 08 p0172 A75-42283
- Economic analysis of space-based electric power generation and transmission systems [IAP PAPER 75-006] 08 p0183 A75-45829
- Solar thermal electric power systems [PB-235475/1] 05 p0038 N75-14283
- Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-3192] 05 p0039 N75-15161
- Revised cost estimate for the LLL in situ coal gasification concept [UCRL-51578] 05 p0039 N75-15166
- A generalised analysis of the performance of a variety of drive systems for high Reynolds number, transonic wind tunnels [RAE-TR-73134] 06 p0073 N75-16572
- Review of the prospects for laser induced thermonuclear fusion [AECL-4840] 06 p0106 N75-21099
- The potential for developing Alaskan coals for clean export fuels, phase 1 [PB-238539/1] 07 p0127 N75-21786
- Preliminary investigation into regulatory powers and policies on electric utility peak load pricing [PB-239761/0] 07 p0151 N75-25324

COST INCENTIVES

SUBJECT INDEX

- Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-71805] 08 p0210 N75-32593
- COST INCENTIVES**
Technology utilization - Incentives and solar energy 06 p0048 A75-22913
- COST REDUCTION**
Next generation transports will emphasize fuel savings 05 p0011 A75-11426
- Performance of heat pumps using cold-side energy storage and unconventional heat sources [ASME PAPER 74-WA/HT-17] 05 p0017 A75-16863
- High-speed silicon processing for low cost solar cells - A comparative analysis 06 p0052 A75-24222
- Process development for low cost integrated solar arrays 06 p0054 A75-24259
- RTG electrical power for spacecraft --- Radioisotope Thermoelectric Generators 06 p0057 A75-26067
- GaAs concentrator solar cell 06 p0058 A75-27520
- Minimum cost solar thermal electric power systems - A dynamic programming based approach 07 p0112 A75-32097
- Gaseous fuel nuclear reactor research 08 p0168 A75-40177
- Data monitoring and information availability - A key to solar energy utilization 08 p0169 A75-40618
- Concentrated photovoltaic power generation systems 08 p0188 A75-45963
- Electrical generation by wind power 08 p0193 A75-46024
- Low cost solar energy collection system [NASA-CASE-NPO-13579-1] 08 p0199 N75-28519
- COSTS**
World oil developments and US oil import policies [GPO-22-893] 07 p0148 N75-25294
- CRITICAL PRESSURE**
Capillary flow through heat-pipe wicks [AIAA PAPER 75-661] 07 p0114 A75-32919
- CROP GROWTH**
The oceanic biomass energy plantation --- seaweed harvesting for food and fuel [AIAA PAPER 75-635] 06 p0063 A75-28599
- Fuel production /biomass energy/ --- by fuel plantation development 07 p0111 A75-31275
- Fuel as an agricultural crop 08 p0172 A75-42533
- Use of thermally enriched water for growing field crops in Minnesota [PB-240112] 07 p0159 N75-27549
- CRUDE OIL**
Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications 06 p0050 A75-23790
- Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage 07 p0125 A75-38648
- The energy crises 08 p0179 A75-44810
- National Crude Oil Refinery Development Act, part 2 [GPO-35-578] 05 p0027 N75-10860
- The National Coal Conversion Act and the National Crude Oil Refinery Development Act [GPO-28-964] 05 p0027 N75-10861
- Prospects for utilization of underwater houses and chambers in development of marine oil deposits 05 p0029 N75-11606
- Oil for the free world in the 1970's --- demand and supply [AD-779352] 05 p0031 N75-12448
- Oversight: Mandatory petroleum allocation programs, part 1 [GPO-30-060] 05 p0039 N75-15158
- Oversight: Mandatory petroleum allocation programs, part 2 [GPO-31-519] 05 p0039 N75-15159
- Bureau of Mines energy program, 1973 --- discovery and production of oil, gas, and fluid fuels [PB-234682/3] 05 p0040 N75-15172
- Market performance and competition in the petroleum industry, part 1 [GPO-28-503] 06 p0066 N75-16077
- Oversight: Mandatory petroleum allocation programs [GPO-31-027] 06 p0081 N75-17806
- Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding [PB-237209/2] 06 p0083 N75-17826
- Petroleum in Alabama --- including exploration, production, and economics [PB-237353/8] 06 p0085 N75-18442
- Effects of changing the proportions of automotive distillate and gasoline produced by petroleum refining [PB-236900/7] 06 p0085 N75-18443
- Profitability analysis of producing crude oil by waterflooding using a simulation technique [PB-237843/8] 06 p0088 N75-18738
- The effect of Alaskan crude oil and selected hydrocarbon compounds on embryonic development of the Pacific oyster, *Crassostrea gigas* 06 p0090 N75-18764
- Field surveillance and enforcement guide for petroleum refineries [PB-236669/8] 06 p0090 N75-18786
- Mechanical properties of oil shale from Anvil Point under conditions of uniaxial compression [SAND-74-0035] 06 p0092 N75-19390
- Improving the oil storage system of western Siberia [AD-A002717] 06 p0092 N75-19705
- An economic analysis of oil shale operations featuring gas combustion retorting [PB-237851/1] 06 p0093 N75-19813
- In situ oil shale conversion and recovery [SLA-74-0162] 06 p0093 N75-19825
- Report to congress on petrochemicals --- analyzing supply/demand in industry [PB-238064/0] 06 p0097 N75-20478
- Benthal decomposition of adsorbed octadecane --- impact of oil pollution, deoxygenation of waterways 06 p0106 N75-20891
- Economic impact on the free world of the oil crisis, October 1973 - March 1974 [AD-A003136] 06 p0107 N75-21156
- Industrial energy study of the petroleum refining industry [PB-238671/2] 07 p0130 N75-21818
- Erecting gas storage facilities and oil centers [AD-A006559] 07 p0134 N75-22783
- Protecting the US petroleum market against future denials of imports [AD-A006643] 07 p0137 N75-23387
- Chemistry of organic sulfur compounds contained in petroleum and petroleum products, Volume 7 [TT-70-57759] 07 p0138 N75-23691
- Energy imports and the US balance of payments [GPO-28-965] 07 p0141 N75-24114
- Energy and foreign policy [GPO-22-562] 07 p0142 N75-24125
- Petroleum degradation in low temperature marine and estuarine environments [AD-A007588] 07 p0146 N75-24191
- The identification of gamma-valerolactone in waste from an oil-shale in situ retort --- determination of chemical composition by mass spectroscopy of effluents from crude oil shales causing water pollution [PB-240098/4] 07 p0147 N75-24852
- Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources [PB-239581/2] 07 p0153 N75-26488
- Mineral resources and the environment. Appendix to section 4: Report of panel on demand for fuel and mineral resources [PB-239583/8] 07 p0153 N75-26490
- Materials and the new dimensions of conflict, revised version [AD-A004263] 07 p0154 N75-26499
- A short handbook on fuels --- and lubricants [AD-A004358] 07 p0158 N75-27170
- Carbon isotopes in oil-gas geology [NASA-TT-F-682] 07 p0160 N75-27563

- A simulation model of the development of petroleum refining capacity --- using recursive linear programming
[AD-A003723] 07 p0161 N75-27569
- Current energy shortages oversight series: Oil brokers, part 7
[GPO-32-607] 07 p0161 N75-27576
- Producing SNG by hydrogasifying in situ crude shale oil
[PB-240841/7] 08 p0201 N75-28548
- Energy data requirements of the Federal Government. Part 4: Propane and crude oil; conflicts of interest
[GPO-41-639] 08 p0207 N75-31566
- Outer continental shelf oil and gas leasing off southern California: Analysis of issues
[GPO-41-659] 08 p0209 N75-31958
- Energy consumption: The primary metals and petroleum industries
[PB-241990/1] 08 p0213 N75-33503
- The economic impact of an interruption in United States petroleum imports: 1975 - 2000
[AD-A010914] 08 p0214 N75-33931
- CRYOGENIC EQUIPMENT**
A high-speed superconducting generator
06 p0060 A75-27960
- Main problems met in the study of cryogenic generators
06 p0061 A75-27962
- Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket
[AIAA PAPER 75-729] 07 p0113 A75-32872
- A flexible cryogenic heat pipe
[AIAA PAPER 75-658] 07 p0114 A75-32916
- Nuclear heat source for cryogenic space --- Pu-238 battery design
08 p0191 A75-46006
- Energy and cryoengineering
[LA-UR-74-741] 06 p0082 N75-17814
- ERTS-C (Landsat 3) cryogenic heat pipe experiment definition
[NASA-CR-143797] 07 p0138 N75-23882
- CRYOGENIC FLUID STORAGE**
The use of hydrogen as an energy carrier
05 p0015 A75-15795
- Liquid hydrogen --- liquefaction, storage, transportation, applications
06 p0046 A75-22043
- Automotive hydrogen engines, and onboard storage methods
08 p0172 A75-42284
- Survey of hydrogen compatibility problems in energy storage and energy transmission applications
[SAND-74-8219] 06 p0087 N75-18726
- CRYOGENIC MAGNETS**
Cryogenic engineering and fusion power --- superconducting magnet application to reactor design
08 p0173 A75-43979
- CRYOGENIC STORAGE**
Low thermal flux glass-fiber/metal vessels for LH2 storage systems
08 p0177 A75-44783
- CRYOGENICS**
Some LNG vehicle developments --- for automotive conversion systems and fueling stations
06 p0048 A75-23236
- The application of aerospace technology in the cryogenics field
06 p0048 A75-23239
- Cryogenics safety in a hydrogen fuel society
06 p0061 A75-27973
- Research opportunities in cryogenic hydrogen-energy systems
08 p0171 A75-42280
- Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings
08 p0173 A75-43976
- Cryogenic H2 and national energy needs
08 p0173 A75-43977
- Heat pipe applications development in Europe
08 p0195 A75-46043
- Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge
08 p0195 A75-47081
- Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys
[LBL-2764] 06 p0066 N75-15781
- Hydrogen-future fuel-A bibliography (with emphasis on cryogenic technology)
[CON-75-10289/7] 07 p0155 N75-26509
- CRYSTAL GROWTH**
High-speed silicon processing for low cost solar cells - A comparative analysis
06 p0052 A75-24222
- Epitaxial silicon solar cell
06 p0056 A75-25086
- Solar energy concentrator system for crystal growth and zone refining in space
[NASA-CR-120623] 06 p0086 N75-18719
- CURIUM 244**
A modular heat source for curium-244 and plutonium-238
05 p0002 A75-10497
- A 10% efficient economic RTG design --- radioisotope thermoelectric generator
05 p0003 A75-10506
- CZOCHEWSKI METHOD**
High-speed silicon processing for low cost solar cells - A comparative analysis
06 p0052 A75-24222
- D**
- DATA ACQUISITION**
National energy flow accounts
[PB-239275/1] 07 p0146 N75-24539
- Technology survey of electrical power generation and distribution for MIUS application
[NASA-TM-X-58127] 08 p0207 N75-31573
- DATA BASES**
Design considerations for a comprehensive regional energy information system
[PB-241123/9] 08 p0206 N75-30946
- DATA COLLECTION PLATFORMS**
Remote platform power conserving system
[NASA-CASE-GSC-11182-1] 05 p0032 N75-13007
- DATA CORRELATION**
Natural environment design criteria for the Solar Electric Propulsion Stage (SEPS)
[NASA-TM-X-64929] 07 p0138 N75-23682
- DATA MANAGEMENT**
Data monitoring and information availability - A key to solar energy utilization
08 p0169 A75-40618
- DATA PROCESSING**
Data base for the industrial energy study of the industrial chemicals group
[PB-237845/3] 06 p0087 N75-18732
- Energy R/D Data Workshop
[PB-237493/2] 07 p0130 N75-21811
- DATA RECORDERS**
Data monitoring and information availability - A key to solar energy utilization
08 p0169 A75-40618
- DATA SYSTEMS**
Multispectral data systems for energy related problems --- strip mining and power plant site monitoring
07 p0118 A75-35464
- DECISION MAKING**
The solution of information-deficiency problems of electroenergy technology --- optimal decision making
06 p0062 A75-28508
- Hydrogen - Mechanisms and strategies of market penetration
08 p0180 A75-44811
- Energy utilization by households and technology assessment as a way to increase its effectiveness --- management methods and family decision making
06 p0097 N75-20829
- The energy crisis and decision making in the family
[PB-238783/5] 06 p0106 N75-21028
- Economic-environmental power dispatch
07 p0128 N75-21791
- Selected topics on hydrogen fuel
[CON-75-10619/5] 08 p0207 N75-31575
- DECOMPOSITION**
The generation of hydrogen by the thermal decomposition of water
05 p0005 A75-10532

- Benthal decomposition of adsorbed octadecane ---
impact of oil pollution, deoxygenation of
waterways
06 p0106 N75-20891
- DEGASSING**
Degasification of the Mary Lee coalbed near Oak
Grove, Jefferson County, Alabama, by vertical
borehole in advance of mining
[BM-RI-7968] 05 p0028 N75-11462
- DEGRADATION**
Petroleum degradation in low temperature marine
and estuarine environments
[AD-A007588] 07 p0146 N75-24191
- DEHYDRATED FOOD**
Research on the application of solar energy to the
food drying industry
[PB-238073/1] 06 p0105 N75-20888
- DEICING**
Snow and ice removal from pavements using stored
earth energy --- via heat pipes
[PB-240623/9] 07 p0162 N75-27581
- DEMAND (ECONOMICS)**
Future United States demand patterns and the use
of hydrogen
08 p0179 A75-44806
- Oil for the free world in the 1970's --- demand
and supply
[AD-779352] 05 p0031 N75-12448
- Interfuel substitution in the consumption of
energy in the United States. Part 1:
Residential and commercial sector
[PB-234536/1] 05 p0040 N75-15178
- A study of the demand for gasoline
[PB-235254/0] 06 p0070 N75-16105
- Fuel and energy data: United States by states and
regions, 1972
[PB-236581/5] 06 p0077 N75-17004
- Electric power rights: One approach to rationing
[PB-238537/5] 07 p0143 N75-24138
- The residential user and the electrical load factor
[PB-238535/9] 07 p0145 N75-24152
- US energy and fuel demand to 1985, a composite
projection by user within Petroleum
Administration for Defense (PAD) districts
[PB-239343/7] 07 p0151 N75-25322
- Mineral resources and the environment. Appendix
to section 4: Report of panel on demand for
fuel and mineral resources
[PB-239583/8] 07 p0153 N75-26490
- The study of priorities in the electrical energy
allocation problem
[PB-239762/8] 07 p0156 N75-26516
- An analysis of the potential for shifting electric
power demand within daily load requirement
[PB-239764/4] 07 p0156 N75-26517
- The prospects of energy demand scheduling
[PB-239763/6] 07 p0156 N75-26518
- Demand for scientific and technical manpower in
energy-related industries: United States
1970-1985
[PB-240865] 08 p0201 N75-28964
- Oil and US policy
[AD-A006473] 08 p0203 N75-29558
- Materials technology in the near-term energy program
[PB-240942/3] 08 p0205 N75-30665
- Project Independence report: A review of US
energy needs up to 1985
[PB-242142/8] 08 p0213 N75-33506
- Direct and indirect energy demand models for DoD
[AD-A010968] 08 p0214 N75-33515
- DENMARK**
Exploiting wind power for the production of
electricity --- windmill utilization in Denmark
[NASA-TT-P-16058] 05 p0033 N75-13385
- Coordinated extension of power plants in the
1980's. A statement submitted to the Ministry
of Commerce, Shipping, and Industry by the
Energy Committee of the Power Plants
[NP-20023] 06 p0067 N75-16088
- DENSITY DISTRIBUTION**
Effect of diffusion on concentration profiles in a
solar pond
08 p0167 A75-39412
- DEOXYGENATION**
Benthal decomposition of adsorbed octadecane ---
impact of oil pollution, deoxygenation of
waterways
06 p0106 N75-20891
- DEPOSITS**
Coal in Alabama
[PB-236583/1] 06 p0088 N75-18736
- DESALINIZATION**
Solar stills for agricultural purposes
07 p0115 A75-33972
- DESERTS**
Some generalizations of sample water-supply
calculations for solar-powered pumping plants
05 p0020 A75-17077
- DESIGN ANALYSIS**
Dynamic simulation for performance analysis of
solar heated and cooled buildings
[ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
- An engine project engineer's view of advanced
secondary power systems
[SAE PAPER 740884] 05 p0019 A75-16925
- Some generalizations of sample water-supply
calculations for solar-powered pumping plants
05 p0020 A75-17077
- Progress in heat pipe and porous heat exchanger
technology
06 p0045 A75-20686
- Foreseeable thermal, mechanical, and materials
engineering problems of fusion reactor power
plants
[SMRT PAPER A2/1] 06 p0046 A75-21713
- Design and qualification of the CTS solar cell
blanket --- onboard Canadian Communications
Technology Satellite
06 p0053 A75-24248
- Solar cell modules for lightweight solar arrays
--- onboard communication satellites
06 p0057 A75-26068
- Design study of the energy characteristics of
thermionic electric power generating components
and assemblies
06 p0064 A75-28893
- A method of simulation of solar processes and its
application --- energy collection processes
07 p0109 A75-29474
- Parametric performance and cost models for solar
concentrators
07 p0109 A75-29476
- Designing heat pipe heat sinks
[AIAA PAPER 75-724] 07 p0113 A75-32868
- Glass solar heat collector development
[AIAA PAPER 75-740] 07 p0115 A75-33758
- Stationary concentrating reflector cum tracking
absorber solar energy collector - Optical design
characteristics
07 p0120 A75-36307
- Design and testing of an energy flywheel for an
Integrated Power/Attitude Control System /IPACS/
[AIAA PAPER 75-1107] 08 p0171 A75-41669
- Deployable Symphonie solar generator
[IAF PAPER 75-009] 08 p0183 A75-45819
- A large mechanical contracting corporation solar
heats its own offices
08 p0184 A75-45924
- The nation's first private industrial solar
heating system - General Electric's Valley Forge
Space Center
08 p0184 A75-45925
- Solar heating and cooling of Army buildings
08 p0184 A75-45926
- Energy storage by flywheels
08 p0185 A75-45930
- Development of a 540-sq-ft prototype faceted fixed
mirror solar concentrator
08 p0186 A75-45940
- Design considerations in Schottky solar cells
08 p0188 A75-45962
- Industrial process heat from solar energy ---
energy storage in water pond
08 p0190 A75-45992
- Nickel-hydrogen secondary battery
08 p0191 A75-45997
- Nickel-hydrogen as an alternative to lead-acid and
nickel-cadmium systems in non-space applications
08 p0191 A75-45998
- Hydrogen production by electrolysis - Present and
future
08 p0193 A75-46022
- Moderately concentrating flat-plate solar energy
collectors
[ASME PAPER 75-HT-54] 08 p0196 A75-47526

- Economic radioisotope thermoelectric generator study program [IESD-3112-1] 05 p0036 N75-14269
- Test report SEPS solar array root section model [NASA-CR-120606] 06 p0067 N75-16085
- Nickel-cadmium cells [NASA-CR-143715] 07 p0128 N75-21792
- Potassium topping cycles for stationary power --- conceptual analysis [NASA-CR-2518] 07 p0135 N75-22906
- DESULFURIZING**
- Coal processing: Gasification, liquefaction, desulfurization: A bibliography, 1930 - 1974 [TID-3349] 05 p0023 N75-10578
- Evaluation of coal conversion processes to provide clean fuels, part 1 --- coal conversion to clean fuels [PB-234202/0] 05 p0025 N75-10600
- Char oil energy development [PB-233263/3] 05 p0025 N75-10603
- Evaluation of coal conversion processes to provide clean fuels, part 2 [PB-234203/8] 05 p0025 N75-10604
- A process for cleaning and removal of sulfur compounds from low Btu gases --- coal gasification [PB-236522/9] 06 p0065 N75-15768
- Low Btu gasification high temperature-low temperature H₂S removal comparison effect on overall thermal efficiency in a combined cycle power plant [PB-235780/4] 06 p0072 N75-16125
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 3 Products from coal minerals [PB-237764/6] 06 p0095 N75-19840
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 4. Sulfur removal from coal minerals [PB-237765/3] 06 p0095 N75-19841
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 5. Developmental and rate studies in processing of coal minerals [PB-237766/1] 06 p0095 N75-19842
- Coal combustion and desulfurization in a rotating fluidized bed reactor [BNL-19308] 07 p0129 N75-21799
- Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2 [PB-240632/0] 07 p0159 N75-27556
- DEUTERIUM**
- Hydrogen distribution profiling --- embrittlement of storage vessel surfaces 08 p0179 A75-44805
- DICHLORIDES**
- Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination [PB-240492] 07 p0162 N75-27612
- DIELECTRIC PROPERTIES**
- Dielectric power conversion 08 p0189 A75-45979
- DIESEL ENGINES**
- Project Clean Air 1972, LNG conversion of GM-71 series diesel engine --- considering automobile exhaust gases control [PB-236585/6] 06 p0090 N75-18783
- DIESEL FUELS**
- Independent truckers and the energy crisis [GPO-31-412] 05 p0023 N75-10581
- Project Clean Air 1972, LNG conversion of GM-71 series diesel engine --- considering automobile exhaust gases control [PB-236585/6] 06 p0090 N75-18783
- DIGITAL SIMULATION**
- Numerical simulation of direct energy conversion --- from fusion reactions 06 p0045 A75-19660
- Long term power system dynamics. Summary and technical report [PB-240799/7] 07 p0161 N75-27573
- Long term power system dynamics. Volume 2: Long-term power system dynamics simulation program [PB-240800/3] 07 p0161 N75-27574
- DIGITAL TECHNIQUES**
- Oil exploration needs for digital processing of imagery 05 p0001 A75-10437
- DIPOLE ANTENNAS**
- Modeling and computer simulation of a microwave-to-dc energy conversion element 07 p0120 A75-36500
- DIRECT CURRENT**
- Superconductive d.c. generator 06 p0061 A75-27961
- Modeling and computer simulation of a microwave-to-dc energy conversion element 07 p0120 A75-36500
- DIRECT POWER GENERATORS**
- Study of channel-type systems for solar-energy radiative heat transport 05 p0010 A75-11196
- Numerical simulation of direct energy conversion --- from fusion reactions 06 p0045 A75-19660
- A study of channel systems for radiative solar-heat transfer 06 p0049 A75-23408
- Solar electric and thermal conversion system in close proximity to the consumer --- solar panels on house roofs [AIAA PAPER 75-628] 06 p0062 A75-28597
- Problems of direct conversion of thermal and nuclear energy to electric energy 07 p0120 A75-36415
- Electrochemical heat engines for direct electric power generation and energy storage [AIAA PAPER 75-1237] 08 p0182 A75-45649
- Redox thermogalvanic cells for direct energy conversion 08 p0191 A75-45999
- Direct contact heat exchangers in geothermal power production [ASME PAPER 75-HT-52] 08 p0196 A75-47525
- DART: A simulation code for a direct energy converter for fusion reactors [UCRL-51557] 05 p0043 N75-15462
- Fuel cells: Direct conversion of electrochemical energy into electricity [SAND-74-0125] 06 p0103 N75-20869
- Direct conversion of plasma energy to electricity for mirror fusion reactors [UCRL-76051] 07 p0129 N75-21800
- A direct voltage converter without transformer [NASA-TT-F-16174] 07 p0133 N75-22584
- Cycle study of a mercury-colloidal electrofluid dynamic power generator [AD-A004814] 07 p0159 N75-27559
- Direct solar energy conversion for large scale terrestrial use [PB-241007/4] 08 p0201 N75-28545
- Design of energy storage reactors for dc-to-dc converters [NASA-CR-143327] 08 p0204 N75-30438
- DIURNAL VARIATIONS**
- Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator 07 p0109 A75-29478
- DOCUMENTATION**
- Economic radioisotope thermoelectric generator study program: Appendices. [IESD-3112-2] 05 p0036 N75-14270
- DOCUMENTS**
- NSF-Rann energy abstracts: A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-1] 05 p0024 N75-10592
- DOMESTIC ENERGY**
- Utilization of hydrogen as an appliance fuel 08 p0178 A75-44794
- Future United States demand patterns and the use of hydrogen 08 p0179 A75-44806
- The energy crises 08 p0179 A75-44810
- The economic incentive for introducing electric storage devices into the national energy system 08 p0184 A75-45929
- The EPA-Van - A clean energy system for the home --- mobile test station for nonpolluting systems 08 p0186 A75-45946

- The annual cycle energy system --- winter ice for summer air conditioning 08 p0187 A75-45947
- New dimensions in water heating in the Northwest - A study of solar energy utilization --- computer model 08 p0191 A75-45995
- Plans and status of the NASA-Lewis Research Center wind energy project 08 p0197 A75-47802
- DOMESTIC SATELLITE COMMUNICATIONS SYSTEMS**
- Design and qualification of the CTS solar cell blanket --- onboard Canadian Communications Technology Satellite 06 p0053 A75-24248
- DRAG REDUCTION**
- Evaluation of the overall fuel mass penalty of an aircraft system 07 p0121 A75-36720
- DRAINAGE**
- Methane in the Pittsburgh coalbed, Washington County, Pennsylvania [PB-237848/7] 06 p0089 A75-18760
- DRUGS**
- Industrial energy study of the drug manufacturing industries for the Federal Energy Administration/US Department of Commerce [PB-238994/8] 07 p0142 A75-24130
- DUCTED FLOW**
- Fluctuations of electric power in MHD channels 07 p0110 A75-30949
- DYNAMIC CHARACTERISTICS**
- Fundamentals of automatic control of space nuclear power plants --- Russian book 06 p0048 A75-23229
- DYNAMIC PROGRAMMING**
- Minimum cost solar thermal electric power systems - A dynamic programming based approach 07 p0112 A75-32097
- DYNAMIC RESPONSE**
- Dynamic response of solar heat storage systems [ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867
- E**
- EARTH CRUST**
- Geothermal energy: A new application of rock mechanics [LA-UR-74-821] 06 p0068 A75-16089
- EARTH MANTLE**
- Three-dimensional subsurface delineation via a novel method for determining the subsurface electrical profile [UCRL-51685] 07 p0127 A75-21781
- EARTH MOVEMENTS**
- Measuring ground movement in geothermal areas of Imperial Valley, California 06 p0099 A75-20842
- EARTH RESOURCES**
- U.S. energy resources - Outlook for the future 05 p0014 A75-12999
- Solar energy in earth processes --- review 06 p0061 A75-28437
- Utilization of solar energy --- an assessment of present technology [NASA-TT-F-16090] 05 p0033 A75-13382
- Energy resources and utilization 06 p0075 A75-16983
- Assessment of uranium and thorium resources in the United States and the effect of policy alternatives [PB-238658/9] 07 p0143 A75-24133
- National materials policy --- earth resources management [PB-240941/5] 08 p0199 A75-28503
- Uranium resources to meet long term uranium requirements [PB-239515/0] 08 p0199 A75-28508
- EARTH SURFACE**
- Prospect for geothermal power [LA-UR-74-1111] 06 p0086 A75-18723
- Relationships of earth fracture systems to productivity of a gas storage reservoir [PB-237894/1] 06 p0089 A75-18759
- ECOLOGY**
- Environmental impact of a geothermal power plant 06 p0049 A75-23291
- An ecologic solar heated and cooled home 07 p0118 A75-34937
- ECONOMIC ANALYSIS**
- Economics analyses of solar energy utilization 05 p0004 A75-10520
- The Hydrogen Economy - A utility perspective --- energy technology 05 p0014 A75-12998
- International energy problems and environmental policy 05 p0014 A75-13597
- Prospects for tapping solar energy on a large scale 05 p0015 A75-14014
- Potential for large-scale energy storage in electric utility systems [ASME PAPER 74-WA/ENER-9] 05 p0016 A75-16840
- Economics of a hydrogen storage peaking power plant [ASME PAPER 74-WA/PWR-6] 05 p0018 A75-16880
- Energy systems - Modeling and policy analysis 06 p0055 A75-24750
- An econometric analysis of fuel selection for power generation 06 p0055 A75-24751
- The future of silicon solar cells for terrestrial use 06 p0058 A75-27717
- Urban waste energy resources [AIAA PAPER 75-632] 06 p0062 A75-28598
- Hydrogen production from solar energy 07 p0109 A75-29477
- Energy's hazy future --- electric generating capacity scenarios and forecasts 07 p0110 A75-31195
- Economic and technical aspects of wind generation systems 07 p0116 A75-34533
- The economics of coal-based synthetic gas 08 p0168 A75-39925
- Evaluation of focusing solar energy collectors 08 p0168 A75-40300
- Future hydrogen fueled commercial transports [SAE PAPER 750615] 08 p0169 A75-40521
- Economics of hydrogen energy systems 08 p0172 A75-42285
- The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978
- The technology and economics of hydrogen production from fusion reactors 08 p0176 A75-44767
- An economic study of electrical peaking alternatives 08 p0179 A75-44799
- Hydrogen - Mechanisms and strategies of market penetration 08 p0180 A75-44811
- Report on studies of space to earth microwave power transmission systems [IAP PAPER 75-005] 08 p0183 A75-45814
- Economic analysis of space-based electric power generation and transmission systems [IAP PAPER 75-006] 08 p0183 A75-45829
- Space and energy - Some legal problems --- extraterrestrial resources and solar energy exploitation 08 p0183 A75-45885
- Technical and economic evaluation of solar heating and cooling of buildings 08 p0184 A75-45921
- The economic incentive for introducing electric storage devices into the national energy system 08 p0184 A75-45929
- Conceptual design and economics of an MHD pilot plant 08 p0189 A75-45974
- The economics of the production of liquid fuel and fertilizer by the fixation of atmospheric carbon and nitrogen using nuclear power 08 p0191 A75-46001
- The economics of using wind power for electricity supply in the Netherlands and for water supply on Curacao [NASA-TT-F-15982] 05 p0024 A75-10587
- Primary data on economic activity and water use in prototype oil shale development areas of Colorado: An initial inquiry [PB-236039/4] 05 p0037 A75-14277
- Total energy supply and demand, volume 1, chapter 6 --- natural gas, economic analysis 06 p0067 A75-16082

SUBJECT INDEX

ELECTRIC BATTERIES

- Legal economic, and energy considerations in the use of underground space
[PB-236755/5] 06 p0080 N75-17749
- US energy R and D policy: The role of economics [RFP-WORKING-PAPER-EN-4] 06 p0080 N75-17783
- Economic and system aspects of a superconducting magnetic energy storage device and a dc superconducting transmission line
[LA-UR-74-1145] 06 p0091 N75-19080
- An economic analysis of oil shale operations featuring gas combustion retorting
[PB-237851/1] 06 p0093 N75-19813
- Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843
- Dependence of the United States on essential imported materials, year 2000; volume 1
[AD-A000842] 06 p0096 N75-20157
- Dependence of the United States on essential imported materials, year 2000. Volume 2: Appendices
[AD-A000843] 06 p0096 N75-20158
- Nuclear reactor process heat capabilities, potential, and economics
[CONF-741032-1] 07 p0131 N75-22112
- The economics of energy and natural resource pricing
[GPO-48-071] 07 p0141 N75-24115
- Demonstration plant, clean boiler fuels from coal. Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127
- Economic system analysis of coal preconversion technology
[PB-239383/3] 07 p0151 N75-25325
- Commerce today, volume 5, number 10 --- a discussion of international trade, economics, and energy conservation
[COM-74-50944/10] 07 p0152 N75-25775
- The problem of peak load pricing subject to rate of return constraint
[PB-239765] 07 p0163 N75-27964
- ECONOMIC DEVELOPMENT**
- Advanced subsonic transports - A challenge for the 1990's
[AIAA PAPER 75-304] 06 p0049 A75-23251
- Energy: A plan for action --- Book
07 p0110 A75-30375
- Interfuel substitution in the consumption of energy in the United States. Part 1: Residential and commercial sector
[PB-234536/1] 05 p0040 N75-15178
- The USA: The scientific and technical revolution and trends in foreign policy
[NASA-TT-F-16102] 06 p0096 N75-20160
- Regional economics: A subset of simulation of the effects of coal-fired power development in the four corners region
06 p0107 N75-21153
- An overview of alternative energy sources for LDCs
[PB-239465/8] 08 p0200 N75-28529
- ECONOMIC FACTORS**
- The economics of nuclear power
06 p0047 A75-22734
- A commentary on solar energy
07 p0116 A75-34532
- The fuel scene and its impact on the economics of airline operations
08 p0165 A75-39018
- Nuclear water splitting and high temperature reactors
08 p0175 A75-44757
- Social and environmental context of the hydrogen economy
08 p0179 A75-44807
- Technical problems facing the hydrogen economy
08 p0180 A75-44812
- The hydrogen economy and the law
08 p0180 A75-44813
- A technology assessment of the hydrogen economy concept
08 p0194 A75-46037
- Elimination of duty on methanol imported for certain uses
[H-REPT-93-998] 05 p0026 N75-10857
- Economic radioisotope thermoelectric generator program: Program plan
[IESD-3112-3] 05 p0034 N75-13393
- Economic radioisotope thermoelectric generator study program
[IESD-3112-1] 05 p0036 N75-14269
- Economic radioisotope thermoelectric generator study program: Appendices.
[IESD-3112-2] 05 p0036 N75-14270
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 2: Current and projected demand, supply and price of energy in the United States
[PB-236632/6] 06 p0078 N75-17007
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 3: Current and projected demand, supply and price of energy in the United States, schedules
[PB-236633/4] 06 p0078 N75-17008
- Economic modeling and energy policy planning --- technology transfer, market research
06 p0079 N75-17210
- The effect of recent energy price increases on field crop production costs
[PB-238659/7] 06 p0107 N75-21155
- Economic impact on the free world of the oil crisis, October 1973 - March 1974
[AD-A003136] 06 p0107 N75-21156
- Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report
[PB-238877/5] 07 p0131 N75-22199
- Survey study of the efficiency and economics of hydrogen liquefaction
[NASA-CR-132631] 07 p0133 N75-22486
- Insufficient utilization of scientific advances --- sociopolitical and economic management of technological development
07 p0137 N75-23365
- The long term energy problem and aeronautics
08 p0202 N75-29012
- The MCL-Thurrow model supplement
[PB-241113/0] 08 p0204 N75-29952
- Economic impact of shortages on the fertilizer industry
[PB-240418/4] 08 p0204 N75-29953
- Benefit-cost methodology study with example application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571
- Plausibility of a restricted energy use scenario
[COM-75-10749/0] 08 p0213 N75-33507
- The economic impact of an interruption in United States petroleum imports: 1975 - 2000
[AD-A010914] 08 p0214 N75-33931
- The economics of the natural gas shortage (1960-1980)
[PB-242166/7] 08 p0214 N75-33932
- ECONOMICS**
- NSF-RANN energy abstracts. A monthly abstract journal of energy research, volume 2, no. 4
[ORNL-EIS-74-52-VOL-2-4] 05 p0029 N75-11469
- Materials and the new dimensions of conflict, revised version
[AD-A004263] 07 p0154 N75-26499
- EDUCATION**
- Effects of energy crisis on education, 1974
[GPO-27-765] 05 p0026 N75-10850
- EDUCATIONAL TELEVISION**
- Cost competitiveness of a solar cell array power source for ATS-6 educational TV terminal
[NASA-TN-X-71720] 07 p0140 N75-24110
- EFFICIENCY**
- Summary of high efficiency silicon solar cell meeting held at NASA-Lewis
[NASA-TN-X-71729] 07 p0138 N75-23681
- EFFLUENTS**
- The identification of gamma-valerolactone in waste from an oil-shale in situ retort --- determination of chemical composition by mass spectroscopy of effluents from crude oil shales causing water pollution
[PB-240098/4] 07 p0147 N75-24852
- ELECTRIC BATTERIES**
- Methanol/air acidic fuel cell system
05 p0008 A75-10566
- Batteries and fuel cells in the electrical generating industry
08 p0166 A75-39198
- The practical lithium/poly-carbonmonofluoride battery system
08 p0188 A75-45964
- An intercell heat pipe for fuel cell and battery cooling
[AD-782888] 05 p0027 N75-11226

- Lead accumulator batteries in telecommunications
[BLL-TRANS-2943- (9022.81)] 06 p0074 N75-16967
- High energy battery program at Argonne National
Laboratory
[ANL-8064] 06 p0076 N75-16984
- Development of lithium/sulfur cells for
application to electric automobiles
[CONF-740805-7] 06 p0094 N75-19829
- Impact of future use of electric cars in the Los
Angeles region. Volume 1: Executive summary
and technical report
[PB-238877/5] 07 p0131 N75-22199
- Impact of future use of electric cars in the Los
Angeles region. Volume 2: Task reports on
electric car characterization and baseline
projections
[PB-238878/3] 07 p0131 N75-22200
- Impact of future use of electric cars in the Los
Angeles region. Volume 3: Task reports on
impact and usage analysis
[PB-238879/1] 07 p0131 N75-22201
- ELECTRIC COILS**
- A high-speed superconducting generator
06 p0060 A75-27960
- ELECTRIC DISCHARGES**
- Empirical method of designing the current-voltage
characteristics for the discharge mode of a
thermionic converter
06 p0057 A75-26332
- ELECTRIC ENERGY STORAGE**
- The impact of advanced batteries on electric power
generation
05 p0013 A75-12991
- Performance of heat pumps using cold-side energy
storage and unconventional heat sources
[ASME PAPER 74-WA/HT-17] 05 p0017 A75-16863
- Will superconducting magnetic energy storage be
used on electric utility systems
06 p0056 A75-25832
- Storing electrical energy on a large scale
08 p0165 A75-38864
- Batteries and fuel cells in the electrical
generating industry
08 p0166 A75-39198
- Design and testing of an energy flywheel for an
Integrated Power/Attitude Control System /IPACS/
[AIAA PAPER 75-1107] 08 p0171 A75-41669
- An engineering-scale energy storage reservoir of
iron titanium hydride --- hydrogen-based energy
system
08 p0177 A75-44784
- On the role of hydrogen in electric energy storage
08 p0178 A75-44797
- An MHD energy storage system comprising a
heavy-water producing electrolysis plant and a
H₂O₂/CSOH MHD generator/steam turbine
combination to provide a means of transferring
nuclear reactor energy from the base-load regime
into the intermediate-load and peaking regimes
08 p0179 A75-44800
- Electrochemical heat engines for direct electric
power generation and energy storage
[AIAA PAPER 75-1237] 08 p0182 A75-45649
- The economic incentive for introducing electric
storage devices into the national energy system
08 p0184 A75-45929
- Energy storage by high-pressure,
moderate-temperature electrolytic techniques
08 p0185 A75-45931
- The selection and use of energy storage for solar
thermal electric application
08 p0189 A75-45980
- DCTR power supply and energy storage review meeting
[WASH-1310] 05 p0031 N75-12445
- Cost and size estimates for an electrochemical
bulk energy storage concept
[NASA-TM-X-3192] 05 p0039 N75-15161
- ELECTRIC EQUIPMENT TESTS**
- Performance testing of thermoelectric generators
at JPL
05 p0002 A75-10503
- SNAP 19 Viking RTG flight configuration and
integration testing --- Radioisotope
Thermoelectric Generator
05 p0003 A75-10504
- Operational testing of the high performance
thermoelectric generator /HPG-02/
05 p0003 A75-10505
- Superconducting synchronous machine
06 p0061 A75-27967
- Design and testing of an energy flywheel for an
Integrated Power/Attitude Control System /IPACS/
[AIAA PAPER 75-1107] 08 p0171 A75-41669
- ELECTRIC GENERATORS**
- Solar farms utilizing low-pressure closed-cycle
gas turbines
05 p0003 A75-10514
- Evaluation of central solar tower power plant
05 p0003 A75-10515
- A prototype solar powered, Rankine Cycle system
providing residential air conditioning and
electricity
05 p0004 A75-10523
- Report on progress in achieving direct conversion
of a major fraction of sonic flow kinetic power
into electrical power by electrofluid dynamic
/EFD/ processes
05 p0009 A75-10576
- Prospects and scientific problems of the
utilization of methods of direct electric power
generation from chemical fuels /fuel cells/
05 p0012 A75-12911
- Utilization of solar energy today
05 p0012 A75-12987
- Pumped air storage for electric power generation
05 p0013 A75-12990
- The impact of advanced batteries on electric power
generation
05 p0013 A75-12991
- Tidal power and its integration into the electric
system
05 p0013 A75-12994
- Windpower - Look backward, then move forward
confidently --- for electric power generation in
rural areas
05 p0014 A75-12997
- A comparison of methods for electric power
generation from geothermal hot water deposits
[ASME PAPER 74-WA/ENER-10] 05 p0016 A75-16841
- Power from ocean waves
[ASME PAPER 74-WA/PWR-5] 05 p0018 A75-16879
- Wind energy developments in the 20th century
05 p0020 A75-17503
- Material considerations involved in solar energy
conversion
06 p0047 A75-22522
- A superconducting microwave engine
06 p0056 A75-25831
- Fundamental research on the selection of new
electrochemical generators of medium power
06 p0060 A75-27827
- A high-speed superconducting generator
06 p0060 A75-27960
- Superconductive d.c. generator
06 p0061 A75-27961
- Main problems met in the study of cryogenic
generators
06 p0061 A75-27962
- Solar electric and thermal conversion system in
close proximity to the consumer --- solar panels
on house roofs
[AIAA PAPER 75-628] 06 p0062 A75-28597
- Generation of electric power at high reliability
levels using a group of solar power plants in an
energy system
07 p0122 A75-37159
- Airborne windmills - Energy source for
communication aerostats
[AIAA PAPER 75-923] 08 p0165 A75-38868
- Generation of power from the wind --- windmill
electric generators
08 p0167 A75-39365
- Hydrogen-energy storage for electrical utility
systems
08 p0178 A75-44798
- Solar residential electrification with high
performance heat engines
[AIAA PAPER 75-1239] 08 p0182 A75-45651
- Solar One, two years experience --- prototype home
thermal and electrical system
08 p0184 A75-45922
- Advanced heat transfer methods for geothermal
power applications
08 p0185 A75-45934

SUBJECT INDEX

ELECTRIC POWER PLANTS

- Design study for a coal-fueled closed cycle gas turbine system for MIUS applications --- Modular Integrated Utility System 08 p0187 A75-45948
- The growth of thermonuclear energy conversion 08 p0187 A75-45954
- Concentrated photovoltaic power generation systems 08 p0188 A75-45963
- Study of an electrofluidic generator 08 p0189 A75-45978
- Electrical generation by wind power 08 p0193 A75-46024
- Standardized wind electric power unit [AD-783764] 05 p0025 N75-10598
- Effective utilization of solar energy to produce clean fuel [PB-233956/2] 05 p0026 N75-10605
- Effect of gas turbine efficiency and fuel cost on cost of producing electric power [PB-234159/2] 05 p0034 N75-13397
- Efficiencies in power generation [PB-234160/0] 05 p0034 N75-13398
- Radioisotope space power generator [GA-A-12848] 05 p0038 N75-14832
- Pollution-free electrochemical power generation from low grade coal [PB-236162/4] 06 p0070 N75-16109
- Energy conversion from coal utilizing CPU-400 technology [PB-237028/6] 06 p0083 N75-17828
- Electric power generation using geothermal brine resources for a proof of concept facility 06 p0101 N75-20857
- Results of work on thermoemission conversion [AD-A002655] 07 p0131 N75-22114
- Electric power for space satellites [NASA-TM-X-66808] 07 p0137 N75-23678
- Electric power generation utilizing a heat pipe turbine-generator 07 p0139 N75-24096
- Solar energy for process steam generation [PB-238109/3] 07 p0145 N75-24154
- Study on electrofluid dynamic power generation [AD-A004762] 07 p0155 N75-26507
- Research applied to solar thermal power systems [PB-241090/0] 08 p0201 N75-28544
- Electric power generation system directory from laser power [NASA-CASE-NPO-13308-1] 08 p0204 N75-30524
- Technology survey of electrical power generation and distribution for MIUS application [NASA-TM-X-58127] 08 p0207 N75-31573
- ELECTRIC MOTORS**
- Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report [PB-238877/5] 07 p0131 N75-22199
- Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections [PB-238878/3] 07 p0131 N75-22200
- Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis [PB-238879/1] 07 p0131 N75-22201
- ELECTRIC POWER**
- Space power systems - Retrospect and prospect [IAF PAPER 74-082] 05 p0014 A75-13714
- Energy's hazy future --- electric generating capacity scenarios and forecasts 07 p0110 A75-31195
- Effect of impurity doping concentration on solar cell output 07 p0124 A75-37404
- Multimegawatt fuel cell power system 07 p0124 A75-37656
- Satellites for energy transmission to earth - Technical and socioeconomic studies 07 p0125 A75-38644
- Geothermal energy as a resource in a hydrogen energy economy 08 p0174 A75-44755
- An economic study of electrical peaking alternatives 08 p0179 A75-44799
- Ultimate energy, the ultimate fuel, and the hydrogen link in the electrical energy system 08 p0180 A75-44815
- Regional economics: A subset of simulation of the effects of coal-fired power development in the four corners region 06 p0107 N75-21163
- Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report [PB-238877/5] 07 p0131 N75-22199
- Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections [PB-238878/3] 07 p0131 N75-22200
- Conversion of electrical energy into laser radiation energy in high pressure mixtures of molecular gases 07 p0133 N75-22722
- Technology survey of electrical power generation and distribution for MIUS application [NASA-TM-X-58127] 08 p0207 N75-31573
- ELECTRIC POWER PLANTS**
- Hydrogen cycle peak-shaving for electric utilities 05 p0005 A75-10535
- Hydrogen for the electric utilities - Long range possibilities 05 p0005 A75-10536
- Energy storage for utilities via hydrogen systems 05 p0005 A75-10537
- Independent energy systems for better efficiency 05 p0006 A75-10549
- The FCG-1 fuel cell powerplant for electric utility use 05 p0013 A75-12992
- Potential for large-scale energy storage in electric utility systems [ASME PAPER 74-WA/ENER-9] 05 p0016 A75-16840
- Economics of a hydrogen storage peaking power plant [ASME PAPER 74-WA/FWR-6] 05 p0018 A75-16880
- Prospects for using dynamic thermocompression converter in solar power plants 05 p0020 A75-17076
- Meteorological factors and dispersion of pollutants in the atmosphere - A preliminary study about a large power plant 06 p0045 A75-21150
- Environmental impact of a geothermal power plant 06 p0049 A75-23291
- Considerations regarding a utilization of solar energy --- thermal, electric and wind energy systems 06 p0050 A75-23510
- The solution of information-deficiency problems of electroenergy technology --- optimal decision making 06 p0062 A75-28508
- Systems aspects of ocean thermal energy conversion [AIAA PAPER 75-615] 06 p0062 A75-28593
- 100 MWe solar power plant design configuration and performance [AIAA PAPER 75-623] 06 p0062 A75-28595
- A central receiver solar power plant in a hybrid mode of operation --- solar/fossil-fueled steam power plant [AIAA PAPER 75-624] 06 p0062 A75-28596
- Solar thermal conversion mission analysis [AIAA PAPER 75-619] 06 p0064 A75-29117
- Parametric performance and cost models for solar concentrators 07 p0109 A75-29476
- Analysis of gas dissociation solar thermal power system 07 p0115 A75-33974
- Complex utilization of a solar power plant 07 p0116 A75-34320
- Evaluation of central solar tower power plant 07 p0116 A75-34531
- Component design considerations for gas turbine HTGR power plant --- High-Temperature Gas-cooled Reactor [ASME PAPER 75-GT-67] 07 p0116 A75-34620
- Generation of electric power at high reliability levels using a group of solar power plants in an energy system 07 p0122 A75-37159
- Generalizations of composite studies involving combined use of wind and solar energy 07 p0122 A75-37161

ELECTRIC POWER SUPPLIES

SUBJECT INDEX

- Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels
07 p0122 A75-37162
- Ocean thermal gradient hydraulic power plant
07 p0124 A75-37849
- MHD power generation
08 p0166 A75-39197
- The utilization of ocean energy for electrical energy generation
08 p0168 A75-40181
- Solar energy powered systems - History and current status
08 p0168 A75-40298
- Generation schemes for wind power plants
08 p0169 A75-40688
- Comprehensive utilization of a solar installation
08 p0170 A75-41533
- On the role of hydrogen in electric energy storage
08 p0178 A75-44797
- A potassium topping cycle for public utility power plants
[AIAA PAPER 75-1235] 08 p0181 A75-45647
- 1.5 and 3KW indirect methanol-air fuel cell power plants
08 p0186 A75-45944
- Application of fuel cells with heat recovery for integrated utility systems
08 p0187 A75-45949
- The UP6 Breeder - A solution to the problems of nuclear power
08 p0187 A75-45951
- Thermal power conversion systems for fusion plants
08 p0187 A75-45953
- Topping cycle applications of thermionic conversion
08 p0188 A75-45972
- Thermionic topping of electric power plants
08 p0189 A75-45973
- Conceptual design and economics of an MHD pilot plant
08 p0189 A75-45974
- High-efficiency electrochemical plant
08 p0189 A75-45977
- The design of a solar cavity steam generator for electrical power generation
08 p0190 A75-45982
- Electrical generation by wind power
08 p0193 A75-46024
- Electrical generating equipment and electric utility requirements for high-power wind generator systems
08 p0193 A75-46025
- Wind power system optimization
08 p0193 A75-46026
- High efficiency power conversion cycles using hydrogen compressed by absorption on metal hydrides
08 p0194 A75-46034
- Solar-thermal electric power generation using a system of distributed parabolic trough collectors
[AIChE PAPER 12] 08 p0196 A75-47511
- Standardized wind electric power unit
[AD-783764] 05 p0025 N75-10598
- Solar Sea Power Plants (SSPP): A critical review and survey
[NASA-TN-X-70783] 05 p0028 N75-11459
- Energy plantations: Should we grow trees for power plant fuel?
[VP-X-129] 05 p0030 N75-12436
- Energy storage for the electric power industry
[LA-UR-74-918] 05 p0031 N75-12447
- Clean power generation from coal
[PE-234188/1] 05 p0035 N75-13401
- Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers
[PB-236164/0] 06 p0072 N75-16122
- Low Btu gasification high temperature-low temperature H₂S removal comparison effect on overall thermal efficiency in a combined cycle power plant
[PB-235780/4] 06 p0072 N75-16125
- Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process
[PE-236422/2] 06 p0077 N75-17003
- First Joint Soviet-American Colloquium on the Problems of MHD Energy Conversion
[JPRS-63794] 06 p0081 N75-17790
- Prospects for magnetohydrodynamic electric power plants in power engineering
06 p0081 N75-17791
- Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- Experience in the first step of the mastery of the U-25 device
06 p0081 N75-17793
- Electronic model of the U-25 device
06 p0081 N75-17794
- Solar sea power --- axial flow pumps
[PB-236997/3] 06 p0082 N75-17821
- Low-BTU gasification of coal for electric power generation
[PB-236972/6] 06 p0088 N75-18740
- Organic Rankine cycle silent power plant 1.5 kW, 28 volts dc
[AD-A000900] 06 p0088 N75-18745
- Advanced coal gasification system for electric power generation
[PB-236971/8] 06 p0089 N75-18747
- The generator of the future --- development of the magnetohydrodynamic generators
[AD-A001515] 06 p0089 N75-18754
- The bioenvironmental impact of air pollution from fossil-fuel power plants
[PB-237720/8] 06 p0090 N75-18782
- The collaborative study of EPA methods, 5, 6, and 7 in fossil fuel-fired steam generators
[PB-237695/2] 06 p0091 N75-18788
- Electric power generation using geothermal brine resources for a proof of concept facility
06 p0101 N75-20857
- Geothermal steam condensate reinjection
06 p0102 N75-20863
- Utility company views of geothermal development
06 p0102 N75-20864
- Problems in electric power production --- and environmental pollution
[ISS-T-73/16] 07 p0128 N75-21793
- Energy statistics. A supplement to the summary of National Transportation statistics
[PB-236767/8] 07 p0130 N75-21817
- Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant
[PB-238571/4] 07 p0130 N75-21821
- Potassium topping cycles for stationary power --- conceptual analysis
[NASA-CR-2518] 07 p0135 N75-22906
- Electric power systems analysis research
[PB-239236/3] 07 p0143 N75-24139
- Conference proceedings, Steam Power Plant Workshop
[PB-239514/3] 07 p0144 N75-24148
- Evaluation of power facilities; A reviewer's handbook --- electric and nuclear power plants
[PB-239221/5] 07 p0146 N75-24198
- Study of fuel cell powerplant with heat recovery
[NASA-CR-141854] 07 p0148 N75-25296
- Solids emission from power station furnaces --- industrial pollution control
[BLL-CR-TRANS-6524-(9022.09)] 07 p0157 N75-26528
- US and Soviet MHD technology: A Comparative overview
[AD-A004614] 07 p0162 N75-27901
- Report to Congress on control of sulfur oxides
[PB-241021/5] 08 p0204 N75-29597
- Liquid-metal binary cycles for stationary power
[NASA-TN-D-7955] 08 p0205 N75-30649
- Seaward extension of urban systems: The feasibility of offshore coal-fired electrical power generation
[COM-75-10592/4] 08 p0208 N75-31579
- Proceedings of the Workshop on Research Needs Related to Water for Energy
[PB-241346/6] 08 p0208 N75-31581
- Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants
[NB-241672/5] 08 p0211 N75-32602
- ELECTRIC POWER SUPPLIES**
- Electrical power generation subsystem for Space Shuttle Orbiter
05 p0002 A75-10477
- Technology considerations for Organic Rankine Cycle Electric Power Systems
05 p0002 A75-10484
- NASA objectives for improved solar power plants
05 p0002 A75-10485

SUBJECT INDEX

ELECTRICAL PROPERTIES

- Solar cell and array standardization for Air Force spacecraft
05 p0002 A75-10486
- Performance testing of thermoelectric generators at JPL
05 p0002 A75-10503
- SNAP 19 Viking RTG flight configuration and integration testing --- Radioisotope Thermoelectric Generator
05 p0003 A75-10504
- Development of a thermal battery for emergency radio power under arctic conditions
05 p0007 A75-10560
- Metal hydride fuel cell power source
05 p0008 A75-10564
- Milliwatt fuel cell system for sensors
05 p0008 A75-10565
- 60 watt hydride-air fuel cell system
05 p0008 A75-10567
- High energy density sintered plate type sealed nickel cadmium battery cells. I - The positive electrode/plaque relationships
05 p0008 A75-10569
- High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes
05 p0008 A75-10570
- A novel negative-limited sealed nickel-cadmium cell
05 p0008 A75-10571
- Electrically rechargeable redox flow cells
05 p0008 A75-10573
- Advances in space power generation [IAF PAPER 74-086]
05 p0015 A75-13718
- Effectiveness of using semiconductor heat pumps under the conditions of the Turkmen SSR
05 p0020 A75-17083
- Historic development of photovoltaic power generation
06 p0051 A75-24215
- The use of solar cells in the lighthouse service
06 p0054 A75-24255
- Terrestrial applications of PEP-encapsulated solar cell modules --- power systems using Fluorinated Ethylene Propylene encapsulation
06 p0054 A75-24258
- The Mitre solar energy demonstration system
06 p0055 A75-24676
- MHD energy conversion for high power electrical needs
07 p0124 A75-37657
- Estimates of the reliability of energy-supply systems employing solar energy
08 p0181 A75-45064
- Harnessing wind power in developing countries
08 p0191 A75-46009
- Efficient thermo-mechanical generation of electricity from the heat of radioisotopes
08 p0192 A75-46013
- A 100 watt Stirling electric generator for solar or solid fuel heat sources
08 p0192 A75-46014
- The economics of using wind power for electricity supply in the Netherlands and for water supply on Curacao [NASA-TT-F-15982]
05 p0024 A75-10587
- Evaluation of coal conversion processes to provide clean fuels, part 1 --- coal conversion to clean fuels [PB-234202/0]
05 p0025 A75-10600
- Energy and the environment: Electric power
05 p0030 A75-12438
- Electricity conservation measures in the commercial sector: The Los Angeles experience [R-1592-PEA]
05 p0034 A75-13388
- Pressurized fluidized bed combustion [PB-235591/5]
06 p0065 A75-15772
- Solar thermal electric power systems [PB-236368/7]
06 p0071 A75-16118
- Development of high specific energy batteries for electric vehicles [ABL-8058]
06 p0076 A75-16990
- Applications of aerospace technology in the electric power industry
06 p0079 A75-17197
- Steps into the future. Development of the power industry in the USSR [BLL-M-23330-(5828.4F)]
06 p0085 A75-18714
- Energy storage for utilities via hydrogen systems [BNL-19266]
06 p0086 A75-18725
- Conference proceedings: Power Generation-Clean Fuels Today [PB-237661/4]
06 p0087 A75-18735
- Electric power rights: One approach to rationing [PB-238537/5]
07 p0143 A75-24138
- An approach to the power shortage problem: Optimal allocation of existing excess reserves through interregional transmission [PB-238578/9]
07 p0144 A75-24151
- The residential user and the electrical load factor [PB-238535/9]
07 p0145 A75-24152
- Development of an electrical generator and electrolysis cell for a wind energy conversion system [PB-239272/8]
07 p0150 A75-25315
- Preliminary investigation into regulatory powers and policies on electric utility peak load pricing [PB-239761/0]
07 p0151 A75-25324
- An overview of alternative energy sources for LDCs [PB-239465/8]
08 p0200 A75-28529
- Solar generator and power systems for communication satellites
08 p0206 A75-31165
- ELECTRIC POWER TRANSMISSION**
- The Electric Power Research Institute's role in applying superconductivity to future utility systems
06 p0056 A75-25827
- Testing of a photoelectric generator in a mountainous region of the Azerbaïdzhan SSR
06 p0057 A75-26714
- Photoelectric generator testing in the Azerbaïdzhan SSR mountains
07 p0122 A75-37165
- An energy utility company's view of hydrogen energy
08 p0172 A75-42283
- Economic analysis of space-based electric power generation and transmission systems [IAF PAPER 75-006]
08 p0183 A75-45829
- An approach to the power shortage problem: Optimal allocation of existing excess reserves through interregional transmission [PB-238578/9]
07 p0144 A75-24151
- Long term power system dynamics. Volume 1: Summary and technical report [PB-240799/7]
07 p0161 A75-27573
- Long term power system dynamics. Volume 2: Long-term power system dynamics simulation program [PB-240800/3]
07 p0161 A75-27574
- ELECTRIC PROPULSION**
- Mission applications of electric propulsion [AIAA PAPER 74-1085]
05 p0010 A75-11284
- Recent advances in components of space power systems [IAF PAPER 74-083]
05 p0014 A75-13715
- French activity in electric propulsion
07 p0120 A75-36539
- Power processor design considerations for a solar electric propulsion spacecraft [NASA-CR-140842]
05 p0029 A75-12064
- High energy battery program at Argonne National Laboratory [ANL-8064]
06 p0076 A75-16984
- ELECTRIC PULSES**
- Chemical to electromagnetic energy conversion techniques --- explosive flux compression technology [AD-783901]
05 p0026 A75-10609
- ELECTRIC REACTORS**
- Design of energy storage reactors for dc-to-dc converters [NASA-CR-143327]
08 p0204 A75-30438
- ELECTRICAL ENGINEERING**
- State of the art and prospects for electric vehicles [BLL-OA-TRANS-1250-(6196.3)]
06 p0074 A75-16712
- US and Soviet MHD technology: A Comparative overview [AD-A004614]
07 p0162 A75-27901
- ELECTRICAL PROPERTIES**
- Radiation effects on high efficiency silicon-solar cells
06 p0051 A75-24197
- Dependence of the basic parameters of Al_xGa_{1-x}As/GaAs solar converters on temperature and optical intensity
07 p0112 A75-32824

ELECTRICAL RESISTANCE

- Investigation of the electrical and temperature characteristics of a silicon photoelectric converter under natural conditions 07 p0116 A75-34314
- Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795

ELECTRICAL RESISTANCE

- Dynamic method for calculating the series resistance of a semiconductor photoelectric converter 06 p0057 A75-26713
- Dynamic calculation of semiconductor photoconverter series resistance 07 p0122 A75-37164

ELECTRICITY

- Wind power projects of the French electrical authority [NASA-TT-F-16057] 05 p0033 A75-13384
- Exploiting wind power for the production of electricity --- windmill utilization in Denmark [NASA-TT-F-16058] 05 p0033 A75-13385
- Dynamic conversion of solar generated heat to electricity [NASA-CR-134724] 06 p0066 A75-16079
- Fuel cells: Direct conversion of electrochemical energy into electricity [SAND-74-0125] 06 p0103 A75-20869
- Direct conversion of plasma energy to electricity for mirror fusion reactors [UCRL-76051] 07 p0129 A75-21800
- The 1973 fuel and electrical energy requirements of selected mineral industries activities 07 p0134 A75-22899
- Solar photothermal power conversion 07 p0139 A75-24100
- Fuel use in the US electrical utility industry, 1971 - 1990 07 p0154 A75-26493
- Research on solar cell arrays and electric energy [PB-239338/7] 07 p0155 A75-26504
- The study of priorities in the electrical energy allocation problem [PB-239762/8] 07 p0156 A75-26516
- An analysis of the potential for shifting electric power demand within daily load requirement [PB-239764/4] 07 p0156 A75-26517
- The prospects of energy demand scheduling [PB-239763/6] 07 p0156 A75-26518
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating [PB-239395/7] 07 p0157 A75-26521
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating, executive summary [PB-239394/0] 07 p0157 A75-26522
- Electrical energy allocations at Navy and Marine Corps bases [AD-A009821] 08 p0211 A75-32598
- Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects [PB-241323/5] 08 p0211 A75-32601
- ELECTRIFICATION**
Energy systems analysis and technology assessment program [BNL-18984] 06 p0094 A75-19831
- ELECTROCATALYSTS**
Hydrazine as a fuel for a fuel cell 08 p0166 A75-39132
- Development of advanced fuel cell system, phase 3 [NASA-CR-134818] 07 p0154 A75-26496
- ELECTROCHEMICAL CELLS**
Development and performance of a miniature, high-voltage thermal battery 05 p0007 A75-10559
- High energy density sintered plate type sealed nickel cadmium battery cells. I - The positive electrode/plaque relationships 05 p0008 A75-10569
- High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes 05 p0008 A75-10570
- A novel negative-limited sealed nickel-cadmium cell 05 p0008 A75-10571

SUBJECT INDEX

- Predicted energy densities for nickel-hydrogen and silver-hydrogen cells embodying metallic hydrides for hydrogen storage 05 p0008 A75-10572
- Electrically rechargeable redox flow cells 05 p0008 A75-10573
- Fundamental research on the selection of new electrochemical generators of medium power 06 p0060 A75-27827
- Photogalvanic cells 08 p0167 A75-39403
- Massive production of hydrogen by a thermo-electrochemical method 08 p0172 A75-42531
- Hydrogen generation through static-feed water electrolysis 08 p0177 A75-44776
- Hydrogen generation by solid-polymer electrolyte water electrolysis 08 p0177 A75-44777
- Electrochemical heat engines for direct electric power generation and energy storage [AIAA PAPER 75-1237] 08 p0182 A75-45649
- High-efficiency electrochemical plant 08 p0189 A75-45977
- Nickel-hydrogen secondary battery 08 p0191 A75-45997
- Nickel-hydrogen as an alternative to lead-acid and nickel-cadmium systems in non-space applications 08 p0191 A75-45998
- Redox thermogalvanic cells for direct energy conversion 08 p0191 A75-45999
- Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-3192] 05 p0039 A75-15161
- Development of high specific energy batteries for electric vehicles [ANL-8058] 06 p0076 A75-16990
- Electrochemical power sources --- heat and mass transfer in porous media [AD-A001610] 06 p0094 A75-19836
- Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-71805] 08 p0210 A75-32593
- ELECTROCHEMICAL CORROSION**
Corrosion and related problems in high-temperature cells 06 p0055 A75-24377
- ELECTROCHEMICAL OXIDATION**
Hydrazine as a fuel for a fuel cell 08 p0166 A75-39132
- ELECTROCHEMISTRY**
Pollution-free electrochemical power generation from low grade coal [PB-236162/4] 06 p0070 A75-16109
- Development of advanced fuel cell system, phase 3 [NASA-CR-134818] 07 p0154 A75-26496
- ELECTROCONDUCTIVITY**
Calculation of the electrical conductivity of the combustion products of the working medium in an open-cycle MHD generator 07 p0112 A75-31568
- Effect of inhomogeneity of conductivity on end effect in a sectional MHD generator 07 p0119 A75-36233
- ELECTRODES**
High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes 05 p0008 A75-10570
- A novel negative-limited sealed nickel-cadmium cell 05 p0008 A75-10571
- Electrochemical power sources --- heat and mass transfer in porous media [AD-A001610] 06 p0094 A75-19836
- Sulfur-based lithium-organic electrolyte secondary batteries [AD-A003309] 06 p0104 A75-20882
- ELECTROHYDRODYNAMICS**
Measurements of the performance of an electrohydrodynamic heat pipe [AIAA PAPER 75-659] 07 p0114 A75-32917
- Study on electrofluid dynamic power generation [AD-A004762] 07 p0155 A75-26507
- Cycle study of a mercury-colloidal electrofluid dynamic power generator [AD-A004814] 07 p0159 A75-27559

SUBJECT INDEX

ENERGY CONSERVATION

ELECTROLYSIS

Efficiencies of electrolytic and thermochemical hydrogen production 06 p0045 A75-20300

Production of hydrogen by the electrolysis of water 06 p0046 A75-22044

Can hydrogen transmission replace electricity 08 p0165 A75-38863

On methods for the large-scale production of hydrogen from water 08 p0176 A75-44773

Electrolytic hydrogen generators 08 p0176 A75-44774

Electrolysis of sea water --- for hydrogen fuel production 08 p0176 A75-44775

Hydrogen generation through static-feed water electrolysis 08 p0177 A75-44776

Hydrogen generation by solid-polymer electrolyte water electrolysis 08 p0177 A75-44777

Hydrogen-energy storage for electrical utility systems 08 p0178 A75-44798

An MHD energy storage system comprising a heavy-water producing electrolytic plant and a H₂/O₂/CO₂ MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes 08 p0179 A75-44800

Environmental impact of a suitable nuclear power reactor used to provide a process heat system to synthesize fuels 08 p0179 A75-44808

Energy storage by high-pressure, moderate-temperature electrolytic techniques 08 p0185 A75-45931

High-efficiency electrochemical plant 08 p0189 A75-45977

Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy 08 p0190 A75-45994

Hydrogen production by electrolysis - Present and future 08 p0193 A75-46022

Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies 08 p0193 A75-46023

ELECTROLYTES

Electrolyte for hydrocarbon air fuel cells [AD-A007220] 07 p0136 N75-22917

ELECTROLYTIC CELLS

Methanol/air acidic fuel cell system 05 p0008 A75-10566

Porous matrix structures for alkaline electrolyte fuel cells 07 p0123 A75-37243

Photogalvanic cells 08 p0167 A75-39403

Prospects for electrolytic hydrogen for chemical/industrial plants 08 p0168 A75-40179

Energy storage by high-pressure, moderate-temperature electrolytic techniques 08 p0185 A75-45931

Solid polymer electrolysis fuel cell status report 08 p0186 A75-45942

The practical lithium/poly-carbonmonofluoride battery system 08 p0188 A75-45964

Photochemical conversion of solar energy --- study of iron-thionine photogalvanic cells [PB-235474/4] 05 p0038 N75-14282

Development of an electrical generator and electrolysis cell for a wind energy conversion system [PB-239272/8] 07 p0150 N75-25315

ELECTROMAGNETIC ABSORPTION

The COMSAT non-reflective silicon solar cell - A second generation improved cell 06 p0053 A75-24245

ELECTRON BEAMS

An electron beam initiated fusion neutron generator 06 p0045 A75-19657

Electronbeam heating for fusion 07 p0120 A75-36295

ELECTRON IRRADIATION

The effects of irradiation on high-efficiency silicon solar cells 06 p0051 A75-24199

Electron and proton irradiation of high-efficiency silicon solar cells 06 p0053 A75-24233

ELECTRONIC EQUIPMENT

Designing heat pipe heat sinks [AIAA PAPER 75-724] 07 p0113 A75-32868

ELECTROPLATING

Thin film coatings in solar-thermal power systems 06 p0056 A75-25679

ELECTROSTATIC GENERATORS

Electrostatic voltage generation from flowing water 05 p0009 A75-10580

EMPLOYMENT

Effects of the energy crisis on employment dislocation, 1974 [GPO-35-761] 08 p0208 N75-31918

ENCAPSULATING

Terrestrial applications of FEP-encapsulated solar cell modules --- power systems using Fluorinated Ethylene Propylene encapsulation 06 p0054 A75-24258

ENCLOSURES

Solar 10 kW turboalternator silent power program [AD-A006549] 08 p0203 N75-29555

ENERGY

NSF-Rann energy abstracts: A monthly abstract journal of energy research [ORNL-ERS-74-52-VOL-2-NO-1] 05 p0024 N75-10592

Biological conversion of organic refuse to methane [PB-235468/6] 05 p0041 N75-15183

Energy R/D Data Workshop [PB-237493/2] 07 p0130 N75-21811

ENERGY ABSORPTION

Selection and evaluation of the University of Florida's solar powered absorption air conditioning system [ASHE PAPER 74-WA/SOL-6] 05 p0019 A75-16889

A resonant point absorber of ocean-wave power 08 p0170 A75-41425

ENERGY ABSORPTION FILMS

Solar characteristics of new absorptive coatings used on solar collectors 07 p0117 A75-34934

Thick semiconductor films for photothermal solar energy conversion 08 p0165 A75-38956

Semi-transparent solar collector window systems 08 p0167 A75-39405

Principles and applications of selective solar coatings 08 p0181 A75-45511

Optical coatings for collection and conservation of solar energy 08 p0181 A75-45512

ENERGY BUDGETS

Conservation and efficient use of energy [H-REPT-93-1634] 05 p0036 N75-14265

A generalised analysis of the performance of a variety of drive systems for high Reynolds number, transonic wind tunnels [RAE-TR-73134] 06 p0073 N75-16572

Projected regional energy availability in 1985 [AD-A008938] 08 p0205 N75-30659

ENERGY CONSERVATION

Solar energy and energy conservation in a state-assisted housing for the elderly project [AIAA PAPER 75-611] 06 p0062 A75-28591

Energy: A plan for action --- Book 07 p0110 A75-30375

An ecologic solar heated and cooled home 07 p0118 A75-34937

Design of short haul aircraft for fuel conservation [SAB PAPER 750587] 08 p0169 A75-40502

Efficient use of energy 08 p0169 A75-41125

Fuel conservation possibilities for terminal area compatible transport aircraft [AIAA PAPER 75-1036] 08 p0171 A75-41698

Optical coatings for collection and conservation of solar energy 08 p0181 A75-45512

The EPA-Van - A clean energy system for the home --- mobile test station for nonpolluting systems 08 p0186 A75-45946

- Application of fuel cells with heat recovery for integrated utility systems 08 p0187 A75-45949
- Heat pipe thermal recovery units --- for process exhaust energy utilization 08 p0194 A75-46041
- High temperature heat pipes for energy conservation --- thermal waste recovery system 08 p0194 A75-46042
- Initial comparisons of solar collector performance data obtained cut-of doors and with a solar simulator 08 p0197 A75-47804
- Residential energy conservation [TID-26534] 05 p0031 N75-12442
- Remote platform power conserving system [NASA-CASE-GSC-11182-1] 05 p0032 N75-13007
- MEGASTAB: The meaning of growth. An assessment of systems, technologies, and requirements --- methodology for display and analysis of energy production and consumption [NASA-CR-120338] 05 p0033 N75-13381
- Electricity conservation measures in the commercial sector: The Los Angeles experience [R-1592-FEA] 05 p0034 N75-13388
- Conservation and efficient use of energy [H-REPT-93-1634] 05 p0036 N75-14265
- Fuel conservation capability and effort by commercial air carriers [NASA-CR-137624] 05 p0039 N75-15157
- Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft [NASA-CR-2502] 06 p0073 N75-16557
- Legal economic, and energy considerations in the use of underground space [PB-236755/5] 06 p0080 N75-17749
- Oversight: Mandatory petroleum allocation programs [GPO-31-027] 06 p0081 N75-17806
- Economic and energy conservation relationship relevant to state of New York building design and contract awards [PB-237006/2] 06 p0082 N75-17824
- Report and recommendations of the Solar Energy Data Workshop [PB-238066/5] 06 p0089 N75-18757
- Synthetic Liquid Fuel Research and Development Act of 1974 --- energy conservation and cost analyses [GPO-44-818] 06 p0103 N75-20867
- Management of power plant waste heat in cold regions [AD-A003217] 06 p0104 N75-20881
- The energy crisis and decision making in the family [PB-238783/5] 06 p0106 N75-21028
- A comparative analysis of the energy consumption for several urban passenger ground transportation systems [PB-238041/8] 06 p0107 N75-21160
- Airne Engineering Conference --- energy report [CONF-740814-ABSTS] 07 p0129 N75-21801
- Industrial energy study of the petroleum refining industry [PB-238671/2] 07 p0130 N75-21818
- Technological improvements to automobile fuel consumption. Volume 2A: Sections 1 through 23 [PB-238678/7] 07 p0132 N75-22479
- A study of technological improvements in automotive fuel consumption. Volume 1: Executive summary [PB-238693/6] 07 p0132 N75-22481
- A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion [PB-238694/4] 07 p0132 N75-22482
- A study of technological improvements in automobile fuel consumption. Volume 3A: Appendixes 1 - 111. [PB-238695/1] 07 p0133 N75-22483
- A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7 [PB-238696/9] 07 p0133 N75-22484
- Evaluating integrated utility systems [PB-238765/2] 07 p0136 N75-22925
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text [AD-A006804] 07 p0142 N75-24129
- Preliminary study of advanced turboprops for low energy consumption [NASA-TM-X-71740] 07 p0146 N75-24739
- Energy legislation --- energy conservation and resources management [GPO-33-571] 07 p0149 N75-25301
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary [AD-A006803] 07 p0149 N75-25304
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices [AD-A006805] 07 p0149 N75-25305
- Energy conservation: A case study for a large manufacturing plant [PB-239302/3] 07 p0151 N75-25323
- Dimensions/NBS, volume 59, number 2, February 1975 --- energy conservation, safety management, toxic hazards [COM-75-50141/02] 07 p0151 N75-25330
- Five year program planning document for end use energy conservation, research, development, and demonstration [PB-240406/9] 07 p0152 N75-25331
- Commerce today, volume 5, number 10 --- a discussion of international trade, economics, and energy conservation [COM-74-50944/10] 07 p0152 N75-25775
- Mineral resources and the environment --- energy conservation and energy policy [PB-239579/6] 07 p0153 N75-26486
- Papers and proceedings of two energy crisis seminars --- for urban transportation [PB-239164/7] 07 p0156 N75-26513
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating [PB-239395/7] 07 p0157 N75-26521
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating, executive summary [PB-239394/0] 07 p0157 N75-26522
- An analysis of constraints on increased coal production [PB-240613/0] 07 p0157 N75-26525
- Conservation in Alberta, 1973 07 p0158 N75-27532
- Space and energy conservation housing prototype unit development [NASA-CR-143201] 07 p0160 N75-27567
- Project conserve, a pilot project in homeowner energy conservation [PB-240407/7] 07 p0161 N75-27577
- The household energy game [COM-75-10304/4] 07 p0161 N75-27578
- Energy rationing and energy conservation: Foundations for a social policy [PB-239766] 07 p0162 N75-27579
- Transportation energy conservation: A program plan of policy-oriented research [PB-240734/4] 08 p0200 N75-28528
- Proceedings of the Conference on Energy Conservation in Commercial, Residential and Industrial Buildings [PB-240306/1] 08 p0200 N75-28539
- Measure for reducing energy consumption for homeowners and renters [PB-240472/1] 08 p0201 N75-28546
- Fuel conservation in ship operations [COM-75-10466/1] 08 p0202 N75-29270
- Energy conservation study of Veterans Administration hospitals. Stage 1: Base line survey [PB-241095/9] 08 p0203 N75-29559
- Energy conservation study of Veterans Administration hospitals. Stage 2: Operational study [PB-241096/7] 08 p0203 N75-29560
- Energy conservation study of Veterans Administration hospitals. Stage 3: Hospital energy control system [PB-241097/5] 08 p0203 N75-29561
- Energy conservation study of Veterans Administration hospitals. Stage 4: Basic detail data for stage 1, 2, and 3 [PB-241098/3] 08 p0203 N75-29562
- Energy data requirements of the Federal Government. Part 4: Propane and crude oil; conflicts of interest [GPO-41-639] 08 p0207 N75-31566

SUBJECT INDEX

ENERGY CONSUMPTION

- Investigation of current university research concerning energy conversion and conservation in small single-family dwellings [NASA-CR-143430] 08 p0207 N75-31570
- Providing for a national fuels and energy conservation policy, establishing an office of energy conservation in the Department of the Interior, and for other purposes [H-REPT-93-1546] 08 p0208 N75-31953
- Study of potential for motor vehicle fuel economy improvement. Fuel economy test procedure panel report no. 6 [PB-241776/4] 08 p0210 N75-32470
- Study of potential for motor vehicle fuel economy improvement. Technology panel report no. 4 [PB-241774/9] 08 p0210 N75-32471
- Study of potential for motor vehicle fuel economy improvement. Safety implications panel report no. 2 [PB-241772/3] 08 p0212 N75-33410
- Study of potential for motor vehicle fuel economy improvement. Truck and bus panel report no. 7 [PB-241777/2] 08 p0212 N75-33411
- Incorporating energy conservation techniques in the operation of existing LeRC B and D facilities --- energy policy/NASA programs [NASA-TM-X-71813] 08 p0212 N75-33494
- Seminar on Industrial Energy Conservation and Seminar on Solar Space Heating and Cooling [PB-241462/1] 08 p0212 N75-33498
- Plausibility of a restricted energy use scenario [COM-75-10749/0] 08 p0213 N75-33507
- The NBS computerized carpool matching system: User's guide [COM-75-10691/4] 08 p0214 N75-33749
- ENERGY CONSUMPTION**
- Hydrogen cycle peak-shaving for electric utilities 05 p0005 A75-10535
- Energy efficiency of current intercity passenger transportation modes [AIAA PAPER 75-314] 06 p0047 A75-22513
- Air transportation energy consumption - Yesterday, today, and tomorrow [AIAA PAPER 75-319] 06 p0047 A75-22515
- Mode shift strategies in intercity transportation and their effect on energy consumption [AIAA PAPER 75-315] 06 p0055 A75-25013
- 'Time is energy' /Henson and Stringfellow Memorial Lecture/ --- VTOL aircraft developments 07 p0112 A75-32324
- Available energy conversion and utilization in the United States [ASME PAPER 74-WA/PWR-1] 08 p0166 A75-39349
- Energy survey - What can R&D do by 1985 --- fossil fuel utilization 08 p0169 A75-40617
- Getting at the big facts in transportation --- private and public transit efficiencies 08 p0173 A75-42973
- Total energy use for commercial aviation in the US [ORNL-NSF-EP-68] 05 p0023 N75-10039
- MEGASTAR: The Meaning of Energy Growth: An Assessment of Systems, Technologies, and Requirements [NASA-CR-120355] 05 p0023 N75-10584
- US energy flow charts for 1950, 1960, 1970, 1980, 1985, and 1990 [UCRL-51487] 05 p0024 N75-10593
- The approaching energy crisis: A call for action 05 p0030 N75-12432
- Energy and the environment in Baden-Wuerttemberg [KFK-1966-UF] 05 p0030 N75-12439
- Residential energy conservation [TID-26534] 05 p0031 N75-12442
- Energy consumption by industries in support of national defense: An energy demand model [AD-784964] 05 p0031 N75-12449
- Total energy supply and demand, volume 1, chapter 6 --- natural gas, economic analysis 06 p0067 N75-16082
- Oslo's future power supply [EP-20121] 06 p0067 N75-16087
- NSF-BANN energy abstracts [ORNL-EIS-74-52-VOL-2-5] 06 p0068 N75-16092
- Guidelines to reduce energy consumption through transportation actions [PB-235983/4] 06 p0068 N75-16094
- Industrial energy studies of ground freight transportation, volume 1 [PB-236016/2] 06 p0069 N75-16099
- Industrial energy studies of ground freight transportation. Volume 2: Appendices [PB-236017/0] 06 p0069 N75-16100
- Energy use in the commercial and industrial sectors of the US economy, 1963 [PB-235487/6] 06 p0070 N75-16104
- Industrial energy study of the Industrial chemicals group [PB-236322/4] 06 p0071 N75-16111
- Fuel and energy data: United States by states and regions, 1972 [PB-236581/5] 06 p0077 N75-17004
- Industrial energy study of selected food industries [PB-237316/5] 06 p0083 N75-17827
- Study of industrial uses of energy relative to environmental effects [PB-237215/9] 06 p0084 N75-17853
- Report of the Interagency Working Group on health and environmental effects of energy use [PB-237937/8] 06 p0084 N75-17858
- Documenting helicopter operations from an energy standpoint [NASA-CR-132578] 06 p0084 N75-18220
- Industrial energy study of the hydraulic cement industry [PB-237142/5] 06 p0087 N75-18730
- Fuel and energy consumption in the coal industries [PB-237151/6] 06 p0088 N75-18744
- Intra industry capability to substitute fuels [PB-237605/1] 06 p0093 N75-19814
- Energy utilization by households and technology assessment as a way to increase its effectiveness --- management methods and family decision making 06 p0097 N75-20829
- Management of power plant waste heat in cold regions [AD-A003217] 06 p0104 N75-20881
- The energy crisis and decision making in the family [PB-238783/5] 06 p0106 N75-21028
- The effect of recent energy price increases on field crop production costs [PB-238659/7] 06 p0107 N75-21155
- A comparative analysis of the energy consumption for several urban passenger ground transportation systems [PB-238041/8] 06 p0107 N75-21160
- Energy statistics. A supplement to the summary of National Transportation statistics [PB-236767/8] 07 p0130 N75-21817
- Industrial energy study of the petroleum refining industry [PB-238671/2] 07 p0130 N75-21818
- A state energy management plan for North Carolina, phase 1: A quantitative description of the current situation and analysis of the determinants and consequences of future energy use [PB-238197/8] 07 p0130 N75-21819
- A USAP energy projection model [AD-A006928] 07 p0132 N75-22476
- Technological improvements to automobile fuel consumption. Volume 1: Executive summary [PB-238677/9] 07 p0132 N75-22478
- Technological improvements to automobile fuel consumption. Volume 2B: Sections 24 and 25 and appendices A through I [PB-238679/5] 07 p0132 N75-22480
- A realistic view of US natural gas supply [PB-238964/1] 07 p0134 N75-22898
- Retrofitting existing housing for energy conservation: An economic analysis [COM-75-50049/6] 07 p0135 N75-22914
- Path to self-sufficiency directions and constraints --- a model of US energy supply system [PB-239099] 07 p0142 N75-24128
- Utilization analysis of energy systems [PB-239291/8] 07 p0144 N75-24144
- The residential user and the electrical load factor [PB-238535/9] 07 p0145 N75-24152
- Preliminary study of advanced turboprops for low energy consumption [NASA-TM-X-71740] 07 p0146 N75-24739
- Meeting California's energy requirements, 1975 - 2000 07 p0149 N75-25297
- Residential energy consumption and small scale options of energy systems for space heating [PB-239941/8] 07 p0154 N75-26501

ENERGY CONVERSION

SUBJECT INDEX

- Digest of energy facts for water resources studies in Minnesota
[PB-239961/6] 07 p0156 N75-26515
- The study of priorities in the electrical energy allocation problem
[PB-239762/8] 07 p0156 N75-26516
- The problem of peak load pricing subject to rate of return constraint
[PB-239765] 07 p0163 N75-27964
- Uranium resources to meet long term uranium requirements
[PB-239515/0] 08 p0199 N75-28508
- Feasibility study of solar energy utilization in modular integrated utility systems
[NASA-CR-141929] 08 p0199 N75-28518
- Demand for scientific and technical manpower in energy-related industries: United States 1970-1985
[PB-240865] 08 p0201 N75-28964
- Application of fast sparse-matrix techniques and an energy estimation model for large transportation networks
08 p0201 N75-28967
- Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities
[AD-A003590] 08 p0202 N75-29550
- Master plan for REIS implementation
[PB-241126/2] 08 p0205 N75-30945
- Design considerations for a comprehensive regional energy information system
[PB-241123/9] 08 p0206 N75-30946
- Contribution to the improvement of the regulating process of ignition controlled engines
[PUBL-165] 08 p0206 N75-31285
- Electrical energy allocations at Navy and Marine Corps bases
[AD-A009821] 08 p0211 N75-32598
- Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects
[PB-241323/5] 08 p0211 N75-32601
- Energy consumption: Paper, stone/clay/glass/concrete, and food industries
[PB-241926/5] 08 p0211 N75-32607
- Energy consumption: The primary metals and petroleum industries
[PB-241990/1] 08 p0213 N75-33503
- Research design construction and evaluation of a low energy utilization school, research phase 1
[PB-242217/8] 08 p0213 N75-33504
- The future of the US nuclear energy industry
[PB-242164/2] 08 p0214 N75-33511
- ENERGY CONVERSION**
- Intersociety Energy Conversion Engineering Conference, 9th, San Francisco, Calif., August 26-30, 1974, Proceedings
05 p0001 A75-10476
- Closed loop chemical systems for energy transmission, conversion and storage
05 p0005 A75-10538
- Prospects for tapping solar energy on a large scale
05 p0015 A75-14014
- Corrosion problems in energy conversion and generation; Proceedings of the Symposium, New York, N.Y., October 15-17, 1974
06 p0054 A75-24376
- Temperature sensor for photoelectric energy converters
06 p0057 A75-26712
- Geothermal energy --- technology assessment
06 p0060 A75-27826
- Low-power turbines using organic vapor
07 p0110 A75-30892
- Photoelectric energy converter temperature sensor
07 p0122 A75-37163
- Laser energy conversion
07 p0125 A75-38474
- The utilization of ocean energy for electrical energy generation
08 p0168 A75-40181
- Ocean based solar-to-hydrogen energy conversion macro system
08 p0175 A75-44764
- A search for thermochemical water-splitting cycles --- for energy production
08 p0177 A75-44782
- Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record
08 p0183 A75-45920
- Novel materials for power systems. Part 3: Selective emitters for energy conversion
[AD-784449] 05 p0026 N75-10608
- Chemical to electromagnetic energy conversion techniques --- explosive flux compression technology
[AD-783901] 05 p0026 N75-10609
- Utilization of plasma exhaust energy for fuel production
[COO-3028-7] 05 p0028 N75-11465
- Review of direct energy conversion of ion beams: Experimental results and reactor applications
[UCRL-75600] 05 p0028 N75-11466
- MHD energy conversion
[AD-785419] 05 p0032 N75-12807
- Efficiencies in power generation
[PB-234160/0] 05 p0034 N75-13398
- Continued development of energy transmission and conversion systems --- applied to operation of mechanical hearts
[PB-236181/4] 05 p0037 N75-14278
- DART: A simulation code for a direct energy converter for fusion reactors
[UCRL-51557] 05 p0043 N75-15462
- Development of advanced fuel cell system, phase 2
[NASA-CR-134721] 06 p0067 N75-16084
- Energy conversion from coal utilizing CPU-400 technology
[PB-235817/4] 06 p0068 N75-16093
- Photochemical conversion of solar energy
[PB-235503/0] 06 p0070 N75-16106
- Chemical vapor deposition research for fabrication of solar energy converters
[PB-236189/7] 06 p0072 N75-16119
- Low to high temperature energy conversion system --- using ammonia
[NASA-CASE-NPO-13510-1] 06 p0074 N75-16972
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 2: Current and projected demand, supply and price of energy in the United States
[PB-236632/6] 06 p0078 N75-17007
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 3: Current and projected demand, supply and price of energy in the United States, schedules
[PB-236633/4] 06 p0078 N75-17008
- Energy conversion. 1: Non-propulsive aspects --- fuels and pyrotechnics
[AD-A000077] 06 p0079 N75-17454
- First Joint Soviet-American Colloquium on the Problems of MHD Energy Conversion
[JPBS-63794] 06 p0081 N75-17790
- Prospects for magnetohydrodynamic electric power plants in power engineering
06 p0081 N75-17791
- Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- Workshop in Gas-Phase Molecular Interactions and the Nation's Energy Problem
[PB-236712/6] 06 p0086 N75-18718
- Status and outlook for energy conversion via fuel cells
[CONF-740462-1] 06 p0087 N75-18729
- Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
[PB-237116/9] 06 p0088 N75-18739
- In situ oil shale conversion and recovery
[SLA-74-0162] 06 p0093 N75-19825
- Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process
[PB-237113/6] 06 p0095 N75-19879
- Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: Lurgi process
[PB-237694/5] 06 p0096 N75-19880
- Energy recovery from solid waste. Volume 1: Summary report
[NASA-CR-2525] 06 p0098 N75-20830

SUBJECT INDEX

ENERGY CONVERSION EFFICIENCY

- Fuel cells: Direct conversion of electrochemical energy into electricity
 [SAND-74-0125] 06 p0103 N75-20869
- Energy and fixed nitrogen from agricultural residues
 [BNWL-SA-5070] 06 p0103 N75-20874
- Direct conversion of plasma energy to electricity for mirror fusion reactors
 [UCRL-76051] 07 p0129 N75-21800
- Ainse Engineering Conference --- energy report
 [COMP-740814-ABSTS] 07 p0129 N75-21801
- A direct voltage converter without transformer
 [NASA-TT-F-16174] 07 p0133 N75-22584
- Conversion of electrical energy into laser radiation energy in high pressure mixtures of molecular gases
 07 p0133 N75-22722
- Development and evaluation of a Stirling-Cycle energy conversion system
 [PB-239086/2] 07 p0136 N75-22918
- Economic system analysis of coal preconversion technology
 [PB-239383/3] 07 p0151 N75-25325
- The impact of energy development on water resources in arid lands. Literature review and annotated bibliography
 [PB-240008/3] 07 p0157 N75-26550
- Animal waste conversion systems based on thermal discharge
 [PB-240113] 07 p0159 N75-27548
- Mechanical thermal motor
 [NASA-CASE-MPS-23062-1] 07 p0160 N75-27561
- Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COED process
 [PB-240371/5] 07 p0162 N75-27626
- Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems
 [PB-240177/6] 08 p0200 N75-28524
- Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process
 [PB-241141/1] 08 p0204 N75-29596
- Electric power generation system directory from laser power
 [NASA-CASE-WPO-13308-1] 08 p0204 N75-30524
- Investigation of current university research concerning energy conversion and conservation in small single-family dwellings
 [NASA-CR-143430] 08 p0207 N75-31570
- Proceedings of the Workshop on Research Needs Related to Water for Energy
 [PB-241346/6] 08 p0208 N75-31581
- Progress of ISL research on energy conversion in ferroelectric ceramics of the type Pb(Zr_{1-x}Ti_x)O₃
 [ISL-29/74] 08 p0208 N75-31910
- Process and environmental technology for producing SHG and liquid fuels
 [PB-242774/8] 08 p0212 N75-33491
- ENERGY CONVERSION EFFICIENCY**
- MHD energy conversion systems
 [AIAA PAPER 74-1071] 05 p0001 A75-10263
- Solar farms utilizing low-pressure closed-cycle gas turbines
 05 p0003 A75-10514
- The hot deeps of the Red Sea as a potential heat source for thermoelectric power generation
 05 p0004 A75-10516
- A planning methodology for the analysis and design of wind-power systems
 05 p0004 A75-10517
- A wind energy conversion system based on the tracked-vehicle airfoil concept
 05 p0004 A75-10518
- Economics analyses of solar energy utilization
 05 p0004 A75-10520
- A prototype solar powered, Rankine Cycle system providing residential air conditioning and electricity
 05 p0004 A75-10523
- Solar augmented home heating heat pump system
 05 p0004 A75-10524
- Independent energy systems for better efficiency
 05 p0006 A75-10549
- Fuel energy systems - Conversion and transport efficiencies
 05 p0007 A75-10554
- Advanced betavoltaic power sources
 05 p0007 A75-10563
- Metal hydride fuel cell power source
 05 p0008 A75-10564
- Electrically rechargeable redox flow cells
 05 p0008 A75-10573
- Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline
 05 p0008 A75-10574
- Report on progress in achieving direct conversion of a major fraction of sonic flow kinetic power into electrical power by electrofluid dynamic /EPD/ processes
 05 p0009 A75-10576
- The MHD power generation system with directly fired coal
 05 p0009 A75-10577
- Development of a theoretical method for predicting the performance of hydrogen-oxygen MHD generators
 05 p0009 A75-10578
- The Harwell thermo-mechanical generator
 05 p0009 A75-10579
- Electrostatic voltage generation from flowing water
 05 p0009 A75-10580
- Analysis of conversion efficiency of organic-semiconductor solar cells
 05 p0010 A75-11146
- Power conversion of energy fluctuations
 05 p0011 A75-11497
- II-VI photovoltaic heterojunctions for solar energy conversion
 05 p0012 A75-12734
- Prospects and scientific problems of the utilization of methods of direct electric power generation from chemical fuels /fuel cells/
 05 p0012 A75-12911
- Progress in coal gasification
 05 p0013 A75-12993
- High efficiency thermoelectric generator
 05 p0014 A75-13067
- Solar thermal absorption heat pump breakeven coefficient of performance
 [ASME PAPER 74-WA/ENER-2] 05 p0015 A75-16834
- Methods for low cost manufacture of silicon solar arrays
 [ASME PAPER 74-WA/ENER-4] 05 p0016 A75-16836
- A comparison of methods for electric power generation from geothermal hot water deposits
 [ASME PAPER 74-WA/ENER-10] 05 p0016 A75-16841
- Natural convection in enclosed spaces - A review of application to solar energy collection
 [ASME PAPER 74-WA/HT-12] 05 p0017 A75-16860
- Performance of the thermal trap solar collector
 [ASME PAPER 74-WA/SOL-5] 05 p0019 A75-16888
- Utilization of tubular thermoelectric modules in solar generators
 05 p0020 A75-17067
- Determination of the temperature field in a tubular thermoelectric module
 05 p0020 A75-17068
- Prospects for using dynamic thermocompression converter in solar power plants
 05 p0020 A75-17076
- Effect of heat transfer from the lateral surfaces of semiconductor thermocouples on the energy characteristics of a thermoelectric generator
 05 p0021 A75-18798
- Thermodynamic considerations of 'solid state engines' based on thermoelastic martensitic transformations and the shape memory effect
 06 p0045 A75-19631
- Numerical simulation of direct energy conversion --- from fusion reactions
 06 p0045 A75-19660
- Hydrogen fuel cells and motors --- new energy technology
 06 p0046 A75-22042
- Stirling engines - Capabilities and prospects
 06 p0048 A75-23237
- Radiation effects on high efficiency silicon-solar cells
 06 p0051 A75-24197
- The effects of irradiation on high-efficiency silicon solar cells
 06 p0051 A75-24199
- Optimisation of solar cell shielding for geostationary missions
 06 p0051 A75-24203
- Improvements in analysis and technology of silicon solar cells with increased efficiency
 06 p0051 A75-24216

- High efficiency silicon solar cells*
 06 p0052 A75-24217
- Development and space qualification of new
 high-efficiency silicon solar cells
 06 p0052 A75-24218
- Development of very low cost solar cells for
 terrestrial power generation
 06 p0052 A75-24226
- Performance of advanced silicon solar cells in a
 space environment
 06 p0052 A75-24232
- Electron and proton irradiation of high-efficiency
 silicon solar cells
 06 p0053 A75-24233
- The COMSAT non-reflective silicon solar cell - A
 second generation improved cell
 06 p0053 A75-24245
- Power generation for the X4 spacecraft - A step in
 the development of a high power/mass ratio,
 hybrid solar array for applications spacecraft
 06 p0053 A75-24251
- Review of central power magnetohydrodynamics
 [AIAA PAPER 75-264]
 06 p0055 A75-25005
- Epitaxial silicon solar cell
 06 p0056 A75-25086
- A superconducting microwave engine
 06 p0056 A75-25831
- A generalization of the Carnot theorem - The
 theorem of useful power
 06 p0057 A75-26448
- High-efficiency graded band-gap
 Al_x/Ga_{1-x}/As-GaAs solar cell
 06 p0058 A75-27519
- GaAs concentrator solar cell
 06 p0058 A75-27520
- Solar collector performance evaluated outdoors at
 NASA-Lewis Research Center
 06 p0058 A75-27531
- Salt domes, pit craters, and dry steam fields -
 Heat pipe applications
 06 p0060 A75-27789
- 100 MWe solar power plant design configuration and
 performance
 [AIAA PAPER 75-623]
 06 p0062 A75-28595
- Design study of the energy characteristics of
 thermionic electric power generating components
 and assemblies
 06 p0064 A75-28893
- Ocean thermal energy conversion system evaluation
 [AIAA PAPER 75-616]
 06 p0064 A75-29115
- Hydrogen production from solar energy
 07 p0109 A75-29477
- A new concept for solar energy thermal conversion
 07 p0110 A75-30368
- Ocean thermal energy conversion
 07 p0111 A75-31274
- Temperature effects in Schottky-barrier silicon
 solar cells
 07 p0115 A75-34175
- Solar air conditioning systems using Rankine power
 cycles - Design and test results of prototype
 three ton unit
 07 p0117 A75-34931
- Investigation of photoelectric converter operation
 under conditions of strong illumination
 07 p0119 A75-36015
- Study of the influence of container design and the
 thermal inertness of solar water heaters on
 their efficiency
 07 p0119 A75-36018
- Efficient CuInSe₂/CdS solar cells
 07 p0119 A75-36274
- Solar energy - The physics of the greenhouse effect
 07 p0120 A75-36306
- The conversion efficiency of ideal Shockley p-n
 junction photovoltaic converters in concentrated
 sunlight
 07 p0120 A75-36362
- Silicon solar cells for highly concentrated sunlight
 07 p0120 A75-36363
- Modeling and computer simulation of a
 microwave-to-dc energy conversion element
 07 p0120 A75-36500
- Optimization of the operating conditions of a
 combined generator-cooler thermoelement
 07 p0121 A75-37155
- The high intensity solar cell - Key to low cost
 photovoltaic power
 07 p0123 A75-37400
- Advances in the theory and application of BSP cells
 --- Back Surface Field solar cells
 07 p0123 A75-37402
- Effects of high doping levels on silicon solar
 cell performance
 07 p0123 A75-37403
- Effect of impurity doping concentration on solar
 cell output
 07 p0124 A75-37404
- MHD energy conversion for high power electrical
 needs
 07 p0124 A75-37657
- Development of the KIVA-I MHD open cycle generator
 07 p0124 A75-37686
- Foam solar sea power plant
 07 p0124 A75-37850
- Theoretical study of the energy output of two
 magnetohydrodynamic generators
 07 p0125 A75-38568
- Polycrystalline silicon layers for solar cells
 08 p0165 A75-38958
- Available energy conversion and utilization in the
 United States
 [ASME PAPER 74-WA/PWR-1]
 08 p0166 A75-39349
- Photogalvanic cells
 08 p0167 A75-39403
- Semi-transparent solar collector window systems
 08 p0167 A75-39405
- Energy - Engineering - Environment; Proceedings of
 the Seventh Annual Frontiers of Power Technology
 Conference, Stillwater, Okla., October 9, 10, 1974
 08 p0168 A75-40176
- Gaseous fuel nuclear reactor research
 08 p0168 A75-40177
- Prospects for electrolytic hydrogen for
 chemical/industrial plants
 08 p0168 A75-40179
- Evaluation of focusing solar energy collectors
 08 p0168 A75-40300
- Generation schemes for wind power plants
 08 p0169 A75-40688
- Efficient use of energy
 08 p0169 A75-41125
- A resonant point absorber of ocean-wave power
 08 p0170 A75-41425
- Operation of photoconverters under conditions of
 strong illumination
 08 p0170 A75-41538
- Investigation of the effect of boiler design and
 finite thermal response of solar water heaters
 on efficiency
 08 p0170 A75-41541
- Enhancement of Schottky solar cell efficiency
 above its semiempirical limit
 08 p0171 A75-42166
- Solar tower thermo-chemical energy cycles
 08 p0171 A75-42277
- An Al p-silicon MOS photovoltaic cell
 08 p0173 A75-43459
- Influence of the geometrical development of the
 cathode surface on the specific power of a
 thermionic converter with surface ionization
 08 p0173 A75-43860
- Is massive solar energy conversion a practical
 prospect
 08 p0174 A75-44752
- Reliability of low cost Cu₂S/CdS solar cells for
 large scale conversion of solar to electrical
 energy
 08 p0174 A75-44754
- Wind capture and diversion through pneumatic
 energy recovery with large capacity aerogenerators
 08 p0175 A75-44762
- Photolysis of water as a solar energy conversion
 process - An assessment
 08 p0176 A75-44766
- Electrolysis of sea water --- for hydrogen fuel
 production
 08 p0176 A75-44775
- Evaluation of multi-step thermochemical processes
 for the production of hydrogen from water
 08 p0177 A75-44778
- A nearly perfect solar energy concentrator made up
 of tapered mirror facets with constant
 transverse curvature
 08 p0180 A75-45062
- Outlook for Si photovoltaic devices for
 terrestrial solar-energy utilization
 08 p0181 A75-45509

SUBJECT INDEX

ENERGY POLICY

- Solar-energy conversion at high solar intensities
08 p0181 A75-45514
- Electrochemical heat engines for direct electric power generation and energy storage
[AIAA PAPER 75-1237] 08 p0182 A75-45649
- The UP6 Breeder - A solution to the problems of nuclear power
08 p0187 A75-45951
- Thermal power conversion systems for fusion plants
08 p0187 A75-45953
- The growth of thermionic energy conversion
08 p0187 A75-45954
- The ERDA thermionic program --- for nuclear propulsion and utility power plants
08 p0187 A75-45955
- NASA thermionic converter research and technology program --- nuclear electric propulsion application
08 p0188 A75-45956
- Electrodes for thermionic energy conversion
08 p0188 A75-45957
- Collector work function improvements and the development of low temperature thermionic converters
08 p0188 A75-45960
- CdS/Cu₂S solar cells, their potential and limitations
08 p0188 A75-45961
- Design considerations in Schottky solar cells
08 p0188 A75-45962
- Topping cycle applications of thermionic conversion
08 p0188 A75-45972
- Conceptual design and economics of an MHD pilot plant
08 p0189 A75-45974
- High-efficiency electrochemical plant
08 p0189 A75-45977
- Study of an electrofluidic generator
08 p0189 A75-45978
- Dielectric power conversion
08 p0189 A75-45979
- The selection and use of energy storage for solar thermal electric application
08 p0189 A75-45980
- Solar-heated-air turbine generating systems
08 p0190 A75-45981
- Harnessing wind power in developing countries
08 p0191 A75-46009
- Efficient thermo-mechanical generation of electricity from the heat of radioisotopes
08 p0192 A75-46013
- A comparison of the COMSAT violet and non-reflective cells
08 p0192 A75-46015
- SEPS solar array design and technology evaluation
08 p0192 A75-46016
- The ATS-6 power system - An optimized design for maximum power source utilization
08 p0192 A75-46017
- Orbital solar energy technology advances
08 p0192 A75-46018
- Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/
08 p0193 A75-46019
- Hydrogen production by electrolysis - Present and future
08 p0193 A75-46022
- Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies
08 p0193 A75-46023
- Comparison and evaluation of nuclear power plant options for geosynchronous power stations
08 p0193 A75-46027
- High efficiency power conversion cycles using hydrogen compressed by absorption on metal hydrides
08 p0194 A75-46034
- High temperature heat pipes for energy conservation --- thermal waste recovery system
08 p0194 A75-46042
- Technique for producing 'good' GaAs solar cells using poor-quality substrates
08 p0195 A75-46721
- High temperature air preheaters for open cycle MHD energy conversion systems
[AIChE PAPER 16] 08 p0196 A75-47512
- Direct contact heat exchangers in geothermal power production
[ASME PAPER 75-HT-52] 08 p0196 A75-47525
- Moderately concentrating flat-plate solar energy collectors
[ASME PAPER 75-HT-54] 08 p0196 A75-47526
- Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator
08 p0197 A75-47804
- Analytical description of the modern steam automobile
[NASA-TM-X-72199] 05 p0035 N75-14134
- Photochemical conversion of solar energy
[PB-236266/3] 05 p0037 N75-14281
- Utilizing fuel more efficiently in reheating and heat treatment furnaces
[BLL-M-21957-(5828.4P)] 06 p0080 N75-17467
- Energy plantations: Should we grow trees for power plant fuel
[PB-238417/0] 07 p0130 N75-21815
- Benefit-cost methodology study with example application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571
- Energy conversion
[AD-A009600] 08 p0208 N75-31580
- Evaluation of pollution control in fossil fuel conversion processes. Liquefaction: Section 2. SRC process
[PB-241792/1] 08 p0212 N75-32627
- ENERGY DISSIPATION**
Calculation of flat-plate collector loss coefficients --- of solar radiation
07 p0109 A75-29480
- ENERGY DISTRIBUTION**
Study of energy distribution in the field of concentration of a solar power plant with a hyperboloid counterreflector
05 p0010 A75-11195
- Energy distribution in the concentration field of a solar installation with a hyperboloidal counter-reflector
06 p0049 A75-23407
- Energy distribution in the concentration field of a two-mirror device with a paraboloidal back reflector
07 p0122 A75-37157
- Energy transportation, distribution, and storage
[WASH-1281-4] 05 p0024 N75-10595
- Solar energy --- and solar powered equipment
[NASA-TT-F-16155] 06 p0081 N75-17787
- ENERGY POLICY**
Combustion dynamics research for 'Project Independence'
[AIAA PAPER 74-1069] 05 p0001 A75-10262
- Fuel outlook dictating technical transport research
05 p0011 A75-11427
- Fusion reactors as future energy sources
05 p0011 A75-11735
- Energy crisis - Fact or fiction
05 p0011 A75-12115
- International energy problems and environmental policy
05 p0014 A75-13597
- The energy perspective --- world fossil fuel reserves and alternate energy sources
05 p0019 A75-17000
- Energy. Volume 1 - Demands, resources, impact, technology, and policy --- Book
06 p0045 A75-20066
- Conceptual design of reduced energy transports
[AIAA PAPER 75-303] 06 p0047 A75-22508
- Energy efficiency of current intercity passenger transportation modes
[AIAA PAPER 75-314] 06 p0047 A75-22513
- The economics of nuclear power
06 p0047 A75-22734
- Energy systems - Modeling and policy analysis
06 p0055 A75-24750
- Mode shift strategies in intercity transportation and their effect on energy consumption
[AIAA PAPER 75-315] 06 p0055 A75-25013
- Energy Delta: Supply vs. demand; Proceedings of the Energy Symposium, San Francisco, Calif., February 25-27, 1974
06 p0059 A75-27778
- Energy supply and demand challenges and some possible solutions
06 p0059 A75-27779
- Interaction between the fuel-energy complex and the environment
07 p0110 A75-29800

- Energy: A plan for action --- Book
07 p0110 A75-30375
- Fuels, minerals, and human survival --- Book
07 p0117 A75-34850
- Remote sensing applied to energy-related problems;
Proceedings of the Symposium-Course, Miami,
Fla., December 2-4, 1974
07 p0118 A75-35451
- Social and environmental context of the hydrogen
economy
08 p0179 A75-44807
- The energy crises
08 p0179 A75-44810
- The hydrogen economy and the law
08 p0180 A75-44813
- The nuclear electric economy --- current and
projected energy consumption and fossil fuel
depletion rates
08 p0180 A75-44817
- Rationale for setting priorities for new energy
technology research and development
[UCRL-51511]
05 p0024 A75-10594
- Development of solar engineering in the USSR
[AD-784708]
05 p0025 A75-10597
- Preliminary evaluation of underground coal
gasification at Hanna, Wyoming
[BM-TPR-82]
05 p0025 A75-10599
- Impact of motor gasoline lead additive regulations
on petroleum refineries and energy resources,
1974-1980, phase 1
[PB-234185/7]
05 p0025 A75-10601
- Char oil energy development
[PB-233263/3]
05 p0025 A75-10603
- Evaluation of coal conversion processes to provide
clean fuels, part 2
[PB-234203/8]
05 p0025 A75-10604
- Novel materials for power systems. Part 3:
Selective emitters for energy conversion
[AD-784449]
05 p0026 A75-10608
- Effects of energy crisis on education, 1974
[GPO-27-765]
05 p0026 A75-10850
- National Crude Oil Refinery Development Act, part 2
[GPO-35-578]
05 p0027 A75-10860
- The National Coal Conversion Act and the National
Crude Oil Refinery Development Act
[GPO-28-964]
05 p0027 A75-10861
- Hydrogen future fuel: A literature survey issued
quarterly, issue no. 6 --- bibliographies
05 p0027 A75-11110
- Oil shale development, part 2
[GPO-30-368]
05 p0027 A75-11455
- Solar Sea Power Plants (SSPP): A critical review
and survey
[NASA-TM-X-70783]
05 p0028 A75-11459
- Degasification of the Mary Lee coalbed near Oak
Grove, Jefferson County, Alabama, by vertical
borehole in advance of mining
[BM-RI-7968]
05 p0028 A75-11462
- Bioconversion --- of solar energy and solid waste
energy into useable fuels
[GPO-37-403]
05 p0028 A75-11463
- Shallow solar pond energy conversion system: An
analysis of a conceptual 10-MWe plant
[UCRL-51533-BEV-1]
05 p0028 A75-11467
- HSP-RANN energy abstracts. A monthly abstract
journal of energy research, volume 2, no. 4
[ORNL-EIS-74-52-VOL-2-4]
05 p0029 A75-11469
- Project Independence
05 p0029 A75-12428
- Solar sea thermal energy
[GPO-37-476]
05 p0030 A75-12430
- Energy and environmental standards ---
environmental standards and energy policy
[GPO-37-171]
05 p0030 A75-12431
- The approaching energy crisis: A call for action
05 p0030 A75-12432
- A survey of LNG technological needs in the USA:
1974 to beyond 2000
05 p0030 A75-12435
- Energy plantations: Should we grow trees for
power plant fuel?
[VP-X-129]
05 p0030 A75-12436
- Energy and the environment: Electric power
05 p0030 A75-12438
- Energy and security: Implications for American
policy
[AD-785084]
05 p0032 A75-12857
- Energy required to develop power in the United
States
05 p0032 A75-13378
- Solar photovoltaic energy
[GPO-39-576]
05 p0032 A75-13379
- Wind energy developments in the 20th century
[NASA-TM-X-71634]
05 p0033 A75-13380
- Wind energy
[GPO-37-390]
05 p0033 A75-13387
- Electricity conservation measures in the
commercial sector: The Los Angeles experience
[R-1592-PEA]
05 p0034 A75-13388
- Prospects for solar energy utilization
[SAND-74-8604]
05 p0034 A75-13389
- Solar energy: Sandia's photovoltaic research
program
[SLA-74-281]
05 p0034 A75-13392
- Evaluation of coal-gasification technology. Part
1: Pipeline-W quality gas
[PB-234036/2]
05 p0034 A75-13396
- Clean power generation from coal
[PB-234188/1]
05 p0035 A75-13401
- A review of the status of MHD power generation
technology including suggestions for a Canadian
MHD research program
[UTIAS-39]
05 p0035 A75-13641
- Transportation vehicle energy intensities. A
joint DOT/NASA reference paper --- energy
consumption of air and ground vehicles
[NASA-TM-X-62404]
05 p0035 A75-13690
- Evaluation of coal-gasification technology. Part
2: Low and intermediate BTU fuel gases
[PB-234042/0]
05 p0036 A75-14273
- Solar energy
[NASA-TT-P-16092]
05 p0038 A75-15149
- Development, growth, and state of the nuclear
industry
[GPO-33-873]
05 p0038 A75-15150
- The prospects for gasoline availability: 1974
[GPO-34-969]
05 p0039 A75-15155
- Oversight: Mandatory petroleum allocation
programs, part 1
[GPO-30-060]
05 p0039 A75-15158
- Oversight: Mandatory petroleum allocation
programs, part 2
[GPO-31-519]
05 p0039 A75-15159
- Prototype oil shale leasing program
[GPO-28-686]
05 p0039 A75-15160
- Revised cost estimate for the LLL in situ coal
gasification concept
[UCRL-51578]
05 p0039 A75-15166
- Wind and solar power engineering
[AD-786844]
05 p0039 A75-15168
- Development of a process for producing an ashless,
low-sulfur fuel from coal. Volume 2:
Laboratory studies. Part 1: Autoclave
experiments
[PB-2336305/9]
05 p0040 A75-15169
- Bureau of Mines research 1973. Summary of
significant results in mining, metallurgy, and
energy
[PB-234733/4]
05 p0040 A75-15171
- Char oil energy development
[PB-234018/0]
05 p0040 A75-15173
- Offshore investigation: Producible shut-in leases
as of January 1974 (second phase)
[PB-234490/1]
05 p0040 A75-15174
- Program plan for environmental effects of energy
[PB-235115/3]
05 p0040 A75-15177
- Interfuel substitution in the consumption of
energy in the United States. Part 1:
Residential and commercial sector
[PB-234536/1]
05 p0040 A75-15178
- Caltech seminar series on energy consumption in
private transportation: Administrative summary
[PB-235349/8]
05 p0041 A75-15184
- Chemical vapor deposition research for fabrication
of solar energy converters
[PB-235481/9]
05 p0041 A75-15185
- Feasibility study of alternative fuels for
automotive transportation. Volume 1: Executive
summary
[PB-235581/6]
05 p0041 A75-15187
- Feasibility study of alternative fuels for
automotive transportation. Volume 2: Technical
section
[PB-235582/4]
05 p0041 A75-15188

- Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices [PB-235583/2] 05 p0041 N75-15189
- Solar heating and cooling of buildings, phase O. Volume 2: Final report [PB-235423/1] 05 p0042 N75-15190
- Solar heating and cooling of buildings, phase O: Feasibility and planning study. Volume 3, book 1, appendix A, task 1: Development of requirements. Appendix B, task 2: Systems definition [PB-235433/0] 05 p0042 N75-15191
- Solar heating and cooling of buildings. Phase O: Final report, volume 1 [PB-235427/2] 05 p0042 N75-15192
- Solar heating and cooling of buildings. Phase O: Final report. Volume 2: Appendices A-N [PB-235428/0] 05 p0042 N75-15193
- Solar heating and cooling of buildings. Phase O: Final report. Volume 3: Appendices O-Y [PB-235429/8] 05 p0042 N75-15194
- A process for cleaning and removal of sulfur compounds from low Btu gases --- coal gasification [PB-236522/9] 06 p0065 N75-15768
- An assessment and analysis of the energy emergency [GPO-25-382] 06 p0066 N75-16076
- Market performance and competition in the petroleum industry, part 1 [GPO-28-503] 06 p0066 N75-16077
- Fuel availability and allocation in the United States [GPO-31-711] 06 p0067 N75-16081
- Total energy supply and demand, volume 1, chapter 6 --- natural gas, economic analysis 06 p0067 N75-16082
- Test report SEPS solar array root section model [NASA-CR-120606] 06 p0067 N75-16085
- Oslo's future power supply [NF-201021] 06 p0067 N75-16087
- Coordinated extension of power plants in the 1980's. A statement submitted to the Ministry of Commerce, Shipping, and Industry by the Energy Committee of the Power Plants [NF-20023] 06 p0067 N75-16088
- AEC in situ oil shale program [UCID-16520] 06 p0068 N75-16090
- Beneficial uses of waste heat [RT/PROT-(74)10] 06 p0068 N75-16091
- NSP-RANN energy abstracts [ORNL-EIS-74-52-VOL-2-5] 06 p0068 N75-16092
- Guidelines to reduce energy consumption through transportation actions [PB-235983/4] 06 p0068 N75-16094
- Proceedings of the Solar Heating and Cooling for Buildings Workshop. Part 2: Panel sessions, March 23 [PB-235483/5] 06 p0069 N75-16095
- Industrial energy studies of ground freight transportation, volume 1 [PB-236016/2] 06 p0069 N75-16099
- Industrial energy studies of ground freight transportation. Volume 2: Appendices [PB-236017/0] 06 p0069 N75-16100
- Solar heating and cooling of buildings. Phase O: Feasibility and planning study. Volume 1: [PB-235431/4] 06 p0069 N75-16101
- Solar heating and cooling of buildings. Phase O: Feasibility and planning study. Volume 2: Technical report [PB-235432/2] 06 p0069 N75-16102
- Solar heating and cooling of buildings, phase O. Volume 3: Appendices [PB-235424/9] 06 p0070 N75-16103
- Energy use in the commercial and industrial sectors of the US economy, 1963 [PB-235487/6] 06 p0070 N75-16104
- A study of the demand for gasoline [PB-235254/0] 06 p0070 N75-16105
- Photochemical conversion of solar energy [PB-235503/0] 06 p0070 N75-16106
- Solar heating and cooling of buildings, phase O. Volume 1: Executive summary [PB-235422/3] 06 p0070 N75-16107
- The design and development of an interactive energy model [PB-236144/2] 06 p0070 N75-16110
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 1: Market analysis [PB-236631/8] 06 p0071 N75-16113
- Air-stable selective surfaces for solar energy collectors [PB-236196/2] 06 p0071 N75-16116
- Photovoltaic conversion of solar energy for Terrestrial Applications. Volume 1: Working group and panel reports [PB-236163/2] 06 p0072 N75-16121
- Transportation and the new energy policies: Truck sizes and weights, part 2 [GPO-29-802] 06 p0073 N75-16410
- Energy from the earth's depths [BLL-M-23516-(5828.4F)] 06 p0074 N75-16968
- Air conditioning of office buildings with all-electric supply. Part 1: Technical conception [OA-TRANS-938-PT-1] 06 p0074 N75-16970
- Development of oil and gas on the Continental Shelf [GPO-31-891] 06 p0075 N75-16973
- Progress and problems in developing nuclear and other experimental techniques for recovering natural gas in the Rocky Mountain area [B-164105] 06 p0075 N75-16975
- The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development 06 p0075 N75-16977
- Development and performance of a miniature, high-voltage thermal battery [SLA-74-5363] 06 p0076 N75-16988
- Solar energy program plan for heating and cooling buildings [WASH-1337-5-DRAFT] 06 p0077 N75-16993
- Comparison of the environmental aspects of nuclear and fossil fueled power stations [CONF-740555-1] 06 p0077 N75-16995
- Use of methanol in transportation --- coal liquefaction methods [UCID-16528] 06 p0077 N75-16996
- Proceedings of the Workshop on Needs for Fundamental Research in Catalysis as Related to the Energy Problem [PB-236683/9] 06 p0078 N75-17006
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 2: Current and projected demand, supply and price of energy in the United States [PB-236632/6] 06 p0078 N75-17007
- Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 3: Current and projected demand, supply and price of energy in the United States, schedules [PB-236633/4] 06 p0078 N75-17008
- Economic modeling and energy policy planning --- technology transfer, market research 06 p0079 N75-17210
- US energy R and D policy: The role of economics [RFP-WORKING-PAPER-EN-4] 06 p0080 N75-17783
- Oversight: Mandatory petroleum allocation programs [GPO-31-027] 06 p0081 N75-17806
- Solar total energy program [SAND-74-0208] 06 p0081 N75-17810
- California energy workshop: Developing a plan of action to meet the energy crisis in California --- oil recovery, nuclear electric power generation, and offshore energy sources [PB-237045/0] 06 p0082 N75-17822
- Design and construction of a residential solar heating and cooling system [PB-237042/7] 06 p0082 N75-17823
- Economic and energy conservation relationship relevant to state of New York building design and contract awards [PB-237006/2] 06 p0082 N75-17824
- Use of solar energy in buildings in New York state [PB-236974/2] 06 p0083 N75-17825
- Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding [PB-237209/2] 06 p0083 N75-17826
- Industrial energy study of selected food industries [PB-237316/5] 06 p0083 N75-17827

- OCS oil and gas: An environmental assessment,
Volume 1 06 p0083 N75-17837
- OCS oil and gas: An environmental assessment,
Volume 2 06 p0084 N75-17838
- Nuclear system that burns its own wastes shows
promise [NASA-NEWS-RELEASE-75-44] 06 p0085 N75-18716
- Workshop in Gas-Phase Molecular Interactions and
the Nation's Energy Problem [PB-236712/6] 06 p0086 N75-18718
- Status and outlook for energy conversion via fuel
cells [CONF-740462-1] 06 p0087 N75-18729
- Natural gas in Alabama [PB-236582/3] 06 p0088 N75-18737
- Assessment of the Rankine cycle for potential
application to solar powered cooling of buildings
[PB-238069/9] 06 p0089 N75-18755
- Proceedings of the New York State Assembly/AISLE
Conference on Energy and the Environment, Volume 1
[PB-237936/0] 06 p0091 N75-18801
- An economic analysis of oil shale operations
featuring gas combustion retorting
[PB-237851/1] 06 p0093 N75-19813
- Intra industry capability to substitute fuels
[PB-237605/1] 06 p0093 N75-19814
- In situ oil shale conversion and recovery
[SLA-74-0162] 06 p0093 N75-19825
- LLL-SOHIO solar process heat project
[UCID-16630-74-1] 06 p0093 N75-19827
- Nuclear district-heating and nuclear long-distance
energy [JUL-1077] 06 p0093 N75-19828
- Energy systems analysis and technology assessment
program [BBL-18984] 06 p0094 N75-19831
- Development of a process for producing an ashless
low sulfur fuel from coal. Volume 4. Product
studies. Part 2. Annotated bibliography on
mineral fiber production from coal minerals
[PB-237763/8] 06 p0095 N75-19839
- Development of a process for producing an ashless,
low-sulfur fuel from coal. Volume 4. Product
studies. Part 3 Products from coal minerals
[PB-237764/6] 06 p0095 N75-19840
- Development of a process for producing an ashless,
low-sulfur fuel from coal. Volume 4. Product
studies. Part 4. Sulfur removal from coal
minerals [PB-237765/3] 06 p0095 N75-19841
- Development of a process for producing an ashless,
low-sulfur fuel from coal. Volume 4. Product
studies. Part 5. Developmental and rate
studies in processing of coal minerals
[PB-237766/1] 06 p0095 N75-19842
- Synthetic Liquid Fuel Research and Development Act
of 1974 --- energy conservation and cost analyses
[GPO-44-818] 06 p0103 N75-20867
- Synthetic fuels for ground transportation with
special emphasis on hydrogen [NASA-TM-X-72652] 06 p0103 N75-20868
- Fuel cells: Direct conversion of electrochemical
energy into electricity [SAND-74-0125] 06 p0103 N75-20869
- Comparative performance characteristics of
cylindrical parabolic focusing and flat plate
solar energy collectors [CONF-741104-3] 06 p0103 N75-20872
- Hydrogen storage and production in utility systems
[BNL-19249] 06 p0103 N75-20873
- Energy and fixed nitrogen from agricultural residues
[BNWL-SA-5070] 06 p0103 N75-20874
- Acoustic array methods for instrumentation of in
situ coal gasification [UCID-16591] 06 p0104 N75-20875
- Metal hydrides as a source of hydrogen fuel
[BNL-14804-R] 06 p0104 N75-20876
- Management of power plant waste heat in cold regions
[AD-A003217] 06 p0104 N75-20881
- Sulfur-based lithium-organic electrolyte secondary
batteries [AD-A003309] 06 p0104 N75-20882
- Technology for the conversion of solar energy to
fuel gas [PB-238103/6] 06 p0104 N75-20883
- Environmental aspects of cadmium sulfide usage in
solar energy conversion. Part 1: Toxicological
and environmental health considerations, a
bibliography [PB-238285/1] 06 p0105 N75-20884
- Wind power potential of Alaska. Part 1: Surface
wind data from specific coastal sites
[PB-238507/8] 06 p0105 N75-20885
- Wisconsin superconductive energy storage project,
volume 1 [PB-238082/2] 06 p0105 N75-20887
- Research on the application of solar energy to the
food drying industry [PB-238073/1] 06 p0105 N75-20888
- Synthetic fuels from fusion reactors
[BNL-19351] 06 p0106 N75-21098
- Synopsis of studies on synthetic fuels production
by fusion reactors [BNL-19336] 06 p0106 N75-21104
- Plans and status of the NASA-Lewis Research Center
wind energy project [NASA-TM-X-71701] 07 p0128 N75-21795
- Wind power installations. Present condition and
possible lines of development [NASA-TT-F-16204] 07 p0128 N75-21796
- Energy plantations: Should we grow trees for
power plant fuel [PB-238417/0] 07 p0130 N75-21815
- Energy statistics. A supplement to the summary of
National Transportation statistics [PB-236767/8] 07 p0130 N75-21817
- A state energy management plan for North Carolina,
phase 1: A quantitative description of the
current situation and analysis of the
determinants and consequences of future energy use
[PB-238197/8] 07 p0130 N75-21819
- A review of the Project Independence report
submitted to Office of Energy Research and
Development, National Science Foundation, 10
January 1975 [PB-238791/8] 07 p0131 N75-21823
- A USAF energy projection model [AD-A006928] 07 p0132 N75-22476
- Technological improvements to automobile fuel
consumption. Volume 2A: Sections 1 through 23
[PB-238678/7] 07 p0132 N75-22479
- A realistic view of US natural gas supply
[PB-238964/1] 07 p0134 N75-22898
- Technology assessment of portable energy RDT and
P, phase 1 [NASA-CR-137654] 07 p0134 N75-22901
- Technology assessment of portable energy RDT and
P, phase 1 [NASA-CR-137653] 07 p0134 N75-22902
- Solar residential heating and cooling system
development test program [NASA-TM-X-64924] 07 p0135 N75-22903
- Potassium topping cycles for stationary power ---
conceptual analysis [NASA-CR-2518] 07 p0135 N75-22906
- Brief examination of the status of nuclear power
in the republic, using 1974 costs [PERL-237E] 07 p0135 N75-22909
- Solar power system and component research program
[PB-238642/3] 07 p0135 N75-22915
- Columnar silicon film solar cells for terrestrial
applications [PB-238534/2] 07 p0135 N75-22916
- Technology for the conversion of solar energy to
fuel gas [PB-238545/8] 07 p0136 N75-22919
- Evaluating integrated utility systems
[PB-238765/2] 07 p0136 N75-22925
- A study of energy systems command, control and
communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- Protecting the US petroleum market against future
denials of imports [AD-A006643] 07 p0137 N75-23387
- Feasibility study of a satellite solar power station
[NASA-CR-2357] 07 p0138 N75-23683
- Photovoltaic solar power systems 07 p0139 N75-24098
- Space satellite power system --- conversion of
solar energy by photovoltaic solar cell arrays
[NASA-CR-142799] 07 p0139 N75-24099
- Solar photothermal power conversion 07 p0139 N75-24100

SUBJECT INDEX

ENERGY POLICY CONTD

- Oceanic and atmospheric energy sources
07 p0139 N75-24101
- The national solar energy program
07 p0139 N75-24102
- The energy plantation
07 p0139 N75-24103
- Solar energy research and development
[GPO-40-684] 07 p0139 N75-24104
- The high intensity solar cell: Key to low cost
photovoltaic power
[NASA-TM-X-71718] 07 p0140 N75-24108
- The effect of sunshine testing on
solar cell system components
[NASA-TM-X-71722] 07 p0140 N75-24109
- Energy imports and the US balance
of payments
[GPO-28-965] 07 p0141 N75-24114
- The economics of energy and natural resource pricing
[GPO-48-071] 07 p0141 N75-24115
- A compressor designed for the energy research and
development agency automotive gas turbine program
[NASA-TM-X-71719] 07 p0141 N75-24116
- Standardized solar simulator tests of flat plate
solar collectors. 1: Soltex collector with two
transparent covers
[NASA-TM-X-71738] 07 p0141 N75-24118
- Energy Reorganization Act of 1974 --- the Energy
Research and Development Administration and
Nuclear Energy Commission
[S-REPT-93-1252] 07 p0142 N75-24123
- Energy Reorganization Act of 1974
[S-REPT-93-980] 07 p0142 N75-24124
- Energy and foreign policy
[GPO-22-562] 07 p0142 N75-24125
- Study of the application of HTGR to a petroleum
refinery petrochemical complex
[CONF-741144-1] 07 p0142 N75-24126
- Demonstration plant, clean boiler
fuels from coal.
Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127
- Path to self-sufficiency directions and constraints
--- a model of US energy supply system
[PB-239099] 07 p0142 N75-24128
- Technology and use of lignite
[PB-238666/2] 07 p0142 N75-24131
- Photochemical conversion of solar
energy
[PB-238533/4] 07 p0143 N75-24132
- Assessment of uranium and thorium
resources in the
United States and the effect of
policy
alternatives
[PB-238658/9] 07 p0143 N75-24133
- Where the boilers are: A survey of electric
utility boilers with potential capacity for
burning solid waste as fuel
[PB-239392/4] 07 p0143 N75-24135
- Terrestrial photovoltaic power systems with
sunlight concentration
[PB-238506/0] 07 p0143 N75-24136
- Chemical vapor deposition research for fabrication
of solar energy converters
[PB-238947/6] 07 p0143 N75-24137
- Electric power rights: One approach to rationing
[PB-238537/5] 07 p0143 N75-24138
- Energy system modeling-interfuel competition
[PB-239292/6] 07 p0143 N75-24140
- Proceedings of 5th annual symposium: Energy
Research and Development --- solar energy,
windpower utilization, thermonuclear power
generation
[AD-A007799] 07 p0144 N75-24142
- Utilization analysis of energy systems
[PB-239291/8] 07 p0144 N75-24144
- A preliminary technology assessment of ocean
thermal gradient energy generation
[PB-238646/4] 07 p0144 N75-24147
- An approach to the power shortage problem:
Optimal allocation of existing excess reserves
through interregional transmission
[PB-238578/9] 07 p0144 N75-24151
- Solar energy for process steam generation
[PB-238109/3] 07 p0145 N75-24154
- Path to self-sufficiency directions and
constraints, appendices --- a computer program
that calculates energy resource requirements
[PB-239100/1] 07 p0145 N75-24155
- Proceedings of the Solar Thermal
Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- NSF-RANN energy abstracts. A monthly abstract
journal of energy research
[ORNL-EIS-74-52-VOL-2-NO-6] 07 p0146 N75-24532
- Energy recovery from solid waste. Volume 2:
Technical report --- pyrolysis and biodegradation
[NASA-CR-2526] 07 p0148 N75-25292
- Meeting California's energy requirements, 1975 -
2000
07 p0149 N75-25297
- Solar Energy Research, Development, and
Demonstration Act of 1974
[GPO-39-827] 07 p0149 N75-25299
- Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300
- Energy legislation --- energy conservation and
resources management
[GPO-33-571] 07 p0149 N75-25301
- Heat exchangers for sea solar power plants
[PB-239369/2] 07 p0150 N75-25319
- Various research tasks related to energy
information and data activities: Task 4
priorities analysis
[PB-240424/2] 07 p0151 N75-25329
- Five year program planning document for end use
energy conservation, research, development, and
demonstration
[PB-240406/9] 07 p0152 N75-25331
- Environmental statement related to the proposed
Callaway Plant units 1 and 2. Union Electric
Company docket nos. STN 50-483 and STN 50-486
[PB-240193/3] 07 p0152 N75-25349
- Atlantic outer continental shelf energy resources:
An economic analysis
[COM-75-10330/9] 07 p0152 N75-26484
- Mineral resources and the environment --- energy
conservation and energy policy
[PB-239579/6] 07 p0153 N75-26486
- Using systems methods for analysing integrated
energy supply, summary
[BLL-CE-TRANS-6473-(9022.09)] 07 p0153 N75-26491
- Fuel use in the US electrical utility industry,
1971 - 1990
07 p0154 N75-26493
- Research on solar cell arrays and electric energy
[PB-239338/7] 07 p0155 N75-26504
- Solar heating experiment on the Grover Cleveland
School, Boston, Massachusetts
[PB-239516/8] 07 p0155 N75-26505
- Study on electrofluid dynamic power generation
[AD-A004762] 07 p0155 N75-26507
- Design and test report for transportable solar
laboratory program
[PB-240609/8] 07 p0156 N75-26512
- Digest of energy facts for water resources studies
in Minnesota
[PB-239961/6] 07 p0156 N75-26515
- The study of priorities in the electrical energy
allocation problem
[PB-239762/8] 07 p0156 N75-26516
- The prospects of energy demand scheduling
[PB-239763/6] 07 p0156 N75-26518
- Research and development of low cost processes for
integrated solar arrays
[PB-239760/2] 07 p0156 N75-26519
- Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating
[PB-239395/7] 07 p0157 N75-26521
- Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating, executive summary
[PB-239394/0] 07 p0157 N75-26522
- Materials requirements for advanced energy
systems: New fuels. Volume 3: Materials
research needs in advanced energy systems using
new fuels
[AD-A004550] 07 p0158 N75-27168
- Conservation in Alberta, 1973
07 p0158 N75-27532
- Energy: An annotated bibliography
[NASA-TM-X-66766] 07 p0159 N75-27557
- Energy: An annotated bibliography
[NASA-TM-X-72433] 07 p0159 N75-27558
- Technology assessment of portable energy RDT and P
[NASA-CR-137655] 07 p0160 N75-27565
- Proceedings of the 2nd Annual Illinois Energy
Conference
[PB-240548/8] 07 p0161 N75-27575
- Current energy shortages oversight series: Oil
brokers, part 7
[GPO-32-607] 07 p0161 N75-27576

- Project conserve, a pilot project in homeowner energy conservation [PB-240407/7] 07 p0161 N75-27577
- The household energy game [COM-75-10304/4] 07 p0161 N75-27578
- Energy rationing and energy conservation: Foundations for a social policy [PB-239766] 07 p0162 N75-27579
- The problem of peak load pricing subject to rate of return constraint [PB-239765] 07 p0163 N75-27964
- National materials policy --- earth resources management [PB-240941/5] 08 p0199 N75-28503
- Uranium resources to meet long term uranium requirements [PB-239515/0] 08 p0199 N75-28508
- A summary of significant results in mining metallurgy and energy, Bureau of Mines Research 1974 [PB-241084/2] 08 p0199 N75-28514
- Feasibility study of solar energy utilization in modular integrated utility systems [NASA-CR-141929] 08 p0199 N75-28518
- Technological feasibility of alternative energy sources --- a discussion of coal gasification, geothermal energy, and shale oil [AD-A005549] 08 p0199 N75-28522
- Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems [PB-240177/6] 08 p0200 N75-28524
- Transportation energy conservation: A program plan of policy-oriented research [PB-240734/4] 08 p0200 N75-28528
- Institutional and legal constraints to cooperative energy research and development [PB-240929/0] 08 p0200 N75-28530
- Research applied to solar thermal power systems [PB-241090/0] 08 p0201 N75-28544
- Direct solar energy conversion for large scale terrestrial use [PB-241007/4] 08 p0201 N75-28545
- Measure for reducing energy consumption for homeowners and renters [PB-240472/1] 08 p0201 N75-28546
- Producing SWG by hydrogasifying in situ crude shale oil [PB-240841/7] 08 p0201 N75-28548
- The benefits/costs of tertiary oil recovery [PB-240463/0] 08 p0201 N75-28552
- Extracting minerals from geothermal brines: A literature study [PB-240681/7] 08 p0202 N75-29545
- Solar energy power system [NASA-CASE-MFS-24628-2] 08 p0202 N75-29548
- Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities [AD-A003590] 08 p0202 N75-29550
- Assessment of a single family residence solar heating system in a suburban development setting [PB-240784/9] 08 p0203 N75-29552
- Review of Project Independence Blueprint: Panel subcommittee reports on FEA-interagency task forces [COM-75-10500/7] 08 p0203 N75-29553
- Oil and US policy [AD-A006473] 08 p0203 N75-29558
- Energy conservation study of Veterans Administration hospitals. Stage 1: Base line survey [PB-241095/9] 08 p0203 N75-29559
- Energy conservation study of Veterans Administration hospitals. Stage 2: Operational study [PB-241096/7] 08 p0203 N75-29560
- Energy conservation study of Veterans Administration hospitals. Stage 3: Hospital energy control system [PB-241097/5] 08 p0203 N75-29561
- Energy conservation study of Veterans Administration hospitals. Stage 4: Basic detail data for stage 1, 2, and 3 [PB-241098/3] 08 p0203 N75-29562
- Assessment of a single family residence solar heating system in a suburban development setting [PB-240553/8] 08 p0203 N75-29570
- Environmental regulations and energy for home heating [PB-240699/9] 08 p0203 N75-29587
- Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process [PE-241141/1] 08 p0204 N75-29596
- Report to Congress on control of sulfur oxides [PB-241021/5] 08 p0204 N75-29597
- The MCL-Thurrow model supplement [PB-241113/0] 08 p0204 N75-29952
- Economic impact of shortages on the fertilizer industry [PB-240418/4] 08 p0204 N75-29953
- Regional impacts of alternative energy allocation strategies --- environmental impact of energy crisis and its shortages [PB-241125/4] 08 p0205 N75-30667
- Oil and gas development and coastal zone management [GPO-37-347] 08 p0206 N75-31556
- The OCS (Outer Continental Shelf) petroleum pie [COM-75-10599/9] 08 p0206 N75-31562
- Energy data requirements of the Federal Government. Part 4: Propane and crude oil; conflicts of interest [GPO-41-639] 08 p0207 N75-31566
- Solar collector performance evaluation with the NASA-Lewis solar simulator---results for an all-glass-evacuated-tubular selectively-coated collector with a diffuse reflector [NASA-TM-X-71695] 08 p0207 N75-31568
- Benefit-cost methodology study with example application of the use of wind generators [NASA-CR-134864] 08 p0207 N75-31571
- Energy conversion [AD-A009600] 08 p0208 N75-31580
- Solar energy projects of the Federal Government [PB-241620/4] 08 p0208 N75-31582
- Financial incentives and pollution control: A case study [PB-241479/5] 08 p0208 N75-31610
- Effects of the energy crisis on employment dislocation, 1974 [GPO-35-761] 08 p0208 N75-31918
- Providing for a national fuels and energy conservation policy, establishing an office of energy conservation in the Department of the Interior, and for other purposes [H-REPT-93-1546] 08 p0208 N75-31953
- The need for a national materials policy, part 1 [GPO-39-885] 08 p0209 N75-31954
- The need for a national materials policy, part 2 [GPO-40-687] 08 p0209 N75-31955
- The need for a national materials policy, part 3 [GPO-40-687] 08 p0209 N75-31956
- Outer continental shelf oil and gas leasing off southern California: Analysis of issues [GPO-41-659] 08 p0209 N75-31958
- Outer continental shelf oil and gas development and the coastal zone [GPO-39-356] 08 p0209 N75-31959
- To establish an Energy Research and Development Administration and a Nuclear Energy Commission [GPO-28-963] 08 p0209 N75-31960
- Energy use of public transit systems [PB-241351/6] 08 p0209 N75-31962
- Energy statistics [GPO-37-143] 08 p0210 N75-32587
- The NASA-Lewis/ERDA solar heating and cooling technology program --- project planning/energy policy [NASA-TM-X-71800] 08 p0210 N75-32592
- Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects [PB-241323/5] 08 p0211 N75-32601
- Identification and characterization of the use of mixed conventional and waste fuels --- fuel consumption/air pollution [PB-241821/8] 08 p0211 N75-32606
- Incorporating energy conservation techniques in the operation of existing LeRC B and D facilities --- energy policy/NASA programs [NASA-TM-X-71813] 08 p0212 N75-33494
- Study on the effects of the energy crisis and 55 mph speed limit in Michigan [PB-241843/2] 08 p0212 N75-33499
- Hot water hydraulics of the Gulf Stream sited OTG [PB-242151/9] 08 p0213 N75-33502

- Research design construction and evaluation of a low energy utilization school, research phase 1 [PB-242217/8] 08 p0213 N75-33504
- A systems approach to innovative solutions to the energy problem [PB-242189/9] 08 p0213 N75-33505
- Project Independence report: A review of US energy needs up to 1985 [PB-242142/8] 08 p0213 N75-33506
- Plausibility of a restricted energy use scenario [CON-75-10749/0] 08 p0213 N75-33507
- An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant --- hydrodynamics/sea water-energy policy [PB-242569/2] 08 p0213 N75-33508
- The future of the US nuclear energy industry [PB-242164/2] 08 p0214 N75-33511
- Direct and indirect energy demand models for DoD [AD-A010968] 08 p0214 N75-33515
- The economic impact of an interruption in United States petroleum imports: 1975 - 2000 [AD-A010914] 08 p0214 N75-33931
- The economics of the natural gas shortage (1960-1980) [PB-242166/7] 08 p0214 N75-33932
- ENERGY REQUIREMENTS**
- Nuclear energy requirements for hydrogen production from water 05 p0005 A75-10533
- The Energy Systems Optimization Computer Program /ESOP/ developed for Modular Integrated Utility Systems /MIUS/ analysis 05 p0006 A75-10551
- Mission applications of electric propulsion [AIAA PAPER 74-1085] 05 p0010 A75-11284
- Rating aircraft on energy 05 p0015 A75-14346
- Laser compression of matter - Optical power and energy requirements 06 p0046 A75-22352
- Energy systems - Modeling and policy analysis 06 p0055 A75-24750
- Energy supply and demand challenges and some possible solutions 06 p0059 A75-27779
- Time factors in slowing down the rate of growth of demand for primary energy in the United States 06 p0059 A75-27780
- Energy: A plan for action --- Book 07 p0110 A75-30375
- Energy's hazy future --- electric generating capacity scenarios and forecasts 07 p0110 A75-31195
- On the role of hydrogen in electric energy storage 08 p0178 A75-44797
- An economic study of electrical peaking alternatives 08 p0179 A75-44799
- Future United States demand patterns and the use of hydrogen 08 p0179 A75-44806
- An engineering assessment of the hydrogen economy 08 p0180 A75-44814
- Availability and propulsion --- fuel combustion energy calculations for turbojet 08 p0195 A75-46548
- DCTR power supply and energy storage review meeting [WASH-1310] 05 p0031 N75-12445
- Energy required to develop power in the United States 05 p0032 N75-13378
- HEGASTAR: The meaning of growth. An assessment of systems, technologies, and requirements --- methodology for display and analysis of energy production and consumption [NASA-CR-120338] 05 p0033 N75-13381
- Oslo's future power supply [NF-20121] 06 p0067 N75-16087
- Energy problems in a global context 06 p0075 N75-16978
- Energy resources and utilization 06 p0075 N75-16983
- Proceedings of the Workshop on Needs for Fundamental Research in Catalysis as Related to the Energy Problem [PB-236683/9] 06 p0078 N75-17006
- Hydrogen economy: A utility perspective [BRL-19267] 06 p0103 N75-20870
- The 1973 fuel and electrical energy requirements of selected mineral industries activities 07 p0134 N75-22899
- Evaluation of the energy perfection of the different forms of transport --- aerodynamic coefficients and lift drag ratio [AD-A006562] 07 p0137 N75-23392
- Path to self-sufficiency directions and constraints, appendices --- a computer program that calculates energy resource requirements [PB-239100/1] 07 p0145 N75-24155
- Materials technology in the near-term energy program [PB-240942/3] 08 p0205 N75-30665
- Special Energy Research and Development Appropriation Act, 1975 [PUB-LAW-93-322] 08 p0209 N75-31957
- ENERGY SOURCES**
- Energy carriers in space conditioning and automotive applications - A comparison of hydrogen, methane, methanol and electricity 05 p0005 A75-10540
- Energy from urban wastes 05 p0006 A75-10548
- Independent energy systems for better efficiency 05 p0006 A75-10549
- Metal hydride fuel cell power source 05 p0008 A75-10564
- Geothermics with special reference to application --- Book 05 p0011 A75-11576
- Energy development; Proceedings of the Energy Sources Conference, Anaheim, Calif., July 14-19, 1974 05 p0012 A75-12986
- U.S. energy resources - Outlook for the future 05 p0014 A75-12999
- A comparison of methods for electric power generation from geothermal hot water deposits [ASME PAPER 74-WA/ENER-10] 05 p0016 A75-16841
- Energy Delta: Supply vs. demand; Proceedings of the Energy Symposium, San Francisco, Calif., February 25-27, 1974 06 p0059 A75-27778
- Solar/hydroelectric combined power systems 06 p0059 A75-27786
- Current worldwide utilization and ultimate potential of geothermal energy systems 06 p0060 A75-27787
- New technology challenges in exploration, exploitation and environmental impact of geothermal systems 06 p0060 A75-27788
- Hydrogen - A carrier of energy 06 p0060 A75-27791
- Urban waste energy resources [AIAA PAPER 75-632] 06 p0062 A75-28598
- Energy, environment and building --- Book 07 p0111 A75-31448
- Energy sources for ocean technology --- for unmanned surface stations and manned underwater stations 07 p0114 A75-33118
- Remote sensing applied to energy-related problems; Proceedings of the Symposium-Course, Miami, Fla., December 2-4, 1974 07 p0118 A75-35451
- Geothermal energy as a resource in a hydrogen energy economy 08 p0174 A75-44755
- High-temperature nuclear reactors as an energy source for hydrogen production 08 p0175 A75-44758
- Sources and methods for methanol production 08 p0180 A75-44816
- The utilization of space as a source of energy for the earth 08 p0183 A75-45893
- US energy flow charts for 1950, 1960, 1970, 1980, 1985, and 1990 [UCBL-51487] 05 p0024 N75-10593
- Advanced nuclear research [GPO-41-253] 05 p0026 N75-10764
- Elimination of duty on methanol imported for certain uses [H-REPT-93-998] 05 p0026 N75-10857
- Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority [GPO-32-403] 05 p0026 N75-10859

- Outlook for fusion energy sources: Remaining technological hurdles [UCRL-75418] 05 p0029 N75-11745
- Solar sea thermal energy [GPO-37-476] 05 p0030 N75-12430
- Oil for the free world in the 1970's --- demand and supply [AD-779352] 05 p0031 N75-12448
- MEGASTAR: The meaning of growth. An assessment of systems, technologies, and requirements --- methodology for display and analysis of energy production and consumption [NASA-CR-120338] 05 p0033 N75-13381
- A system utilizing solar energy [NASA-TT-F-16089] 05 p0033 N75-13386
- Hydrogen as a fuel --- analysis of problems involved in generation, transportation, and utilization [AD-737484] 06 p0066 N75-15818
- Energy from US and Canadian tar sands: Technical, environmental, economic, legislative, and policy aspects [GPO-43-005] 06 p0067 N75-16083
- Geothermal energy: A new application of rock mechanics [LA-UR-74-821] 06 p0068 N75-16089
- NSF-RANN energy abstracts [ORNL-EIS-74-52-VOL-2-5] 06 p0068 N75-16092
- Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 1: Working group and panel reports [NASA-CR-138209] 06 p0069 N75-16097
- Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers [NASA-CR-138193] 06 p0069 N75-16098
- Possibilities for lithium borohydride recycle --- using diborane intermediate [ICP-1054] 06 p0074 N75-16651
- The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development 06 p0075 N75-16977
- Energy problems in a global context 06 p0075 N75-16978
- Energy-related research and development in the United States Air Force 06 p0075 N75-16979
- Alternative fuels for aviation 06 p0075 N75-16980
- Energy resources and utilization 06 p0075 N75-16983
- Energy and cryoengineering [LA-UR-74-741] 06 p0082 N75-17814
- Methanol from forestry, municipal, and agricultural organic residues [BNWL-SA-5053] 06 p0085 N75-18702
- Steps into the future. Development of the power industry in the USSR [BLL-M-23330-(5828.4P)] 06 p0085 N75-18714
- Pyrolysis system evaluation study [NASA-CR-141664] 06 p0086 N75-18722
- Prospect for geothermal power [LA-UR-74-1111] 06 p0086 N75-18723
- In situ oil shale: A cost sensitivity analysis [SAND-74-0146] 06 p0087 N75-18727
- Conference proceedings: Power Generation-Clean Fuels Today [PB-237661/4] 06 p0087 N75-18735
- Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal [PB-237116/9] 06 p0088 N75-18739
- Interesting possibilities of fusion-fission --- for thermonuclear power generation [BNWL-SA-5069] 06 p0096 N75-20106
- The National Geothermal Energy Research Program 06 p0098 N75-20832
- Geothermal research and development program of the US Atomic Energy Commission 06 p0098 N75-20834
- Hydrogen economy: A utility perspective [BNL-19267] 06 p0103 N75-20870
- United States transportation fuel economics (1975-1995) [NASA-TM-X-3197] 06 p0107 N75-21154
- Scientific research seeks new sources of energy 06 p0107 N75-21216
- Ainse Engineering Conference --- energy report [CONF-740814-ABSTS] 07 p0129 N75-21801
- A review of the Project Independence report submitted to Office of Energy Research and Development, National Science Foundation, 10 January 1975 [PB-238791/8] 07 p0131 N75-21823
- Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137654] 07 p0134 N75-22901
- Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137653] 07 p0134 N75-22902
- The economics of energy and natural resource pricing [GPO-48-071] 07 p0141 N75-24115
- Energy and foreign policy [GPO-22-562] 07 p0142 N75-24125
- The impact of energy shortages on the iron and steel industries [PB-238749/6] 07 p0145 N75-24158
- National energy flow accounts [PB-239275/1] 07 p0146 N75-24539
- Energy recovery from solid waste. Volume 2: Technical report --- pyrolysis and biodegradation [NASA-CR-2526] 07 p0148 N75-25292
- Environmental impacts, efficiency, and cost of energy supply and end use, volume 2 [PB-239159] 07 p0149 N75-25306
- Using systems methods for analyzing integrated energy supply, summary [BLL-CE-TRANS-6473-(9022.09)] 07 p0153 N75-26491
- Residential energy consumption and small scale options of energy systems for space heating [PB-239941/8] 07 p0154 N75-26501
- Soviet energy potential [BLL-M-23413-(5828.4P)] 08 p0199 N75-28516
- Technological feasibility of alternative energy sources --- a discussion of coal gasification, geothermal energy, and shale oil [AD-A005549] 08 p0199 N75-28522
- An overview of alternative energy sources for LDCs [PB-239465/8] 08 p0200 N75-28529
- The long term energy problem and aeronautics 08 p0202 N75-29012
- Materials technology in the near-term energy program [PB-240942/3] 08 p0205 N75-30665
- A regional energy information system for Minnesota: A preliminary design [PB-241124/7] 08 p0205 N75-30944
- National Bureau of Standards annual report: Fiscal year 1974 --- including a discussion of measuring instruments, energy, safety engineering, and computers [CON-75-10465/3] 08 p0206 N75-30948
- Technology survey of electrical power generation and distribution for MIUS application [NASA-TM-X-58127] 08 p0207 N75-31573
- Science and Technology Applications Act of 1974 --- energy sources and environment protection [GPO-41-407] 08 p0209 N75-31961
- ENERGY STORAGE**
- Metal hydrides for thermal energy storage 05 p0004 A75-10522
- Energy storage for utilities via hydrogen systems 05 p0005 A75-10537
- Closed loop chemical systems for energy transmission, conversion and storage 05 p0005 A75-10538
- Thermal energy storage devices suitable for solar heating 05 p0007 A75-10553
- Electrically rechargeable redox flow cells 05 p0008 A75-10573
- Solar energy conversion and storage systems for the future 05 p0013 A75-12988
- Energy storage underground --- hydroelectric pumped-storage and combustion turbine facilities 05 p0013 A75-12989
- Pumped air storage for electric power generation 05 p0013 A75-12990
- The Hydrogen Economy - A utility perspective --- energy technology 05 p0014 A75-12998
- Potential for large-scale energy storage in electric utility systems [ASHE PAPER 74-WA/ENER-9] 05 p0016 A75-16840

SUBJECT INDEX

ENERGY TECHNOLOGY

- A hot liquid energy storage system utilizing natural circulation
 [ASME PAPER 74-WA/HT-16] 05 p0017 A75-16862
- Solar energy storage within the absorption cycle
 [ASME PAPER 74-WA/HT-18] 05 p0017 A75-16864
- Economics of a hydrogen storage peaking power plant
 [ASME PAPER 74-WA/PWR-6] 05 p0018 A75-16880
- Optimising pumped storage with tidal power in an estuary
 [ASME PAPER 74-WA/PWR-7] 05 p0018 A75-16881
- An analytical and experimental investigation of a laboratory solar pond model
 [ASME PAPER 74-WA/SOL-3] 05 p0019 A75-16886
- Energy, hydrogen, and pollution --- energy technology
 06 p0046 A75-22041
- Production of hydrogen by the electrolysis of water
 06 p0046 A75-22044
- Metals and composites in superflywheel energy storage systems
 06 p0047 A75-22523
- Hydrogen production from solar energy
 07 p0109 A75-29477
- Design charts for hot liquid energy storage systems utilizing forced circulation
 [AIAA PAPER 75-742] 07 p0113 A75-32851
- An energy utility company's view of hydrogen energy
 08 p0172 A75-42283
- Hydrogen as energy storage element --- in windpower systems
 08 p0176 A75-44772
- Hydrogen-energy storage for electrical utility systems
 08 p0178 A75-44798
- An economic study of electrical peaking alternatives
 08 p0179 A75-44799
- Storage of energy in kinetic batteries for an earth resources satellite
 [IAP PAPER ST-75-09] 08 p0183 A75-45875
- Energy storage by flywheels
 08 p0185 A75-45930
- Design and test of a flywheel energy storage unit for spacecraft application
 08 p0193 A75-46028
- The rate limiting processes for the sorption of hydrogen in LaNi5 --- for energy storage systems
 08 p0194 A75-46036
- A detailed analysis of the hydriding characteristics of LaNi5 --- hydrogen storage in form of metal hydrides
 08 p0194 A75-46038
- Energy transportation, distribution, and storage
 [NASH-1281-4] 05 p0024 N75-10595
- Energy storage for the electric power industry
 [LA-UR-74-918] 05 p0031 N75-12447
- Superconducting magnetic energy storage --- theta pinch thermonuclear fusion test reactor
 [LA-UR-74-737] 05 p0032 N75-12814
- Methods of energy transfer from a magnetic energy storage system using a transfer capacitor and a superconducting switch
 [LA-5631-MS] 05 p0032 N75-13164
- Development of advanced fuel cell system, phase 2
 [NASA-CR-134721] 06 p0067 N75-16084
- Energy from the earth's depths
 [BLL-M-23516-(5828.4P)] 06 p0074 N75-16968
- High energy battery program at Argonne National Laboratory
 [ABL-8064] 06 p0076 N75-16984
- Energy storage for utilities via hydrogen systems
 [BNL-19266] 06 p0086 N75-18725
- Economic and system aspects of a superconducting magnetic energy storage device and a dc superconducting transmission line
 [LA-UR-74-1145] 06 p0091 N75-19080
- Hydrogen storage and production in utility systems
 [BNL-18920] 06 p0097 N75-20580
- Hydrogen economy: A utility perspective
 [BNL-19267] 06 p0103 N75-20870
- Hydrogen storage and production in utility systems
 [BNL-19249] 06 p0103 N75-20873
- Wisconsin superconductive energy storage project, volume 1
 [PB-238082/2] 06 p0105 N75-20887
- Flywheel energy systems
 [SAND-74-0113] 07 p0129 N75-21802
- On the application of hydrogen as a fuel for automotive vehicles
 [ESRO-TT-132] 07 p0135 N75-22910
- Research applied to solar thermal systems
 [PB-241089/2] 08 p0200 N75-28543
- Design of energy storage reactors for dc-to-dc converters
 [NASA-CR-143327] 08 p0204 N75-30438
- An assessment of the applicability of high voltage AC circuit breakers to inductive energy storage
 08 p0206 N75-31341
- Cost and size estimates for an electrochemical bulk energy storage concept
 [NASA-TM-X-71805] 08 p0210 N75-32593
- ENERGY TECHNOLOGY
- Nuclear propulsion technology transfer to energy systems
 [AIAA PAPER 74-1072] 05 p0001 A75-10264
- Intersociety Energy Conversion Engineering Conference, 9th, San Francisco, Calif., August 26-30, 1974, Proceedings
 05 p0001 A75-10476
- Technology considerations for Organic Rankine Cycle Electric Power Systems
 05 p0002 A75-10484
- NASA objectives for improved solar power plants
 05 p0002 A75-10485
- RTG technology development - Where we are/where we are going --- radioisotope thermoelectric generator
 05 p0002 A75-10496
- Economics analyses of solar energy utilization
 05 p0004 A75-10520
- Status of JPL solar powered experiments for terrestrial applications
 05 p0005 A75-10530
- Operating experiences with terrestrial solar battery systems in Japan
 05 p0005 A75-10531
- Nuclear energy requirements for hydrogen production from water
 05 p0005 A75-10533
- Hydrogen for the electric utilities - Long range possibilities
 05 p0005 A75-10536
- Oxides of nitrogen control techniques for appliance conversion to hydrogen fuel
 05 p0006 A75-10541
- Potential of Rankine engines to produce power from waste heat streams
 05 p0006 A75-10547
- Energy from urban wastes
 05 p0006 A75-10548
- A heat pump powered by natural thermal gradients
 05 p0006 A75-10550
- A review of thermal battery technology
 05 p0007 A75-10557
- Combustion R&D - Key to our energy future --- pollution reduction using hydrocarbon fuels
 05 p0009 A75-10596
- Applications of plasma core reactors to terrestrial energy systems
 [AIAA PAPER 74-1074] 05 p0010 A75-11281
- Coal-gas combustion in industrial gas turbines
 [AIAA PAPER 74-1114] 05 p0010 A75-11286
- Power conversion of energy fluctuations
 05 p0011 A75-11497
- An evaluation of discarded tires as a potential source of fuel
 05 p0012 A75-12416
- Solar energy: Technology and applications --- Book
 05 p0012 A75-12425
- Energy development; Proceedings of the Energy Sources Conference, Anaheim, Calif., July 14-19, 1974
 05 p0012 A75-12986
- Utilization of solar energy today
 05 p0012 A75-12987
- Solar energy conversion and storage systems for the future
 05 p0013 A75-12988
- Pumped air storage for electric power generation
 05 p0013 A75-12990
- The impact of advanced batteries on electric power generation
 05 p0013 A75-12991
- The FCG-1 fuel cell powerplant for electric utility use
 05 p0013 A75-12992
- Progress in coal gasification
 05 p0013 A75-12993

- Tidal power and its integration into the electric system 05 p0013 A75-12994
- Fusion power research - Where do we stand 05 p0013 A75-12995
- Windpower - Look backward, then move forward confidently --- for electric power generation in rural areas 05 p0014 A75-12997
- The Hydrogen Economy - A utility perspective --- energy technology 05 p0014 A75-12998
- U.S. energy resources - Outlook for the future 05 p0014 A75-12999
- Advances in space power generation [IAF PAPER 74-086] 05 p0015 A75-13718
- Prospects for tapping solar energy on a large scale 05 p0015 A75-14014
- Solar cells - Operation, development and applications 05 p0015 A75-15201
- The use of hydrogen as an energy carrier 05 p0015 A75-15795
- Comparative performance characteristics of cylindrical parabolic and flat plate solar energy collectors [ASME PAPER 74-WA/ENER-3] 05 p0016 A75-16835
- Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
- Two-stage methane production from solid wastes [ASME PAPER 74-WA/ENER-11] 05 p0017 A75-16842
- Solar selective surfaces made of semiconducting powders [ASME PAPER 74-WA/HT-13] 05 p0017 A75-16857
- Solar radiation heat transfer to high temperature heat carriers [ASME PAPER 74-WA/HT-14] 05 p0017 A75-16861
- Performance of heat pumps using cold-side energy storage and unconventional heat sources [ASME PAPER 74-WA/HT-17] 05 p0017 A75-16863
- Power from ocean waves [ASME PAPER 74-WA/PWR-5] 05 p0018 A75-16879
- Gasification of solid wastes in fixed beds [ASME PAPER 74-WA/PWR-10] 05 p0018 A75-16882
- Coal gasification by Atomics International's Bockgas process [ASME PAPER 74-WA/PWR-11] 05 p0018 A75-16883
- A case study - Utilization of solar energy in residential dwellings [ASME PAPER 74-WA/SOL-2] 05 p0018 A75-16885
- Performance of the thermal trap solar collector [ASME PAPER 74-WA/SOL-5] 05 p0019 A75-16888
- Assessment of Rankine cycle for potential application to solar-powered cooling of buildings [ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890
- Dynamic simulation for performance analysis of solar heated and cooled buildings [ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
- The energy perspective --- world fossil fuel reserves and alternate energy sources 05 p0019 A75-17000
- Energy problems - Solar energy and manure gas 05 p0020 A75-17024
- Design of a tubular heat collector for a solar power installation with a parabolocylindric concentrator 05 p0020 A75-17069
- Some generalizations of sample water-supply calculations for solar-powered pumping plants 05 p0020 A75-17077
- Effectiveness of using semiconductor heat pumps under the conditions of the Turkmén SSR 05 p0020 A75-17083
- Wind energy developments in the 20th century 05 p0020 A75-17503
- Concepts for central solar electric power generation 05 p0021 A75-17504
- Fusion power - Prospects and impact 05 p0021 A75-18080
- Compact solar energy concentrator 05 p0021 A75-19050
- Energy. Volume 1 - Demands, resources, impact, technology, and policy --- Book 06 p0045 A75-20066
- Energy, hydrogen, and pollution --- energy technology 06 p0046 A75-22041
- Hydrogen fuel cells and motors --- new energy technology 06 p0046 A75-22042
- Production of hydrogen by the electrolysis of water 06 p0046 A75-22044
- Material considerations involved in solar energy conversion 06 p0047 A75-22522
- Liquid hydrogen as an automotive fuel 06 p0048 A75-23238
- Nonconventional energy systems; Meeting, Duesseldorf, West Germany, June 20, 21, 1974, Reports 06 p0049 A75-23501
- The production of gaseous energy carriers from fossil fuels 06 p0049 A75-23502
- Energy supply in a closed cycle --- nuclear energy for nonelectrical use 06 p0049 A75-23503
- Hydrogen as energy carrier in industry and household 06 p0049 A75-23505
- Methanol as fuel for vehicle engines 06 p0050 A75-23506
- Methane gas engines for commercial vehicles and busses 06 p0050 A75-23507
- Hydrogen as fuel for internal-combustion engines 06 p0050 A75-23508
- Considerations regarding a utilization of solar energy --- thermal, electric and wind energy systems 06 p0050 A75-23510
- The introduction of the principles of biological energy supply in future technical systems 06 p0050 A75-23511
- Other primary energy resources --- geothermal, tidal, wind, waterwave and glacier energy utilization 06 p0050 A75-23512
- Report on photovoltaics research and technology in the United States 06 p0051 A75-24214
- Historic development of photovoltaic power generation 06 p0051 A75-24215
- CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- Progress in the development of cadmium sulphide terrestrial solar batteries 06 p0052 A75-24224
- Solar one - The Delaware solar house and results obtained during the first year of operation 06 p0054 A75-24254
- Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions 06 p0054 A75-24256
- Solar generators for terrestrial applications 06 p0054 A75-24257
- Terrestrial applications of FEP-encapsulated solar cell modules --- power systems using Fluorinated Ethylene Propylene encapsulation 06 p0054 A75-24258
- The Mitre solar energy demonstration system 06 p0055 A75-24676
- Application of thermodynamic and material- and energy-balance calculations to gasification processes 06 p0055 A75-24785
- Review of central power magnetohydrodynamics [AIAA PAPER 75-264] 06 p0055 A75-25005
- The Electric Power Research Institute's role in applying superconductivity to future utility systems 06 p0056 A75-25827
- Will superconducting magnetic energy storage be used on electric utility systems 06 p0056 A75-25832
- Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544
- Testing of a photoelectric generator in a mountainous region of the Azerbaïdzhān SSR 06 p0057 A75-26714
- Solar cells - Present state and perspectives on terrestrial applications 06 p0058 A75-27716

SUBJECT INDEX

ENERGY TECHNOLOGY CONFD

The future of silicon solar cells for terrestrial use		Solar ponds for space heating --- energy storage by convectionless shallow water	07 p0109 A75-29471
Thermoelectric generators --- using semiconductor thermocouples	06 p0058 A75-27717	Design and construction of a residential solar heating and cooling system	07 p0109 A75-29472
Energy Delta: Supply vs. demand; Proceedings of the Energy Symposium, San Francisco, Calif., February 25-27, 1974	06 p0058 A75-27718	Modeling of the CSU heating/cooling system --- Colorado State University solar house computer simulation	07 p0109 A75-29473
Coal gasification - A review of status and technology	06 p0059 A75-27778	A method of simulation of solar processes and its application --- energy collection processes	07 p0109 A75-29474
The outlook for fusion energy sources - Remaining technological hurdles	06 p0059 A75-27781	Hydrogen production from solar energy	07 p0109 A75-29477
Solar heating and cooling of buildings	06 p0059 A75-27782	Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator	07 p0109 A75-29478
Roles for solar thermal conversion systems in our energy economy	06 p0059 A75-27784	Energy: A plan for action --- Book	07 p0110 A75-30375
The Solar Community - Energy for residential heating, cooling, and electrical power	06 p0059 A75-27785	Utilization of wind energy	07 p0110 A75-30891
Solar/hydroelectric combined power systems	06 p0059 A75-27786	Energy's hazy future --- electric generating capacity scenarios and forecasts	07 p0110 A75-31195
Salt domes, pit craters, and dry steam fields - Heat pipe applications	06 p0060 A75-27789	Solar energy for earth: An AIAA assessment --- Book	07 p0110 A75-31267
Ocean thermal power and windpower systems - Natural solar energy conversion for near-term impact on world energy markets	06 p0060 A75-27790	Solar heating and cooling	07 p0111 A75-31269
Hydrogen - A carrier of energy	06 p0060 A75-27791	Solar-thermal electric power	07 p0111 A75-31270
Prospects of photosynthetic energy production	06 p0060 A75-27792	Photovoltaic power --- solar energy for terrestrial applications	07 p0111 A75-31271
Geothermal energy --- technology assessment	06 p0060 A75-27826	Geosynchronous satellite solar power --- energy transmission to earth	07 p0111 A75-31272
Fundamental research on the selection of new electrochemical generators of medium power	06 p0060 A75-27827	Wind power --- electricity generation	07 p0111 A75-31273
Cryogenics safety in a hydrogen fuel society	06 p0061 A75-27973	Ocean thermal energy conversion	07 p0111 A75-31274
SINSHAC - A simulation program for solar heating and cooling of buildings	06 p0061 A75-28093	Fuel production /biomass energy/ --- by fuel plantation development	07 p0111 A75-31275
Characteristics of a rocking wave power device --- for waterwave energy conversion	06 p0062 A75-28450	Energy, environment and building --- Book	07 p0111 A75-31448
The solution of information-deficiency problems of electroenergy technology --- optimal decision making	06 p0062 A75-28508	Pilot solar air-conditioning plant and results of its use	07 p0111 A75-31512
Systems aspects of ocean thermal energy conversion [AIAA PAPER 75-615]	06 p0062 A75-28593	Theoretical research on the operation of a solar water heater and comparison with experimental data	07 p0112 A75-31515
Site Limitations on Solar Sea Power Plants [AIAA PAPER 75-618]	06 p0062 A75-28594	Solar production of electrical energy	07 p0112 A75-31588
100 MWe solar power plant design configuration and performance [AIAA PAPER 75-623]	06 p0062 A75-28595	Solar energy and architecture	07 p0112 A75-31698
A central receiver solar power plant in a hybrid mode of operation --- solar/fossil-fueled steam power plant [AIAA PAPER 75-624]	06 p0062 A75-28596	Minimum cost solar thermal electric power systems - A dynamic programming based approach	07 p0112 A75-32097
Solar electric and thermal conversion system in close proximity to the consumer --- solar panels on house roofs [AIAA PAPER 75-628]	06 p0062 A75-28597	Design charts for hot liquid energy storage systems utilizing forced circulation [AIAA PAPER 75-742]	07 p0113 A75-32851
The oceanic biomass energy plantation --- seaweed harvesting for food and fuel [AIAA PAPER 75-635]	06 p0063 A75-28599	Storage of summertime waste heat from electric generating plants for use in wintertime [AIAA PAPER 75-743]	07 p0113 A75-32852
The satellite solar power station - An option for energy production on earth [AIAA PAPER 75-637]	06 p0063 A75-28600	Trapezoidal grooves as moderately concentrating solar energy collectors [AIAA PAPER 75-738]	07 p0113 A75-32860
Gulf stream based ocean thermal power plants [AIAA PAPER 75-643]	06 p0063 A75-28603	Numerical modeling of flat plate solar collectors [AIAA PAPER 75-739]	07 p0113 A75-32861
Ocean thermal energy conversion system evaluation [AIAA PAPER 75-616]	06 p0064 A75-29115	Outdoor flat-plate collector performance prediction from solar simulator test data [AIAA PAPER 75-741]	07 p0113 A75-32862
Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617]	06 p0064 A75-29116	Glass solar heat collector development [AIAA PAPER 75-740]	07 p0115 A75-33758
Solar thermal conversion mission analysis [AIAA PAPER 75-619]	06 p0064 A75-29117	Optimal solar energy collector system	07 p0115 A75-33970
Derivation of a total satellite energy system --- solar power station for terrestrial consumption [AIAA PAPER 75-640]	06 p0064 A75-29118	On the optimum tilt of a solar collector	07 p0115 A75-33971
		Field performance and operation of a flat-glass solar heat collector	07 p0115 A75-33973
		Analysis of gas dissociation solar thermal power system	07 p0115 A75-33974
		Underground storage of heat in solar heating systems	07 p0115 A75-33975

- Determination of some thermophysical characteristics of a solar-type pebble accumulator
07 p0116 A75-34317
- Complex utilization of a solar power plant
07 p0116 A75-34320
- Solar heating and cooling of buildings using heat pumps /Brief survey/
07 p0116 A75-34321
- Evaluation of central solar tower power plant
07 p0116 A75-34531
- A commentary on solar energy
07 p0116 A75-34532
- Economic and technical aspects of wind generation systems
07 p0116 A75-34533
- Fuels, minerals, and human survival --- Book
07 p0117 A75-34850
- Wind energy utilization prospects
07 p0117 A75-34928
- Modeling of solar absorption air conditioning
07 p0117 A75-34932
- Heating buildings with solar energy
07 p0117 A75-34933
- Solar characteristics of new absorptive coatings used on solar collectors
07 p0117 A75-34934
- Methodology of research of flat-plate solar collector absorptive coatings
07 p0117 A75-34935
- The University of Florida solar powered intermittent ammonia/water absorption air conditioner
07 p0118 A75-34936
- DPVLR activities in the area of energy research
07 p0118 A75-35096
- Helium survey, a possible technique for locating geothermal reservoirs
07 p0118 A75-35438
- The satellite solar power station option --- for solar energy transmission to earth
07 p0118 A75-35465
- Determination of the surface shapes of film-type solar energy concentrators with seams
07 p0119 A75-36017
- Survey on power fluid for thermal power from low temperature and small temperature difference heat source
07 p0119 A75-36173
- Electronbeam heating for fusion
07 p0120 A75-36295
- Power collection reduction by mirror surface nonflatness and tracking error for a central receiver solar power system
07 p0120 A75-36305
- Solar energy - The physics of the greenhouse effect
07 p0120 A75-36306
- Problems of direct conversion of thermal and nuclear energy to electric energy
07 p0120 A75-36415
- Controlling the response of thermoelements that generate electricity
07 p0121 A75-37154
- Generation of electric power at high reliability levels using a group of solar power plants in an energy system
07 p0122 A75-37159
- Principles of a composite study involving combined use of solar and wind energy
07 p0122 A75-37160
- Generalizations of composite studies involving combined use of wind and solar energy
07 p0122 A75-37161
- Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels
07 p0122 A75-37162
- Photoelectric generator testing in the Azerbaidzhan SSR mountains
07 p0122 A75-37165
- Fabricating paraboloidal high-temperature solar concentrators from mollified sectors
07 p0122 A75-37166
- Summary of NASA-Lewis Research Center solar heating and cooling and wind energy programs
07 p0123 A75-37240
- Optical interfaces in solar energy utilization
07 p0123 A75-37331
- MHD energy conversion for high power electrical needs
07 p0124 A75-37657
- Energy and Resources - A plan is outlined according to which solar and wind energy would supply Denmark's needs by the year 2050 --- solar and wind power utilization for Denmark
07 p0124 A75-37846
- Ocean thermal gradient hydraulic power plant
07 p0124 A75-37849
- Foam solar sea power plant
07 p0124 A75-37850
- Laser energy conversion
07 p0125 A75-38474
- Satellites for energy transmission to earth - Technical and socioeconomic studies
07 p0125 A75-38644
- Can hydrogen transmission replace electricity
08 p0165 A75-38863
- Storing electrical energy on a large scale
08 p0165 A75-38864
- The potential of natural energy sources
08 p0165 A75-38865
- MHD power generation
08 p0166 A75-39197
- Batteries and fuel cells in the electrical generating industry
08 p0166 A75-39198
- Lasers for fusion
08 p0166 A75-39333
- Generation of power from the wind --- windmill electric generators
08 p0167 A75-39365
- Year round performance studies on a built-in storage type solar water heater at Jodhpur, India
08 p0167 A75-39406
- Radiation cooling of structures with infrared transparent wind screens
08 p0167 A75-39407
- Cooling with the sun's heat - Design considerations and test data for a Rankine Cycle prototype
08 p0167 A75-39409
- Solar absorption air conditioning alternatives
08 p0167 A75-39410
- The economics of coal-based synthetic gas
08 p0168 A75-39925
- Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974
08 p0168 A75-40176
- The utilization of ocean energy for electrical energy generation
08 p0168 A75-40181
- Shale from oil shale economically
08 p0168 A75-40182
- Laboratory based activities in solar energy at the National Bureau of Standards
08 p0168 A75-40299
- The Florida Solar Energy Center
08 p0169 A75-40614
- Energy survey - What can R&D do by 1985 --- fossil fuel utilization
08 p0169 A75-40617
- Efficient use of energy
08 p0169 A75-41125
- Cooling a light industrial building in Puerto Rico using solar energy [AIAA PAPER 75-612]
08 p0170 A75-41178
- A resonant point absorber of ocean-wave power
08 p0170 A75-41425
- Fusion power by magnetic confinement - Plans and the associated need for nuclear engineers
08 p0170 A75-41433
- Determination of some thermophysical properties of pebble-type solar heat accumulators
08 p0170 A75-41530
- Comprehensive utilization of a solar installation
08 p0170 A75-41533
- Use of solar heat pumps for heating and air conditioning - A brief survey
08 p0170 A75-41534
- Calculation of the radiant energy field for a biparaboloidal radiation furnace with a carbon arc
08 p0170 A75-41540
- Sunlight to electricity: Prospects for solar energy conversion by photovoltaics --- Book
08 p0170 A75-41608
- Thermokinetics of a flat solar collector of constant heat capacity
08 p0171 A75-41768

SUBJECT INDEX

ENERGY TECHNOLOGY CONTD

- Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975 08 p0171 A75-42276
- Research opportunities in cryogenic hydrogen-energy systems 08 p0171 A75-42280
- Aviation usage of liquid hydrogen fuel - Prospects and problems 08 p0172 A75-42282
- An energy utility company's view of hydrogen energy 08 p0172 A75-42283
- Economics of hydrogen energy systems 08 p0172 A75-42285
- A technology assessment of the hydrogen economy concept 08 p0172 A75-42286
- Massive production of hydrogen by a thermo-electrochemical method 08 p0172 A75-42531
- High intensity wind belts as massive energy sources 08 p0172 A75-42532
- Fuel as an agricultural crop 08 p0172 A75-42533
- Solar energy conversion by water photodissociation 08 p0173 A75-43510
- Thermal performance analysis of the stationary reflector/tracking absorber /SRTA/ solar concentrator [ASHE PAPER 75-HT-PPP] 08 p0173 A75-43881
- Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings 08 p0173 A75-43976
- Cryogenic H2 and national energy needs 08 p0173 A75-43977
- Plasma physics and controlled nuclear fusion research 1974; Proceedings of the Fifth International Conference, Tokyo, Japan, November 11-15, 1974. Volumes 1 & 2 08 p0174 A75-44736
- Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Parts A & B 08 p0174 A75-44751
- Is massive solar energy conversion a practical prospect 08 p0174 A75-44752
- Nuclear water splitting and high temperature reactors 08 p0175 A75-44757
- Sea thermal power as a hydrogen and methanol generator 08 p0175 A75-44763
- An economic perspective on hydrogen fuel 08 p0176 A75-44769
- Electrolytic hydrogen generators 08 p0176 A75-44774
- An engineering-scale energy storage reservoir of iron titanium hydride --- hydrogen-based energy system 08 p0177 A75-44784
- Hydrogen as an energy carrier --- feasibility analysis 08 p0178 A75-44796
- Hydrogen-energy storage for electrical utility systems 08 p0178 A75-44798
- An economic study of electrical peaking alternatives 08 p0179 A75-44799
- An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H2/O2/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes 08 p0179 A75-44800
- Environmental impact of a suitable nuclear power reactor used to provide a process heat system to synthesize fuels 08 p0179 A75-44808
- Technical problems facing the hydrogen economy 08 p0180 A75-44812
- Ultimate energy, the ultimate fuel, and the hydrogen link in the electrical energy system 08 p0180 A75-44815
- Sources and methods for methanol production 08 p0180 A75-44816
- The nuclear electric economy --- current and projected energy consumption and fossil fuel depletion rates 08 p0180 A75-44817
- Effectiveness of using chemically reacting working media in a solar gas-turbine installation 08 p0180 A75-45063
- Estimates of the reliability of energy-supply systems employing solar energy 08 p0181 A75-45064
- Ion-beam implosion of fusion targets 08 p0181 A75-45386
- Solar energy - An overview 08 p0181 A75-45508
- Principles and applications of selective solar coatings 08 p0181 A75-45511
- Solar-energy materials preparation techniques 08 p0181 A75-45513
- Solar-energy conversion at high solar intensities 08 p0181 A75-45514
- A potassium topping cycle for public utility power plants [AIAA PAPER 75-1235] 08 p0181 A75-45647
- MHD electrical power generation from fossil fuels [AIAA PAPER 75-1236] 08 p0182 A75-45648
- Electrochemical heat engines for direct electric power generation and energy storage [AIAA PAPER 75-1237] 08 p0182 A75-45649
- Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems [AIAA PAPER 75-1258] 08 p0182 A75-45659
- Terrestrial and space applications of the migma controlled fusion concept [AIAA PAPER 75-1263] 08 p0182 A75-45663
- Report on studies of space to earth microwave power transmission systems [IAP PAPER 75-005] 08 p0183 A75-45814
- Economic analysis of space-based electric power generation and transmission systems [IAP PAPER 75-006] 08 p0183 A75-45829
- Space and energy - Some legal problems --- extraterrestrial resources and solar energy exploitation 08 p0183 A75-45885
- The utilization of space as a source of energy for the earth 08 p0183 A75-45893
- Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record 08 p0183 A75-45920
- Thermal energy storage --- solar storage materials performance 08 p0185 A75-45932
- Application of rocket engine technology to energy 08 p0185 A75-45933
- Advanced heat transfer methods for geothermal power applications 08 p0185 A75-45934
- Solar heat pump comfort heating systems 08 p0185 A75-45936
- Development of a 540-sq-ft prototype faceted fixed mirror solar concentrator 08 p0186 A75-45940
- Solid polymer electrolysis fuel cell status report 08 p0186 A75-45942
- Phosphoric acid fuel cell stack development 08 p0186 A75-45943
- 1.5 and 3KW indirect methanol-air fuel cell power plants 08 p0186 A75-45944
- Design study for a coal-fueled closed cycle gas turbine system for MHS applications --- Modular Integrated Utility System 08 p0187 A75-45948
- Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes 08 p0187 A75-45950
- The ERDA thermionic program --- for nuclear propulsion and utility power plants 08 p0187 A75-45955
- Ground based solar energy technology advances 08 p0190 A75-45984
- Continuous duty solar energy system concepts 08 p0190 A75-45993

- Solar sea power plants /SSPP/ --- using ocean thermal gradients
08 p0191 A75-45996
- Harnessing wind power in developing countries
08 p0191 A75-46009
- Wind and solar thermal combinations for space heating
08 p0192 A75-46010
- Tornado-type wind energy system --- a multimegawatt power output unit
08 p0192 A75-46012
- A 100 watt Stirling electric generator for solar or solid fuel heat sources
08 p0192 A75-46014
- Electrical generation by wind power
08 p0193 A75-46024
- Electrical generating equipment and electric utility requirements for high-power wind generator systems
08 p0193 A75-46025
- Wind power systems optimization
08 p0193 A75-46026
- Hydrogen sponge heat pump --- carnot cycle system on lanthanum pentanickel
08 p0194 A75-46035
- Solar-thermal electric power generation using a system of distributed parabolic trough collectors [AIChE PAPER 12]
08 p0196 A75-47511
- The role of heat transfer in solving geothermal energy problems to accelerate its effective application [ASME PAPER 75-HT-57]
08 p0196 A75-47527
- Preliminary results of the large experimental wind turbine phase of the national wind energy program
08 p0196 A75-47798
- Plans and status of the NASA-Lewis Research Center wind energy project
08 p0197 A75-47802
- The NASA-Lewis/ERDA Solar Heating and Cooling Technology Program
08 p0197 A75-47803
- Rationale for setting priorities for new energy technology research and development [UCRL-51511]
05 p0024 N75-10594
- Application of technology from the Rover program and related developments --- to energy needs [LA-5558]
05 p0028 N75-11468
- NSF-RANN energy abstracts. A monthly abstract journal of energy research, volume 2, no. 4 [ORNL-EIS-74-52-VOL-2-4]
05 p0029 N75-11469
- Technological and commercial possibilities which result by using a high temperature reactor for the future supply of mineral oil in the FRG [JUL-1017-RG]
05 p0029 N75-11470
- Outlook for fusion energy sources: Remaining technological hurdles [UCRL-75418]
05 p0029 N75-11745
- Our prodigal sun --- solar energy technology [NASA-EP-118]
05 p0032 N75-12885
- Wind energy developments in the 20th century [NASA-TN-X-71634]
05 p0033 N75-13380
- MEGASTAR: The meaning of growth. An assessment of systems, technologies, and requirements --- methodology for display and analysis of energy production and consumption [NASA-CR-120338]
05 p0033 N75-13381
- A system utilizing solar energy [NASA-TT-F-16089]
05 p0033 N75-13386
- Efficiencies in power generation [PB-234160/0]
05 p0034 N75-13398
- Report of the Wind Power Committee --- a feasibility analysis of the use of wind for a major energy source [NASA-TT-F-16062]
05 p0039 N75-15154
- Energy from US and Canadian tar sands: Technical, environmental, economic, legislative, and policy aspects [GPO-43-005]
06 p0067 N75-16083
- Energy problems in a global context
06 p0075 N75-16978
- Energy-related research and development in the United States Air Force
06 p0075 N75-16979
- Alternative fuels for aviation
06 p0075 N75-16980
- Energy resources and utilization
06 p0075 N75-16983
- Assessment of the technology required to develop photovoltaic power system for large scale national energy applications [NSF/RA/N-74-072]
06 p0080 N75-17785
- First Joint Soviet-American Colloquium on the Problems of HHD Energy Conversion [JPRS-63794]
06 p0081 N75-17790
- Solar total energy program [SAND-74-0208]
06 p0081 N75-17810
- Energy and cryoengineering [LA-UR-74-741]
06 p0082 N75-17814
- Report of the Interagency Working Group on health and environmental effects of energy use [PB-237937/8]
06 p0084 N75-17858
- Survey of hydrogen compatibility problems in energy storage and energy transmission applications [SAND-74-8219]
06 p0087 N75-18726
- In situ oil shale: A cost sensitivity analysis [SAND-74-0146]
06 p0087 N75-18727
- Data base for the industrial energy study of the industrial chemicals group [PB-237845/3]
06 p0087 N75-18732
- Conference proceedings: Power Generation-Clean Fuels Today [PB-237661/4]
06 p0087 N75-18735
- Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal [PB-237116/9]
06 p0088 N75-18739
- Advanced coal gasification system for electric power generation [PB-236971/8]
06 p0089 N75-18747
- The HHD generator: A step toward the energy supply of tomorrow --- development of magnetohydrodynamic generators [AD-A000087]
06 p0089 N75-18749
- Energy systems analysis and technology assessment program [BNL-18984]
06 p0094 N75-19831
- Research and technology operating plan summary: Fiscal year 1975 research and technology program --- space programs, energy technology, and aerospace sciences [NASA-TM-X-70410]
06 p0096 N75-20155
- Proceedings of the Conference on Research for the Development of Geothermal Energy Resources [NASA-CR-142556]
06 p0098 N75-20831
- The NSF/RANN FY 1975 program for geothermal resources research and technology
06 p0098 N75-20833
- Geothermal research and development program of the US Atomic Energy Commission
06 p0098 N75-20834
- Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California [IGPP-UCR-74-31]
06 p0098 N75-20836
- The Colorado School of Mines Nevada geothermal study
06 p0099 N75-20837
- Heat flow and geothermal potential of the East Mesa KGRA, Imperial Valley, California
06 p0099 N75-20838
- A brief description of geological and geophysical exploration of the Marysville geothermal area
06 p0099 N75-20839
- Institutional and environmental problems in geothermal resource development
06 p0100 N75-20843
- The total flow concept for geothermal energy conversion
06 p0100 N75-20846
- San Diego Gas and Electric Company Imperial Valley geothermal activities
06 p0100 N75-20847
- The Marysville, Montana Geothermal Project
06 p0100 N75-20849
- Preliminary results of geothermal desalting operations at the East Mesa test site Imperial Valley, California
06 p0101 N75-20850
- Rock melting technology and geothermal drilling
06 p0101 N75-20851
- Geothermal reservoir simulation
06 p0101 N75-20852
- Geothermal reservoir engineering research
06 p0101 N75-20853

SUBJECT INDEX

ENVIRONMENT POLLUTION

- Geothermal down well pumping system 06 p0101 N75-20854
- Helical rotary screw expander power system 06 p0101 N75-20856
- Combining total energy and energy industrial center concepts to increase utilization efficiency of geothermal energy 06 p0102 N75-20860
- A city invests in its future 06 p0102 N75-20862
- Hydrogen economy: A utility perspective [BNL-19267] 06 p0103 N75-20870
- Scientific research seeks new sources of energy 06 p0107 N75-21216
- Problems of the future and potentialities of system engineering --- metallic materials, plastics, traffic and energy supplies [ESRO-TT-110] 06 p0107 N75-21218
- Flywheel energy systems [SAND-74-0113] 07 p0129 N75-21802
- Evaluating integrated utility systems [PB-238765/2] 07 p0136 N75-22925
- Solar energy research and development [GPO-40-684] 07 p0139 N75-24104
- Symposium on the Material Science Aspects of Thin Film Systems for Solar Energy Conversion [PB-239270/2] 07 p0144 N75-24150
- Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem [PB-240423/4] 07 p0152 N75-25774
- Digest of energy facts for water resources studies in Minnesota [PB-239961/6] 07 p0156 N75-26515
- Assessment of the potential of clean fuels and energy technology [PB-239970/7] 07 p0162 N75-27583
- A summary of significant results in mining metallurgy and energy, Bureau of Mines Research 1974 [PB-241084/2] 08 p0199 N75-28514
- Scientific research in power engineering [JPRS-65422] 08 p0205 N75-30648
- A systems approach to innovative solutions to the energy problem [PB-242189/9] 08 p0213 N75-33505
- ENERGY TRANSFER**
- The nature of the sunspot phenomenon. III - Energy consumption and energy transport. IV - The intrinsic instability of the magnetic configuration 06 p0064 A75-29137
- Calculation of flat-plate collector loss coefficients --- of solar radiation 07 p0109 A75-29480
- Can hydrogen transmission replace electricity 08 p0165 A75-38863
- Will hydrogen transmission replace electricity 08 p0172 A75-42281
- Solar energy absorber [NASA-CASE-MFS-22743-1] 05 p0024 N75-10585
- Methods of energy transfer from a magnetic energy storage system using a transfer capacitor and a superconducting switch [LA-5631-MS] 05 p0032 N75-13164
- Continued development of energy transmission and conversion systems --- applied to operation of mechanical hearts [PB-236181/4] 05 p0037 N75-14278
- Energy recovery from solid waste --- production engineering model 06 p0079 N75-17200
- Magnetic Energy Transfer and Storage (NETS) program schedules for a Fusion Test Reactor (FTR) [LA-5748-MS] 06 p0106 N75-21097
- ENGINE CONTROL**
- Powerplant energy management --- transport aircraft engine thrust control [AIAA PAPER 74-1066] 05 p0001 A75-10259
- Backfire control techniques for hydrogen-fueled internal combustion engines 08 p0178 A75-44789
- ENGINE DESIGN**
- The Harwell thermo-mechanical generator 05 p0009 A75-10579
- An engine project engineer's view of advanced secondary power systems [SAE PAPER 740884] 05 p0019 A75-16925
- Stirling engines - Capabilities and prospects 06 p0048 A75-23237
- Part load specific fuel consumption of gas turbines 06 p0063 A75-28650
- Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/ 08 p0193 A75-46019
- Preliminary results of the large experimental wind turbine phase of the national wind energy program 08 p0196 A75-47798
- Impact of future fuels on military aero-engines 06 p0075 N75-16981
- Preliminary study of advanced turbofans for low energy consumption [NASA-TN-X-71663] 06 p0084 N75-18241
- A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion [PB-238694/4] 07 p0132 N75-22482
- A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7 [PB-238696/9] 07 p0133 N75-22484
- Turbine design and application, volume 3 [NASA-SP-290-VOL-3] 07 p0147 N75-24741
- ENGINE PARTS**
- Study of the costs and benefits of composite materials in advanced turbofan engines [NASA-CR-134696] 06 p0073 N75-16637
- ENGINE TESTS**
- Engine performance with gasoline and hydrogen - A comparative study 08 p0177 A75-44787
- ENVIRONMENT EFFECTS**
- Environmental aspects of fusion reactors 08 p0170 A75-41434
- The technology and economics of hydrogen production from fusion reactors 08 p0176 A75-44767
- Social and environmental context of the hydrogen economy 08 p0179 A75-44807
- How might the hydrogen economy affect our resources and environment 08 p0179 A75-44809
- Process environment effects on heat pipes for fluid-bed gasification of coal [LA-UR-74-984] 05 p0029 N75-12252
- Energy and the environment: Electric power 05 p0030 N75-12438
- Energy and the environment in Baden-Wuerttemberg [KFK-1966-UF] 05 p0030 N75-12439
- Program plan for environmental effects of energy [PB-235115/3] 05 p0040 N75-15177
- Comparison of the environmental aspects of nuclear and fossil fueled power stations [CONF-740555-1] 06 p0077 N75-16995
- OCS oil and gas: An environmental assessment, Volume 1 06 p0083 N75-17837
- Pollutional problems and research needs for an oil shale industry [PB-236608/6] 06 p0084 N75-17848
- Environmental aspects of methanol as vehicular fuel: Health and environmental effects [UCRL-76076] 06 p0095 N75-19867
- Environmental aspects of cadmium sulfide usage in solar energy conversion. Part 1: Toxicological and environmental health considerations, a bibliography [PB-238285/1] 06 p0105 N75-20884
- Evaluation of power facilities; A reviewer's handbook --- electric and nuclear power plants [PB-239221/5] 07 p0146 N75-24198
- Mineral resources and the environment --- energy conservation and energy policy [PB-239579/6] 07 p0153 N75-26486
- ENVIRONMENT MANAGEMENT**
- The solution of information-deficiency problems of electroenergy technology --- optimal decision making 06 p0062 A75-28508
- ENVIRONMENT POLLUTION**
- Environmental impact of a geothermal power plant 06 p0049 A75-23291
- Limit lead in gasoline [GPO-29-660] 05 p0023 N75-10259

ENVIRONMENT PROTECTION

SUBJECT INDEX

- Report of the Interagency Working-Group on health and environmental effects of energy use
 {PB-237937/8} 06 p0084 N75-17858
- Problems in electric power production --- and environmental pollution
 {ISS-T-73/16} 07 p0128 N75-21793
- Symposium proceedings: Environmental Aspects of Fuel Conversion Technology
 {PB-238304/0} 07 p0145 N75-24179
- Proceedings of the Workshop on Research Needs Related to Water for Energy
 {PB-241346/6} 08 p0208 N75-31581
- ENVIRONMENT PROTECTION**
- Energy crisis - Fact or fiction
 05 p0011 A75-12115
- International energy problems and environmental policy
 05 p0014 A75-13597
- Interaction between the fuel-energy complex and the environment
 07 p0110 A75-29800
- Environmental aspects of fusion reactors
 08 p0170 A75-41434
- Environmental impact of a suitable nuclear power reactor used to provide a process heat system to synthesize fuels
 08 p0179 A75-44808
- Impact of motor gasoline lead additive regulations on petroleum refineries and energy resources, 1974-1980, phase 1
 {PB-234185/7} 05 p0025 N75-10601
- Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority
 {GPO-32-403} 05 p0026 N75-10859
- The Environmental protection agency industrial technology transfer program
 06 p0078 N75-17193
- The action of EDP in the prevention of atmospheric pollution --- by expanding nuclear electric power generation
 {BLL-CE-TRANS-6500-(9022.09)} 06 p0083 N75-17833
- Proceedings of the New York State Assembly/ISLE Conference on Energy and the Environment, Volume 1
 {PB-237936/0} 06 p0091 N75-18801
- Geothermal reservoir simulation
 06 p0101 N75-20852
- Science and Technology Applications Act of 1974 --- energy sources and environment protection
 {GPO-41-407} 08 p0209 N75-31961
- ENVIRONMENTAL CONTROL**
- Wind energy utilization prospects
 07 p0117 A75-34928
- Solar climate control - Evaluating the commercial possibilities
 08 p0168 A75-40297
- Solar heating and cooling of buildings. Phase 0: Final report. Executive summary
 {PB-235426/4} 05 p0042 N75-15195
- ENVIRONMENTAL MONITORING**
- Remote sensing applied to energy-related problems; Proceedings of the Symposium-Course, Miami, Fla., December 2-4, 1974
 07 p0118 A75-35451
- Remote sensing for Western coal and oil shale development planning and environmental analysis
 07 p0118 A75-35458
- Multispectral data systems for energy related problems --- strip mining and power plant site monitoring
 07 p0118 A75-35464
- Remote sensing applied to mine subsidence - Experience in Pennsylvania and the Midwest
 07 p0121 A75-36809
- Institutional and environmental problems in geothermal resource development
 06 p0100 N75-20843
- ENVIRONMENTAL QUALITY**
- Energy and environmental standards --- environmental standards and energy policy
 {GPO-37-171} 05 p0030 N75-12431
- OCS oil and gas: An environmental assessment, Volume 2
 06 p0084 N75-17838
- OCS oil and gas: An environmental assessment, volume 4
 06 p0084 N75-17839
- OCS oil and gas: An environmental assessment, volume 5
 06 p0084 N75-17840
- Environmental impacts, efficiency, and cost of energy supply and end use, volume 2
 {PB-239159} 07 p0149 N75-25306
- Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment
 {PB-239582/0} 07 p0153 N75-26489
- ENVIRONMENTAL SURVEYS**
- The bioenvironmental impact of air pollution from fossil-fuel power plants
 {PB-237720/8} 06 p0090 N75-18782
- Imperial Valley's proposal to develop a guide for geothermal development within its county
 06 p0100 N75-20844
- Nuclear energy center site survey: Scope of work
 {PB-240453/1} 07 p0152 N75-25348
- Environmental statement related to the proposed Callaway Plant units 1 and 2. Union Electric Company docket nos. STN 50-483 and STN 50-486
 {PB-240193/3} 07 p0152 N75-25349
- The impact of energy development on water resources in arid lands. Literature review and annotated bibliography
 {PB-240008/3} 07 p0157 N75-26550
- Regional impacts of alternative energy allocation strategies --- environmental impact of energy crisis and its shortages
 {PB-241125/4} 08 p0205 N75-30667
- Process and environmental technology for producing SNG and liquid fuels
 {PB-242774/8} 08 p0212 N75-33491
- An evaluation of oceanographic and socioeconomic aspects of a nearshore ocean thermal energy conversion pilot plant in subtropical Hawaiian waters
 {PB-242167/5} 08 p0213 N75-33509
- EPITAXIAL**
- Epitaxial silicon solar cell
 06 p0056 A75-25086
- EQUIPMENT SPECIFICATIONS**
- Power collection reduction by mirror surface nonflatness and tracking error for a central receiver solar power system
 07 p0120 A75-36305
- Design installation and operation of a 25 ton-a-day coal gasification process development unit for the agglomerating burner-gasification
 {PB-237625/9} 06 p0087 N75-18734
- ERBIUM COMPOUNDS**
- Cylindrical erbium oxide radiator structures for thermophotovoltaic generators
 {AD-A001525} 07 p0129 N75-21806
- ERGODIC PROCESS**
- Fluctuations of electric power in MHD channels
 07 p0110 A75-30949
- ESTIMATES**
- Methane in the Pittsburgh coalbed, Washington County, Pennsylvania
 {PB-237848/7} 06 p0089 N75-18760
- Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources
 {PB-239581/2} 07 p0153 N75-26488
- ESTUARIES**
- Optimising pumped storage with tidal power in an estuary
 {ASME PAPER 74-WA/PWR-7} 05 p0018 A75-16881
- ETCHING**
- V-grooved silicon solar cells
 07 p0123 A75-37397
- ETHYLENE**
- The oxidation of ethylene in automotive engine exhaust gas; an experimental investigation
 07 p0138 N75-23719
- EUROPEAN SPACE PROGRAMS**
- Solar generator and power systems for communication satellites
 08 p0206 N75-31165
- EVALUATION**
- Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator
 {NASA-TM-X-71626} 08 p0211 N75-32595

- EVAPORATORS**
 Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
 Transverse header heat pipe [AIAA PAPER 75-656] 07 p0114 A75-32914
- EXCAVATION**
 The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology 06 p0079 N75-17203
- EXHAUST GASES**
 Utilization of plasma exhaust energy for fuel production [COO-3028-7] 05 p0028 N75-11465
 Project Clean Air 1972, LNG conversion of GM-71 series diesel engine --- considering automobile exhaust gases control [PB-236585/6] 06 p0090 N75-18783
 Inspection and maintenance of light-duty gasoline powered motor vehicles: A guide for implementation --- emissions inspection program [PB-236587/2] 06 p0090 N75-18784
 The oxidation of ethylene in automotive engine exhaust gas; an experimental investigation 07 p0138 N75-23719
 Characterization of sulfur recovery from refinery fuel gas [PB-239777/6] 07 p0151 N75-25326
 Methane emission from U.S. Coal mines in 1973, a survey [PB-240154/5] 07 p0152 N75-25354
- EXHAUST SYSTEMS**
 Heat pipe thermal recovery units --- for process exhaust energy utilization 08 p0194 A75-46041
- EXPERIMENTAL DESIGN**
 State of the art and prospects for electric vehicles [BLL-OA-TRANS-1250-(6196.3)] 06 p0074 N75-16712
- EXTERNAL COMBUSTION ENGINES**
 Stirling engines - Capabilities and prospects 06 p0048 A75-23237
- EXTRATERRESTRIAL RESOURCES**
 Space and energy - Some legal problems --- extraterrestrial resources and solar energy exploitation 08 p0183 A75-45885
 The utilization of space as a source of energy for the earth 08 p0183 A75-45893
- F**
- F-15 AIRCRAFT**
 F-15 secondary power systems [SAE PAPER 740885] 06 p0048 A75-22948
- FABRICATION**
 Process development for low cost integrated solar arrays 06 p0054 A75-24259
- FABRY-PEROT INTERFEROMETERS**
 Interferometric tuning of a 15-atm CO2 laser 06 p0058 A75-27518
- FACILITIES**
 Army installation energy requirements in CONUS [AD-A008951] 08 p0205 N75-30660
- FARM CROPS**
 The effect of recent energy price increases on field crop production costs [PB-238659/7] 06 p0107 N75-21155
 Solar powered pump [NASA-CASE-NPO-13567-1] 07 p0133 N75-22746
 Use of thermally enriched water for growing field crops in Minnesota [PB-240112] 07 p0159 N75-27549
- FARMLANDS**
 Fuel as an agricultural crop 08 p0172 A75-42533
- FAST NUCLEAR REACTORS**
 Clinch River Breeder Reactor: A combined power and fuel source [CONF-740609-4] 05 p0038 N75-14593
- FEASIBILITY ANALYSIS**
 Potential for large-scale energy storage in electric utility systems [ASHE PAPER 74-WA/ENER-9] 05 p0016 A75-16840
 Power from ocean waves [ASHE PAPER 74-WA/PWR-5] 05 p0018 A75-16879
- Lighter than air - A look at the past, a look at the possibilities 06 p0056 A75-25995
 Is massive solar energy conversion a practical prospect 08 p0174 A75-44752
 Hydrogen as an energy carrier --- feasibility analysis 08 p0178 A75-44796
 An engineering assessment of the hydrogen economy 08 p0180 A75-44814
 Technical and economic evaluation of solar heating and cooling of buildings 08 p0184 A75-45921
 Report of the Wind Power Committee --- a feasibility analysis of the use of wind for a major energy source [NASA-TT-F-16062] 05 p0039 N75-15154
 Solar heating and cooling of buildings. Phase 0. Feasibility and planning study. Volume 3, book 2, appendix C, task 3: Assessment of capture potential. Appendix d, task 4: Social and environmental study [PB-235434/8] 06 p0070 N75-16108
 Pollution-free electrochemical power generation from low grade coal [PB-236162/4] 06 p0070 N75-16109
 Sixty minute thermal battery: A feasibility study [SLA-73-5888] 06 p0077 N75-16994
 Solar thermal power systems based on optical transmission [PB-237005/4] 06 p0088 N75-18742
 Electric power generation using geothermal brine resources for a proof of concept facility 06 p0101 N75-20857
 The potential for developing Alaskan coals for clean export fuels, phase 1 [PB-238539/1] 07 p0127 N75-21786
 Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant [PB-238571/4] 07 p0130 N75-21821
- FEDERAL BUDGETS**
 Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority [GPO-32-403] 05 p0026 N75-10859
 Energy imports and the US balance of payments [GPO-28-965] 07 p0141 N75-24114
- FEED SYSTEMS**
 Hydrazine gas generation for pressure gas feed systems 08 p0166 A75-39134
- FERMENTATION**
 Energy problems - Solar energy and manure gas 05 p0020 A75-17024
 Biological conversion of organic refuse to methane [PB-235468/6] 05 p0041 N75-15183
- FERROELECTRICITY**
 Dielectric power conversion 08 p0189 A75-45979
 Progress of ISL research on energy conversion in ferroelectric ceramics of the type Pb(ZrLTi)xO3 [ISL-29/74] 08 p0208 N75-31910
- FERTILIZERS**
 Energy and fixed nitrogen from agricultural residues [BNWL-SA-5070] 06 p0103 N75-20874
 Economic impact of shortages on the fertilizer industry [PB-240418/4] 08 p0204 N75-29953
- FIGURE OF MERIT**
 Heat mirrors for solar-energy collection and radiation insulation 05 p0004 A75-10525
- FILM CONDENSATION**
 Investigations of the factors affecting the performance of a rotating heat pipe 07 p0120 A75-36357
- FINANCIAL MANAGEMENT**
 Investment possibility of financial institutions in solar heating [PB-239756/0] 07 p0155 N75-26511
 Special Energy Research and Development Appropriation Act, 1975 [PUB-LAW-93-322] 08 p0209 N75-31957
- FINLAND**
 Technology and community development materials processing, and electrical and nuclear technology --- technical research center of Finland 05 p0031 N75-12695

FISSILE FUELS

SUBJECT INDEX

FISSILE FUELS

Optimization of fusion power density in the two-energy-component tokamak reactor
07 p0124 A75-37836

FISSION

Interesting possibilities of fusion-fission --- for thermonuclear power generation
[BNWL-SA-5069] 06 p0096 N75-20106

FLAMES

Energy conversion. 1: Non-propulsive aspects --- fuels and pyrotechnics
[AD-A000077] 06 p0079 N75-17454

FLAT PLATES

Status of the NASA-Lewis flat-plate collector tests with a solar simulator
06 p0058 A75-27533

Calculation of flat-plate collector loss coefficients --- of solar radiation
07 p0109 A75-29480

Numerical modeling of flat plate solar collectors
[AIAA PAPER 75-739] 07 p0113 A75-32861

Outdoor flat-plate collector performance prediction from solar simulator test data
[AIAA PAPER 75-741] 07 p0113 A75-32862

Field performance and operation of a flat-glass solar heat collector
07 p0115 A75-33973

Methodology of research of flat-plate solar collector absorptive coatings
07 p0117 A75-34935

Power collection reduction by mirror surface nonflatness and tracking error for a central receiver solar power system
07 p0120 A75-36305

The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors
[PB-238509/4] 07 p0130 N75-21822

Conservation and better utilization of electric power by means of thermal energy storage and solar heating. Solar collector performance studies
[PB-239355/1] 07 p0150 N75-25320

Method of testing for rating solar collectors based on thermal performance --- flat plate collectors
[COM-75-10276/4] 07 p0150 N75-25321

FLAT SURFACES

Thermokinetics of a flat solar collector of constant heat capacity
08 p0171 A75-41768

Investigation of a solar concentrator with hexahedral glass facets
08 p0180 A75-45061

A nearly perfect solar energy concentrator made up of tapered mirror facets with constant transverse curvature
08 p0180 A75-45062

Moderately concentrating flat-plate solar energy collectors
[ASME PAPER 75-HT-54] 08 p0196 A75-47526

FLEXIBLE BODIES

Investigations and selection of components and materials for flexible solar generator
06 p0050 A75-24182

A flexible cryogenic heat pipe
[AIAA PAPER 75-658] 07 p0114 A75-32916

FLIGHT CHARACTERISTICS

Impact on aerodynamic design
06 p0075 N75-16982

FLIGHT OPTIMIZATION

Certain problems of fuel consumption in air transport
05 p0011 A75-11372

Extended energy management methods for flight performance optimization
[AIAA PAPER 75-30] 05 p0021 A75-18269

FLIGHT TESTS

Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket
[AIAA PAPER 75-729] 07 p0113 A75-32872

FLIGHT TIME

'Time is energy' /Henson and Stringfellow Memorial Lecture/ --- VTOL aircraft developments
07 p0112 A75-32324

FLOW CHARTS

US energy flow charts for 1950, 1960, 1970, 1980, 1985, and 1990
[UCRL-51487] 05 p0024 N75-10593

FLOW STABILITY

Arterial gas occlusions in operating heat pipes
[AIAA PAPER 75-657] 07 p0114 A75-32915

FLUIDIC CIRCUITS

Study of an electrofluidic generator
08 p0189 A75-45978

FLUIDIZED BED PROCESSORS

Small coal burning gas turbine for modular integrated utility systems
05 p0006 A75-10546

Use of low grade solid fuels in gas turbines
[ASME PAPER 74-WA/ENER-5] 05 p0016 A75-16837

Development of coal fired fluidized-bed boilers
[PB-235899/2] 06 p0065 N75-15668

Development of coal fired fluidized-bed boilers
[PB-235898/4] 06 p0065 N75-15669

Pressurized fluidized bed combustion --- combustion physics, gas turbines
[PB-236498/2] 06 p0065 N75-15769

Pressurized fluidized bed combustion
[PB-235591/5] 06 p0065 N75-15772

Reduction of atmospheric pollution by the application of fluidized-bed combustion
[PB-235840/6] 06 p0072 N75-16151

Energy conversion from coal utilizing CPU-400 technology
[PB-237028/6] 06 p0083 N75-17828

Coal combustion and desulfurization in a rotating fluidized bed reactor
[BNL-19308] 07 p0129 N75-21799

Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2
[PB-240632/0] 07 p0159 N75-27556

FLUIDS

Solar energy trap
[NASA-CASE-MPS-22744-1] 05 p0024 N75-10586

FLYWHEELS

Metals and composites in superflywheel energy storage systems
06 p0047 A75-22523

Design and testing of an energy flywheel for an Integrated Power/Attitude Control System /IPACS/
[AIAA PAPER 75-1107] 08 p0171 A75-41669

Storage of energy in kinetic batteries for an earth resources satellite
[IAF PAPER ST-75-09] 08 p0183 A75-45875

Energy storage by flywheels
08 p0185 A75-45930

Design and test of a flywheel energy storage unit for spacecraft application
08 p0193 A75-46028

The multirun superflywheel
[AD-A001081] 06 p0085 N75-18594

Flywheel energy systems
[SAND-74-0113] 07 p0129 N75-21802

FOCUSING

New applications for optical components - High energy focusing
05 p0015 A75-16525

Evaluation of focusing solar energy collectors
08 p0168 A75-40300

A tower-top point focus solar energy collector
08 p0174 A75-44753

FOLDING STRUCTURES

Latest developments of the circular solar array --- with deployment structure for central antenna communication satellite
06 p0053 A75-24246

FOOD

Industrial energy study of selected food industries
[PB-237316/5] 06 p0083 N75-17827

FORECASTING

The design and development of an interactive energy model
[PB-236144/2] 06 p0070 N75-16110

The future of the US nuclear energy industry
[PB-242164/2] 08 p0214 N75-33511

FOREIGN POLICY

Energy and security: Implications for American policy
[AD-785084] 05 p0032 N75-12857

Energy imports and the US balance of payments
[GPO-28-965] 07 p0141 N75-24114

Energy and foreign policy
[GPO-22-562] 07 p0142 N75-24125

SUBJECT INDEX

FUEL COMBUSTION

FOREIGN TRADE

The economic impact of an interruption in United States petroleum imports: 1975 - 2000
[AD-A010914] 08 p0214 N75-33931

FORESTS

Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes
08 p0187 A75-45950

FOSSIL FUELS

The production of gaseous energy carriers from fossil fuels
06 p0049 A75-23502

An econometric analysis of fuel selection for power generation
06 p0055 A75-24751

A central receiver solar power plant in a hybrid mode of operation --- solar/fossil-fueled steam power plant
[AIAA PAPER 75-624] 06 p0062 A75-28596

Remote sensing for Western coal and oil shale development planning and environmental analysis
07 p0118 A75-35458

Energy survey - What can R&D do by 1985 --- fossil fuel utilization
08 p0169 A75-40617

MHD electrical power generation from fossil fuels
[AIAA PAPER 75-1236] 08 p0182 A75-45648

Technological and commercial possibilities which result by using a high temperature reactor for the future supply of mineral oil in the FRG
[JUL-1017-RG] 05 p0029 N75-11470

Bureau of Mines research 1973. Summary of significant results in mining, metallurgy, and energy
[PB-234733/4] 05 p0040 N75-15171

Comparison of the environmental aspects of nuclear and fossil fueled power stations
[CONF-740555-1] 06 p0077 N75-16995

Summary report of workshop on Energy Related Basic Combustion Research
[PB-236714/2] 06 p0079 N75-17456

Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle
[ORNL-NSF-EP-30] 06 p0090 N75-18769

The bioenvironmental impact of air pollution from fossil-fuel power plants
[PB-237720/8] 06 p0090 N75-18782

The collaborative study of EPA methods, 5, 6, and 7 in fossil fuel-fired steam generators
[PB-237695/2] 06 p0091 N75-18788

Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: Lurgi process
[PB-237694/5] 06 p0096 N75-19880

Technology and use of lignite
[PB-238666/2] 07 p0142 N75-24131

Environmental impacts, efficiency, and cost of energy supply and end use, volume 2
[PB-239159] 07 p0149 N75-25306

Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COE process
[PB-240371/5] 07 p0162 N75-27626

A summary of significant results in mining metallurgy and energy, Bureau of Mines Research 1974
[PB-241084/2] 08 p0199 N75-28514

Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process
[PB-241141/1] 08 p0204 N75-29596

FRACTURE MECHANICS

A practical model law for chemical explosive fracture of oil shale
06 p0078 N75-17023

FRACTURING

Fracture-induced permeability: Present situation and prospects for coal
[UCID-16593] 06 p0094 N75-19830

FRANCE

Wind power projects of the French electrical authority
[NASA-TT-F-16057] 05 p0033 N75-13384

FREE CONVECTION

Steady state free convection in an unconfined geothermal reservoir
05 p0009 A75-11069

Natural convection in enclosed spaces - A review of application to solar energy collection
[ASHE PAPER 74-WA/HT-12] 05 p0017 A75-16860

FUEL CAPSULES

Soil burial of radioisotopic fuel capsules
06 p0046 A75-21274

FUEL CELLS

Metal hydride fuel cell power source
05 p0008 A75-10564

Milliwatt fuel cell system for sensors
05 p0008 A75-10565

Methanol/air acidic fuel cell system
05 p0008 A75-10566

60 watt hydride-air fuel cell system
05 p0008 A75-10567

Prospects and scientific problems of the utilization of methods of direct electric power generation from chemical fuels /fuel cells/
05 p0012 A75-12911

The FCG-1 fuel cell powerplant for electric utility use
05 p0013 A75-12992

Hydrogen fuel cells and motors --- new energy technology
06 p0046 A75-22042

Corrosion and related problems in high-temperature cells
06 p0055 A75-24377

Porous matrix structures for alkaline electrolyte fuel cells
07 p0123 A75-37243

Hydrazine as a fuel for a fuel cell
08 p0166 A75-39132

Batteries and fuel cells in the electrical generating industry
08 p0166 A75-39198

Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record
08 p0183 A75-45920

Solid polymer electrolysis fuel cell status report
08 p0186 A75-45942

Phosphoric acid fuel cell stack development
08 p0186 A75-45943

1.5 and 3KW indirect methanol-air fuel cell power plants
08 p0186 A75-45944

The EPA-Van - A clean energy system for the home --- mobile test station for nonpolluting systems
08 p0186 A75-45946

Application of fuel cells with heat recovery for integrated utility systems
08 p0187 A75-45949

An intercell heat pipe for fuel cell and battery cooling
[AD-782888] 05 p0027 N75-11226

Evaluation of an ion exchange membrane fuel cell for space power
[AD-786888] 05 p0037 N75-14274

Status and outlook for energy conversion via fuel cells
[CONF-740462-1] 06 p0087 N75-18729

Fuel cells: Direct conversion of electrochemical energy into electricity
[SAND-74-0125] 06 p0103 N75-20869

Electrolyte for hydrocarbon air fuel cells
[AD-A007220] 07 p0136 N75-22917

Study of fuel cell powerplant with heat recovery
[NASA-CR-141854] 07 p0148 N75-25296

FUEL COMBUSTION

Combustion dynamics research for 'Project Independence'
[AIAA PAPER 74-1069] 05 p0001 A75-10262

Combustion R&D - Key to our energy future --- pollution reduction using hydrocarbon fuels
05 p0009 A75-10596

Coal-gas combustion in industrial gas turbines
[AIAA PAPER 74-1114] 05 p0010 A75-11286

The Stirling engine for vehicle propulsion
06 p0050 A75-23509

Availability and propulsion --- fuel combustion energy calculations for turbojet
08 p0195 A75-46548

Compilation of air pollutant emission factors, second edition, supplement no. 3 --- fuel combustion and consumption
[PB-235736/6] 06 p0073 N75-16152

FUEL CONSUMPTION

SUBJECT INDEX

The oxidation of ethylene in automotive engine exhaust gas; an experimental investigation 07 p0138 N75-23719

In situ combustion of coal for energy [PE-241892/9] 08 p0211 N75-32603

FUEL CONSUMPTION

Powerplant energy management --- transport aircraft engine thrust control [AIAA PAPER 74-1066] 05 p0001 A75-10259

Energy from urban wastes 05 p0006 A75-10548

Certain problems of fuel consumption in air transport 05 p0011 A75-11372

Next generation transports will emphasize fuel savings 05 p0011 A75-11426

Fuel outlook dictating technical transport research 05 p0011 A75-11427

Rating aircraft on energy 05 p0015 A75-14346

Effectiveness of using semiconductor heat pumps under the conditions of the Turkmen SSR 05 p0020 A75-17083

Extended energy management methods for flight performance optimization [AIAA PAPER 75-30] 05 p0021 A75-18269

Conceptual design of reduced energy transports [AIAA PAPER 75-303] 06 p0047 A75-22508

Future long-range transports - Prospects for improved fuel efficiency [AIAA PAPER 75-316] 06 p0047 A75-22514

Air transportation energy consumption - Yesterday, today, and tomorrow [AIAA PAPER 75-319] 06 p0047 A75-22515

An econometric analysis of fuel selection for power generation 06 p0055 A75-24751

Part load specific fuel consumption of gas turbines 06 p0063 A75-28650

'Time is energy' /Henson and Stringfellow Memorial Lecture/ --- VTOL aircraft developments 07 p0112 A75-32324

Design of short haul aircraft for fuel conservation [SAE PAPER 750587] 08 p0169 A75-40502

Fuel conservation possibilities for terminal area compatible transport aircraft [AIAA PAPER 75-1036] 08 p0171 A75-41698

Weight contribution to fuel conservation for terminal area compatible aircraft [SAE PAPER 1091] 08 p0196 A75-47509

Total energy use for commercial aviation in the US [ORNL-NSF-EP-68] 05 p0023 N75-10039

Transportation vehicle energy intensities. A joint DOT/NASA reference paper --- energy consumption of air and ground vehicles [NASA-TM-X-62404] 05 p0035 N75-13690

The prospects for gasoline availability: 1974 [GPO-34-969] 05 p0039 N75-15155

Fuel conservation capability and effort by commercial air carriers [NASA-CR-137624] 05 p0039 N75-15157

Interfuel substitution in the consumption of energy in the United States. Part 1: Residential and commercial sector [PB-234536/1] 05 p0040 N75-15178

Caltech seminar series on energy consumption in private transportation [PB-235348/0] 05 p0040 N75-15179

Caltech seminar series on energy consumption in private transportation: Administrative summary [PB-235349/8] 05 p0041 N75-15184

Engine development program for the APL remotely piloted vehicle [AD-787507] 06 p0065 N75-15658

Fuel availability and allocation in the United States [GPO-31-711] 06 p0067 N75-16081

The design and development of an interactive energy model [PB-236144/2] 06 p0070 N75-16110

Compilation of air pollutant emission factors, second edition, supplement no. 3 --- fuel combustion and consumption [PB-235736/6] 06 p0073 N75-16152

Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft [NASA-CR-2502] 06 p0073 N75-16557

Future long-range transports: Prospects for improved fuel efficiency [NASA-TM-X-72659] 06 p0079 N75-17339

Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding [PB-237209/2] 06 p0083 N75-17826

Proceedings of the New York State Assembly/AISLE Conference on Energy and the Environment, Volume 1 [PB-237936/0] 06 p0091 N75-18801

Fuel conservation possibilities for terminal area compatible aircraft [NASA-CR-132608] 06 p0091 N75-19224

Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525] 06 p0096 N75-20291

Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526] 06 p0097 N75-20292

A USAF energy projection model [AD-A006928] 07 p0132 N75-22476

Technological improvements to automobile fuel consumption. Volume 1: Executive summary [PB-238677/9] 07 p0132 N75-22478

Technological improvements to automobile fuel consumption. Volume 2A: Sections 1 through 23 [PB-238678/7] 07 p0132 N75-22479

Technological improvements to automobile fuel consumption. Volume 2B: Sections 24 and 25 and appendixes A through I [PB-238679/5] 07 p0132 N75-22480

A study of technological improvements in automotive fuel consumption. Volume 1: Executive summary [PB-238693/6] 07 p0132 N75-22481

A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion [PB-238694/4] 07 p0132 N75-22482

A study of technological improvements in automobile fuel consumption. Volume 3A: Appendixes 1 - 111 [PB-238695/1] 07 p0133 N75-22483

A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7 [PB-238696/9] 07 p0133 N75-22484

The 1973 fuel and electrical energy requirements of selected mineral industries activities 07 p0134 N75-22899

Industrial energy study of the drug manufacturing industries for the Federal Energy Administration/US Department of Commerce [PB-238994/8] 07 p0142 N75-24130

Energy system modeling-interfuel competition [PB-239292/6] 07 p0143 N75-24140

The impact of energy shortages on the iron and steel industries [PB-238749/6] 07 p0145 N75-24158

US energy and fuel demand to 1985, a composite projection by user within Petroleum Administration for Defense (PAD) districts [PB-239343/7] 07 p0151 N75-25322

Fuel use in the US electrical utility industry, 1971 - 1990 07 p0154 N75-26493

Energy rationing and energy conservation: Foundations for a social policy [PB-239766] 07 p0162 N75-27579

Increased fuel economy in transportation systems by use of energy management. Volume 1: General results and discussion [PB-240220/4] 07 p0163 N75-27970

Measure for reducing energy consumption for homeowners and renters [PB-240472/1] 08 p0201 N75-28546

The long term energy problem and aeronautics [PB-240012/5] 08 p0202 N75-29012

Energy intensity of barge and rail freight hauling [PB-240012/5] 08 p0202 N75-29269

Fuel conservation in ship operations [CON-75-10466/1] 08 p0202 N75-29270

Environmental regulations and energy for home heating [PB-240699/9] 08 p0203 N75-29587

Waste automotive lubricating oil reuse as a fuel [PB-241357/3] 08 p0204 N75-30331

SUBJECT INDEX

GAS COOLED FAST REACTORS

- Projected regional energy availability in 1985
[AD-A008938] 08 p0205 N75-30659
- Array installation energy requirements in CONUS
[AD-A008951] 08 p0205 N75-30660
- Fuel-conservative engine technology
08 p0206 N75-31074
- Providing for a national fuels and energy
conservation policy, establishing an office of
energy conservation in the Department of the
Interior, and for other purposes
[H-REPT-93-1546] 08 p0208 N75-31953
- Study of potential for motor vehicle fuel economy
improvement. Fuel economy test procedure panel
report no. 6
[PB-241776/4] 08 p0210 N75-32470
- Study of potential for motor vehicle fuel economy
improvement. Technology panel report no. 4
[PB-241774/9] 08 p0210 N75-32471
- Identification and characterization of the use of
mixed conventional and waste fuels --- fuel
consumption/air pollution
[PB-241821/8] 08 p0211 N75-32606
- Study of potential for motor vehicle fuel economy
improvement. Safety implications panel report
no. 2
[PB-241772/3] 08 p0212 N75-33410
- Study of potential for motor vehicle fuel economy
improvement. Truck and bus panel report no. 7
[PB-241777/2] 08 p0212 N75-33411
- Project Independence report: A review of US
energy needs up to 1985
[PB-242142/8] 08 p0213 N75-33506
- Direct and indirect energy demand models for DoD
[AD-A010968] 08 p0214 N75-33515
- FUEL CONTROL**
Fuel energy systems - Conversion and transport
efficiencies 05 p0007 A75-10554
- FUEL FLOW REGULATORS**
Contribution to the improvement of the regulating
process of ignition controlled engines
[PUBL-165] 08 p0206 N75-31285
- FUEL INJECTION**
Contribution to the improvement of the regulating
process of ignition controlled engines
[PUBL-165] 08 p0206 N75-31285
- FUEL OILS**
Char oil energy development
[PB-233263/3] 05 p0025 N75-10603
- The approaching energy crisis: A
call for action 05 p0030 N75-12432
- A short handbook on fuels --- and
lubricants [AD-A004358] 07 p0158 N75-27170
- Chemically active fluid-bed process for sulphur
removal during gasification of heavy fuel oil,
phase 2 [PB-240632/0] 07 p0159 N75-27556
- Conversion of cellulosic wastes to oil
[PB-240839/1] 07 p0161 N75-27572
- Financial incentives and pollution control: A
case study [PB-241479/5] 08 p0208 N75-31610
- FUEL SYSTEMS**
Energy carriers in space conditioning and
automotive applications - A comparison of
hydrogen, methane, methanol and electricity
05 p0005 A75-10540
- Oxides of nitrogen control techniques for
appliance conversion to hydrogen fuel
05 p0006 A75-10541
- Some LBG vehicle developments --- for automotive
conversion systems and fueling stations
06 p0048 A75-23236
- Evaluation of the overall fuel mass penalty of an
aircraft system 07 p0121 A75-36720
- Hydrazine gas generation for pressure gas feed
systems 08 p0166 A75-39134
- Automotive hydrogen engines, and onboard storage
methods 08 p0172 A75-42284
- Potential structural material problems in a
hydrogen energy system
[NASA-TN-X-71752] 07 p0154 N75-26500
- FUEL TANKS**
Hydrogen as fuel for internal-combustion engines
06 p0050 A75-23508
- Hydrazine gas generation for pressure gas feed
systems 08 p0166 A75-39134
- Low thermal flux glass-fiber/metal vessels for LBG
storage systems 08 p0177 A75-44783
- Erecting gas storage facilities and oil centers
[AD-A006559] 07 p0134 N75-22783
- FUELS**
An evaluation of discarded tires as a potential
source of fuel 05 p0012 A75-12416
- Effective utilization of solar energy to produce
clean fuel [PB-233956/2] 05 p0026 N75-10605
- Iron titanium hydride as a source of hydrogen fuel
for stationary and automotive applications
[BNL-18651] 05 p0030 N75-12441
- Energy conversion. 1: Non-propulsive aspects ---
fuels and pyrotechnics [AD-A000077] 06 p0079 N75-17454
- Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843
- Technical evaluation services, clean liquid and/or
solid fuels from coal [PB-237216/7] 07 p0129 N75-21803
- Hydrogen as a fuel [AD-A006984] 07 p0132 N75-22477
- Where the boilers are: A survey of electric
utility boilers with potential capacity for
burning solid waste as fuel [PB-239392/4] 07 p0143 N75-24135
- Symposium proceedings: Environmental Aspects of
Fuel Conversion Technology [PB-238304/0] 07 p0145 N75-24179
- Identification and characterization of the use of
mixed conventional and waste fuels --- fuel
consumption/air pollution [PB-241821/8] 08 p0211 N75-32606
- FULL SCALE TESTS**
Full-scale tests of 'photovolt' high-voltage
photocells at high light flux levels
07 p0122 A75-37162
- FURNACES**
Utilizing fuel more efficiently in reheating and
heat treatment furnaces [BLL-M-21957-(5828.4F)] 06 p0080 N75-17467
- Survey of gas and oil burners for use with
NSF/RANN-ORNL potassium boiler [ORNL-NSF-EP-45] 06 p0087 N75-18728
- Utilisation of waste heat from inductive melting
installations [BLL-OA-TRANS-949-(6196.3)] 07 p0153 N75-26492
- Solids emission from power station furnaces ---
industrial pollution control [BLL-CE-TRANS-6524-(9022.09)] 07 p0157 N75-26528
- G**
- GALLIUM ARSENIDES**
High-efficiency graded band-gap
Al_xGa_{1-x}As-GaAs solar cell 06 p0058 A75-27519
- GaAs concentrator solar cell 06 p0058 A75-27520
- Power generation and efficiency in GaAs
traveling-wave amplifiers 07 p0110 A75-30750
- Dependence of the basic parameters of
Al_xGa_{1-x}As-GaAs solar converters on
temperature and optical intensity 07 p0112 A75-32824
- Technique for producing 'good' GaAs solar cells
using poor-quality substrates 08 p0195 A75-46721
- GALLIUM PHOSPHIDES**
GaP p-n junctions and possibilities for their
application in the conversion of solar energy
into electric 05 p0011 A75-12198
- GAME THEORY**
The household energy game
[COM-75-10304/4] 07 p0161 N75-27578
- GAS COOLED FAST REACTORS**
Study of the application of HTGR to a petroleum
refinery petrochemical complex
[CONF-741144-1] 07 p0142 N75-24126

- GAS COOLED REACTORS**
Nuclear propulsion technology transfer to energy systems
[AIAA PAPER 74-1072] 05 p0001 A75-10264
Nuclear reactor process heat capabilities, potential, and economics
[CONF-741032-1] 07 p0131 N75-22112
- GAS DISCHARGES**
Energy characteristics of coaxial plasma source
[AD-787419] 06 p0073 N75-16368
- GAS DISSOCIATION**
Analysis of gas dissociation solar thermal power system
07 p0115 A75-33974
A search for thermochemical water-splitting cycles --- for energy production
08 p0177 A75-44782
- GAS DYNAMICS**
Study of an electrofluidic generator
08 p0189 A75-45978
- GAS EVOLUTION**
Project Rio Blanco data report: Production testing (RB-E-01), November 1973 and January - February 1974
[NVO-148] 06 p0094 N75-19833
- GAS FLOW**
Report on progress in achieving direct conversion of a major fraction of sonic flow kinetic power into electrical power by electrofluid dynamic /EPD/ processes
05 p0009 A75-10576
Thermal performance characteristics of heat pipes
06 p0046 A75-21465
- GAS GENERATORS**
Energy problems - Solar energy and manure gas
05 p0020 A75-17024
Efficiencies of electrolytic and thermochemical hydrogen production
06 p0045 A75-20300
Investigation of bubble formation in arteries of gas-controlled heat pipes
[AIAA PAPER 75-655] 07 p0114 A75-32913
Prospects for electrolytic hydrogen for chemical/industrial plants
08 p0168 A75-40179
Photoproduction of hydrogen via microbial and biochemical processes
08 p0171 A75-42279
High-temperature nuclear reactors as an energy source for hydrogen production
08 p0175 A75-44758
Hydrogen production with a high-temperature gas-cooled reactor /HTGR/
08 p0175 A75-44759
Hydrogen production from decomposition of water by means of nuclear reactor heat
08 p0175 A75-44760
Aqueous homogeneous reactor for hydrogen production
08 p0175 A75-44761
Thermochemical water cracking using solar heat
08 p0175 A75-44765
Photolysis of water as a solar energy conversion process - An assessment
08 p0176 A75-44766
The technology and economics of hydrogen production from fusion reactors
08 p0176 A75-44767
An economic perspective on hydrogen fuel
08 p0176 A75-44769
The utilization of solar energy for hydrogen production by cell-free system of photosynthetic organisms
08 p0176 A75-44770
An analysis of hydrogen production via closed-cycle schemes --- thermochemical processings from water
08 p0176 A75-44771
Electrolytic hydrogen generators
08 p0176 A75-44774
Hydrogen generation through static-feed water electrolysis
08 p0177 A75-44776
Hydrogen generation by solid-polymer electrolyte water electrolysis
08 p0177 A75-44777
Evaluation of multi-step thermochemical processes for the production of hydrogen from water
08 p0177 A75-44778
- Thermochemical hydrogen production research at Lawrence Livermore Laboratory
08 p0177 A75-44780
Hydrogen production by electrolysis - Present and future
08 p0193 A75-46022
Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies
08 p0193 A75-46023
Hydrogen as a fuel --- analysis of problems involved in generation, transportation, and utilization
[AD-787484] 06 p0066 N75-15818
A SASOL type process for gasoline, methanol, SNG, and low-Btu gas from coal
[PB-237670/5] 06 p0095 N75-19838
Technology for the conversion of solar energy to fuel gas
[PB-238545/8] 07 p0136 N75-22919
- GAS LASERS**
Lasers for fusion
08 p0166 A75-39333
Laser application of heat pipe technology in energy related programs
08 p0195 A75-46044
- GAS MIXTURES**
Concerning the use of a nitrogen-potassium gaseous mixture for protection of MHD-generator electrodes by suction
07 p0112 A75-31569
- GAS POCKETS**
Natural gas fields, Cook Inlet Basin, Alaska
[PB-235767/1] 06 p0066 N75-16071
- GAS PRESSURE**
Procedure for preparation for shipment of natural gas storage vessel
[NASA-CR-141455] 05 p0036 N75-14135
- GAS TEMPERATURE**
Heat pipe thermal control set point shift
07 p0115 A75-33271
- GAS TRANSPORT**
The Hydrogen Economy - A utility perspective --- energy technology
05 p0014 A75-12998
Energy supply in a closed cycle --- nuclear energy for nonelectrical use
06 p0049 A75-23503
Arterial gas occlusions in operating heat pipes
[AIAA PAPER 75-657] 07 p0114 A75-32915
- GAS TURBINE ENGINES**
Use of low grade solid fuels in gas turbines
[ASME PAPER 74-WA/ENER-5] 05 p0016 A75-16837
Part load specific fuel consumption of gas turbines
06 p0063 A75-28650
Recuperator development trends for future high temperature gas turbines --- heat exchanger design
[ASME PAPER 75-GT-50] 07 p0116 A75-34607
Component design considerations for gas turbine HTGR power plant --- High-Temperature Gas-cooled Reactor
[ASME PAPER 75-GT-67] 07 p0116 A75-34620
Effectiveness of using chemically reacting working media in a solar gas-turbine installation
08 p0180 A75-45063
DOT/NASA comparative assessment of Brayton engines for guideway vehicles and busses. Volume 2: Analysis and results
[NASA-SP-354-VOL-2] 07 p0133 N75-22745
The role of computers in future propulsion controls
07 p0137 N75-23582
Aerodynamic design of a free power turbine for a 75 KW gas turbine automotive engine
[NASA-TM-X-71714] 07 p0140 N75-24106
A compressor designed for the energy research and development agency automotive gas turbine program
[NASA-TM-X-71719] 07 p0141 N75-24116
Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines --- air pollution control
[PB-240776/5] 07 p0162 N75-27619
- GAS TURBINES**
Solar farms utilizing low-pressure closed-cycle gas turbines
05 p0003 A75-10514
Small coal burning gas turbine for modular integrated utility systems
05 p0006 A75-10546
Gas turbine engines - A state-of-the-art review
05 p0009 A75-10840

SUBJECT INDEX

GEOHERMAL ENERGY CONVERSION

- Coal-gas combustion in industrial gas turbines
[AIAA PAPER 74-1114] 05 p0010 A75-11286
- Thermodynamic analysis of a solar energy system
with a closed-cycle gas-turbine converter 06 p0049 A75-23402
- Thermodynamics of multistage air-cooled gas turbine 06 p0050 A75-23817
- Low-power turbines using organic vapor 07 p0110 A75-30892
- Design study for a coal-fueled closed cycle gas
turbine system for MROS applications --- Modular
Integrated Utility System 08 p0187 A75-45948
- Solar-heated-air turbine generating systems 08 p0190 A75-45981
- Effect of gas turbine efficiency and fuel cost on
cost of producing electric power [PB-234159/2] 05 p0034 A75-13397
- Pressurised fluidized bed combustion ---
combustion physics, gas turbines [PB-236498/2] 06 p0065 A75-15769
- Application of superconducting electrical
machinery to the propulsion systems of
commercial vessels --- gas turbines
[COM-75-10137] 07 p0147 A75-25200
- GAS-LIQUID INTERACTIONS**
Investigation of bubble formation in arteries of
gas-controlled heat pipes [AIAA PAPER 75-655] 07 p0114 A75-32913
- GASEOUS FISSION REACTORS**
Physics and potentials of fissioning plasmas for
space power and propulsion [IAF PAPER 74-087] 05 p0015 A75-13719
- Gaseous fuel nuclear reactor research 08 p0168 A75-40177
- GASIFICATION**
Gasification of solid wastes in fixed beds
[ASME PAPER 74-WA/PWR-10] 05 p0018 A75-16882
- Application of thermodynamic and material- and
energy-balance calculations to gasification
processes 06 p0055 A75-24785
- Chemically active fluid-bed process for sulphur
removal during gasification of heavy fuel oil,
phase 2 [PB-240632/0] 07 p0159 A75-27556
- Producing SNG by hydrogasifying in situ crude
shale oil [PB-240841/7] 08 p0201 A75-28548
- GASOLINE**
Feasibility demonstration of a road vehicle fueled
with hydrogen-enriched gasoline 05 p0008 A75-10574
- Engine performance with gasoline and hydrogen - A
comparative study 08 p0177 A75-44787
- Limit lead in gasoline [GPO-29-660] 05 p0023 A75-10259
- Impact of motor gasoline lead additive regulations
on petroleum refineries and energy resources,
1974-1980, phase 1 [PB-234185/7] 05 p0025 A75-10601
- The prospects for gasoline availability: 1974
[GPO-34-969] 05 p0039 A75-15155
- A study of the demand for gasoline [PB-235254/0] 06 p0070 A75-16105
- Effects of changing the proportions of automotive
distillate and gasoline produced by petroleum
refining [PB-236900/7] 06 p0085 A75-18443
- Hydrocarbon power fuel from the gasoline boiling
range --- antiknock additives [NASA-TT-F-16399] 07 p0147 A75-24957
- A short handbook on fuels --- and lubricants
[AD-A004358] 07 p0158 A75-27170
- GEOETHIC SURVEYS**
Hawaii geothermal project 06 p0099 A75-20840
- Leasing of federal geothermal resources 06 p0099 A75-20841
- Measuring ground movement in geothermal areas of
Imperial Valley, California 06 p0099 A75-20842
- Institutional and environmental problems in
geothermal resource development 06 p0100 A75-20843
- GEOELECTRICITY**
Three-dimensional subsurface delineation via a
novel method for determining the subsurface
electrical profile [UCRL-51685] 07 p0127 A75-21781
- GEOLOGICAL SURVEYS**
The geology and geophysics of geothermal energy 06 p0061 A75-28438
- Further development of scientific research in the
field of geology and of the survey and
exploration of petroleum and gas [JPRS-63414] 05 p0027 A75-11410
- Heat flow and geothermal potential of the East
Mesa MGRA, Imperial Valley, California 06 p0099 A75-20838
- The Lawrence Berkeley Laboratory geothermal
program in northern Nevada 06 p0100 A75-20845
- Evaluation of the suitability of Skylab data for
the purpose of petroleum exploration [E75-10257] 07 p0147 A75-25237
- GEOLOGY**
Stratigraphy, sedimentology and oil and gas
geology of the Lower Cretaceous in central Alberta 07 p0137 A75-22961
- GEOPHYSICS**
Geothermics with special reference to application
--- Book 05 p0011 A75-11576
- The geology and geophysics of geothermal energy 06 p0061 A75-28438
- GEOHERMAL ENERGY CONVERSION**
Environmental impact of a geothermal power plant 06 p0049 A75-23291
- Solar energy in earth processes --- review 06 p0061 A75-28437
- The geology and geophysics of geothermal energy 06 p0061 A75-28438
- Ocean thermal energy conversion 07 p0111 A75-31274
- Advanced heat transfer methods for geothermal
power applications 08 p0185 A75-45934
- Direct contact heat exchangers in geothermal power
production [ASME PAPER 75-HT-52] 08 p0196 A75-47525
- The role of heat transfer in solving geothermal
energy problems to accelerate its effective
application [ASME PAPER 75-HT-57] 08 p0196 A75-47527
- Geothermal power station --- using heat pipes
[AD-785948] 05 p0037 A75-14275
- Methodical approach to temperature and pressure
measurements for in situ energy-recovery processes
[UCID-16631] 06 p0097 A75-20693
- Proceedings of the Conference on Research for the
Development of Geothermal Energy Resources
[NASA-CR-142556] 06 p0098 A75-20831
- The National Geothermal Energy Research Program 06 p0098 A75-20832
- The NSF/RANN FY 1975 program for geothermal
resources research and technology 06 p0098 A75-20833
- Overview of Reclamation's geothermal program in
Imperial Valley, California 06 p0098 A75-20835
- Progress of the LASL dry hot rock geothermal
energy project 06 p0100 A75-20848
- Rock melting technology and geothermal drilling 06 p0101 A75-20851
- Geothermal reservoir simulation 06 p0101 A75-20852
- Investment and operating costs of binary cycle
geothermal power plants 06 p0101 A75-20855
- Helical rotary screw expander power system 06 p0101 A75-20856
- Electric power generation using geothermal brine
resources for a proof of concept facility 06 p0101 A75-20857
- Phase 0 study for a geothermal superheated water
proof of concept facility 06 p0102 A75-20858
- Combining total energy and energy industrial
center concepts to increase utilization
efficiency of geothermal energy 06 p0102 A75-20860

GEO THERMAL RESOURCES

SUBJECT INDEX

A city invests in its future 06 p0102 N75-20862

Geothermal steam condensate reinjection 06 p0102 N75-20863

Utility company views of geothermal development 06 p0102 N75-20864

Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant [PB-238571/4] 07 p0130 N75-21821

Technological feasibility of alternative energy sources --- a discussion of coal gasification, geothermal energy, and shale oil [AD-A005549] 08 p0199 N75-28522

GEO THERMAL RESOURCES

The hot deeps of the Red Sea as a potential heat source for thermoelectric power generation 05 p0004 A75-10516

Steady state free convection in an unconfined geothermal reservoir 05 p0009 A75-11069

Geothermics with special reference to application --- Book 05 p0011 A75-11576

A comparison of methods for electric power generation from geothermal hot water deposits [ASME PAPER 74-WA/ENER-10] 05 p0016 A75-16841

Other primary energy resources --- geothermal, tidal, wind, waterwave and glacier energy utilization 06 p0050 A75-23512

Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544

Current worldwide utilization and ultimate potential of geothermal energy systems 06 p0060 A75-27787

New technology challenges in exploration, exploitation and environmental impact of geothermal systems 06 p0060 A75-27788

Salt domes, pit craters, and dry steam fields - Heat pipe applications 06 p0060 A75-27789

Geothermal energy --- technology assessment 06 p0060 A75-27826

The geology and geophysics of geothermal energy 06 p0061 A75-28438

Helium survey, a possible technique for locating geothermal reservoirs 07 p0118 A75-35438

The potential of natural energy sources 08 p0165 A75-38865

Computation of water temperature at the mouth of a geothermal well 08 p0170 A75-41547

Geothermal energy as a resource in a hydrogen energy economy 08 p0174 A75-44755

Idaho geothermal R and D project report for period 16 December 1973 - 15 March 1974 [ANCR-1155] 06 p0076 N75-16985

Recommended research program in geothermal chemistry [WASH-1344] 06 p0077 N75-16997

Materials screening program for the LLL geothermal project [UCRL-75353] 06 p0082 N75-17815

Prospect for geothermal power [LA-UR-74-1111] 06 p0086 N75-18723

Proceedings of the Conference on Research for the Development of Geothermal Energy Resources [NASA-CR-142556] 06 p0098 N75-20831

The National Geothermal Energy Research Program 06 p0098 N75-20832

The NSF/RANN FY 1975 program for geothermal resources research and technology 06 p0098 N75-20833

Geothermal research and development program of the US Atomic Energy Commission 06 p0098 N75-20834

Overview of Reclamation's geothermal program in Imperial Valley, California 06 p0098 N75-20835

Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California [IGPP-UCR-74-31] 06 p0098 N75-20836

The Colorado School of Mines Nevada geothermal study 06 p0099 N75-20837

Heat flow and geothermal potential of the East Mesa KGRA, Imperial Valley, California 06 p0099 N75-20838

A brief description of geological and geophysical exploration of the Marysville geothermal area 06 p0099 N75-20839

Hawaii geothermal project 06 p0099 N75-20840

Leasing of federal geothermal resources 06 p0099 N75-20841

Measuring ground movement in geothermal areas of Imperial Valley, California 06 p0099 N75-20842

Institutional and environmental problems in geothermal resource development 06 p0100 N75-20843

Imperial Valley's proposal to develop a guide for geothermal development within its county 06 p0100 N75-20844

The Lawrence Berkeley Laboratory geothermal program in northern Nevada 06 p0100 N75-20845

The total flow concept for geothermal energy conversion 06 p0100 N75-20846

San Diego Gas and Electric Company Imperial Valley geothermal activities 06 p0100 N75-20847

Progress of the LASL dry hot rock geothermal energy project 06 p0100 N75-20848

The Marysville, Montana Geothermal Project 06 p0100 N75-20849

Preliminary results of geothermal desalting operations at the East Mesa test site Imperial Valley, California 06 p0101 N75-20850

Rock melting technology and geothermal drilling 06 p0101 N75-20851

Geothermal reservoir simulation 06 p0101 N75-20852

Geothermal reservoir engineering research 06 p0101 N75-20853

Geothermal down well pumping system 06 p0101 N75-20854

Investment and operating costs of binary cycle geothermal power plants 06 p0101 N75-20855

Helical rotary screw expander power system 06 p0101 N75-20856

Electric power generation using geothermal brine resources for a proof of concept facility 06 p0101 N75-20857

Phase 0 study for a geothermal superheated water proof of concept facility 06 p0102 N75-20858

The hydrogen sulfide emissions abatement program at the Geysers Geothermal Power Plant 06 p0102 N75-20859

Combining total energy and energy industrial center concepts to increase utilization efficiency of geothermal energy 06 p0102 N75-20860

Cooperative efforts by industry and government to develop geothermal resources 06 p0102 N75-20861

A city invests in its future 06 p0102 N75-20862

Geothermal steam condensate reinjection 06 p0102 N75-20863

Utility company views of geothermal development 06 p0102 N75-20864

Stimulation and reservoir engineering of geothermal resources [PB-239718/0] 07 p0153 N75-26485

The detection of geothermal areas from Skylab thermal data [NASA-CR-143133] 07 p0158 N75-27540

Snow and ice removal from pavements using stored earth energy --- via heat pipes [PB-240623/9] 07 p0162 N75-27581

Extracting minerals from geothermal brines: A literature study [PB-240681/7] 08 p0202 N75-29545

GERMANY

Energy and the environment in Baden-Wuerttemberg [KFK-1966-UP] 05 p0030 N75-12439

SUBJECT INDEX

HEAT EXCHANGERS

- Mission and organization of the DFVLR: Two years of integrated society of German aeronautical and space flight research [NASA-TT-F-16086] 05 p0035 N75-13882
- GLACIERS**
Other primary energy resources --- geothermal, tidal, wind, waterwave and glacier energy utilization 06 p0050 A75-23512
- GLASS**
Glass solar heat collector development [AIAA PAPER 75-740] 07 p0115 A75-33758
Glass recycling and reuse [PB-239674/5] 08 p0200 N75-28536
Energy consumption: Paper, stone/clay/glass/concrete, and food industries [PB-241926/5] 08 p0211 N75-32607
- GLASS FIBERS**
An investigation of heat-pipe wick characteristics 05 p0012 A75-12914
Development of a process for producing an ashless low sulfur fuel from coal. Volume 4. Product studies. Part 2. Annotated bibliography on mineral fiber production from coal minerals [PB-237763/8] 06 p0095 N75-19839
- GLOBAL AIR POLLUTION**
Interaction between the fuel-energy complex and the environment 07 p0110 A75-29800
- GOVERNMENT PROCUREMENT**
Leasing of federal geothermal resources 06 p0099 N75-20841
Special Energy Research and Development Appropriation Act, 1975 [PUB-LAW-93-322] 08 p0209 N75-31957
- GOVERNMENT/INDUSTRY RELATIONS**
Energy crisis - Fact or fiction 05 p0011 A75-12115
Energy systems - Modeling and policy analysis 06 p0055 A75-24750
The hydrogen economy and the law 08 p0180 A75-44813
Proceedings of the first 1974 Technology Transfer Conference [NASA-CR-142119] 06 p0078 N75-17188
The Environmental protection agency industrial technology transfer program 06 p0078 N75-17193
Transfer of space technology to industry 06 p0078 N75-17195
Cooperative efforts by industry and government to develop geothermal resources 06 p0102 N75-20861
Institutional and legal constraints to cooperative energy research and development [PB-240929/0] 08 p0200 N75-28530
A systems approach to innovative solutions to the energy problem [PB-242189/9] 08 p0213 N75-33505
- GOVERNMENTS**
A review of the Project Independence report submitted to Office of Energy Research and Development, National Science Foundation, 10 January 1975 [PB-238791/8] 07 p0131 N75-21823
- GREENHOUSE EFFECT**
Method for calculating solar radiation for semicylindrical collectors 06 p0057 A75-26718
Solar energy - The physics of the greenhouse effect 07 p0120 A75-36306
- GROOVES**
Trapezoidal grooves as moderately concentrating solar energy collectors [AIAA PAPER 75-738] 07 p0113 A75-32860
- GROUND STATIONS**
Development of very low cost solar cells for terrestrial power generation 06 p0052 A75-24226
- GROUND SUPPORT EQUIPMENT**
Multi-hundred watt radioisotope thermoelectric generator program, part 1 --- ground support equipment and safety management [GESP-7107-PT-1] 06 p0092 N75-19354
Multi-hundred watt radioisotope thermoelectric generator program, part 2 --- ground support equipment [GESP-7107-PT-2] 06 p0092 N75-19355
- GULF STREAM**
Gulf stream based ocean thermal power plants [AIAA PAPER 75-643] 06 p0063 A75-28603
Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process [PB-236422/2] 06 p0077 N75-17003
- H**
- HABITATS**
Prospects for utilization of underwater houses and chambers in development of marine oil deposits 05 p0029 N75-11606
- HAWAII**
An evaluation of oceanographic and socioeconomic aspects of a nearshore ocean thermal energy conversion pilot plant in subtropical Hawaiian waters [PB-242167/5] 08 p0213 N75-33509
- HEART FUNCTION**
Continued development of energy transmission and conversion systems --- applied to operation of mechanical hearts [PB-236181/4] 05 p0037 N75-14278
- HEAT BALANCE**
Application of thermodynamic and material- and energy-balance calculations to gasification processes 06 p0055 A75-24785
Changes in the global energy balance --- atmospheric composition and the effect of air pollution [PB-238075/6] 06 p0106 N75-20936
- HEAT EXCHANGERS**
Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
Closed loop chemical systems for energy transmission, conversion and storage 05 p0005 A75-10538
Thermal energy storage devices suitable for solar heating 05 p0007 A75-10553
A hot liquid energy storage system utilizing natural circulation [ASME PAPER 74-WA/HT-16] 05 p0017 A75-16862
Progress in heat pipe and porous heat exchanger technology 06 p0045 A75-20686
Ocean thermal energy conversion system evaluation [AIAA PAPER 75-616] 06 p0064 A75-29115
Recuperator development trends for future high temperature gas turbines --- heat exchanger design [ASME PAPER 75-GT-50] 07 p0116 A75-34607
Advanced heat transfer methods for geothermal power applications 08 p0185 A75-45934
Thermionic topping of electric power plants 08 p0189 A75-45973
Evaluation of solar-assisted Rankine cycle concept for the cooling of buildings 08 p0194 A75-46040
High temperature heat pipes for energy conservation --- thermal waste recovery system 08 p0194 A75-46042
Direct contact heat exchangers in geothermal power production [ASME PAPER 75-HT-52] 08 p0196 A75-47525
The role of heat transfer in solving geothermal energy problems to accelerate its effective application [ASME PAPER 75-HT-57] 08 p0196 A75-47527
Solar sea power [PB-235469/4] 05 p0038 N75-14284
Evaluation of a fossil fuel fired ceramic regenerative heat exchanger [PB-236346/3] 06 p0092 N75-19599
Variations in heat exchanger design for ocean thermal difference power plants [PB-238572/2] 07 p0143 N75-24134
Study of fuel cell powerplant with heat recovery [NASA-CR-141854] 07 p0148 N75-25296
Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process [PB-239374/2] 07 p0150 N75-25317
Heat exchangers for sea solar power plants [PB-239369/2] 07 p0150 N75-25319

HEAT FLUX

SUBJECT INDEX

HEAT FLUX

Solar radiation heat transfer to high temperature heat carriers
 [ASME PAPER 74-WA/HT-14] 05 p0017 A75-16861
 Controlling the response of thermoelements that generate electricity 07 p0121 A75-37154
 Waste heat disposal from nuclear power plants [CON-75-10407/5] 07 p0158 A75-27324

HEAT GENERATION
 Solar tower thermo-chemical energy cycles 08 p0171 A75-42277
 Solar energy program plan for heating and cooling buildings [WASH-1337-5-DRAFT] 06 p0077 A75-16993

HEAT TRANSFER
 Method of calibrating a solar power plant with a paraboloidal mirror 07 p0116 A75-34315
 Investigation of a solar concentrator with hexahedral glass facets 08 p0180 A75-45061

HEAT PIPES
 Nuclear propulsion technology transfer to energy systems [AIAA PAPER 74-1072] 05 p0001 A75-10264
 Operational testing of the high performance thermoelectric generator /EPG-02/ 05 p0003 A75-10505
 A 10% efficient economic RTG design --- radioisotope thermoelectric generator 05 p0003 A75-10506
 A design parameter for assessing wicking capabilities of heat pipes [AIAA PAPER 74-1266] 05 p0010 A75-11107
 Controlled heat pipes 05 p0012 A75-12912
 An investigation of heat-pipe wick characteristics 05 p0012 A75-12914
 The heat pipe - Its development, and its aerospace applications 05 p0015 A75-15054
 Performance of a laser mirror heat pipe [ASME PAPER 74-WA/HT-61] 05 p0018 A75-16869
 Progress in heat pipe and porous heat exchanger technology 06 p0045 A75-20686
 Thermal performance characteristics of heat pipes 06 p0046 A75-21465
 Material considerations involved in solar energy conversion 06 p0047 A75-22522
 Salt domes, pit craters, and dry steam fields - Heat pipe applications 06 p0060 A75-27789
 Designing heat pipe heat sinks [AIAA PAPER 75-724] 07 p0113 A75-32868
 The International Heat Pipe Experiment --- ten experiments in zero gravity [AIAA PAPER 75-726] 07 p0113 A75-32870
 Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket [AIAA PAPER 75-729] 07 p0113 A75-32872
 Investigation of bubble formation in arteries of gas-controlled heat pipes [AIAA PAPER 75-655] 07 p0114 A75-32913
 Transverse header heat pipe [AIAA PAPER 75-656] 07 p0114 A75-32914
 Arterial gas occlusions in operating heat pipes [AIAA PAPER 75-657] 07 p0114 A75-32915
 A flexible cryogenic heat pipe [AIAA PAPER 75-658] 07 p0114 A75-32916
 Measurements of the performance of an electrohydrodynamic heat pipe [AIAA PAPER 75-659] 07 p0114 A75-32917
 Compatibility and reliability of heat pipe materials [AIAA PAPER 75-660] 07 p0114 A75-32918
 Capillary flow through heat-pipe wicks [AIAA PAPER 75-661] 07 p0114 A75-32919
 Heat pipe thermal control set point shift 07 p0115 A75-33271
 Investigations of the factors affecting the performance of a rotating heat pipe 07 p0120 A75-36357
 Heat pipe thermal recovery units --- for process exhaust energy utilization 08 p0194 A75-46041

High temperature heat pipes for energy conservation --- thermal waste recovery system 08 p0194 A75-46042
 Heat pipe applications development in Europe 08 p0195 A75-46043
 Laser application of heat pipe technology in energy related programs 08 p0195 A75-46044
 Application of heat pipes to solar collectors 08 p0195 A75-46045
 Heat pipe manufacturing study [NASA-CR-139140] 05 p0023 A75-10347
 An intercell heat pipe for fuel cell and battery cooling [AD-782888] 05 p0027 A75-11226
 Heat Pipe Symposium/Workshop [PB-236008/9] 05 p0035 A75-14094
 Geothermal power station --- using heat pipes [AD-785948] 05 p0037 A75-14275
 Conceptual design of a heat pipe methanator --- conversion of synthesis coal gas to methane [LA-5596] 06 p0074 A75-16774
 Solar collector thermal power system. Volume 2: Development, fabrication, and testing of fifteen foot heat pipes [AD-A000941] 06 p0091 A75-19340
 Ames Heat Pipe Experiment (AHPE) experiment description document --- performance testing in a vacuum environment [NASA-CR-114413] 07 p0138 A75-23880
 ERTS-C (Landsat 3) cryogenic heat pipe experiment definition [NASA-CR-143797] 07 p0138 A75-23882
 Electric power generation utilizing a heat pipe turbine-generator 07 p0139 A75-24096
 Solar electric propulsion system thermal analysis --- including heat pipes and multilayer insulation [NASA-CR-120770] 07 p0147 A75-24842
 Deployable heat pipe radiator [NASA-CR-143863] 07 p0147 A75-25088
 Snow and ice removal from pavements using stored earth energy --- via heat pipes [PB-240623/9] 07 p0162 A75-27581

HEAT PUMPS
 Solar augmented home heating heat pump system 05 p0004 A75-10524
 A heat pump powered by natural thermal gradients 05 p0006 A75-10550
 Solar thermal absorption heat pump breakeven coefficient of performance [ASME PAPER 74-WA/ENER-2] 05 p0015 A75-16834
 Performance of heat pumps using cold-side energy storage and unconventional heat sources [ASME PAPER 74-WA/HT-17] 05 p0017 A75-16863
 Effectiveness of using semiconductor heat pumps under the conditions of the Turkmen SSR 05 p0020 A75-17083
 Convergence and speed of calculations for thermoelectric heat pump 05 p0020 A75-17084
 Solar one - The Delaware solar house and results obtained during the first year of operation 06 p0054 A75-24254
 Ocean thermal energy conversion system evaluation [AIAA PAPER 75-616] 06 p0064 A75-29115
 Solar heating and cooling of buildings using heat pumps /Brief survey/ 07 p0116 A75-34321
 The economics of coal-based synthetic gas 08 p0168 A75-39925
 Use of solar heat pumps for heating and air conditioning - A brief survey 08 p0170 A75-41534
 Optimum properties of working fluids for solar powered heat pumps 08 p0185 A75-45937
 Development of a 540-sq-ft prototype faceted fixed mirror solar concentrator 08 p0186 A75-45940
 The annual cycle energy system --- winter ice for summer air conditioning 08 p0187 A75-45947
 Hydrogen sponge heat pump --- carnot cycle system on lanthanum pentanickel 08 p0194 A75-46035
 Heat pumps in large buildings --- a refrigerating unit for heating and cooling [OA-TRANS-939] 06 p0078 A75-17184

SUBJECT INDEX

HEAT TRANSFER COEFFICIENTS

HEAT RADIATORS

Cylindrical erbium oxide radiator structures for thermophotovoltaic generators [AD-A001525] 07 p0129 N75-21806
 Deployable heat pipe radiator [NASA-CR-143863] 07 p0147 N75-25088

HEAT SINKS

Designing heat pipe heat sinks [AIAA PAPER 75-724] 07 p0113 A75-32868
 Study of active cooling for supersonic transports [NASA-CR-132573] 06 p0079 N75-17336

HEAT SOURCES

A modular heat source for curium-244 and plutonium-238 05 p0002 A75-10497
 The hot deeps of the Red Sea as a potential heat source for thermoelectric power generation 05 p0004 A75-10516
 Potential of Rankine engines to produce power from waste heat streams 05 p0006 A75-10547
 Geothermics with special reference to application --- Book 05 p0011 A75-11576
 Approximate analysis of the steady temperature field of a parallelepiped with a local energy source 07 p0112 A75-32212

Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173

Gaseous fuel nuclear reactor research 08 p0168 A75-40177

Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems [AIAA PAPER 75-1258] 08 p0182 A75-45659

Nuclear heat source for cryogenic refrigerators in space --- Pu-238 battery design 08 p0191 A75-46006

Efficient thermo-mechanical generation of electricity from the heat of radioisotopes 08 p0192 A75-46013

A 100 watt Stirling electric generator for solar or solid fuel heat sources 08 p0192 A75-46014

Advanced heat source concepts --- module design for space electric power generation [MLM-2134] 05 p0024 N75-10591

Preliminary results of geothermal desalting operations at the East Mesa test site Imperial Valley, California 06 p0101 N75-20850

Geothermal down well pumping system 06 p0101 N75-20854

Geothermal steam condensate reinjection 06 p0102 N75-20863

Strontium fluoride research in heat source and compatibility tests --- waste utilization [BNWL-1845-2] 07 p0152 N75-25695

Strontium heat source development programs --- waste utilization [BNWL-1845-4] 07 p0152 N75-25696

HEAT STORAGE

Performance of heat pumps using cold-side energy storage and unconventional heat sources [ASME PAPER 74-WA/HT-17] 05 p0017 A75-16863

Solar energy storage within the absorption cycle [ASME PAPER 74-WA/HT-18] 05 p0017 A75-16864

Sizing of solar energy storage systems using local weather records [ASME PAPER 74-WA/HT-20] 05 p0017 A75-16865

Dynamic response of solar heat storage systems [ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867

Solar ponds for space heating --- energy storage by convectionless shallow water 07 p0109 A75-29471

Design charts for hot liquid energy storage systems utilizing forced circulation [AIAA PAPER 75-742] 07 p0113 A75-32851

Storage of summertime waste heat from electric generating plants for use in wintertime [AIAA PAPER 75-743] 07 p0113 A75-32852

Underground storage of heat in solar heating systems 07 p0115 A75-33975
 Year round performance studies on a built-in storage type solar water heater at Jodhpur, India 08 p0167 A75-39406

Laboratory based activities in solar energy at the National Bureau of Standards 08 p0168 A75-40299

Solar One, two years experience --- prototype home thermal and electrical system 08 p0184 A75-45922

The nation's first private industrial solar heating system - General Electric's Valley Forge Space Center 08 p0184 A75-45925

Thermal energy storage --- solar storage materials performance 08 p0185 A75-45932

The selection and use of energy storage for solar thermal electric application 08 p0189 A75-45980

Sensible heat storage in liquids --- solar energy applications [SLL-73-0263] 06 p0074 N75-16773

Latent heat and sensible heat storage for solar heating systems [PB-236190/5] 06 p0077 N75-17005

Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies [PB-238002/0] 06 p0087 N75-18733

Conservation and better utilization of electric power by means of thermal energy storage and solar heating. Solar collector performance studies [PB-239355/1] 07 p0150 N75-25320

Conservation and better utilization of electric power by means of thermal energy storage and solar heating [PB-239395/7] 07 p0157 N75-26521

Conservation and better utilization of electric power by means of thermal energy storage and solar heating, executive summary [PB-239394/0] 07 p0157 N75-26522

Solar pond [NASA-CASE-WPO-13581-1] 07 p0160 N75-27560

Fluid manifold design for a solar energy storage tank [NASA-TN-X-64940] 07 p0160 N75-27562

HEAT TRANSFER

Controlled heat pipes 05 p0012 A75-12912

The heat pipe - Its development, and its aerospace applications 05 p0015 A75-15054

A generalization of the Carnot theorem - The theorem of useful power 06 p0057 A75-26448

Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544

Statistical relation between heat transfer from a closed area and meteorological parameters during the use of a solar refrigerating plant 08 p0169 A75-41072

Application of heat pipes to solar collectors 08 p0195 A75-46045

Heat Pipe Symposium/Workshop [PB-236008/9] 05 p0035 N75-14094

Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies [PB-238002/0] 06 p0087 N75-18733

Heat transfer design and proof tests of a radioisotope thermoelectric generator [AD-A002218] 06 p0092 N75-19608

Electrochemical power sources --- heat and mass transfer in porous media [AD-A001610] 06 p0094 N75-19836

Study of fuel cell powerplant with heat recovery [NASA-CR-141854] 07 p0148 N75-25296

HEAT TRANSFER COEFFICIENTS

Solar radiation heat transfer to high temperature heat carriers [ASME PAPER 74-WA/HT-14] 05 p0017 A75-16861

Design of a tubular heat collector for a solar power installation with a parabolocylindrical concentrator 05 p0020 A75-17069

Convergence and speed of calculations for thermoelectric heat pump 05 p0020 A75-17084

HEAT TRANSMISSION

SUBJECT INDEX

- Effect of heat transfer from the lateral surfaces of semiconductor thermocouples on the energy characteristics of a thermoelectric generator
05 p0021 A75-18798
- Determination of some thermophysical characteristics of a solar-type pebble accumulator
07 p0116 A75-34317
- Investigations of the factors affecting the performance of a rotating heat pipe
07 p0120 A75-36357
- Determination of some thermophysical properties of pebble-type solar heat accumulators
08 p0170 A75-41530
- Thermal performance analysis of the stationary reflector/tracking absorber /SRTA/ solar concentrator
[ASME PAPER 75-HT-PPF] 08 p0173 A75-43881
- Energy exchange at the surface of the western North Atlantic Ocean
[AD-A007296] 07 p0146 N75-24285
- HEAT TRANSMISSION**
- Closed loop chemical systems for energy transmission, conversion and storage
05 p0005 A75-10538
- Process environment effects on heat pipes for fluid-bed gasification of coal
[LA-UR-74-984] 05 p0029 N75-12252
- Heat Pipe Symposium/Workshop
[PB-236008/9] 05 p0035 N75-14094
- HEATING**
- Residential energy consumption and small scale options of energy systems for space heating
[PB-23994/8] 07 p0154 N75-26501
- HEATING EQUIPMENT**
- Study of channel-type systems for solar-energy radiative heat transport
05 p0010 A75-11196
- Dynamic simulation for performance analysis of solar heated and cooled buildings
[ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
- A study of channel systems for radiative solar-heat transfer
06 p0049 A75-23408
- Time factors in slowing down the rate of growth of demand for primary energy in the United States
06 p0059 A75-27780
- Cooling by solar heat --- heating and cooling system for buildings
[AIAA PAPER 75-609] 06 p0062 A75-28590
- Heating buildings with solar energy
07 p0117 A75-34933
- Study of the influence of container design and the thermal inertness of solar water heaters on their efficiency
07 p0119 A75-36018
- Summary of NASA-Lewis Research Center solar heating and cooling and wind energy programs
07 p0123 A75-37240
- Investigation of the effect of boiler design and finite thermal response of solar water heaters on efficiency
08 p0170 A75-41541
- Solar heat pump comfort heating systems
08 p0185 A75-45936
- Design and operation of a solar-powered turbocompressor air-conditioning and heating system
08 p0186 A75-45939
- A computer program to determine the optimum configuration of solar assisted building heating and cooling systems based upon life-cycle cost
08 p0186 A75-45941
- Wind and solar thermal combinations for space heating
08 p0192 A75-46010
- High temperature air preheaters for open cycle MHD energy conversion systems
[AICHE PAPER 16] 08 p0196 A75-47512
- HEAVY WATER**
- An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H₂O₂/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes.
08 p0179 A75-44800
- HELICOPTER PERFORMANCE**
- Documenting helicopter operations from an energy standpoint
[NASA-CR-132578] 06 p0084 N75-18220
- HELICOPTERS**
- Documenting helicopter operations from an energy standpoint
[NASA-CR-132578] 06 p0084 N75-18220
- HELIUM**
- Helium survey, a possible technique for locating geothermal reservoirs
07 p0118 A75-35438
- HELIUM ISOTOPES**
- Hydrogen distribution profiling --- embrittlement of storage vessel surfaces
08 p0179 A75-44805
- HIGH STRENGTH STEELS**
- Metals and composites in superflywheel energy storage systems
06 p0047 A75-22523
- HIGH TEMPERATURE**
- Low to high temperature energy conversion system --- using ammonia
[NASA-CASE-NPO-13510-1] 06 p0074 N75-16972
- HIGH TEMPERATURE AIR**
- High temperature air preheaters for open cycle MHD energy conversion systems
[AICHE PAPER 16] 08 p0196 A75-47512
- HIGH TEMPERATURE FLUIDS**
- Design charts for hot liquid energy storage systems utilizing forced circulation
[AIAA PAPER 75-742] 07 p0113 A75-32851
- HIGH TEMPERATURE GAS COOLED REACTORS**
- Component design considerations for gas turbine HTGR power plant --- High-Temperature Gas-cooled Reactor
[ASME PAPER 75-GT-67] 07 p0116 A75-34620
- Hydrogen production with a high-temperature gas-cooled reactor /HTGR/
08 p0175 A75-44759
- HIGH TEMPERATURE NUCLEAR REACTORS**
- Thermolysis of water for the generation of hydrogen
06 p0049 A75-23504
- Nuclear water splitting and high temperature reactors
08 p0175 A75-44757
- High-temperature nuclear reactors as an energy source for hydrogen production
08 p0175 A75-44758
- Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems
[AIAA PAPER 75-1258] 08 p0182 A75-45659
- Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems
[AIAA PAPER 75-1261] 08 p0182 A75-45661
- Technological and commercial possibilities which result by using a high temperature reactor for the future supply of mineral oil in the FRG
[JUL-1017-RG] 05 p0029 N75-11470
- HIGH VOLTAGES**
- Development and performance of a miniature, high-voltage thermal battery
05 p0007 A75-10559
- HONEYCOMB STRUCTURES**
- The Shell natural gas airship, and other L.T.A. activities by Aerospace Developments
[AIAA PAPER 75-932] 07 p0121 A75-37008
- HYBRID PROPULSION**
- Nickel-zinc batteries for hybrid vehicle operation
[PB-239710/7] 07 p0156 N75-26514
- HYDRAULIC EQUIPMENT**
- Ocean thermal gradient hydraulic power plant
07 p0124 A75-37849
- HYDRAZINE ENGINES**
- Hydrazine gas generation for pressure gas feed systems
08 p0166 A75-39134
- HYDRAZINES**
- The introduction of the principles of biological energy supply in future technical systems
06 p0050 A75-23511
- Hydrazine as a fuel for a fuel cell
08 p0166 A75-39132
- HYDRIDES**
- Alternative fuels for aviation
07 p0121 A75-36719

SUBJECT INDEX

HYDROGEN FUELS

- Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651] 05 p0030 N75-12441
- HYDROCARBON COMBUSTION**
Combustion R&D - Key to our energy future --- pollution reduction using hydrocarbon fuels 05 p0009 A75-10596
- HYDROCARBON FUEL PRODUCTION**
Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes 08 p0187 A75-45950
- HYDROCARBON FUELS**
MHD energy conversion systems [AIAA PAPER 74-1071] 05 p0001 A75-10263
Urban waste energy resources [AIAA PAPER 75-632] 06 p0062 A75-28598
Alternative fuels for aviation 07 p0121 A75-36719
Exploration for fossil and nuclear fuels from orbital altitudes --- results of ERTS program for oil exploration [NASA-TM-X-70781] 05 p0027 N75-11413
Evaluation of coal-gasification technology. Part 2: Low and intermediate BTU fuel gases [PB-234042/0] 05 p0036 N75-14273
Alternative fuels for aviation 06 p0075 N75-16980
Technology for the conversion of solar energy to fuel gas [PB-238103/6] 06 p0104 N75-20883
Electrolyte for hydrocarbon air fuel cells [AD-A007220] 07 p0136 N75-22917
Hydrocarbon power fuel from the gasoline boiling range --- antiknock additives [NASA-TT-F-16399] 07 p0147 N75-24957
MHD power generation (Viking Series) with hydrocarbon fuels, part 3 [AD-A004216] 07 p0155 N75-26502
The long term energy problem and aeronautics 08 p0202 N75-29012
- HYDROCARBON POISONING**
The effect of Alaskan crude oil and selected hydrocarbon compounds on embryonic development of the Pacific oyster, *Crassostrea gigas* 06 p0090 N75-18764
- HYDROCARBONS**
Relationships between bidding and hydrocarbon production of the Federal Outer Continental Shelf (through 1970) --- offshore energy sources [PB-238188/7] 07 p0127 N75-21788
The direct production of hydrocarbons from coal-steam systems [PB-239356/9] 07 p0138 N75-23740
Low-temperature evolution of hydrocarbon gases from coal [PB-238322/2] 07 p0139 N75-24074
Marine pollution monitoring (petroleum): Proceedings of a Symposium and Workshop held at the National Bureau of Standards [CON-75-50071/0] 07 p0146 N75-24183
- HYDRODYNAMICS**
An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant --- hydrodynamics/sea water-energy policy [PB-242569/2] 08 p0213 N75-33508
- HYDROELECTRIC POWER STATIONS**
Energy storage underground --- hydroelectric pumped-storage and combustion turbine facilities 05 p0013 A75-12989
Solar/hydroelectric combined power systems 06 p0059 A75-27786
Gulf stream based ocean thermal power plants [AIAA PAPER 75-643] 06 p0063 A75-28603
Solar power system and component research program [PB-236159/0] 05 p0037 N75-14280
- HYDROGEN**
Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline 05 p0008 A75-10574
Efficiencies of electrolytic and thermochemical hydrogen production 06 p0045 A75-20300
Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy 08 p0190 A75-45994
- Metal hydrides as hydrogen storage media [BNL-18887] 05 p0030 N75-12440
Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651] 05 p0030 N75-12441
Proceedings of the Workshop on Bio-Solar Conversion [PB-236142/6] 06 p0069 N75-16096
Energy storage for utilities via hydrogen systems [BNL-19266] 06 p0086 N75-18725
Hydrogen storage and production in utility systems [BNL-18920] 06 p0097 N75-20580
Hydrogen economy: A utility perspective [BNL-19267] 06 p0103 N75-20870
Fundamental aspects of systems for the thermochemical production of hydrogen from water [LA-UR-74-1459] 07 p0127 N75-21391
Hydrogen as a fuel [AD-A006984] 07 p0132 N75-22477
On the application of hydrogen as a fuel for automotive vehicles [ESRO-TT-132] 07 p0135 N75-22910
Hydrogen production from coal [NASA-CR-142816] 07 p0141 N75-24113
- HYDROGEN FUELS**
Oxides of nitrogen control techniques for appliance conversion to hydrogen fuel 05 p0006 A75-10541
The use of hydrogen in commercial aircraft - An assessment 05 p0006 A75-10542
60 watt hydride-air fuel cell system 05 p0008 A75-10567
Liquid hydrogen as an automotive fuel 06 p0048 A75-23238
Hydrogen as fuel for internal-combustion engines 06 p0050 A75-23508
Cryogenics safety in a hydrogen fuel society 06 p0061 A75-27973
Hydrogen production from solar energy 07 p0109 A75-29477
Alternative fuels for aviation 07 p0121 A75-36719
A non-polluting powerplant for large airships [AIAA PAPER 75-927] 07 p0121 A75-37005
Prospects for electrolytic hydrogen for chemical/industrial plants 08 p0168 A75-40179
Future hydrogen fueled commercial transports [SAE PAPER 750615] 08 p0169 A75-40521
Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975 08 p0171 A75-42276
Photoproduction of hydrogen via microbial and biochemical processes 08 p0171 A75-42279
Research opportunities in cryogenic hydrogen-energy systems 08 p0171 A75-42280
Will hydrogen transmission replace electricity 08 p0172 A75-42281
Aviation usage of liquid hydrogen fuel - Prospects and problems 08 p0172 A75-42282
Automotive hydrogen engines, and onboard storage methods 08 p0172 A75-42284
Economics of hydrogen energy systems 08 p0172 A75-42285
A technology assessment of the hydrogen economy concept 08 p0172 A75-42286
Massive production of hydrogen by a thermo-electrochemical method 08 p0172 A75-42531
Cryogenic H2 and national energy needs 08 p0173 A75-43977
The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978
Hydrogen production with a high-temperature gas-cooled reactor /HTGR/ 08 p0175 A75-44759
Hydrogen production from decomposition of water by means of nuclear reactor heat 08 p0175 A75-44760
Aqueous homogeneous reactor for hydrogen production 08 p0175 A75-44761

- Sea thermal power as a hydrogen and methanol generator 08 p0175 A75-44763
- Thermochemical water cracking using solar heat 08 p0175 A75-44765
- The technology and economies of hydrogen production from fusion reactors 08 p0176 A75-44767
- An economic perspective on hydrogen fuel 08 p0176 A75-44769
- The utilization of solar energy for hydrogen production by cell-free system of photosynthetic organisms 08 p0176 A75-44770
- An analysis of hydrogen production via closed-cycle schemes --- thermochemical processings from water 08 p0176 A75-44771
- Hydrogen generation through static-feed water electrolysis 08 p0177 A75-44776
- Hydrogen generation by solid-polymer electrolyte water electrolysis 08 p0177 A75-44777
- Evaluation of multi-step thermochemical processes for the production of hydrogen from water 08 p0177 A75-44778
- Considerations on iron-chloride-oxygen reactions in relation to thermochemical water-splitting 08 p0177 A75-44779
- Thermochemical hydrogen production research at Lawrence Livermore Laboratory 08 p0177 A75-44780
- Analysis of thermochemical water-splitting cycles --- energy efficiency evaluation 08 p0177 A75-44781
- Engine performance with gasoline and hydrogen - A comparative study 08 p0177 A75-44787
- Backfire control techniques for hydrogen-fueled internal combustion engines 08 p0178 A75-44789
- Hydrogen for the subsonic transport --- aircraft design and fuel requirements 08 p0178 A75-44791
- Liquid hydrogen as a fuel for future commercial aircraft 08 p0178 A75-44792
- Utilization of hydrogen as an appliance fuel 08 p0178 A75-44794
- Air Force experience in the use of liquid hydrogen as an aircraft fuel 08 p0179 A75-44801
- Environmental impact of a suitable nuclear power reactor used to provide a process heat system to synthesize fuels 08 p0179 A75-44808
- Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge 08 p0195 A75-47081
- Liquid hydrogen - Fuel of the future --- for aircraft [SAWE PAPER 1065] 08 p0195 A75-47495
- Hydrogen as a fuel --- analysis of problems involved in generation, transportation, and utilization [AD-787484] 06 p0066 N75-15818
- Possibilities for lithium borohydride recycle --- using diborane intermediate [ICP-1054] 06 p0074 N75-16651
- Study of active cooling for supersonic transports [NASA-CR-132573] 06 p0079 N75-17336
- Survey of hydrogen compatibility problems in energy storage and energy transmission applications [SAND-74-8219] 06 p0087 N75-18726
- Synthetic fuels for ground transportation with special emphasis on hydrogen [NASA-TN-X-72652] 06 p0103 N75-20868
- Metal hydrides as a source of hydrogen fuel [BRL-14804-R] 06 p0104 N75-20876
- Potential structural material problems in a hydrogen energy system [NASA-TN-X-71752] 07 p0154 N75-26500
- Materials requirements for advanced energy systems: New fuels. Volume 3: Materials research needs in advanced energy systems using new fuels [AD-A004550] 07 p0158 N75-27168
- Selected topics on hydrogen fuel [CON-75-10619/5] 08 p0207 N75-31575
- HYDROGEN OXYGEN FUEL CELLS**
- Electrical power generation subsystem for Space Shuttle Orbiter 05 p0002 A75-10477
- Development of a theoretical method for predicting the performance of hydrogen-oxygen MHD generators 05 p0009 A75-10578
- Multimegawatt fuel cell power system 07 p0124 A75-37656
- An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H₂O₂/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes 08 p0179 A75-44800
- Development of advanced fuel cell system, phase 2 [NASA-CR-134721] 06 p0067 N75-16084
- Development of advanced fuel cell system, phase 3 [NASA-CR-134818] 07 p0154 N75-26496
- HYDROGEN SULFIDE**
- The hydrogen sulfide emissions abatement program at the Geysers Geothermal Power Plant 06 p0102 N75-20859
- HYDROGEN-BASED ENERGY**
- The generation of hydrogen by the thermal decomposition of water 05 p0005 A75-10532
- Nuclear energy requirements for hydrogen production from water 05 p0005 A75-10533
- Hydrogen cycle peak-shaving for electric utilities 05 p0005 A75-10535
- Hydrogen for the electric utilities - Long range possibilities 05 p0005 A75-10536
- Energy storage for utilities via hydrogen systems 05 p0005 A75-10537
- The Hydrogen Economy - A utility perspective --- energy technology 05 p0014 A75-12998
- The use of hydrogen as an energy carrier 05 p0015 A75-15795
- Economics of a hydrogen storage peaking power plant [ASME PAPER 74-WA/PWR-6] 05 p0018 A75-16880
- Energy, hydrogen, and pollution --- energy technology 06 p0046 A75-22041
- Hydrogen fuel cells and motors --- new energy technology 06 p0046 A75-22042
- Liquid hydrogen --- liquefaction, storage, transportation, applications 06 p0046 A75-22043
- Production of hydrogen by the electrolysis of water 06 p0046 A75-22044
- Energy supply in a closed cycle --- nuclear energy for nonelectrical use 06 p0049 A75-23503
- Thermolysis of water for the generation of hydrogen 06 p0049 A75-23504
- Hydrogen as energy carrier in industry and household 06 p0049 A75-23505
- Hydrogen - A carrier of energy 06 p0060 A75-27791
- Can hydrogen transmission replace electricity 08 p0165 A75-38863
- Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975 08 p0171 A75-42276
- Will hydrogen transmission replace electricity 08 p0172 A75-42281
- An energy utility company's view of hydrogen energy 08 p0172 A75-42283
- Economics of hydrogen energy systems 08 p0172 A75-42285
- A technology assessment of the hydrogen energy concept 08 p0172 A75-42286

SUBJECT INDEX

INCLINATION

- Massive production of hydrogen by a thermo-electrochemical method 08 p0172 A75-42531
- High intensity wind belts as massive energy sources 08 p0172 A75-42532
- Cryogenic H₂ and national energy needs 08 p0173 A75-43977
- Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Parts A & B 08 p0174 A75-44751
- Geothermal energy as a resource in a hydrogen energy economy 08 p0174 A75-44755
- Nuclear water splitting and high temperature reactors 08 p0175 A75-44757
- High-temperature nuclear reactors as an energy source for hydrogen production 08 p0175 A75-44758
- Hydrogen production with a high-temperature gas-cooled reactor /HTGR/ 08 p0175 A75-44759
- Ocean based solar-to-hydrogen energy conversion macro system 08 p0175 A75-44764
- Hydrogen as energy storage element --- in windpower systems 08 p0176 A75-44772
- On methods for the large-scale production of hydrogen from water 08 p0176 A75-44773
- Electrolytic hydrogen generators 08 p0176 A75-44774
- Electrolysis of sea water --- for hydrogen fuel production 08 p0176 A75-44775
- A search for thermochemical water-splitting cycles --- for energy production 08 p0177 A75-44782
- An engineering-scale energy storage reservoir of iron titanium hydride --- hydrogen-based energy system 08 p0177 A75-44784
- Engine performance with gasoline and hydrogen - A comparative study 08 p0177 A75-44787
- Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795
- Hydrogen as an energy carrier --- feasibility analysis 08 p0178 A75-44796
- On the role of hydrogen in electric energy storage 08 p0178 A75-44797
- Hydrogen-energy storage for electrical utility systems 08 p0178 A75-44798
- Hydrogen distribution profiling --- embrittlement of storage vessel surfaces 08 p0179 A75-44805
- Future United States demand patterns and the use of hydrogen 08 p0179 A75-44806
- Social and environmental context of the hydrogen economy 08 p0179 A75-44807
- How might the hydrogen economy affect our resources and environment 08 p0179 A75-44809
- Hydrogen - Mechanisms and strategies of market penetration 08 p0180 A75-44811
- Technical problems facing the hydrogen economy 08 p0180 A75-44812
- The hydrogen economy and the law 08 p0180 A75-44813
- An engineering assessment of the hydrogen economy 08 p0180 A75-44814
- Ultimate energy, the ultimate fuel, and the hydrogen link in the electrical energy system 08 p0180 A75-44815
- Hydrogen production by electrolysis - Present and future 08 p0193 A75-46022
- Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies 08 p0193 A75-46023
- High efficiency power conversion cycles using hydrogen compressed by absorption on metal hydrides 08 p0194 A75-46034
- Hydrogen sponge heat pump --- carnot cycle system on lanthanum pentanickel 08 p0194 A75-46035
- The rate limiting processes for the sorption of hydrogen in LaNi₅ --- for energy storage systems 08 p0194 A75-46036
- A technology assessment of the hydrogen economy concept 08 p0194 A75-46037
- A detailed analysis of the hydriding characteristics of LaNi₅ --- hydrogen storage in form of metal hydrides 08 p0194 A75-46038
- Hydrogen future fuel: A literature survey issued quarterly, issue no. 6 --- bibliographies 05 p0027 N75-11110
- Production of hydrogen from water using nuclear energy. A review --- for hydrogen-based energy [JAERI-M-5642] 06 p0093 N75-19824
- Synthetic fuels for ground transportation with special emphasis on hydrogen [NASA-TM-X-72652] 06 p0103 N75-20868
- Hydrogen storage and production in utility systems [BNL-19249] 06 p0103 N75-20873
- On the application of hydrogen as a fuel for automotive vehicles [ESRO-TT-132] 07 p0135 N75-22910
- HYDROGENATION**
- Synthetic oil from coal [PB-234460/4] 05 p0040 N75-15176
- The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 N75-25327
- HYDROLYSIS**
- Thermochemical hydrogen production research at Lawrence Livermore Laboratory 08 p0177 A75-44780
- IDAHO**
- Idaho geothermal R and D project report for period 16 December 1973 - 15 March 1974 [ANCR-1155] 06 p0076 N75-16985
- IGNITION TEMPERATURE**
- Plasma heating methods --- for controlled fusion 07 p0119 A75-35920
- ILLINOIS**
- Proceedings of the 2nd Annual Illinois Energy Conference [PB-240548/8] 07 p0161 N75-27575
- IMAGING TECHNIQUES**
- Oil exploration needs for digital processing of imagery 05 p0001 A75-10437
- IMPERIAL VALLEY (CA)**
- Overview of Reclamation's geothermal program in Imperial Valley, California 06 p0098 N75-20835
- IMPREGNATING**
- High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes 05 p0008 A75-10570
- IMPURITIES**
- Effects of high doping levels on silicon solar cell performance 07 p0123 A75-37403
- INCIDENT RADIATION**
- Method for calculating solar radiation for semicylindrical collectors 06 p0057 A75-26718
- Solar incidence factor and other geometric considerations of solar energy collection [SAND-74-26] 05 p0034 N75-13390
- INCINERATORS**
- Survey of gas and oil burners for use with NSF/RANN-ORNL potassium boiler [ORNL-NSF-EP-45] 06 p0087 N75-18728
- INCLINATION**
- On the optimum tilt of a solar collector 07 p0115 A75-33971

INCLUSIONS

SUBJECT INDEX

INCLUSIONS

The relation of coal characteristics to coal liquefaction behavior
 [PB-239261/1] 07 p0151 N75-25327

INDEXES (DOCUMENTATION)
 Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem
 [PB-240423/4] 07 p0152 N75-25774

INDIUM COMPOUNDS
 Efficient CuInSe₂/CdS solar cells
 07 p0119 A75-36274

INDUSTRIAL ENERGY
 DFVLR activities in the area of energy research
 07 p0118 A75-35096

The nation's first private industrial solar heating system - General Electric's Valley Forge Space Center
 08 p0184 A75-45925

Industrial process heat from solar energy --- energy storage in water pond
 08 p0190 A75-45992

Heat pipe thermal recovery units --- for process exhaust energy utilization
 08 p0194 A75-46041

The National Coal Conversion Act and the National Crude Oil Refinery Development Act
 [GPO-28-964] 05 p0027 N75-10861

Bureau of Mines research programs on recycling and disposal of mineral, metal, and energy-based wastes
 [PB-227476/9] 05 p0042 N75-15203

Energy use in the commercial and industrial sectors of the US economy, 1963
 [PB-235487/6] 06 p0070 N75-16104

Energy problems in a global context
 06 p0075 N75-16978

Some developments of industrial magnetohydrodynamic electric power plants
 06 p0081 N75-17792

Study of industrial uses of energy relative to environmental effects
 [PB-237215/9] 06 p0084 N75-17853

Industrial energy study of the hydraulic cement industry
 [PB-237142/5] 06 p0087 N75-18730

Data base for the industrial energy study of the industrial chemicals group
 [PB-237845/3] 06 p0087 N75-18732

Fuel and energy consumption in the coal industries
 [PB-237151/6] 06 p0088 N75-18744

Energy consumption: The primary metals and petroleum industries
 [PB-241990/1] 08 p0213 N75-33503

INDUSTRIAL MANAGEMENT
 Industrial energy study of selected food industries
 [PB-237316/5] 06 p0083 N75-17827

Vulnerability of natural gas systems --- industrial management and operations
 [AD-A007583] 07 p0144 N75-24143

Fuel use in the US electrical utility industry, 1971 - 1990
 07 p0154 N75-26493

INDUSTRIAL PLANTS
 Cooling a light industrial building in Puerto Rico using solar energy
 [AIAA PAPER 75-612] 08 p0170 A75-41178

Industrial energy study of the Industrial chemicals group
 [PB-236322/4] 06 p0071 N75-16111

Applications of aerospace technology in the electric power industry
 06 p0079 N75-17197

Background information for standards of performance: Coal preparation plants. Volume 2: Summary and test data
 [PB-237696/0] 06 p0091 N75-18797

Technical evaluation services, clean liquid and/or solid fuels from coal
 [PB-237216/7] 07 p0129 N75-21803

Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Wansound River site --- a proposed oil refinery site
 [NASA-CR-142821] 07 p0141 N75-24122

Study of the application of HTGR to a petroleum refinery petrochemical complex
 [CONF-741144-1] 07 p0142 N75-24126

The impact of energy shortages on the iron and steel industries
 [PB-238749/6] 07 p0145 N75-24158

Investigation of characteristics of magnetohydrodynamic generators in industrial power plants
 [AD-A008343] 07 p0149 N75-25307

Energy conservation: A case study for a large manufacturing plant
 [PB-239302/3] 07 p0151 N75-25323

Proceedings of the Conference on Energy Conservation in Commercial, Residential and Industrial Buildings
 [PB-240306/1] 08 p0200 N75-28539

INDUSTRIAL WASTES
 Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage
 07 p0125 A75-38648

Study of industrial uses of energy relative to environmental effects
 [PB-237215/9] 06 p0084 N75-17853

INDUSTRIES
 Economic impact of the oil shale industry in western Colorado
 [GPO-28-608] 05 p0028 N75-10588

Energy consumption by industries in support of national defense: An energy demand model
 [AD-784964] 05 p0031 N75-12449

Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
 [PB-237116/9] 06 p0088 N75-18739

Industrial energy study of the drug manufacturing industries for the Federal Energy Administration/US Department of Commerce
 [PB-238994/8] 07 p0142 N75-24130

Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination
 [PB-240492] 07 p0162 N75-27612

Demand for scientific and technical manpower in energy-related industries: United States 1970-1985
 [PB-240865] 08 p0201 N75-28964

Energy consumption: Paper, stone/clay/glass/concrete, and food industries
 [PB-241926/5] 08 p0211 N75-32607

INFORMATION DISSEMINATION
 The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology
 06 p0079 N75-17203

INFORMATION MANAGEMENT
 The solution of information-deficiency problems of electroenergy technology --- optimal decision making
 06 p0062 A75-28508

INFORMATION RETRIEVAL
 Energy R/D Data Workshop
 [PB-237493/2] 07 p0130 N75-21811

INFORMATION SYSTEMS
 The Environmental protection agency industrial technology transfer program
 06 p0078 N75-17193

National energy flow accounts
 [PB-239275/1] 07 p0146 N75-24539

Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem
 [PB-240423/4] 07 p0152 N75-25774

A regional energy information system for Minnesota: A preliminary design
 [PB-241124/7] 08 p0205 N75-30944

INFORMATION THEORY
 Various research tasks related to energy information and data activities: Task 4 priorities analysis
 [PB-240424/2] 07 p0151 N75-25329

INFRARED RADIATION
 Heat mirrors for solar-energy collection and radiation insulation
 05 p0004 A75-10525

- Radiation cooling of structures with infrared transparent wind screens 08 p0167 A75-39407
- INFRARED REFLECTION**
Transparent heat-mirror films of TiO₂/Ag/TiO₂ for solar energy collection and radiation insulation 05 p0015 A75-16378
Principles and applications of selective solar coatings 08 p0181 A75-45511
- INFRARED SPECTROPHOTOMETERS**
Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage 07 p0125 A75-38648
- INTERMETALLICS**
The rate limiting processes for the sorption of hydrogen in LaNi₅ --- for energy storage systems 08 p0194 A75-46036
A detailed analysis of the hydriding characteristics of LaNi₅ --- hydrogen storage in form of metal hydrides 08 p0194 A75-46038
- INTERNAL COMBUSTION ENGINES**
Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline 05 p0008 A75-10574
Hydrogen fuel cells and motors --- new energy technology 06 p0046 A75-22042
Liquid hydrogen as an automotive fuel 06 p0048 A75-23238
Methanol as fuel for vehicle engines 06 p0050 A75-23506
Hydrogen as fuel for internal-combustion engines 06 p0050 A75-23508
Automotive hydrogen engines, and onboard storage methods 08 p0172 A75-42284
Engine performance with gasoline and hydrogen - A comparative study 08 p0177 A75-44787
Backfire control techniques for hydrogen-fueled internal combustion engines 08 p0178 A75-44789
Engine development program for the APL remotely piloted vehicle [AD-787507] 06 p0065 N75-15658
Hydrogen as a fuel --- analysis of problems involved in generation, transportation, and utilization [AD-787484] 06 p0066 N75-15818
- INTERNATIONAL COOPERATION**
International energy problems and environmental policy 05 p0014 A75-13597
Man-made sun. Thermonuclear engineering developments [BLL-M-23333-(5828.4P)] 06 p0091 N75-19014
The USA: The scientific and technical revolution and trends in foreign policy [NASA-TT-F-16102] 06 p0096 N75-20160
- INTERNATIONAL RELATIONS**
The energy crises 08 p0179 A75-44810
The USA: The scientific and technical revolution and trends in foreign policy [NASA-TT-F-16102] 06 p0096 N75-20160
Economic impact on the free world of the oil crisis, October 1973 - March 1974 [AD-A003136] 06 p0107 N75-21156
Oil and US policy [AD-A006473] 08 p0203 N75-29558
- INTERNATIONAL TRADE**
The approaching energy crisis: A call for action 05 p0030 N75-12432
Dependence of the United States on essential imported materials, year 2000; volume 1 [AD-A000842] 06 p0096 N75-20157
Dependence of the United States on essential imported materials, year 2000. Volume 2: Appendices [AD-A000843] 06 p0096 N75-20158
Protecting the US petroleum market against future denials of imports [AD-A006643] 07 p0137 N75-23387
The economics of energy and natural resource pricing [GPO-48-071] 07 p0141 N75-24115
- Commerce today, volume 5, number 10 --- a discussion of international trade, economics, and energy conservation [COM-74-50944/10] 07 p0152 N75-25775
Materials and the new dimensions of conflict, revised version [AD-A004263] 07 p0154 N75-26499
- INTERPLANETARY SPACECRAFT**
Interplanetary spacecraft design using solar electric propulsion [AIAA PAPER 74-1084] 05 p0010 A75-11283
- INVESTMENTS**
Investment possibility of financial institutions in solar heating [PB-239756/0] 07 p0155 N75-26511
- ION BEAMS**
Ion-beam implosion of fusion targets 08 p0181 A75-45386
Terrestrial and space applications of the muon controlled fusion concept [AIAA PAPER 75-1263] 08 p0182 A75-45663
Review of direct energy conversion of ion beams: Experimental results and reactor applications [UCRL-75600] 05 p0028 N75-11466
- ION EXCHANGE MEMBRANE ELECTROLYTES**
Solid polymer electrolysis fuel cell status report 08 p0186 A75-45942
Evaluation of an ion exchange membrane fuel cell for space power [AD-786888] 05 p0037 N75-14274
- IRON**
Photochemical conversion of solar energy --- study of iron-thionine photogalvanic cells [PB-235474/4] 05 p0038 N75-14282
The impact of energy shortages on the iron and steel industries [PB-238749/6] 07 p0145 N75-24158
- IRON ALLOYS**
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys [LBL-2764] 06 p0066 N75-15781
- IRON CHLORIDES**
Considerations on iron-chloride-oxygen reactions in relation to thermochemical water-splitting 08 p0177 A75-44779
- IRON COMPOUNDS**
Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651] 05 p0030 N75-12441
- IRRIGATION**
Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions 06 p0054 A75-24256
Solar powered pump [NASA-CASE-NPO-13567-1] 07 p0133 N75-22746
Use of thermally enriched water for growing field crops in Minnesota [PB-240112] 07 p0159 N75-27549
- J**
- JAPAN**
Japanese/United States Symposium on Solar Energy systems. Volume 1: Summary of proceedings [MTR-6284-VOL-1] 05 p0036 N75-14264
- JET ENGINE FUELS**
Future long-range transports: Prospects for improved fuel efficiency [NASA-TM-X-72659] 06 p0079 N75-17339
Preparation of gas turbine engine fuel from synthetic crude oil derived from coal [AD-A007923] 07 p0147 N75-24966
- JET PROPULSION**
On the future of jet propulsion in subsonic transport aviation 06 p0058 A75-27777
- K**
- KANSAS**
Statistical estimation of wildcat well outcome probabilities by visual analysis of structure contour maps of Stafford County, Kansas 06 p0092 N75-19778
- KINETIC ENERGY**
Report on progress in achieving direct conversion of a major fraction of sonic flow kinetic power into electrical power by electrofluid dynamic /EPD/ processes 05 p0009 A75-10576

- L**
- LAND USE**
 Economic impact of the oil shale industry in western Colorado [GPO-28-608] 05 p0024 N75-10588
 Leasing of federal geothermal resources 06 p0099 N75-20841
 Energy plantations: Should we grow trees for power plant fuel [PB-238417/0] 07 p0130 N75-21815
- LANDSAT C**
 ERTS-C (Landsat 3) cryogenic heat pipe experiment definition [NASA-CR-143797] 07 p0138 N75-23882
- LANDSAT SATELLITES**
 Exploration for fossil and nuclear fuels from orbital altitudes --- results of ERTS program for oil exploration [NASA-TN-X-70781] 05 p0027 N75-11413
- LANTHANUM COMPOUNDS**
 The rate limiting processes for the sorption of hydrogen in LaNi5 --- for energy storage systems 08 p0194 A75-46036
 A detailed analysis of the hydriding characteristics of LaNi5 --- hydrogen storage in form of metal hydrides 08 p0194 A75-46038
- LASER APPLICATIONS**
 Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications 06 p0050 A75-23790
 Lasers investigated for space propulsion 06 p0061 A75-28439
 Laser energy conversion 07 p0125 A75-38474
 Lasers for fusion 08 p0166 A75-39333
 Laser application of heat pipe technology in energy related programs 08 p0195 A75-46044
 Conversion of electrical energy into laser radiation energy in high pressure mixtures of molecular gases 07 p0133 N75-22722
- LASER CAVITIES**
 Interferometric tuning of a 15-atm CO2 laser 06 p0058 A75-27518
- LASER HEATING**
 Conceptual design of a series of laser-fusion power plants of 100 to 3000 MW/e/ 05 p0007 A75-10562
 New applications for optical components - High energy focusing 05 p0015 A75-16525
 Performance of a laser mirror heat pipe [ASHE PAPER 74-WA/HT-61] 05 p0018 A75-16869
 Electric power generation system directory from laser power [NASA-CASE-NPO-13308-1] 08 p0204 N75-30524
- LASER MATERIALS**
 Laser application of heat pipe technology in energy related programs 08 p0195 A75-46044
- LASER OUTPUTS**
 New applications for optical components - High energy focusing 05 p0015 A75-16525
 Laser compression of matter - Optical power and energy requirements 06 p0046 A75-22352
- LASER PLASMAS**
 Laser thermonuclear fusion 07 p0112 A75-32617
- LASERS**
 Review of the prospects for laser induced thermonuclear fusion [AECL-4840] 06 p0106 N75-21099
- LAW (JURISPRUDENCE)**
 Institutional and environmental problems in geothermal resource development 06 p0100 N75-20843
 Institutional and legal constraints to cooperative energy research and development [PB-240929/0] 08 p0200 N75-28530
- Proceedings of a Workshop on Solar Energy and the Law [PB-241051/2] 08 p0201 N75-28551
 Natural Gas Act, 1 March 1974 08 p0204 N75-30646
 Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects [PB-241323/5] 08 p0211 N75-32601
- LEAD (METAL)**
 Impact of motor gasoline lead additive regulations on petroleum refineries and energy resources, 1974-1980, phase 1 [PB-234185/7] 05 p0025 N75-10601
- LEAD COMPOUNDS**
 Limit lead in gasoline [GPO-29-660] 05 p0023 N75-10259
- LEGAL LIABILITY**
 The hydrogen economy and the law 08 p0180 A75-44813
- LIFT AUGMENTATION**
 Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525] 06 p0096 N75-20291
 Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526] 06 p0097 N75-20292
- LIFT DEVICES**
 Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft [NASA-CR-2502] 06 p0073 N75-16557
- LIFT DRAG RATIO**
 Evaluation of the energy perfection of the different forms of transport --- aerodynamic coefficients and lift drag ratio [AD-A006562] 07 p0137 N75-23392
- LIGHT TRANSMISSION**
 Lasers investigated for space propulsion 06 p0061 A75-28439
 Laser application of heat pipe technology in energy related programs 08 p0195 A75-46044
 Solar thermal power systems based on optical transmission [PB-237005/4] 06 p0088 N75-18742
- LIGHT WATER BREEDER REACTORS**
 The economics of nuclear power 06 p0047 A75-22734
- LIGHTING EQUIPMENT**
 The use of solar cells in the lighthouse service 06 p0054 A75-24255
- LIQUEFACTION**
 Liquid hydrogen --- liquefaction, storage, transportation, applications 06 p0046 A75-22043
 Evaluation of coal conversion processes to provide clean fuels, part 2 [PB-234203/8] 05 p0025 N75-10604
 Survey study of the efficiency and economics of hydrogen liquefaction [NASA-CR-132631] 07 p0133 N75-22486
- LIQUEFIED GASES**
 Some LNG vehicle developments --- for automotive conversion systems and fueling stations 06 p0048 A75-23236
 Project Clean Air 1972, LNG conversion of GM-71 series diesel engine --- considering automobile exhaust gases control [PB-236585/6] 06 p0090 N75-18783
- LIQUEFIED NATURAL GAS**
 Methanol as fuel for vehicle engines 06 p0050 A75-23506
 Methane gas engines for commercial vehicles and busses 06 p0050 A75-23507
 A survey of LNG technological needs in the USA: 1974 to beyond 2000 05 p0030 N75-12435
 On the potentialities of polyphenylene oxide (PPO) as a wet-insulation material for cargo tanks of LNG-carriers [REPT-194-B] 05 p0035 N75-14002
 Technology and current practices for processing, transferring and storing liquefied natural gas [PB-241048/8] 08 p0202 N75-29271
- LIQUID COOLING**
 Performance of a laser mirror heat pipe [ASHE PAPER 74-WA/HT-61] 05 p0018 A75-16869

LIQUID FLOW

Design charts for hot liquid energy storage systems utilizing forced circulation
[AIAA PAPER 75-742] 07 p0113 A75-32851

LIQUID HYDROGEN

The use of hydrogen in commercial aircraft - An assessment 05 p0006 A75-10542

Liquid hydrogen --- liquefaction, storage, transportation, applications 06 p0046 A75-22043

Liquid hydrogen as an automotive fuel 06 p0048 A75-23238

Cryogenics safety in a hydrogen fuel society 06 p0061 A75-27973

Future hydrogen fueled commercial transports [SAE PAPER 750615] 08 p0169 A75-40521

Research opportunities in cryogenic hydrogen-energy systems 08 p0171 A75-42280

Aviation usage of liquid hydrogen fuel - Prospects and problems 08 p0172 A75-42282

Cryogenic H₂ and national energy needs 08 p0173 A75-43977

The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978

Low thermal flux glass-fiber/metal vessels for LH₂ storage systems 08 p0177 A75-44783

Hydrogen for the subsonic transport --- aircraft design and fuel requirements 08 p0178 A75-44791

Liquid hydrogen as a fuel for future commercial aircraft 08 p0178 A75-44792

Air Force experience in the use of liquid hydrogen as an aircraft fuel 08 p0179 A75-44801

Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge 08 p0195 A75-47081

Liquid hydrogen - Fuel of the future --- for aircraft [SAE PAPER 1065] 08 p0195 A75-47495

Alternative fuels for aviation 06 p0075 N75-16980

Survey study of the efficiency and economics of hydrogen liquefaction [NASA-CR-132631] 07 p0133 N75-22486

On the application of hydrogen as a fuel for automotive vehicles [ESRO-TT-132] 07 p0135 N75-22910

Hydrogen-future fuel-A bibliography (with emphasis on cryogenic technology) [COM-75-10289/7] 07 p0155 N75-26509

LIQUID METALS

Thermodynamics of liquid metal MHD converters [AD-A007415] 07 p0144 N75-24141

Liquid-metal binary cycles for stationary power [NASA-TN-D-7955] 08 p0205 N75-30649

LIQUID PROPELLANT ROCKET ENGINES

Application of rocket engine technology to energy 08 p0185 A75-45933

LITHIUM

Investigation of the technology and performance of lithium doped solar cells --- feasibility study for mass production 06 p0052 A75-24219

The practical lithium/poly-carbonmonofluoride battery system 08 p0188 A75-45964

Non-hazardous primary lithium-organic electrolyte battery BA-5590 ()/U [AD-A003312] 07 p0129 N75-21804

LITHIUM BORATES

Possibilities for lithium borohydride recycle --- using diborane intermediate [ICP-1054] 06 p0074 N75-16651

LITHIUM COMPOUNDS

Study on parameter variations for solar powered lithium bromide absorption cooling 08 p0186 A75-45938

LITHIUM HYDRIDES

Possibilities for lithium borohydride recycle --- using diborane intermediate [ICP-1054] 06 p0074 N75-16651

LITHIUM SULFATES

Development of lithium/sulfur cells for application to electric automobiles [CONF-740805-7] 06 p0094 N75-19829

LOADS (FORCES)

An analysis of the potential for shifting electric power demand within daily load requirement [PB-239764/4] 07 p0156 N75-26517

LOW COST

Development of very low cost solar cells for terrestrial power generation 06 p0052 A75-24226

LOW DENSITY RESEARCH

Status and objective of Tokamak systems for fusion research [WASH-1295] 05 p0035 N75-13644

LOW TEMPERATURE

Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173

Low to high temperature energy conversion system --- using ammonia [NASA-CASE-NPO-13510-1] 06 p0074 N75-16972

LOW TEMPERATURE ENVIRONMENTS

Development of a thermal battery for emergency radio power under arctic conditions 05 p0007 A75-10560

LUBRICANTS

A short handbook on fuels --- and lubricants [AD-A004358] 07 p0158 N75-27170

LUBRICATING OILS

Waste lubricating oil research. A comparison of bench-test properties of re-refined and virgin lubricating oils --- materials recovery [PB-238124/2] 06 p0097 N75-20746

Waste automotive lubricating oil reuse as a fuel [PB-241357/3] 08 p0204 N75-30331

LUMINOUS INTENSITY

Dependence of the basic parameters of Al_xGa_{1-x}As-GaAs solar converters on temperature and optical intensity 07 p0112 A75-32824

M**MAGNETIC CIRCUITS**

Methods of energy transfer from a magnetic energy storage system using a transfer capacitor and a superconducting switch [LA-5631-MS] 05 p0032 N75-13164

MAGNETIC CONTROL

Fusion power by magnetic confinement - Plans and the associated need for nuclear engineers 08 p0170 A75-41433

Thrust vector control by magnetic field --- of MHD-generator rocket engine [IAF PAPER 75-027] 08 p0183 A75-45822

MAGNETIC STORAGE

Magnetic Energy Transfer and Storage (NETS) program schedules for a Fusion Test Reactor (FTR) [LA-5748-MS] 06 p0106 N75-21097

MAGNETOHYDRODYNAMIC GENERATORS

MHD energy conversion systems [AIAA PAPER 74-1071] 05 p0001 A75-10263

The MHD power generation system with directly fired coal 05 p0009 A75-10577

Development of a theoretical method for predicting the performance of hydrogen-oxygen MHD generators 05 p0009 A75-10578

Applications of plasma core reactors to terrestrial energy systems [AIAA PAPER 74-1074] 05 p0010 A75-11281

Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838

Recent MHD generator testing at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-7] 05 p0016 A75-16839

Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator 06 p0045 A75-19959

Corrosion studies of materials for auxiliary equipment in MHD power plants 06 p0055 A75-24384

- Review of central power magnetohydrodynamics
[AIAA PAPER 75-264] 06 p0055 A75-25005
- Fluctuations of electric power in MHD channels
07 p0110 A75-30949
- Calculation of the electrical conductivity of the
combustion products of the working medium in an
open-cycle MHD generator 07 p0112 A75-31568
- Concerning the use of a nitrogen-potassium gaseous
mixture for protection of MHD-generator
electrodes by suction 07 p0112 A75-31569
- Effect of inhomogeneity of conductivity on end
effect in a sectional MHD generator 07 p0119 A75-36233
- Investigation of the optimal MHD-generator
characteristics for combinational open-cycle MHD
power generators --- using one dimensional
channel flow model 07 p0119 A75-36260
- Problems of direct conversion of thermal and
nuclear energy to electric energy 07 p0120 A75-36415
- MHD energy conversion for high power electrical
needs 07 p0124 A75-37657
- Development of the KIVA-I MHD open cycle generator
07 p0124 A75-37686
- Theoretical study of the energy output of two
magnetohydrodynamic generators 07 p0125 A75-38568
- MHD power generation 08 p0166 A75-39197
- An MHD energy storage system comprising a
heavy-water producing electrolysis plant and a
H₂/O₂/CO₂/MHD generator/steam turbine
combination to provide a means of transferring
nuclear reactor energy from the base-load regime
into the intermediate-load and peaking regimes
08 p0179 A75-44800
- MHD electrical power generation from fossil fuels
[AIAA PAPER 75-1236] 08 p0182 A75-45648
- Consideration of ultra-high temperature nuclear
heat sources for MHD conversion systems
[AIAA PAPER 75-1258] 08 p0182 A75-45659
- Thrust vector control by magnetic field --- of
MHD-generator rocket engine 08 p0183 A75-45822
- Conceptual design and economics of an MHD pilot
plant 08 p0189 A75-45974
- High temperature air preheaters for open cycle MHD
energy conversion systems [AICHE PAPER 16] 08 p0196 A75-47512
- MHD energy conversion [AD-785419] 05 p0032 N75-12807
- A review of the status of MHD power generation
technology including suggestions for a Canadian
MHD research program [UTIAS-39] 05 p0035 N75-13641
- First Joint Soviet-American Colloquium on the
Problems of MHD Energy Conversion [JPRS-63794] 06 p0081 N75-17790
- Prospects for magnetohydrodynamic electric power
plants in power engineering 06 p0081 N75-17791
- Some developments of industrial
magnetohydrodynamic electric power plants
06 p0081 N75-17792
- Experience in the first step of the mastery of the
U-25 device 06 p0081 N75-17793
- Electronic model of the U-25 device 06 p0081 N75-17794
- The MHD generator: A step toward the energy
supply of tomorrow --- development of
magnetohydrodynamic generators [AD-A000087] 06 p0089 N75-18749
- The generator of the future --- development of the
magnetohydrodynamic generators [AD-A001515] 06 p0089 N75-18754
- Thermodynamics of liquid metal MHD converters
[AD-A007415] 07 p0144 N75-24141
- Studies on improvement of the characteristics of
MHD power generating channel --- conducting fluids
[REPT-749] 07 p0148 N75-25293
- Investigation of characteristics of
magnetohydrodynamic generators in industrial
power plants [AD-A008343] 07 p0149 N75-25307
- MHD power generation (Viking Series) with
hydrocarbon fuels, part 3 [AD-A004216] 07 p0155 N75-26502
- Refractory materials for coal-fueled MHD power
generation [PB-239607/5] 07 p0157 N75-26524
- US and Soviet MHD technology: A Comparative
overview [AD-A004614] 07 p0162 N75-27901
- MAGNETOHYDRODYNAMICS**
MHD energy conversion [AD-785419] 05 p0032 N75-12807
- MAN ENVIRONMENT INTERACTIONS**
Interaction between the fuel-energy complex and
the environment 07 p0110 A75-29800
- MANAGEMENT INFORMATION SYSTEMS**
Master plan for REIS implementation
[PB-241126/2] 08 p0205 N75-30945
- Design considerations for a comprehensive regional
energy information system [PB-241123/9] 08 p0206 N75-30946
- MANAGEMENT METHODS**
Extended energy management methods for flight
performance optimization [AIAA PAPER 75-30] 05 p0021 A75-18269
- Energy utilization by households and technology
assessment as a way to increase its effectiveness
--- management methods and family decision making
06 p0097 N75-20829
- A study of energy systems command, control and
communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- Insufficient utilization of scientific advances
--- sociopolitical and economic management of
technological development 07 p0137 N75-23365
- MANAGEMENT PLANNING**
Project Independence 05 p0029 N75-12428
- Imperial Valley's proposal to develop a guide for
geothermal development within its county
06 p0100 N75-20844
- The Lawrence Berkeley Laboratory geothermal
program in northern Nevada 06 p0100 N75-20845
- The total flow concept for geothermal energy
conversion 06 p0100 N75-20846
- San Diego Gas and Electric Company Imperial Valley
geothermal activities 06 p0100 N75-20847
- Plans and status of the NASA-Lewis Research Center
wind energy project [NASA-TM-X-71701] 07 p0128 N75-21795
- A state energy management plan for North Carolina,
phase 1: A quantitative description of the
current situation and analysis of the
determinants and consequences of future energy use
[PB-238197/8] 07 p0130 N75-21819
- A USAF energy projection model [AD-A006928] 07 p0132 N75-22476
- An analysis of constraints on increased coal
production [PB-240613/0] 07 p0157 N75-26525
- MANAGEMENT SYSTEMS**
Evaluating integrated utility systems
[PB-238765/2] 07 p0136 N75-22925
- A study of energy systems command, control and
communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- MANGANESE ALLOYS**
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys
[LBL-2764] 06 p0066 N75-15781
- MANIFOLDS**
Fluid manifold design for a solar energy storage
tank [NASA-TM-X-64940] 07 p0160 N75-27562
- MANPOWER**
Demand for scientific and technical manpower in
energy-related industries: United States
1970-1985 [PB-240865] 08 p0201 N75-28964

SUBJECT INDEX

MEASURING INSTRUMENTS

MANUFACTURING

- Heat pipe manufacturing study
[NASA-CR-139140] 05 p0023 N75-10347
Solar kine: Answer to the agricultural energy
challenge of our time 06 p0086 N75-18721
A SASOL type process for gasoline, methanol, SNG,
and low-Btu gas from coal [PB-237670/5] 06 p0095 N75-19838
Fundamental aspects of systems for the
thermochemical production of hydrogen from water
[LA-UR-74-1459] 07 p0127 N75-21391

MAPPING

- Evaluation of the suitability of Skylab data for
the purpose of petroleum exploration
[E75-10257] 07 p0147 N75-25237

MAPS

- The mine map repository: A source of mine map data
[PB-240136/2] 07 p0148 N75-25288

MARINE BIOLOGY

- The effect of Alaskan crude oil and selected
hydrocarbon compounds on embryonic development
of the Pacific oyster, *Crassostrea gigas*
06 p0090 N75-18764

MARINE ENVIRONMENTS

- Solar sea power plants /SSPP/ --- using ocean
thermal gradients 08 p0191 A75-45996
Prospects for utilization of underwater houses and
chambers in development of marine oil deposits
05 p0029 N75-11606

MARINE PROPULSION

- Application of superconducting electrical
machinery to the propulsion systems of
commercial vessels --- gas turbines
[COM-75-10137] 07 p0147 N75-25200

MARINE RESOURCES

- Ocean thermal energy conversion system evaluation
[AIAA PAPER 75-616] 06 p0064 A75-29115
Tropical ocean thermal power plants and potential
products [AIAA PAPER 75-617] 06 p0064 A75-29116

MARINE TECHNOLOGY

- Hot water hydraulics of the Gulf Stream sited OTGM
[PB-242151/9] 08 p0213 N75-33502
An evaluation of oceanographic and socioeconomic
aspects of a nearshore ocean thermal energy
conversion pilot plant in subtropical Hawaiian
waters [PB-242167/5] 08 p0213 N75-33509

MARKET RESEARCH

- Technology utilization - Incentives and solar energy
06 p0048 A75-22913
Hydrogen - Mechanisms and strategies of market
penetration 08 p0180 A75-44811
Prospective regional markets for coal conversion
plant products projected to 1980 and 1985.
Volume 2: Current and projected demand, supply
and price of energy in the United States
[PB-236632/6] 06 p0078 N75-17007
Prospective regional markets for coal conversion
plant products projected to 1980 and 1985.
Volume 3: Current and projected demand, supply
and price of energy in the United States,
schedules [PB-236633/4] 06 p0078 N75-17008
Economic modeling and energy policy planning ---
technology transfer, market research 06 p0079 N75-17210

MARKETING

- Current energy shortages oversight series: Oil
brokers, part 7 [GPO-32-607] 07 p0161 N75-27576

MARTENSITE

- Thermodynamic considerations of 'solid state
engines' based on thermoelastic martensitic
transformations and the shape memory effect
06 p0045 A75-19631

MASS

- Evaluation of the overall fuel mass penalty of an
aircraft system 07 p0121 A75-36720

MASS RATIOS

- Power generation for the I4 spacecraft - A step in
the development of a high power/mass ratio,
hybrid solar array for applications spacecraft
06 p0053 A75-24251

MASS SPECTROSCOPY

- The identification of gamma-valerolactone in waste
from an oil-shale in situ retort ---
determination of chemical composition by mass
spectroscopy of effluents from crude oil shales
causing water pollution [PB-240098/4] 07 p0147 N75-24852

MASS TRANSFER

- Controlled heat pipes 05 p0012 A75-12912
Electrochemical power sources --- heat and mass
transfer in porous media [AD-A001610] 06 p0094 N75-19836

MATERIAL BALANCE

- Application of thermodynamic and material- and
energy-balance calculations to gasification
processes 06 p0055 A75-24785

MATERIALS

- Potential structural material problems in a
hydrogen energy system [NASA-TN-X-71752] 07 p0154 N75-26500

MATERIALS HANDLING

- Fuel energy systems - Conversion and transport
efficiencies 05 p0007 A75-10554
Technology and community development materials
processing, and electrical and nuclear technology
--- technical research center of Finland
05 p0031 N75-12695

MATERIALS RECOVERY

- Synthetic oil from coal [PB-234460/4] 05 p0040 N75-15176
Waste lubricating oil research. A comparison of
bench-test properties of re-refined and virgin
lubricating oils --- materials recovery
[PB-238124/2] 06 p0097 N75-20746
Characterization of sulfur recovery from refinery
fuel gas [PB-239777/6] 07 p0151 N75-25326
Glass recycling and reuse [PB-239674/5] 08 p0200 N75-28536
Extracting minerals from geothermal brines: A
literature study [PB-240681/7] 08 p0202 N75-29545
The need for a national materials policy, part 1
[GPO-39-885] 08 p0209 N75-31954
The need for a national materials policy, part 2
[GPO-40-687] 08 p0209 N75-31955
The need for a national materials policy, part 3
[GPO-40-687] 08 p0209 N75-31956

MATERIALS TESTS

- The effect of sunshine testing on terrestrial
solar cell system components 07 p0123 A75-37396
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832

MATHEMATICAL MODELS

- A wind energy conversion system based on the
tracked-vehicle airfoil concept 05 p0004 A75-10518
An analytical and experimental investigation of a
laboratory solar pond model [ASME PAPER 74-WA/SOL-3] 05 p0019 A75-16886
Energy systems - Modeling and policy analysis
06 p0055 A75-24750
Calculation of flat-plate collector loss
coefficients --- of solar radiation 07 p0109 A75-29480
Numerical modeling of flat plate solar collectors
[AIAA PAPER 75-739] 07 p0113 A75-32861
The economic incentive for introducing electric
storage devices into the national energy system
08 p0184 A75-45929
The HCL-Thurrow model supplement
[PB-241113/0] 08 p0204 N75-29952

MATRICES (MATHEMATICS)

- Application of fast sparse-matrix techniques and
an energy estimation model for large
transportation networks 08 p0201 N75-28967

MEASURING INSTRUMENTS

- National Bureau of Standards annual report:
Fiscal year 1974 --- including a discussion of
measuring instruments, energy, safety
engineering, and computers [COM-75-10465/3] 08 p0206 N75-30948

MECHANICAL DRIVES

Mechanical thermal motor
[NASA-CASE-MPS-23062-1] 07 p0160 N75-27561

MECHANICAL OSCILLATORS
Efficient thermo-mechanical generation of
electricity from the heat of radioisotopes
08 p0192 A75-46013

MECHANICAL PROPERTIES
Mechanical properties of oil shale from Anvil
Point under conditions of uniaxial compression
[SAND-74-0035] 06 p0092 N75-19390

MEGALOPOLISES
Mode shift strategies in intercity transportation
and their effect on energy consumption
[AIAA PAPER 75-315] 06 p0055 A75-25013

MELTING
Coal gasification by Atomics International's
Rockgas process
[ASME PAPER 74-WA/PWR-11] 05 p0018 A75-16883

MERCURY (METAL)
Cycle study of a mercury-colloidal electrofluid
dynamic power generator
[AD-A004814] 07 p0159 N75-27559

METAL FIBERS
Capillary flow through heat-pipe wicks
[AIAA PAPER 75-661] 07 p0114 A75-32919

METAL FILMS
Transparent heat-mirror films of TiO₂/Ag/TiO₂ for
solar energy collection and radiation insulation
05 p0015 A75-16378

METAL HYDRIDES
Metal hydrides for thermal energy storage
05 p0004 A75-10522
Metal hydride fuel cell power source
05 p0008 A75-10564
60 watt hydride-air fuel cell system
05 p0008 A75-10567
Predicted energy densities for nickel-hydrogen and
silver-hydrogen cells embodying metallic
hydrides for hydrogen storage
05 p0008 A75-10572
Production of hydrogen by the electrolysis of water
06 p0046 A75-22044
An engineering-scale energy storage reservoir of
iron titanium hydride --- hydrogen-based energy
system
08 p0177 A75-44784
High efficiency power conversion cycles using
hydrogen compressed by absorption on metal
hydrides
08 p0194 A75-46034
A detailed analysis of the hydriding
characteristics of LaNi₅ --- hydrogen storage in
form of metal hydrides
08 p0194 A75-46038
Metal hydrides as hydrogen storage media
[BNL-18887] 05 p0030 N75-12440
Energy storage for utilities via hydrogen systems
[BNL-19266] 06 p0086 N75-18725
Hydrogen economy: A utility perspective
[BNL-19267] 06 p0103 N75-20870
Metal hydrides as a source of hydrogen fuel
[BNL-14804-B] 06 p0104 N75-20876
On the application of hydrogen as a fuel for
automotive vehicles
[ESRO-TT-132] 07 p0135 N75-22910

METAL OXIDE SEMICONDUCTORS
A 15% efficient antireflection-coated
metal-oxide-semiconductor solar cell
07 p0119 A75-36275
An Al p-silicon MOS photovoltaic cell
08 p0173 A75-43459

METAL SURFACES
Use of flexible reflective surfaces for solar
energy concentration
06 p0056 A75-25678
Designing heat pipe heat sinks
[AIAA PAPER 75-724] 07 p0113 A75-32868

METAL VAPORS
A potassium topping cycle for public utility power
plants
[AIAA PAPER 75-1235] 08 p0181 A75-45647

METAL-GAS SYSTEMS
Predicted energy densities for nickel-hydrogen and
silver-hydrogen cells embodying metallic
hydrides for hydrogen storage
05 p0008 A75-10572

METALS

Bureau of Mines research programs on recycling and
disposal of mineral, metal, and energy-based
wastes
[PB-227476/9] 05 p0042 N75-15203
Problems of the future and potentialities of
system engineering --- metallic materials,
plastics, traffic and energy supplies
[ESRO-TT-110] 06 p0107 N75-21218

METEOROLOGICAL PARAMETERS
Meteorological factors and dispersion of
pollutants in the atmosphere - A preliminary
study about a large power plant
06 p0045 A75-21150
Statistical relation between heat transfer from a
closed area and meteorological parameters during
the use of a solar refrigerating plant
08 p0169 A75-41072

METHANE
Two-stage methane production from solid wastes
[ASME PAPER 74-WA/ENER-11] 05 p0017 A75-16842
Methane gas engines for commercial vehicles and
busses
06 p0050 A75-23507
Urban waste energy resources
[AIAA PAPER 75-632] 06 p0062 A75-28598
Methane in the Pittsburgh coalbed, Washington
County, Pennsylvania
[PB-237848/7] 06 p0089 N75-18760
Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843
Environmental aspects of methanol as vehicular
fuel: Health and environmental effects
[UCRL-76076] 06 p0095 N75-19867
Technology for the conversion of solar energy to
fuel gas
[PB-238103/6] 06 p0104 N75-20883
Technology for the conversion of solar energy to
fuel gas
[PB-238545/8] 07 p0136 N75-22919
Methane emission from U.S. Coal mines in 1973, a
survey
[PB-240154/5] 07 p0152 N75-25354
The influence of the petrology of the Karagandin
coals on their methane contents
[BLL-RTS-9309] 07 p0158 N75-27511

METHODOLOGY
Benefit-cost methodology study with example
application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571

METHYL ALCOHOLS
Methanol as fuel for vehicle engines
06 p0050 A75-23506
Sea thermal power as a hydrogen and methanol
generator
08 p0175 A75-44763
Sources and methods for methanol production
08 p0180 A75-44816
1.5 and 3KW indirect methanol-air fuel cell power
plants
08 p0186 A75-45944
The economics of the production of liquid fuel and
fertilizer by the fixation of atmospheric carbon
and nitrogen using nuclear power
08 p0191 A75-46001
Elimination of duty on methanol imported for
certain uses
[H-REPT-93-998] 05 p0026 N75-10857
Use of methanol in transportation --- coal
liquefaction methods
[UCID-16528] 06 p0077 N75-16996
Methanol from forestry, municipal, and
agricultural organic residues
[BNWL-SA-5053] 06 p0085 N75-18702
Methyl alcohol production by in situ coal
gasification
[UCID-51600] 07 p0128 N75-21797

MICROANALYSIS
Hydrogen distribution profiling --- embrittlement
of storage vessel surfaces
08 p0179 A75-44805

MICROMETEOROLOGY
Meteorological factors and dispersion of
pollutants in the atmosphere - A preliminary
study about a large power plant
06 p0045 A75-21150

MICROPOROSITY
An investigation of heat-pipe wick characteristics
05 p0012 A75-12914

MICROWAVE TRANSMISSION

- The satellite solar power station - An option for energy production on earth
[AIAA PAPER 75-637] 06 p0063 A75-28600
- The adaptation of free space power transmission technology to the SSPS concept --- Satellite Solar Power Stations
[AIAA PAPER 75-642] 06 p0063 A75-28602
- Modeling and computer simulation of a microwave-to-dc energy conversion element
07 p0120 A75-36500
- Report on studies of space to earth microwave power transmission systems
[IAF PAPER 75-005] 08 p0183 A75-45814
- The satellite solar power station - A step toward the industrial use of space
[IAF PAPER 75-003] 08 p0183 A75-45903
- Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space
08 p0199 N75-28517

MICROWAVES

- A superconducting microwave engine
06 p0056 A75-25831

MILITARY AIR FACILITIES

- A USAF energy projection model
[AD-A006928] 07 p0132 N75-22476
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text
[AD-A006804] 07 p0142 N75-24129
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary
[AD-A006803] 07 p0149 N75-25304
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices
[AD-A006805] 07 p0149 N75-25305

MILITARY AIRCRAFT

- Energy-related research and development in the United States Air Force
06 p0075 N75-16979

MILITARY OPERATIONS

- Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities
[AD-A003590] 08 p0202 N75-29550
- Army installation energy requirements in CONUS
[AD-A008951] 08 p0205 N75-30660

MILITARY SPACECRAFT

- Solar cell and array standardization for Air Force spacecraft
05 p0002 A75-10486

MILITARY TECHNOLOGY

- Air Force experience in the use of liquid hydrogen as an aircraft fuel
08 p0179 A75-44801
- The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development
06 p0075 N75-16977

MILITARY VEHICLES

- Energy-related research and development in the United States Air Force
06 p0075 N75-16979

MINERAL DEPOSITS

- Bureau of Mines research 1973. Summary of significant results in mining, metallurgy, and energy
[PB-234733/4] 05 p0040 N75-15171
- Assessment of uranium and thorium resources in the United States and the effect of policy alternatives
[PB-238658/9] 07 p0143 N75-24133
- Mineral resources and the environment --- energy conservation and energy policy
[PB-239579/6] 07 p0153 N75-26486
- Mineral resources and the environment. Appendix to section 1: Report of panel on materials conservation through technology
[PB-239580/4] 07 p0153 N75-26487
- Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources
[PB-239581/2] 07 p0153 N75-26488

- A summary of significant results in mining metallurgy and energy, Bureau of Mines Research 1974
[PB-241084/2] 08 p0199 N75-28514
- Extracting minerals from geothermal brines: A literature study
[PB-240681/7] 08 p0202 N75-29545

MINERAL EXPLORATION

- Remote sensing applied to energy-related problems; Proceedings of the Symposium-Course, Miami, Fla., December 2-4, 1974
07 p0118 A75-35451
- Remote sensing for Western coal and oil shale development planning and environmental analysis
07 p0118 A75-35458
- Assessment of uranium and thorium resources in the United States and the effect of policy alternatives
[PB-238658/9] 07 p0143 N75-24133

MINERAL OILS

- Technological and commercial possibilities which result by using a high temperature reactor for the future supply of mineral oil in the FRC
[JUL-1017-RG] 05 p0029 N75-11470

MINERALS

- The 1973 fuel and electrical energy requirements of selected mineral industries activities
07 p0134 N75-22899

MINES (EXCAVATIONS)

- Degasification of the Mary Lee coalbed near Oak Grove, Jefferson County, Alabama, by vertical borehole in advance of mining
[BM-RI-7968] 05 p0028 N75-11462
- Design optimization in underground coal systems
[PB-239075/5] 07 p0145 N75-24153
- The mine map repository: A source of mine map data
[PB-240136/2] 07 p0148 N75-25288
- Methane emission from U.S. Coal mines in 1973, a survey
[PB-240154/5] 07 p0152 N75-25354

MINIATURIZATION

- Development and performance of a miniature, high-voltage thermal battery
05 p0007 A75-10559

MINIMAX TECHNIQUE

- The solution of information-deficiency problems of electroenergy technology --- optimal decision making
06 p0062 A75-28508

MINING

- Remote sensing applied to mine subsidence - Experience in Pennsylvania and the Midwest
07 p0121 A75-36809
- Bureau of Mines research 1973. Summary of significant results in mining, metallurgy, and energy
[PB-234733/4] 05 p0040 N75-15171
- Fuel and energy consumption in the coal industries
[PB-237151/6] 06 p0088 N75-18744
- Regional economics: A subset of simulation of the effects of coal-fired power development in the four corners region
06 p0107 N75-21153
- The potential for developing Alaskan coals for clean export fuels, phase 1
[PB-238539/1] 07 p0127 N75-21786
- Economic system analysis of coal preconversion technology
[PB-239383/3] 07 p0151 N75-25325

MINNESOTA

- A regional energy information system for Minnesota: A preliminary design
[PB-241124/7] 08 p0205 N75-30944

MIRRORS

- Performance of a laser mirror heat pipe
[ASME PAPER 74-WA/HT-61] 05 p0018 A75-16869
- Use of flexible reflective surfaces for solar energy concentration
06 p0056 A75-25678
- Energy distribution in the concentration field of a two-mirror device with a paraboloidal back reflector
07 p0122 A75-37157
- A tower-top point focus solar energy collector
08 p0174 A75-44753
- Investigation of a solar concentrator with hexahedral glass facets
08 p0180 A75-45061

MISSION PLANNING

A nearly perfect solar energy concentrator made up of tapered mirror facets with constant transverse curvature
08 p0180 A75-45062

MISSION PLANNING
Mission applications of electric propulsion
[AIAA PAPER 74-1085] 05 p0010 A75-11284

MODELS
Application of fast sparse-matrix techniques and an energy estimation model for large transportation networks
08 p0201 N75-28967

MODULES
Advanced heat source concepts --- module design for space electric power generation
[MLM-2134] 05 p0024 N75-10591

MOLECULAR DIFFUSION
Effect of diffusion on concentration profiles in a solar pond
08 p0167 A75-39412

MOLECULAR GASES
Conversion of electrical energy into laser radiation energy in high pressure mixtures of molecular gases
07 p0133 N75-22722

MOLECULAR INTERACTIONS
Workshop in Gas-Phase Molecular Interactions and the Nation's Energy Problem
[PB-236712/6] 06 p0086 N75-18718

MOTORS
Mechanical thermal motor
[NASA-CASE-MFS-23062-1] 07 p0160 N75-27561

MULTILAYER INSULATION
Solar electric propulsion system thermal analysis --- including heat pipes and multilayer insulation
[NASA-CR-120770] 07 p0147 N75-24842

MULTISPECTRAL BAND SCANNERS
Multispectral data systems for energy related problems --- strip mining and power plant site monitoring
07 p0118 A75-35464

Net radiation and other energy-related maps from remotely sensed imagery
07 p0121 A75-36811

MULTISPECTRAL PHOTOGRAPHY
Relationships of earth fracture systems to productivity of a gas storage reservoir
[PB-237894/1] 06 p0089 N75-18759

N

NASA PROGRAMS
NASA objectives for improved solar power plants
05 p0002 A75-10485

Mission applications of electric propulsion
[AIAA PAPER 74-1085] 05 p0010 A75-11284

The application of aerospace technology in the cryogenics field
06 p0048 A75-23239

Summary of NASA-Lewis Research Center solar heating and cooling and wind energy programs
07 p0123 A75-37240

NASA thermionic converter research and technology program --- nuclear electric propulsion application
08 p0188 A75-45956

Plans and status of the NASA-Lewis Research Center wind energy project
08 p0197 A75-47802

Proceedings of the first 1974 Technology Transfer Conference
[NASA-CR-142119] 06 p0078 N75-17188

Transfer of space technology to industry
06 p0078 N75-17195

The NASA-Lewis/EEEA solar heating and cooling technology program --- project planning/energy policy
[NASA-TM-X-71800] 08 p0210 N75-32592

Incorporating energy conservation techniques in the operation of existing LeRC R and D facilities --- energy policy/NASA programs
[NASA-TM-X-71813] 08 p0212 N75-33494

NATIONS
An overview of alternative energy sources for LDCs
[PB-239465/8] 08 p0200 N75-28529

NATURAL GAS
Some LNG vehicle developments --- for automotive conversion systems and fueling stations
06 p0048 A75-23236

SUBJECT INDEX

The Shell natural gas airship, and other L.T.A. activities by Aerospace Developments
[AIAA PAPER 75-932] 07 p0121 A75-37008

Further development of scientific research in the field of geology and of the survey and exploration of petroleum and gas
[JPBS-63414] 05 p0027 N75-11410

Offshore investigation: Producing shut-in leases, January 1974, phase 1 --- potentially productive oil and gas wells
05 p0027 N75-11457

Offshore investigation: Producing shut-in leases as of January 1974, phase 2 --- an estimation of natural gas reserves in offshore wells
05 p0027 N75-11458

Evaluation of coal-gasification technology. Part 1: Pipeline-W quality gas
[PB-234036/2] 05 p0034 N75-13396

Procedure for preparation for shipment of natural gas storage vessel
[NASA-CR-141455] 05 p0036 N75-14135

Natural gas fields, Cook Inlet Basin, Alaska
[PB-235767/1] 06 p0066 N75-16071

Total energy supply and demand, volume 1, chapter 6 --- natural gas, economic analysis
06 p0067 N75-16082

Radiological surveillance program for the project Gasbuggy production test, 15 May - 6 November 1973
[NERC-LV-539-30] 06 p0073 N75-16337

Progress and problems in developing nuclear and other experimental techniques for recovering natural gas in the Rocky Mountain area
[B-164105] 06 p0075 N75-16975

Utilizing fuel more efficiently in reheating and heat treatment furnaces
[BLL-H-21957-(5828.4F)] 06 p0080 N75-17467

Experience in the first step of the mastery of the U-25 device
06 p0081 N75-17793

OCS oil and gas: An environmental assessment, volume 3 --- effect of natural phenomena on OCS gas and oil development
06 p0083 N75-17836

OCS oil and gas: An environmental assessment, Volume 1
06 p0083 N75-17837

OCS oil and gas: An environmental assessment, Volume 2
06 p0084 N75-17838

OCS oil and gas: An environmental assessment, volume 4
06 p0084 N75-17839

OCS oil and gas: An environmental assessment, volume 5
06 p0084 N75-17840

Natural gas in Alabama
[PB-236582/3] 06 p0088 N75-18737

Relationships of earth fracture systems to productivity of a gas storage reservoir
[PB-237894/1] 06 p0089 N75-18759

A realistic view of US natural gas supply
[PB-238964/1] 07 p0134 N75-22898

Stratigraphy, sedimentology and oil and gas geology of the Lower Cretaceous in central Alberta
07 p0137 N75-22961

Vulnerability of natural gas systems --- industrial management and operations
[AD-A007583] 07 p0144 N75-24143

Atlantic outer continental shelf energy resources: An economic analysis
[COM-75-10330/9] 07 p0152 N75-26484

Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources
[PB-239581/2] 07 p0153 N75-26488

Mineral resources and the environment. Appendix to section 4: Report of panel on demand for fuel and mineral resources
[PB-239583/8] 07 p0153 N75-26490

NER: Ultimate recovery vs rate. A reservoir simulation study. Volume 1 --- oil and gas production
[PB-239767/7] 07 p0157 N75-26526

NER: Ultimate recovery vs rate. A reservoir simulation study. Volume 2: Appendices --- oil and gas production
[PB-239768/5] 07 p0157 N75-26527

Carbon isotopes in oil-gas geology
[NASA-TT-F-682] 07 p0160 N75-27563

SUBJECT INDEX

NUCLEAR ENERGY

- Natural Gas Act, 1 March 1974 08 p0204 N75-30646
- Oil and gas development and coastal zone management
[GPO-37-347] 08 p0206 N75-31556
- Outer continental shelf oil and gas leasing off
southern California: Analysis of issues
[GPO-41-659] 08 p0209 N75-31958
- Outer continental shelf oil and gas development
and the coastal zone
[GPO-39-356] 08 p0209 N75-31959
- The economics of the natural gas shortage
(1960-1980)
[PB-242166/7] 08 p0214 N75-33932
- NAVIGATION AIDS**
The use of solar cells in the lighthouse service
06 p0054 A75-24255
- NETHERLANDS**
The economics of using wind power for electricity
supply in the Netherlands and for water supply
on Curacao
[NASA-TT-P-15982] 05 p0024 N75-10587
- NETWORK ANALYSIS**
Application of fast sparse-matrix techniques and
an energy estimation model for large
transportation networks
08 p0201 N75-28967
- NEUTRON ACTIVATION ANALYSIS**
Trace elements by instrumental neutron activation
analysis for pollution monitoring
08 p0166 A75-39335
- NEUTRON EMISSION**
An electron beam initiated fusion neutron generator
06 p0045 A75-19657
- NEW YORK**
Economic and energy conservation relationship
relevant to state of New York building design
and contract awards
[PB-237006/2] 06 p0082 N75-17824
- Use of solar energy in buildings in New York state
[PB-236974/2] 06 p0083 N75-17825
- NICKEL CADMIUM BATTERIES**
Milliwatt fuel cell system for sensors
05 p0008 A75-10565
- High energy density sintered plate type sealed
nickel cadmium battery cells. I - The positive
electrode/plaque relationships
05 p0008 A75-10569
- High energy density sintered plate type
nickel-cadmium battery cells. II -
Electrochemical impregnation methods to produce
nickel oxide electrodes
05 p0008 A75-10570
- A novel negative-limited sealed nickel-cadmium cell
05 p0008 A75-10571
- Storage of energy in kinetic batteries for an
earth resources satellite
[IAP PAPER ST-75-09] 08 p0183 A75-45875
- Nickel-cadmium cells
[NASA-CR-143715] 07 p0128 N75-21792
- NICKEL COMPOUNDS**
A detailed analysis of the hydriding
characteristics of LaNi5 --- hydrogen storage in
form of metal hydrides
08 p0194 A75-46038
- NICKEL ZINC BATTERIES**
Nickel-zinc batteries for hybrid vehicle operation
[PB-239710/7] 07 p0156 N75-26514
- NITROGEN**
Concerning the use of a nitrogen-potassium gaseous
mixture for protection of MHD-generator
electrodes by suction
07 p0112 A75-31569
- NITROGEN OXIDES**
Oxides of nitrogen control techniques for
appliance conversion to hydrogen fuel
05 p0006 A75-10541
- NOISE REDUCTION**
Organic Rankine cycle silent power plant 1.5 kW,
28 volts dc
[AD-A000900] 06 p0088 N75-18745
- Solar 10 kW turboalternator silent power program
[AD-A006549] 08 p0203 N75-29555
- NONCONDENSABLE GASES**
Controlled heat pipes
05 p0012 A75-12912
- NORTH CAROLINA**
A state energy management plan for North Carolina,
phase 1: A quantitative description of the
current situation and analysis of the
determinants and consequences of future energy use
[PB-238197/8] 07 p0130 N75-21819
- NORWAY**
Oslo's future power supply
[NP-20121] 06 p0067 N75-16087
- NUCLEAR ELECTRIC POWER GENERATION**
Nuclear energy requirements for hydrogen
production from water
05 p0005 A75-10533
- Problems of direct conversion of thermal and
nuclear energy to electric energy
07 p0120 A75-36415
- Cryogenic engineering and fusion power ---
superconducting magnet application to reactor
design
08 p0173 A75-43979
- The nuclear electric economy --- current and
projected energy consumption and fossil fuel
depletion rates
08 p0180 A75-44817
- California energy workshop: Developing a plan of
action to meet the energy crisis in California
--- oil recovery, nuclear electric power
generation, and offshore energy sources
[PB-237045/0] 06 p0082 N75-17822
- The action of EDF in the prevention of atmospheric
pollution --- by expanding nuclear electric
power generation
[BLL-CE-TRANS-6500-(9022.09)] 06 p0083 N75-17833
- A preliminary technology assessment of ocean
thermal gradient energy generation
[PB-238646/4] 07 p0144 N75-24147
- Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300
- Study of an integrated power, water and wastewater
utility complex
[PB-239408/8] 07 p0157 N75-26523
- An agro-power-waste water complex for land
disposal of waste heat and waste water
[PB-239675/2] 07 p0161 N75-27570
- The future of the US nuclear energy industry
[PB-242164/2] 08 p0214 N75-33511
- NUCLEAR ELECTRIC PROPULSION**
Terrestrial and space applications of the magma
controlled fusion concept
[AIAA PAPER 75-1263] 08 p0182 A75-45663
- The ERDA thermionic program --- for nuclear
propulsion and utility power plants
08 p0187 A75-45955
- NASA thermionic converter research and technology
program --- nuclear electric propulsion
application
08 p0188 A75-45956
- SENSE 2: Space applications of nuclear power.
Volume 1: Commercial communications satellite
[AEC-SNS-3063-3-VOL-1] 06 p0065 N75-15742
- NUCLEAR ENERGY**
The economics of nuclear power
06 p0047 A75-22734
- Fuels, minerals, and human survival --- Book
07 p0117 A75-34850
- Can hydrogen transmission replace electricity
08 p0165 A75-38863
- Will hydrogen transmission replace electricity
08 p0172 A75-42281
- The UP6 Breeder - A solution to the problems of
nuclear power
08 p0187 A75-45951
- Advanced nuclear research
[GPO-41-253] 05 p0026 N75-10764
- Development, growth, and state of the nuclear
industry
[GPO-33-873] 05 p0038 N75-15150
- Comparison of the environmental aspects of nuclear
and fossil fueled power stations
[CONF-740555-1] 06 p0077 N75-16995
- Production of hydrogen from water using nuclear
energy. A review --- for hydrogen-based energy
[JAERI-M-5642] 06 p0093 N75-19824
- Ainse Engineering Conference --- energy report
[CONF-740814-ABSTS] 07 p0129 N75-21801
- Brief examination of the status of nuclear power
in the republic, using 1974 costs
[REL-237E] 07 p0135 N75-22909

NUCLEAR EXPLOSIONS

SUBJECT INDEX

Energy Reorganization Act of 1974 --- the Energy Research and Development Administration and Nuclear Energy Commission [S-REPT-93-1252] 07 p0142 N75-24123

Evaluation of power facilities; A reviewer's handbook --- electric and nuclear power plants [PB-239221/5] 07 p0146 N75-24198

NUCLEAR EXPLOSIONS

Project Rio Blanco data report: Production testing (RB-E-01), November 1973 and January - February 1974 [NVO-148] 06 p0094 N75-19833

NUCLEAR FISSION

Nuclear system that burns its own wastes shows promise [NASA-NEWS-RELEASE-75-44] 06 p0085 N75-18716

Advanced concepts in fusion-fission hybrid reactors [UCRL-75835] 07 p0131 N75-22113

NUCLEAR FUELS

Alternative fuels for aviation 07 p0121 A75-36719

Gaseous fuel nuclear reactor research 08 p0168 A75-40177

The utilization of ocean energy for electrical energy generation 08 p0168 A75-40181

Exploration for fossil and nuclear fuels from orbital altitudes --- results of ERTS program for oil exploration [NASA-TM-X-70781] 05 p0027 N75-11413

NUCLEAR FUSION

Conceptual design of a series of laser-fusion power plants of 100 to 3000 MW/e/ 05 p0007 A75-10562

Current expectations for fusion power from toroidal machines 05 p0014 A75-12996

New applications for optical components - High energy focusing 05 p0015 A75-16525

The outlook for fusion energy sources - Remaining technological hurdles 06 p0059 A75-27782

Laser thermonuclear fusion 07 p0112 A75-32617

Environmental aspects of fusion reactors 08 p0170 A75-41434

Utilization of plasma exhaust energy for fuel production [COO-3028-7] 05 p0028 N75-11465

Applications of fusion power technology to the chemical industry [BNL-18815] 05 p0029 N75-11730

Outlook for fusion energy sources: Remaining technological hurdles [UCRL-75418] 05 p0029 N75-11745

Survey of applications of fusion power technology to the chemical and material processing industry [BNL-18866] 05 p0031 N75-12443

Fusion power by magnetic confinement [WASH-1290] 05 p0031 N75-12797

Status and objective of Tokamak systems for fusion research [WASH-1295] 05 p0035 N75-13644

Interesting possibilities of fusion-fission --- for thermonuclear power generation [BNWL-SA-5069] 06 p0096 N75-20106

Magnetic Energy Transfer and Storage (METS) program schedules for a Fusion Test Reactor (PTR) [LA-5748-M5] 06 p0106 N75-21097

Review of the prospects for laser induced thermonuclear fusion [AECL-4840] 06 p0106 N75-21099

MIF fusion technology program --- nuclear reactors and reactor materials [COO-2431-1] 06 p0106 N75-21101

Synopsis of studies on synthetic fuels production by fusion reactors [BNL-19336] 06 p0106 N75-21104

Advanced concepts in fusion-fission hybrid reactors [UCRL-75835] 07 p0131 N75-22113

NUCLEAR HEAT

Hydrogen production from decomposition of water by means of nuclear reactor heat 08 p0175 A75-44760

Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems [AIAA PAPER 75-1258] 08 p0182 A75-45659

Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems [AIAA PAPER 75-1261] 08 p0182 A75-45661

Nuclear district-heating and nuclear long-distance energy [JUL-1077] 06 p0093 N75-19828

NUCLEAR MAGNETIC RESONANCE

Pulsed nuclear magnetic resonance studies of oil shales--estimation of potential oil yields [PB-240023/2] 07 p0148 N75-25283

NUCLEAR PHYSICS

Technology and community development materials processing, and electrical and nuclear technology --- technical research center of Finland 05 p0031 N75-12695

NUCLEAR POWER PLANTS

Fundamentals of automatic control of space nuclear power plants --- Russian book 06 p0048 A75-23229

Storing electrical energy on a large scale 08 p0165 A75-38864

The economics of the production of liquid fuel and fertilizer by the fixation of atmospheric carbon and nitrogen using nuclear power 08 p0191 A75-46001

Comparison and evaluation of nuclear power plant options for geosynchronous power stations 08 p0193 A75-46027

Nuclear power growth, 1974 - 2000 --- forecasting future reactor technology [WASH-1139-74] 05 p0031 N75-12723

Application study of a nuclear coal solution gasification process for Oklahoma coal, volume 1 [PB-236156/6] 05 p0037 N75-14279

Coordinated extension of power plants in the 1980's. A statement submitted to the Ministry of Commerce, Shipping, and Industry by the Energy Committee of the Power Plants [NP-20023] 06 p0067 N75-16088

Interesting possibilities of fusion-fission --- for thermonuclear power generation [BNWL-SA-5069] 06 p0096 N75-20106

Nuclear reactor process heat capabilities, potential, and economics [CONF-741032-1] 07 p0131 N75-22112

Brief examination of the status of nuclear power in the republic, using 1974 costs [PEL-237E] 07 p0135 N75-22909

Nuclear energy center site survey: Scope of work [PB-240453/1] 07 p0152 N75-25348

Environmental statement related to the proposed Callaway Plant units 1 and 2. Union Electric Company docket nos. STW 50-483 and STW 50-486 [PB-240193/3] 07 p0152 N75-25349

Waste heat disposal from nuclear power plants [COM-75-10407/5] 07 p0158 N75-27324

NUCLEAR POWER REACTORS

Space power systems - Retrospect and prospect [IAF PAPER 74-082] 05 p0014 A75-13714

Environmental impact of a suitable nuclear power reactor used to provide a process heat system to synthesize fuels 08 p0179 A75-44808

Fusion power by magnetic confinement [WASH-1290] 05 p0031 N75-12797

NUCLEAR POWERED SHIPS

Submarine tanker concepts and problems [COM-75-10009/9] 07 p0132 N75-22264

NUCLEAR PROPULSION

Nuclear propulsion technology transfer to energy systems [AIAA PAPER 74-1072] 05 p0001 A75-10264

Physics and potentials of fissioning plasmas for space power and propulsion [IAF PAPER 74-087] 05 p0015 A75-13719

Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems [AIAA PAPER 75-1261] 08 p0182 A75-45661

NUCLEAR REACTIONS

Hydrogen distribution profiling --- embrittlement of storage vessel surfaces 08 p0179 A75-44805

NUCLEAR REACTOR CONTROL

Fusion power by magnetic confinement [WASH-1290] 05 p0031 N75-12797

NUCLEAR REACTORS

- The production of gaseous energy carriers from fossil fuels 06 p0049 A75-23502
- Energy supply in a closed cycle --- nuclear energy for nonelectrical use 06 p0049 A75-23503
- Hydrogen production from decomposition of water by means of nuclear reactor heat 08 p0175 A75-44760
- An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H₂/O₂/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes 08 p0179 A75-44800
- MIT fusion technology program --- nuclear reactors and reactor materials [COO-2431-1] 06 p0106 N75-21101
- Synopsis of studies on synthetic fuels production by fusion reactors [BNL-19336] 06 p0106 N75-21104
- Direct conversion of plasma energy to electricity for mirror fusion reactors [UCRL-76051] 07 p0129 N75-21800
- Advanced concepts in fusion-fission hybrid reactors [UCRL-75835] 07 p0131 N75-22113
- NUCLEAR RESEARCH**
- Fusion power research - Where do we stand 05 p0013 A75-12995
- Fusion power by magnetic confinement - Plans and the associated need for nuclear engineers 08 p0170 A75-41433
- Advanced nuclear research [GPO-41-253] 05 p0026 N75-10764

OCCLUSION

- Arterial gas occlusions in operating heat pipes [AIAA PAPER 75-657] 07 p0114 A75-32915

OCEAN CURRENTS

- Power from ocean waves [ASME PAPER 74-WA/PWR-5] 05 p0018 A75-16879
- Gulf stream based ocean thermal power plants [AIAA PAPER 75-643] 06 p0063 A75-28603
- The utilization of ocean energy for electrical energy generation 08 p0168 A75-40181

OCEAN DATA ACQUISITIONS SYSTEMS

- Energy sources for ocean technology --- for unmanned surface stations and manned underwater stations 07 p0114 A75-33118

OCEAN SURFACE

- Ocean thermal power and windpower systems - Natural solar energy conversion for near-term impact on world energy markets 06 p0060 A75-27790
- Characteristics of a rocking wave power device --- for waterwave energy conversion 06 p0062 A75-28450
- Systems aspects of ocean thermal energy conversion [AIAA PAPER 75-615] 06 p0062 A75-28593
- Site limitations on Solar Sea Power Plants [AIAA PAPER 75-618] 06 p0062 A75-28594
- Ocean thermal gradient hydraulic power plant 07 p0124 A75-37849
- Foam solar sea power plant 07 p0124 A75-37850
- Energy exchange at the surface of the western North Atlantic Ocean [AD-A007296] 07 p0146 N75-24285
- OCEANOGRAPHY**
- A preliminary technology assessment of ocean thermal gradient energy generation [PB-238646/4] 07 p0144 N75-24147

OCEANS

- Solar sea thermal energy [GPO-37-476] 05 p0030 N75-12430
- An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant --- hydrodynamics/sea water-energy policy [PB-242569/2] 08 p0213 N75-33508

OCTANES

- Benthal decomposition of adsorbed octadecane --- impact of oil pollution, deoxygenation of waterways 06 p0106 N75-20891

OFFSHORE ENERGY SOURCES

- Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
- An overview of solar energy applications 08 p0166 A75-39196
- High intensity wind belts as massive energy sources 08 p0172 A75-42532
- Sea thermal power as a hydrogen and methanol generator 08 p0175 A75-44763
- Ocean based solar-to-hydrogen energy conversion macro system 08 p0175 A75-44764
- Offshore investigation: Productible shut-in leases, January 1974, phase 1 --- potentially productive oil and gas wells 05 p0027 N75-11457
- Offshore investigation: Productible shut-in leases as of January 1974, phase 2 --- an estimation of natural gas reserves in offshore wells 05 p0027 N75-11458
- Offshore investigation: Productible shut-in leases as of January 1974 (second phase) [PB-234490/1] 05 p0040 N75-15174
- California energy workshop: Developing a plan of action to meet the energy crisis in California --- oil recovery, nuclear electric power generation, and offshore energy sources [PB-237045/0] 06 p0082 N75-17822
- OCS oil and gas: An environmental assessment, volume 3 --- effect of natural phenomena on OCS gas and oil development 06 p0083 N75-17836
- OCS oil and gas: An environmental assessment, Volume 1 06 p0083 N75-17837
- OCS oil and gas: An environmental assessment, volume 4 06 p0084 N75-17839
- OCS oil and gas: An environmental assessment, volume 5 06 p0084 N75-17840
- Relationships between bidding and hydrocarbon production of the Federal Outer Continental Shelf (through 1970) --- offshore energy sources [PB-238188/7] 07 p0127 N75-21788
- Oil and gas development and coastal zone management [GPO-37-347] 08 p0206 N75-31556
- The OCS (Outer Continental Shelf) petroleum pie [COM-75-10599/9] 08 p0206 N75-31562
- Outer continental shelf oil and gas development and the coastal zone [GPO-39-356] 08 p0209 N75-31959
- OFFSHORE PLATFORMS**
- Solar Sea Power Plants (SSPP): A critical review and survey [NASA-TM-X-70783] 05 p0028 N75-11459
- Seaward extension of urban systems: The feasibility of offshore coal-fired electrical power generation [COM-75-10592/4] 08 p0208 N75-31579
- OHIO**
- Determine utility of ERTS-1 to detect and monitor area strip mining and reclamation --- southeastern Ohio [E75-10327] 07 p0158 N75-27515
- OHMIC DISSIPATION**
- Silicon solar cells for highly concentrated sunlight 07 p0120 A75-36363
- OIL ADDITIVES**
- Dry oil [BLL-M-23508-(5828.4P)] 06 p0074 N75-16969
- OIL EXPLORATION**
- Oil exploration needs for digital processing of imagery 05 p0001 A75-10437
- Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications 06 p0050 A75-23790

- Further development of scientific research in the field of geology and of the survey and exploration of petroleum and gas [JPRS-63414] 05 p0027 N75-11410
- Exploration for fossil and nuclear fuels from orbital altitudes --- results of ERTS program for oil exploration [NASA-TM-X-70781] 05 p0027 N75-11413
- Offshore investigation: Producing shut-in leases, January 1974, phase 1 --- potentially productive oil and gas wells 05 p0027 N75-11457
- Bureau of Mines energy program, 1973 --- discovery and production of oil, gas, and fluid fuels [PB-234682/3] 05 p0040 N75-15172
- Offshore investigation: Producing shut-in leases as of January 1974 (second phase) [PB-234490/1] 05 p0040 N75-15174
- Development of oil and gas on the Continental Shelf [GPO-31-891] 06 p0075 N75-16973
- OCS oil and gas: An environmental assessment, volume 3 --- effect of natural phenomena on OCS gas and oil development 06 p0083 N75-17836
- OCS oil and gas: An environmental assessment, Volume 2 06 p0084 N75-17838
- OCS oil and gas: An environmental assessment, volume 4 06 p0084 N75-17839
- OCS oil and gas: An environmental assessment, volume 5 06 p0084 N75-17840
- Stratigraphy, sedimentology and oil and gas geology of the Lower Cretaceous in central Alberta 07 p0137 N75-22961
- Pulsed nuclear magnetic resonance shales--estimation of potential oil yields [PB-240023/2] 07 p0148 N75-25283
- The OCS (Outer Continental Shelf) petroleum pie [COM-75-10599/9] 08 p0206 N75-31562
- OIL FIELDS**
- Solvent stimulation tests in two California oilfields [PB-237849/5] 06 p0090 N75-18761
- OIL RECOVERY**
- Prototype oil shale leasing program [GPO-28-686] 05 p0039 N75-15160
- Char oil energy development [PB-234018/0] 05 p0040 N75-15173
- Basic research needs for tertiary oil recovery: Proceedings of a National Science Foundation Workshop [PB-236726/6] 06 p0066 N75-16072
- Average oil yield tables for oil shale sequences in cores from the Uinta Basin, Utah, that average 15, 20, 25, 30, 35, and 40 gallons per ton [PB-236068/3] 06 p0072 N75-16124
- Dry oil [BLL-M-23508-(5828.4F)] 06 p0074 N75-16969
- California energy workshop: Developing a plan of action to meet the energy crisis in California --- oil recovery, nuclear electric power generation, and offshore energy sources [PB-237045/0] 06 p0082 N75-17822
- OCS oil and gas: An environmental assessment, Volume 1 06 p0083 N75-17837
- Pollutional problems and research needs for an oil shale industry [PB-236608/6] 06 p0084 N75-17848
- Profitability analysis of producing crude oil by waterflooding using a simulation technique [PB-237843/8] 06 p0088 N75-18738
- Solvent stimulation tests in two California oilfields [PB-237849/5] 06 p0090 N75-18761
- Evaluation of thermal methods for recovery of viscous oils in Missouri and Kansas [PB-237831/3] 06 p0090 N75-18762
- In situ oil shale conversion and recovery [SLA-74-0162] 06 p0093 N75-19825
- Methodical approach to temperature and pressure measurements for in situ energy-recovery processes [UCID-16631] 06 p0097 N75-20693
- Production of oil from fractured reservoirs by water displacement 07 p0127 N75-21716
- Oil displacement by different surfactant and polymer waterflood systems 07 p0134 N75-22858
- At-sea testing of a high seas oil recovery system [AD-A006938] 07 p0136 N75-22953
- Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment --- air pollution monitoring [NASA-CR-142823] 07 p0141 N75-24121
- Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Nansemond River site --- a proposed oil refinery site [NASA-CR-142821] 07 p0141 N75-24122
- Shale retorting in a 150-ton batch-type pilot plant [PB-240263/4] 07 p0151 N75-25328
- Atlantic outer continental shelf energy resources: An economic analysis [COM-75-10330/9] 07 p0152 N75-26484
- NER: Ultimate recovery vs rate. A reservoir simulation study. Volume 1 --- oil and gas production [PB-239767/7] 07 p0157 N75-26526
- NER: Ultimate recovery vs rate. A reservoir simulation study. Volume 2: Appendices --- oil and gas production [PB-239768/5] 07 p0157 N75-26527
- The benefits/costs of tertiary oil recovery [PB-240463/0] 08 p0201 N75-28552
- Oil and gas development and coastal zone management [GPO-37-347] 08 p0206 N75-31556
- Outer continental shelf oil and gas development and the coastal zone [GPO-39-356] 08 p0209 N75-31959
- OIL SLICKS**
- At-sea testing of a high seas oil recovery system [AD-A006938] 07 p0136 N75-22953
- OILS**
- Impact of motor gasoline lead additive regulations on petroleum refineries and energy resources, 1974-1980, phase 1 [PB-234185/7] 05 p0025 N75-10601
- Synthetic oil from coal [PB-234460/4] 05 p0040 N75-15176
- Collection and concentration of solar energy using Fresnel type lenses [NASA-CR-142194] 06 p0080 N75-17784
- Submarine tanker concepts and problems [COM-75-10009/9] 07 p0132 N75-22264
- World oil developments and US oil import policies [GPO-22-893] 07 p0148 N75-25294
- Oil and US policy [AD-A006473] 08 p0203 N75-29558
- OKLAHOMA**
- Application study of a nuclear coal solution gasification process for Oklahoma coal, volume 1 [PB-236156/6] 05 p0037 N75-14279
- Evaluation of the suitability of Skylab data for the purpose of petroleum exploration [E75-10257] 07 p0147 N75-25237
- ONBOARD EQUIPMENT**
- Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket [AIAA PAPER 75-729] 07 p0113 N75-32872
- OPERATING TEMPERATURE**
- Heat pipe applications development in Europe 08 p0195 N75-46043
- OPERATIONAL PROBLEMS**
- Main problems met in the study of cryogenic generators 06 p0061 N75-27962
- Operational experience - Solar heating a Boston school 08 p0184 N75-45923
- Conference proceedings, Steam Power Plant Workshop [PB-239514/3] 07 p0144 N75-24148
- OPTICAL DATA PROCESSING**
- Oil exploration needs for digital processing of imagery 05 p0001 N75-10437
- OPTICAL EQUIPMENT**
- Optical interfaces in solar energy utilization 07 p0123 N75-37331

OPTICAL FILTERS

Collection and concentration of solar energy using
Fresnel type lenses
[NASA-CR-142194] 06 p0080 N75-17784

OPTICAL PROPERTIES

Optical coatings for collection and conservation
of solar energy 08 p0181 A75-45512

Research on cadmium stannate selective optical
films for solar energy applications
[PB-236208/5] 06 p0071 N75-16117

OPTICAL REFLECTION

The COMSAT non-reflective silicon solar cell - A
second generation improved cell 06 p0053 A75-24245

Use of flexible reflective surfaces for solar
energy concentration 06 p0056 A75-25678

Stationary concentrating reflector cum tracking
absorber solar energy collector - Optical design
characteristics 07 p0120 A75-36307

OPTICAL TRACKING

Stationary concentrating reflector cum tracking
absorber solar energy collector - Optical design
characteristics 07 p0120 A75-36307

OPTIMAL CONTROL

Powerplant energy management --- transport
aircraft engine thrust control
[AIAA PAPER 74-1066] 05 p0001 A75-10259

Extended energy management methods for flight
performance optimization
[AIAA PAPER 75-30] 05 p0021 A75-18269

Fundamentals of automatic control of space nuclear
power plants --- Russian book 06 p0048 A75-23229

OPTIMIZATION

The Energy Systems Optimization Computer Program
/ESOP/ developed for Modular Integrated Utility
Systems /MIUS/ analysis 05 p0006 A75-10551

Optimization of parameters of permeable
thermoelectric generators 07 p0110 A75-30487

Optimal solar energy collector system
07 p0115 A75-33970

On the optimum tilt of a solar collector
07 p0115 A75-33971

Optimization of the operating conditions of a
combined generator-cooler thermoelement
07 p0121 A75-37155

Optimization of fusion power density in the
two-energy-component tokamak reactor
07 p0124 A75-37836

Wind power system optimization
08 p0193 A75-46026

ORBITAL ASSEMBLY

Overcoming two significant hurdles to space power
generation transportation and assembly
[AIAA PAPER 75-641] 06 p0063 A75-28601

ORGANIC COMPOUNDS

Biological conversion of organic refuse to methane
[PB-235468/6] 05 p0041 N75-15183

ORGANIC LIQUIDS

Technology considerations for Organic Rankine
Cycle Electric Power Systems 05 p0002 A75-10484

ORGANIC MATERIALS

Two-stage methane production from solid wastes
[ASHE PAPER 74-WA/SHER-11] 05 p0017 A75-16842

ORGANIC SEMICONDUCTORS

Analysis of conversion efficiency of
organic-semiconductor solar cells 05 p0010 A75-11146

ORGANIC SULFUR COMPOUNDS

Chemistry of organic sulfur compounds contained in
petroleum and petroleum products, Volume 7
[TT-70-57759] 07 p0138 N75-23691

ORGANIC WASTES (FUEL CONVERSION)

An overview of solar energy applications
08 p0166 A75-39196

Fuel as an agricultural crop
08 p0172 A75-42533

Production of gaseous fuel by pyrolysis of
municipal solid waste
[NASA-CR-141791] 07 p0140 N75-24105

OSCILLATING FLOW

Study of an electrofluidic generator
08 p0189 A75-45978

OXIDATION

Electrically rechargeable redox flow cells
05 p0008 A75-10573

Surface electronic properties and the search for
new hydrogen oxidation catalysts
08 p0178 A75-44795

Redox thermogalvanic cells for direct energy
conversion
08 p0191 A75-45999

Development of a soluble reactants and products
secondary battery
07 p0127 N75-21790

The oxidation of ethylene in automotive engine
exhaust gas; an experimental investigation
07 p0138 N75-23719

OXIDE FILMS

Transparent heat-mirror films of TiO₂/Ag/TiO₂ for
solar energy collection and radiation insulation
05 p0015 A75-16378

A 15% efficient antireflection-coated
metal-oxide-semiconductor solar cell
07 p0119 A75-36275

OXYGEN

Considerations on iron-chloride-oxygen reactions
in relation to thermochemical water-splitting
08 p0177 A75-44779

P

P-N JUNCTIONS

GaP p-n junctions and possibilities for their
application in the conversion of solar energy
into electric
05 p0011 A75-12198

II-VI photovoltaic heterojunctions for solar
energy conversion
05 p0012 A75-12734

Dynamic method for calculating the series
resistance of a semiconductor photoelectric
converter
06 p0057 A75-26713

High-efficiency graded band-gap
Al_xGa_{1-x}As-GaAs solar cell
06 p0058 A75-27519

The conversion efficiency of ideal Shockley p-n
junction photovoltaic converters in concentrated
sunlight
07 p0120 A75-36362

Dynamic calculation of semiconductor
photoconverter series resistance
07 p0122 A75-37164

Enhancement of Schottky solar cell efficiency
above its semiempirical limit
08 p0171 A75-42166

P-TYPE SEMICONDUCTORS

Advances in the theory and application of BSP cells
--- Back Surface Field solar cells
07 p0123 A75-37402

PACIFIC OCEAN

An evaluation of oceanographic and socioeconomic
aspects of a nearshore ocean thermal energy
conversion pilot plant in subtropical Hawaiian
waters
[PB-242167/5] 08 p0213 N75-33509

PARABOLIC BODIES

Design of a tubular heat collector for a solar
power installation with a parabolocylindric
concentrator
05 p0020 A75-17069

PARABOLIC REFLECTORS

Energy distribution in the concentration field of
a two-mirror device with a paraboloidal back
reflector
07 p0122 A75-37157

Comparative performance characteristics of
cylindrical parabolic focusing and flat plate
solar energy collectors
[CONF-741104-3] 06 p0103 N75-20872

PARABOLOID MIRRORS

Compact solar energy concentrator
05 p0021 A75-19050

Method of calibrating a solar power plant with a
paraboloidal mirror
07 p0116 A75-34315

PARALLELEPIPEDS

Fabricating paraboloidal high-temperature solar concentrators from mottified sectors
07 p0122 A75-37166

Application of heat pipes to solar collectors
08 p0195 A75-46045

Solar-thermal electric power generation using a system of distributed parabolic trough collectors [AICHE PAPER 12]
08 p0196 A75-47511

PARALLELEPIPEDS
Approximate analysis of the steady temperature field of a parallelepiped with a local energy source
07 p0112 A75-32212

PARTICULATE SAMPLING
The collaborative study of EPA methods, 5, 6, and 7 in fossil fuel-fired steam generators [PB-237695/2]
06 p0091 N75-18788

PASSENGER AIRCRAFT
Energy efficiency of current intercity passenger transportation modes [AIAA PAPER 75-314]
06 p0047 A75-22513

PAVEMENTS
Snow and ice removal from pavements using stored earth energy --- via heat pipes [PB-240623/9]
07 p0162 N75-27581

PELLETS
A review of thermal battery technology
05 p0007 A75-10557

Laser compression of matter - Optical power and energy requirements
06 p0046 A75-22352

Pellet type thermal battery [SAND-74-0007]
06 p0076 N75-16991

PERFORMANCE
Development of a soluble reactants and products secondary battery
07 p0127 N75-21790

PERFORMANCE PREDICTION
A 10% efficient economic RTG design --- radioisotope thermoelectric generator
05 p0003 A75-10506

Solar augmented home heating heat pump system
05 p0004 A75-10524

Development of a theoretical method for predicting the performance of hydrogen-oxygen MHD generators
05 p0009 A75-10578

Electrostatic voltage generation from flowing water
05 p0009 A75-10580

The analysis of the performance of a pancake absorber-heat exchanger for a solar concentrator [ASME PAPER 74-WA/SOL-1]
05 p0018 A75-16884

Thermal performance characteristics of heat pipes
06 p0046 A75-21465

Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator
07 p0109 A75-29478

Outdoor flat-plate collector performance prediction from solar simulator test data [AIAA PAPER 75-741]
07 p0113 A75-32862

Investigations of the factors affecting the performance of a rotating heat pipe
07 p0120 A75-36357

Evaluation of focusing solar energy collectors
08 p0168 A75-40300

The effect of atmospheric turbulence on windmill performance
08 p0174 A75-44756

Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator
08 p0197 A75-47804

A generalised analysis of the performance of a variety of drive systems for high Reynolds number, transonic wind tunnels [RAE-TR-73134]
06 p0073 N75-16572

Electronic model of the U-25 device
06 p0081 N75-17794

Solar collector performance evaluated outdoors at NASA-Lewis Research Center [NASA-TM-X-71689]
07 p0128 N75-21794

The effect of sunshine testing on terrestrial solar cell system components [NASA-TM-X-71722]
07 p0140 N75-24109

Solar collector performance studies [PB-239758/6]
07 p0156 N75-26520

Contribution to the improvement of the regulating process of ignition controlled engines [PUBL-165]
08 p0206 N75-31285

SUBJECT INDEX

PERFORMANCE TESTS

Performance testing of thermoelectric generators at JPL
05 p0002 A75-10503

Operational testing of the high performance thermoelectric generator /HPG-02/
05 p0003 A75-10505

Comparative performance characteristics of cylindrical parabolic and flat plate solar energy collectors [ASME PAPER 74-WA/ENER-3]
05 p0016 A75-16835

Performance of a laser mirror heat pipe [ASME PAPER 74-WA/HT-61]
05 p0018 A75-16869

Investigation of the technology and performance of lithium doped solar cells --- feasibility study for mass production
06 p0052 A75-24219

Performance of advanced silicon solar cells in a space environment
06 p0052 A75-24232

Solar collector performance evaluated outdoors at NASA-Lewis Research Center
06 p0058 A75-27531

Status of the NASA-Lewis flat-plate collector tests with a solar simulator
06 p0058 A75-27533

The International Heat Pipe Experiment --- ten experiments in zero gravity [AIAA PAPER 75-726]
07 p0113 A75-32870

Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket [AIAA PAPER 75-729]
07 p0113 A75-32872

Measurements of the performance of an electrohydrodynamic heat pipe [AIAA PAPER 75-659]
07 p0114 A75-32917

Field performance and operation of a flat-glass solar heat collector
07 p0115 A75-33973

Development of the KIVA-I MHD open cycle generator
07 p0124 A75-37686

Year round performance studies on a built-in storage type solar water heater at Jodhpur, India
08 p0167 A75-39406

Laboratory based activities in solar energy at the National Bureau of Standards
08 p0168 A75-40299

A technique for calibrating photometric curves obtained in solar concentrator tests
08 p0180 A75-45060

Research applied to solar thermal systems [PB-241089/2]
08 p0200 N75-28543

Solar collector performance evaluation with the NASA-Lewis solar simulator-results for an all-glass-evacuated-tubular selectively-coated collector with a diffuse reflector [NASA-TM-X-71695]
08 p0207 N75-31568

PERIODIC VARIATIONS
Experience in setting up solar-energy survey for Azerbaïdzhân
05 p0020 A75-17081

PERMEABILITY
Capillary flow through heat-pipe wicks [AIAA PAPER 75-661]
07 p0114 A75-32919

Fracture-induced permeability: Present situation and prospects for coal [UCID-16593]
06 p0094 N75-19830

PERTURBATION THEORY
Extended energy management methods for flight performance optimization [AIAA PAPER 75-30]
05 p0021 A75-18269

PETROGRAPHY
Evaluation of the suitability of Skylab data for the purpose of petroleum exploration [E75-10257]
07 p0147 N75-25237

PETROLOGY
Coal petrography and petrology. A bibliography 1964 - 1973 [PB-236351/3]
06 p0072 N75-16123

The influence of the petrology of the Karagandî coal on their methane contents [BLL-RTS-9309]
07 p0158 N75-27511

PHASE TRANSFORMATIONS
Thermodynamic considerations of 'solid state engines' based on thermoelastic martensitic transformations and the shape memory effect
06 p0045 A75-19631

Thermal energy storage --- solar storage materials performance
08 p0185 A75-45932

SUBJECT INDEX

PHOTOVOLTAIC CELLS

- PHOSPHORIC ACID**
Phosphoric acid fuel cell stack development
08 p0186 A75-45943
- PHOTOCHEMICAL REACTIONS**
Photogalvanic cells
08 p0167 A75-39403
Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy
08 p0190 A75-45994
Photochemical conversion of solar energy [PB-236266/3]
05 p0037 N75-14281
Photochemical conversion of solar energy --- study of iron-thionine photogalvanic cells [PB-235474/4]
05 p0038 N75-14282
Photochemical conversion of solar energy [PB-235503/0]
06 p0070 N75-16106
Photochemical conversion of solar energy [PB-238533/4]
07 p0143 N75-24132
- PHOTODISSOCIATION**
Solar energy conversion by water photodissociation
08 p0173 A75-43510
- PHOTOELECTRIC CELLS**
Temperature sensor for photoelectric energy converters
06 p0057 A75-26712
Dynamic method for calculating the series resistance of a semiconductor photoelectric converter
06 p0057 A75-26713
Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels
07 p0122 A75-37162
Photoelectric energy converter temperature sensor
07 p0122 A75-37163
Dynamic calculation of semiconductor photoconverter series resistance
07 p0122 A75-37164
Full-scale testing of high-voltage photocells of photovolt type at elevated light flux levels
08 p0210 N75-32590
- PHOTOELECTRIC GENERATORS**
Gap p-n junctions and possibilities for their application in the conversion of solar energy into electric
05 p0011 A75-12198
Testing of a photoelectric generator in a mountainous region of the Azerbaïdzhan SSR
06 p0057 A75-26714
Dependence of the basic parameters of Al_x/Ga_{1-x}/As-GaAs solar converters on temperature and optical intensity
07 p0112 A75-32824
Investigation of the electrical and temperature characteristics of a silicon photoelectric converter under natural conditions
07 p0116 A75-34314
Investigation of photoelectric converter operation under conditions of strong illumination
07 p0119 A75-36015
Photoelectric generator testing in the Azerbaïdzhan SSR mountains
07 p0122 A75-37165
Operation of photoconverters under conditions of strong illumination
08 p0170 A75-41538
- PHOTOLUMINESCENCE**
Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications
06 p0050 A75-23790
- PHOTOLYSIS**
Photolysis of water as a solar energy conversion process - An assessment
08 p0176 A75-44766
- PHOTOGRAPHING**
Net radiation and other energy-related maps from remotely sensed imagery
07 p0121 A75-36811
- PHOTOMETRY**
A technique for calibrating photometric curves obtained in solar concentrator tests
08 p0180 A75-45060
- PHOTOPRODUCTION**
Photoproduction of hydrogen via microbial and biochemical processes
08 p0171 A75-42279
- The utilization of solar energy for hydrogen production by cell-free system of photosynthetic organisms
08 p0176 A75-44770
- PHOTOSYNTHESIS**
Prospects of photosynthetic energy production
06 p0060 A75-27792
Fuel production /biomass energy/ --- by fuel plantation development
07 p0111 A75-31275
Proceedings of the Workshop on Bio-Solar Conversion [PB-236142/6]
06 p0069 N75-16096
- PHOTOVOLTAGES**
Advances in the theory and application of BSF cells --- Back Surface Field solar cells
07 p0123 A75-37402
- PHOTOVOLTAIC CELLS**
NASA objectives for improved solar power plants
05 p0002 A75-10485
Status of JPL solar powered experiments for terrestrial applications
05 p0005 A75-10530
II-VI photovoltaic heterojunctions for solar energy conversion
05 p0012 A75-12734
Methods for low cost manufacture of silicon solar arrays
[ASME PAPER 74-WA/ENER-4]
05 p0016 A75-16836
Improvements in analysis and technology of silicon solar cells with increased efficiency
06 p0051 A75-24216
High efficiency silicon solar cells
06 p0052 A75-24217
CdS-Cu₂S cells - An outlook for terrestrial applications
06 p0052 A75-24223
Further progress in the technology of silk screened CdS solar cells
06 p0052 A75-24225
Process development for low cost integrated solar arrays
06 p0054 A75-24259
The Nitre solar energy demonstration system
06 p0055 A75-24676
Temperature dependence of the spectral characteristics of quick-response silicon photocells
07 p0119 A75-36013
Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels
07 p0122 A75-37162
The high intensity solar cell - Key to low cost photovoltaic power
07 p0123 A75-37400
Sunlight to electricity: Prospects for solar energy conversion by photovoltaics --- Book
08 p0170 A75-41608
An Al p-silicon MOS photovoltaic cell
08 p0173 A75-43459
Concentrated photovoltaic power generation systems
08 p0188 A75-45963
Solar photovoltaic energy [GPO-39-576]
05 p0032 N75-13379
Solar energy: Sandia's photovoltaic research program [SLA-74-281]
05 p0034 N75-13392
Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 1: Working group and panel reports [NASA-CR-138209]
06 p0069 N75-16097
Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers [NASA-CR-138193]
06 p0069 N75-16098
Photochemical conversion of solar energy [PB-235503/0]
06 p0070 N75-16106
Terrestrial photovoltaic power systems with sunlight concentration [PB-236180/6]
06 p0072 N75-16120
Photovoltaic conversion of solar energy for Terrestrial Applications. Volume 1: Working group and panel reports [PB-236163/2]
06 p0072 N75-16121
Integration of photovoltaic and solar thermal energy conversion systems [SAND-74-0093]
06 p0076 N75-16992
Report and recommendations of the Solar Energy Data Workshop [PB-238066/5]
06 p0089 N75-18757

PHOTOVOLTAIC CONVERSION

SUBJECT INDEX

Terrestrial photovoltaic power systems with
sunlight concentration [PB-238582/1] 06 p0105 N75-20886

Photovoltaic cell array [NASA-CASE-MPS-22458-1] 07 p0134 N75-22900

Photovoltaic solar power systems 07 p0139 N75-24098

Space satellite power system --- conversion of
solar energy by photovoltaic solar cell arrays
[NASA-CR-142799] 07 p0139 N75-24099

The high intensity solar cell: Key to low cost
photovoltaic power [NASA-TM-X-71718] 07 p0140 N75-24108

Photochemical conversion of solar energy
[PB-238533/4] 07 p0143 N75-24132

Terrestrial photovoltaic power systems with
sunlight concentration [PB-238506/0] 07 p0143 N75-24136

Direct solar energy conversion for large scale
terrestrial use [PB-241007/4] 08 p0201 N75-28545

PHOTOVOLTAIC CONVERSION

Photovoltaic power generation; Proceedings of the
International Conference, Hamburg, West Germany,
September 25-27, 1974 06 p0051 A75-24213

Report on photovoltaics research and technology in
the United States 06 p0051 A75-24214

Historic development of photovoltaic power
generation 06 p0051 A75-24215

An analysis of photovoltaic power generation and
thermal control interfaces --- for solar arrays 06 p0053 A75-24243

Solar energy for earth: An AIAA assessment --- Book
07 p0110 A75-31267

Photovoltaic power --- solar energy for
terrestrial applications 07 p0111 A75-31271

Geosynchronous satellite solar power --- energy
transmission to earth 07 p0111 A75-31272

Solar energy - The physics of the greenhouse effect
07 p0120 A75-36306

The conversion efficiency of ideal Shockley p-n
junction photovoltaic converters in concentrated
sunlight 07 p0120 A75-36362

Effect of impurity doping concentration on solar
cell output 07 p0124 A75-37404

Solar energy powered systems - History and current
status 08 p0168 A75-40298

Outlook for Si photovoltaic devices for
terrestrial solar-energy utilization 08 p0181 A75-45509

Solar-energy materials preparation techniques 08 p0181 A75-45513

Photovoltaic conversion of solar energy for
terrestrial applications. Volume 2: Invited
papers [PB-236164/0] 06 p0072 N75-16122

Assessment of the technology required to develop
photovoltaic power system for large scale
national energy applications [NSF/RA/N-74-072] 06 p0080 N75-17785

Cylindrical erbium oxide radiator structures for
thermophotovoltaic generators [AD-A001525] 07 p0129 N75-21806

PILOT PLANTS

Pilot solar air-conditioning plant and results of
its use 07 p0111 A75-31512

Operational experience - Solar heating a Boston
school 08 p0184 A75-45923

Conceptual design and economics of an MHD pilot
plant 08 p0189 A75-45974

Demonstration plant, clean boiler fuels from coal.
Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127

Shale retorting in a 150-ton batch-type pilot plant
[PB-240263/4] 07 p0151 N75-25328

PIPE FLOW

Controlled heat pipes 05 p0012 A75-12912

PIPELINES

Evaluation of coal-gasification technology. Part
1: Pipeline-W quality gas [PB-234036/2] 05 p0034 N75-13396

Dry oil [BLL-M-23508-(5828.4F)] 06 p0074 N75-16969

Energy statistics. A supplement to the summary of
National Transportation Statistics [PB-236767/8] 07 p0130 N75-21817

PISTON ENGINES

The Stirling engine for vehicle propulsion 06 p0050 A75-23509

Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] 07 p0133 N75-22747

PITCHING MOMENTS

Unsteady aerodynamics of variable pitch vertical
axis windmill [AIAA PAPER 75-649] 06 p0063 A75-28604

PLANOTRONS

Analysis of technological development problems
posed by use of orbital systems for energy
conversion and transfer in and from space 08 p0199 N75-28517

PLANTS (BOTANY)

Bio-conversion of water hyacinths into methane -
gas, part 1 [NASA-TM-X-72725] 07 p0160 N75-27564

PLASMA CONDUCTIVITY

Calculation of the electrical conductivity of the
combustion products of the working medium in an
open-cycle MHD generator 07 p0112 A75-31568

Effect of inhomogeneity of conductivity on end
effect in a sectional MHD generator 07 p0119 A75-36233

PLASMA CONTROL

Fusion reactors as future energy sources 05 p0011 A75-11735

Current expectations for fusion power from
toroidal machines 05 p0014 A75-12996

Numerical simulation of direct energy conversion
--- from fusion reactions 06 p0045 A75-19660

The outlook for fusion energy sources - Remaining
technological hurdles 06 p0059 A75-27782

Optimization of fusion power density in the
two-energy-component tokamak reactor 07 p0124 A75-37836

Fusion power by magnetic confinement - Plans and
the associated need for nuclear engineers 08 p0170 A75-41433

Plasma physics and controlled nuclear fusion
research 1974; Proceedings of the Fifth
International Conference, Tokyo, Japan, November
11-15, 1974. Volumes 1 & 2 08 p0174 A75-44736

Outlook for fusion energy sources: Remaining
technological hurdles [UCRL-75418] 05 p0029 N75-11745

PLASMA DYNAMICS

Fluctuations of electric power in MHD channels 07 p0110 A75-30949

PLASMA ELECTRODES

Empirical method of designing the current-voltage
characteristics for the discharge mode of a
theraionic converter 06 p0057 A75-26332

Concerning the use of a nitrogen-potassium gaseous
mixture for protection of MHD-generator
electrodes by suction 07 p0112 A75-31569

PLASMA GENERATORS

An electron beam initiated fusion neutron generator 06 p0045 A75-19657

PLASMA HEATING

The outlook for fusion energy sources - Remaining
technological hurdles 06 p0059 A75-27782

Plasma heating methods --- for controlled fusion 07 p0119 A75-35920

Electronbeam heating for fusion 07 p0120 A75-36295

PLASMA PHYSICS

Energy characteristics of coaxial plasma source
[AD-787419] 06 p0073 N75-16368

- PLASMA POTENTIALS**
Physics and potentials of fissioning plasmas for space power and propulsion [IAF PAPER 74-087] 05 p0015 A75-13719
- PLASMA PROPULSION**
Physics and potentials of fissioning plasmas for space power and propulsion [IAF PAPER 74-087] 05 p0015 A75-13719
Thrust vector control by magnetic field --- of MHD-generator rocket engine [IAF PAPER 75-027] 08 p0183 A75-45822
- PLASMA-PARTICLE INTERACTIONS**
Electronbeam heating for fusion 07 p0120 A75-36295
- PLASMAS (PHYSICS)**
Direct conversion of plasma energy to electricity for mirror fusion reactors [UCRL-76051] 07 p0129 N75-21800
- PLASTIC MEMORY**
Thermodynamic considerations of 'solid state engines' based on thermoelastic martensitic transformations and the shape memory effect 06 p0045 A75-19631
- PLASTICS**
Problems of the future and potentialities of system engineering --- metallic materials, plastics, traffic and energy supplies [ESRO-TT-110] 06 p0107 N75-21218
- PLUGGING**
Liquid plugging in in situ coal gasification processes [UCRL-51686] 07 p0127 N75-21480
- PLUTONIUM ISOTOPES**
Two-watt radioisotope power generators for underwater applications 05 p0007 A75-10556
- PLUTONIUM 238**
A modular heat source for curium-244 and plutonium-238 05 p0002 A75-10497
- PNEUMATIC EQUIPMENT**
Wind capture and diversion through pneumatic energy recovery with large capacity aerogenerators 08 p0175 A75-44762
- POLICIES**
The role for Federal R and D on alternative automotive power systems [PB-238771/0] 07 p0137 N75-23391
Mineral resources and the environment. Appendix to section 1: Report of panel on materials conservation through technology [PB-239580/4] 07 p0153 N75-26487
- POLITICS**
The energy crises 08 p0179 A75-44810
Oil for the free world in the 1970's --- demand and supply [AD-779352] 05 p0031 N75-12448
The USA: The scientific and technical revolution and trends in foreign policy [NASA-TT-P-16102] 06 p0096 N75-20160
Materials and the new dimensions of conflict, revised version [AD-A004263] 07 p0154 N75-26499
- POLLUTION CONTROL**
Energy, hydrogen, and pollution --- energy technology 06 p0046 A75-22041
A non-polluting powerplant for large airships [AIAA PAPER 75-927] 07 p0121 A75-37005
The EPA-Van - A clean energy system for the home --- mobile test station for nonpolluting systems 08 p0186 A75-45946
Pollution-free electrochemical power generation from low grade coal [PB-236162/4] 06 p0070 N75-16109
Reduction of atmospheric pollution by the application of fluidized-bed combustion [PB-235840/6] 06 p0072 N75-16151
Development of high specific energy batteries for electric vehicles [ANL-8058] 06 p0076 N75-16990
Energy conversion from coal utilizing CPU-400 technology [PB-237028/6] 06 p0083 N75-17828
Background information for standards of performance: Coal preparation plants. Volume 2: Summary and test data [PB-237696/0] 06 p0091 N75-18797
- Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process [PB-237113/6] 06 p0095 N75-19879
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: Lurgi process [PB-237694/5] 06 p0096 N75-19880
Economic-environmental power dispatch 07 p0128 N75-21791
At-sea testing of a high seas oil recovery system [AD-A006938] 07 p0136 N75-22953
Characterization of sulfur recovery from refinery fuel gas [PB-239777/6] 07 p0151 N75-25326
Assessment of the potential of clean fuels and energy technology [PB-239970/7] 07 p0162 N75-27583
Air pollution: Conference on Low Pollution Power Systems Development [PB-240564/5] 07 p0162 N75-27618
Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines --- air pollution control [PB-240776/5] 07 p0162 N75-27619
Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COED process [PB-240371/5] 07 p0162 N75-27626
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process [PB-241141/1] 08 p0204 N75-29596
Report to Congress on control of sulfur oxides [PB-241021/5] 08 p0204 N75-29597
Financial incentives and pollution control: A case study [PB-241479/5] 08 p0208 N75-31610
Evaluation of pollution control in fossil fuel conversion processes. Liquefaction: Section 2. SRC process [PB-241792/1] 08 p0212 N75-32627
- POLLUTION MONITORING**
Meteorological factors and dispersion of pollutants in the atmosphere - A preliminary study about a large power plant 06 p0045 A75-21150
Trace elements by instrumental neutron activation analysis for pollution monitoring 08 p0166 A75-39335
Inspection and maintenance of light-duty gasoline powered motor vehicles: A guide for implementation --- emissions inspection program [PB-236587/2] 06 p0090 N75-18784
Field surveillance and enforcement guide for petroleum refineries [PB-236669/8] 06 p0090 N75-18786
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment --- air pollution monitoring [NASA-CR-142823] 07 p0141 N75-24121
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Mansemond River site --- a proposed oil refinery site [NASA-CR-142821] 07 p0141 N75-24122
Marine pollution monitoring (petroleum): Proceedings of a Symposium and Workshop held at the National Bureau of Standards [COM-75-50071/0] 07 p0146 N75-24183
- POLYCRYSTALS**
Polycrystalline silicon layers for solar cells 08 p0165 A75-38958
- POLYMER PHYSICS**
Solid polymer electrolysis fuel cell status report 08 p0186 A75-45942
- POLYMERIC FILMS**
The effect of sunshine testing on terrestrial solar cell system components 07 p0123 A75-37396
- POLYMERS**
Oil displacement by different surfactant and polymer waterflood systems 07 p0134 N75-22858

POLYPHENYL ETHER

- On the potentialities of polyphenylene oxide (PPO) as a wet-insulation material for cargo tanks of LNG-carriers [REPT-194-M] 05 p0035 N75-14002
- PONDS**
An analytical and experimental investigation of a laboratory solar pond model [ASME PAPER 74-WA/SOL-3] 05 p0019 A75-16886
Industrial process heat from solar energy --- energy storage in water pond 08 p0190 A75-45992
- Solar pond [NASA-CASE-NPO-13581-1] 07 p0160 N75-27560
- POROUS MATERIALS**
Capillary flow through heat-pipe wicks [AIAA PAPER 75-661] 07 p0114 A75-32919
Porous matrix structures for alkaline electrolyte fuel cells 07 p0123 A75-37243
Electrochemical power sources --- heat and mass transfer in porous media [AD-A001610] 06 p0094 N75-19836
- POROUS PLATES**
Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines --- air pollution control [PB-240776/5] 07 p0162 N75-27619
- PORTABLE EQUIPMENT**
Manportable thermoelectric generator [AD-A002042] 06 p0095 N75-19847
- POTASSIUM**
A potassium topping cycle for public utility power plants [AIAA PAPER 75-1235] 08 p0181 A75-45647
Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle [ORNL-NSF-EP-30] 06 p0090 N75-18769
- POWDER (PARTICLES)**
Solar selective surfaces made of semiconducting powders [ASME PAPER 74-WA/HT-13] 05 p0017 A75-16857
- POWER CONDITIONING**
Power conversion of energy fluctuations 05 p0011 A75-11497
- POWER EFFICIENCY**
Potential of Rankine engines to produce power from waste heat streams 05 p0006 A75-10547
Thermodynamics of multistage air-cooled gas turbine 06 p0050 A75-23817
An analysis of photovoltaic power generation and thermal control interfaces --- for solar arrays 06 p0053 A75-24243
Development of a flexible, fold-out solar array --- power to weight ratio for communication satellites 06 p0053 A75-24252
Power generation and efficiency in GaAs traveling-wave amplifiers 07 p0110 A75-30750
Optimization of fusion power density in the two-energy-component tokamak reactor 07 p0124 A75-37836
Lasers for fusion 08 p0166 A75-39333
Remote platform power conserving system [NASA-CASE-GSC-11182-1] 05 p0032 N75-13007
Effect of gas turbine efficiency and fuel cost on cost of producing electric power [PB-234159/2] 05 p0034 N75-13397
- POWER GAIN**
Power generation and efficiency in GaAs traveling-wave amplifiers 07 p0110 A75-30750
- POWER PLANTS**
Evaluation of central solar tower power plant 05 p0003 A75-10515
Closed loop chemical systems for energy transmission, conversion and storage 05 p0005 A75-10538
Conceptual design of a series of laser-fusion power plants of 100 to 3000 MW/e/ 05 p0007 A75-10562
Concepts for central solar electric power generation 05 p0021 A75-17504
- An econometric analysis of fuel selection for power generation 06 p0055 A75-24751
Site limitations on Solar Sea Power Plants [AIAA PAPER 75-618] 06 p0062 A75-28594
Thermal power plants --- German book 06 p0064 A75-28962
Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617] 06 p0064 A75-29116
Ground based solar energy technology advances 08 p0190 A75-45984
Solar thermal subsystem specification study [PB-238005/3] 06 p0083 N75-17829
Variations in heat exchanger design for ocean thermal difference power plants [PB-238572/2] 07 p0143 N75-24134
Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process [PB-239374/2] 07 p0150 N75-25317
Ocean thermal difference power plant turbine design [PB-239371/8] 07 p0150 N75-25318
An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant --- hydrodynamics/sea water-energy policy [PB-242569/2] 08 p0213 N75-33508
- POWER SUPPLIES**
Thermodynamic analysis of a solar energy system with a closed-cycle gas-turbine converter 06 p0049 A75-23402
Multimegawatt fuel cell power system 07 p0124 A75-37656
Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record 08 p0183 A75-45920
NSF-Rann energy abstracts: A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-1] 05 p0024 N75-10592
- POWER SUPPLY CIRCUITS**
Terrestrial applications of FEP-encapsulated solar cell modules --- power systems using Fluorinated Ethylene Propylene encapsulation 06 p0054 A75-24258
- POWER TRANSMISSION**
Lasers investigated for space propulsion 06 p0061 A75-28439
Derivation of a total satellite energy system --- solar power station for terrestrial consumption [AIAA PAPER 75-640] 06 p0064 A75-29118
Laser energy conversion 07 p0125 A75-38474
Technology survey of electrical power generation and distribution for MIUS application [NASA-TN-X-58127] 08 p0207 N75-31573
- PREDICTION ANALYSIS TECHNIQUES**
MEGASTAR: The Meaning of Energy Growth: An Assessment of Systems, Technologies, and Requirements [NASA-CR-120355] 05 p0023 N75-10584
- PRESSURE CHAMBERS**
Prospects for utilization of underwater houses and chambers in development of marine oil deposits 05 p0029 N75-11606
- PRESSURE MEASUREMENTS**
Methodical approach to temperature and pressure measurements for in situ energy-recovery processes [UCID-16631] 06 p0097 N75-20693
- PRESSURE VESSELS**
Low thermal flux glass-fiber/metal vessels for LH2 storage systems 08 p0177 A75-44783
Procedure for preparation for shipment of natural gas storage vessel [NASA-CR-141455] 05 p0036 N75-14135
Survey of hydrogen compatibility problems in energy storage and energy transmission applications [SAND-74-8219] 06 p0087 N75-18726
- PRIMARY BATTERIES**
Non-hazardous primary lithium-organic electrolyte battery BA-5590 ()/0 [AD-A003312] 07 p0129 N75-21804

- PROBABILITY THEORY**
Statistical estimation of wildcat well outcome probabilities by visual analysis of structure contour maps of Stafford County, Kansas
06 p0092 N75-19778
- PROCEEDINGS**
Proceedings of the 2nd Annual Illinois Energy Conference
[PB-240548/8] 07 p0161 N75-27575
- PRODUCT DEVELOPMENT**
Heat pipe manufacturing study
[NASA-CR-139140] 05 p0023 N75-10347
Development of advanced fuel cell system, phase 2
[NASA-CR-134721] 06 p0067 N75-16084
Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843
Methyl alcohol production by in situ coal gasification
[UCID-51600] 07 p0128 N75-21797
- PRODUCTION ENGINEERING**
Investigation of the technology and performance of lithium doped solar cells --- feasibility study for mass production
06 p0052 A75-24219
On methods for the large-scale production of hydrogen from water
08 p0176 A75-44773
Heat pipe manufacturing study
[NASA-CR-139140] 05 p0023 N75-10347
Prospect for geothermal power
[LA-UR-74-1111] 06 p0086 N75-18723
Technical evaluation services, clean liquid and/or solid fuels from coal
[PB-237216/7] 07 p0129 N75-21803
Dependence of coal liquefaction behavior on coal characteristics
[PB-238522/7] 07 p0130 N75-21812
Insufficient utilization of scientific advances --- sociopolitical and economic management of technological development
07 p0137 N75-23365
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
MER: Ultimate recovery vs rate. A reservoir simulation study. Volume 1 --- oil and gas production
[PB-239767/7] 07 p0157 N75-26526
MER: Ultimate recovery vs rate. A reservoir simulation study. Volume 2: Appendices --- oil and gas production
[PB-239768/5] 07 p0157 N75-26527
- PRODUCTION MANAGEMENT**
Coal in Alabama
[PB-236583/1] 06 p0088 N75-18736
- PROJECT PLANNING**
Combustion dynamics research for 'Project Independence'
[AIAA PAPER 74-1069] 05 p0001 A75-10262
Plans and status of the NASA-Lewis Research Center wind energy project
08 p0197 A75-47802
Program plan for environmental effects of energy
[PB-235115/3] 05 p0040 N75-15177
Research and technology operating plan summary: Fiscal year 1975 research and technology program --- space programs, energy technology, and aerospace sciences
[NASA-TM-X-70410] 06 p0096 N75-20155
Review of Project Independence Blueprint: Panel subcommittee reports on FEA-interagency task forces
[CON-75-10500/7] 08 p0203 N75-29553
The NASA-Lewis/ERDA solar heating and cooling technology program --- project planning/energy policy
[NASA-TM-X-71800] 08 p0210 N75-32592
Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects
[PB-241323/5] 08 p0211 N75-32601
- PROMETHIUM**
Advanced betavoltaic power sources
05 p0007 A75-10563
- PROPELLANT TRANSFER**
How spacecraft are fueled --- technology of fueling spacecraft for flight
[JPRS-63514] 05 p0027 N75-10983
- PROPULSION SYSTEM CONFIGURATIONS**
On the future of jet propulsion in subsonic transport aviation
06 p0058 A75-27777
Propulsion technology needs for advanced space transportation systems
[AIAA PAPER 75-1246] 08 p0182 A75-45656
Future long-range transports: Prospects for improved fuel efficiency
[NASA-TM-X-72659] 06 p0079 N75-17339
Propulsion units for high speed ships
[JPRS-64897] 07 p0148 N75-25295
- PROPULSION SYSTEM PERFORMANCE**
Floating vs flying - A propulsion energy comparison
06 p0056 A75-25987
Availability and propulsion --- fuel combustion energy calculations for turbojet
08 p0195 A75-46548
Engine development program for the APL remotely piloted vehicle
[AD-787507] 06 p0065 N75-15658
Preliminary study of advanced turbofans for low energy consumption
[NASA-TM-X-71663] 06 p0084 N75-18241
- PROPULSION EFFICIENCY**
Future long-range transports - Prospects for improved fuel efficiency
[AIAA PAPER 75-316] 06 p0047 A75-22514
Floating vs flying - A propulsion energy comparison
06 p0056 A75-25987
A non-polluting powerplant for large aircraft
[AIAA PAPER 75-927] 07 p0121 A75-37005
Availability and propulsion --- fuel combustion energy calculations for turbojet
08 p0195 A75-46548
The role of computers in future propulsion controls
07 p0137 N75-23582
- PROTECTIVE COATINGS**
Principles and applications of selective solar coatings
08 p0181 A75-45511
- PROTON IRRADIATION**
The effects of irradiation on high-efficiency silicon solar cells
06 p0051 A75-24199
Electron and proton irradiation of high-efficiency silicon solar cells
06 p0053 A75-24233
Ion-beam implosion of fusion targets
08 p0181 A75-45386
- PROTOTYPES**
A prototype solar powered, Rankine Cycle system providing residential air conditioning and electricity
05 p0004 A75-10523
Solar air conditioning systems using Rankine power cycles - Design and test results of prototype three ton unit
07 p0117 A75-34931
Space and energy conservation housing prototype unit development
[NASA-CR-143201] 07 p0160 N75-27567
- PUBLIC HEALTH**
Report of the Interagency Working Group on health and environmental effects of energy use
[PB-237937/8] 06 p0084 N75-17858
- PUBLIC RELATIONS**
The energy crisis and decision making in the family
[PB-238783/5] 06 p0106 N75-21028
- PULSE GENERATORS**
Chemical to electromagnetic energy conversion techniques --- explosive flux compression technology
[AD-783901] 05 p0026 N75-10609
- PULSED LASERS**
Laser compression of matter - Optical power and energy requirements
06 p0046 A75-22352
Lasers for fusion
08 p0166 A75-39333
- PUMPING**
Optimising pumped storage with tidal power in an estuary
[ASME PAPER 74-WA/PWR-7] 05 p0018 A75-16881
- PUMPS**
Some generalizations of sample water-supply calculations for solar-powered pumping plants
05 p0020 A75-17077

PYROELECTRICITY

SUBJECT INDEX

Solar powered pump
[NASA-CASE-NPO-13567-1] 07 p0133 N75-22746

PYROELECTRICITY
Dielectric power conversion 08 p0189 A75-45979

PYROLYSIS
Thermolysis of water for the generation of hydrogen
06 p0049 A75-23504
Hydrogen production from decomposition of water by
means of nuclear reactor heat 08 p0175 A75-44760
Thermochemical water cracking using solar heat
08 p0175 A75-44765
An analysis of hydrogen production via
closed-cycle schemes --- thermochemical
processings from water 08 p0176 A75-44771
Evaluation of multi-step thermochemical processes
for the production of hydrogen from water
08 p0177 A75-44778
Considerations on iron-chloride-oxygen reactions
in relation to thermochemical water-splitting
08 p0177 A75-44779
Thermochemical hydrogen production research at
Lawrence Livermore Laboratory 08 p0177 A75-44780
Analysis of thermochemical water-splitting cycles
--- energy efficiency evaluation 08 p0177 A75-44781
Parametric study for a pyrolytic system for
production of fuels from agricultural and
forestry wastes 08 p0187 A75-45950
High-efficiency electrochemical plant
08 p0189 A75-45977
Retorting indexes for oil-shale pyrolyses from
ethylene-ethane ratios of product gases
[PB-234050/3] 05 p0034 N75-13399
Pyrolysis system evaluation study
[NASA-CR-141664] 06 p0086 N75-18722
An economic analysis of oil shale operations
featuring gas combustion retorting
[PB-237851/1] 06 p0093 N75-19813
Production of gaseous fuel by pyrolysis of
municipal solid waste
[NASA-CR-141791] 07 p0140 N75-24105
Energy recovery from solid waste. Volume 2:
Technical report --- pyrolysis and biodegradation
[NASA-CR-2526] 07 p0148 N75-25292

PYROMETALLURGY
Bureau of Mines research 1973. Summary of
significant results in mining, metallurgy, and
energy
[PB-234733/4] 05 p0040 N75-15171

PYROTECHNICS
Energy conversion. 1: Non-propulsive aspects ---
fuels and pyrotechnics
[AD-A000077] 06 p0079 N75-17454

R

RADIANT FLUX DENSITY
Experience in setting up solar-energy survey for
Azerbaijdzhan 05 p0020 A75-17081
Method for calculating solar radiation for
semicylindrical collectors 06 p0057 A75-26718

RADIANT HEATING
Solar energy trap
[NASA-CASE-MFS-22744-1] 05 p0024 N75-10586

RADIATION ABSORPTION
Solar ponds for space heating --- energy storage
by convectionless shallow water 07 p0109 A75-29471

RADIATION DAMAGE
Investigation of the technology and performance of
lithium doped solar cells --- feasibility study
for mass production 06 p0052 A75-24219
Electron and proton irradiation of high-efficiency
silicon solar cells. 06 p0053 A75-24233

RADIATION EFFECTS
Radiation effects on high efficiency silicon-solar
cells 06 p0051 A75-24197

The effects of irradiation on high-efficiency
silicon solar cells 06 p0051 A75-24199

The effect of sunshine testing on terrestrial
solar cell system components 07 p0123 A75-37396

RADIATION HAZARDS
Soil burial of radioisotopic fuel capsules
06 p0046 A75-21274

RADIATION MEASUREMENT
Net radiation and other energy-related maps from
remotely sensed imagery 07 p0121 A75-36811

RADIATION SHIELDING
Optimisation of solar cell shielding for
geostationary missions 06 p0051 A75-24203

RADIATIVE HEAT TRANSFER
Study of channel-type systems for solar-energy
radiative heat transport 05 p0010 A75-11196
A study of channel systems for radiative
solar-heat transfer 06 p0049 A75-23408
Radiation cooling of structures with infrared
transparent wind screens 08 p0167 A75-39407
Thermodynamic analysis and parameter optimization
of a solar thermoelectric power unit with
radiation heat dissipation
[AD-A000211] 06 p0082 N75-17819

RADIOACTIVE ISOTOPIES
Efficient thermo-mechanical generation of
electricity from the heat of radioisotopes
08 p0192 A75-46013
SENSE 2: Space applications of nuclear power.
Volume 1: Commercial communications satellite
[AEC-SNS-3063-3-VOL-1] 06 p0065 N75-15742
Multi-hundred watt radioisotope thermoelectric
generator program, part 1 --- ground support
equipment and safety management
[GESP-7107-PT-1] 06 p0092 N75-19354
Multi-hundred watt radioisotope thermoelectric
generator program, part 2 --- ground support
equipment 06 p0092 N75-19355
Heat transfer design and proof tests of a
radioisotope thermoelectric generator
[AD-A002218] 06 p0092 N75-19608

RADIOACTIVE WASTES
Soil burial of radioisotopic fuel capsules
06 p0046 A75-21274
Nuclear system that burns its own wastes shows
promise
[NASA-NEWS-RELEASE-75-44] 06 p0085 N75-18716

RADIOISOTOPE BATTERIES
RTG technology development - Where we are/where we
are going --- radioisotope thermoelectric
generator 05 p0002 A75-10496
A modular heat source for curium-244 and
plutonium-238 05 p0002 A75-10497
A 10% efficient economic RTG design ---
radioisotope thermoelectric generator
05 p0003 A75-10506
Cost effective designing for the economic RTG ---
radioisotope thermoelectric generators
05 p0003 A75-10507
Light-weight radioisotope thermoelectric generator
design 05 p0003 A75-10508
Two-watt radioisotope power generators for
underwater applications 05 p0007 A75-10556
Advanced betavoltaic power sources
05 p0007 A75-10563
Soil burial of radioisotopic fuel capsules
06 p0046 A75-21274
RTG electrical power for spacecraft ---
Radioisotope Thermoelectric Generators
06 p0057 A75-26067
Low-power turbines using organic vapor
07 p0110 A75-30892
Nuclear heat source for cryogenic refrigerators in
space --- Pu-238 battery design 08 p0191 A75-46006
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832

RADIOLYSIS

Aqueous homogeneous reactor for hydrogen production
08 p0175 A75-44761

RAIL TRANSPORTATION

Energy efficiency of current intercity passenger
transportation modes
[AIAA PAPER 75-314] 06 p0047 A75-22513
Transportation vehicle energy intensities. A
joint DOT/NASA reference paper --- energy
consumption of air and ground vehicles
[NASA-TN-X-62404] 05 p0035 A75-13690
Industrial energy studies of ground freight
transportation, volume 1
[PB-236016/2] 06 p0069 A75-16099
Industrial energy studies of ground freight
transportation. Volume 2: Appendices
[PB-236017/0] 06 p0069 A75-16100
Energy intensity of barge and rail freight hauling
[PB-240012/5] 08 p0202 A75-29269

RANKINE CYCLE

Technology considerations for Organic Rankine
Cycle Electric Power Systems 05 p0002 A75-10484
A prototype solar powered, Rankine Cycle system
providing residential air conditioning and
electricity 05 p0004 A75-10523

Potential of Rankine engines to produce power from
waste heat streams 05 p0006 A75-10547

Assessment of Rankine cycle for potential
application to solar-powered cooling of buildings
[ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890

Solar air conditioning systems using Rankine power
cycles - Design and test results of prototype
three ton unit 07 p0117 A75-34931

A non-polluting powerplant for large airships
[AIAA PAPER 75-927] 07 p0121 A75-37005

Cooling with the sun's heat - Design
considerations and test data for a Rankine Cycle
prototype 08 p0167 A75-39409

A potassium topping cycle for public utility power
plants
[AIAA PAPER 75-1235] 08 p0181 A75-45647

Design and operation of a solar-powered
turbocompressor air-conditioning and heating
system 08 p0186 A75-45939

Topping cycle applications of thermoionic conversion
08 p0188 A75-45972

Evaluation of solar-assisted Rankine cycle concept
for the cooling of buildings 08 p0194 A75-46040

Organic Rankine cycle silent power plant 1.5 kW,
28 volts dc
[AD-A000900] 06 p0088 A75-18745

Assessment of the Rankine cycle for potential
application to solar powered cooling of buildings
[PB-238069/9] 06 p0089 A75-18755

Sizing of focused solar collector fields with
specified collector tube inlet temperature ---
Rankine cycle
[SLA-74-5288] 06 p0094 A75-19832

Feasibility demonstration of a solar powered
turbocompressor air conditioning and heating
system
[PB-238570/6] 07 p0130 A75-21816

Ocean thermal difference power plant turbine design
[PB-239371/8] 07 p0150 A75-25318

Development of low emission porous plate combustor
for automotive gas turbine and Rankine cycle
engines --- air pollution control
[PB-240776/5] 07 p0162 A75-27619

Liquid-metal binary cycles for stationary power
[NASA-TN-D-7955] 08 p0205 A75-30649

RAPID TRANSIT SYSTEMS

Getting at the big facts in transportation ---
private and public transit efficiencies
08 p0173 A75-42973

Caltech seminar series on energy consumption in
private transportation
[PB-235348/0] 05 p0040 A75-15179

Energy use of public transit systems
[PB-241351/6] 08 p0209 A75-31962

RATES (PER TIME)

Time factors in slowing down the rate of growth of
demand for primary energy in the United States
06 p0059 A75-27780

REACTION KINETICS

On methods for the large-scale production of
hydrogen from water 08 p0176 A75-44773

Considerations on iron-chloride-oxygen reactions
in relation to thermochemical water-splitting
08 p0177 A75-44779

Thermochemical hydrogen production research at
Lawrence Livermore Laboratory 08 p0177 A75-44780

Analysis of thermochemical water-splitting cycles
--- energy efficiency evaluation 08 p0177 A75-44781

Retorting indexes for oil-shale pyrolyses from
ethylene-ethane ratios of product gases
[PB-234050/3] 05 p0034 A75-13399

Summary report of workshop on Energy Related Basic
Combustion Research
[PB-236714/2] 06 p0079 A75-17456

Conversion of cellulosic wastes to oil
[PB-240839/1] 07 p0161 A75-27572

REACTOR CORES

Applications of plasma core reactors to
terrestrial energy systems
[AIAA PAPER 74-1074] 05 p0010 A75-11281

Physics and potentials of fissioning plasmas for
space power and propulsion
[IAF PAPER 74-087] 05 p0015 A75-13719

REACTOR DESIGN

Conceptual design of a series of laser-fusion
power plants of 100 to 3000 MW/e/
05 p0007 A75-10562

Component design considerations for gas turbine
HTGR power plant --- High-Temperature Gas-cooled
Reactor
[ASME PAPER 75-GT-67] 07 p0116 A75-34620

Environmental aspects of fusion reactors
08 p0170 A75-41434

Cryogenic engineering and fusion power ---
superconducting magnet application to reactor
design 08 p0173 A75-43979

Aqueous homogeneous reactor for hydrogen production
08 p0175 A75-44761

Application of nuclear rocket technology to light
weight nuclear propulsion and commercial nuclear
process heat systems
[AIAA PAPER 75-1261] 08 p0182 A75-45661

Clinch River Breeder Reactor: A combined power
and fuel source
[CONF-740609-4] 05 p0038 A75-14593

Advanced concepts in fusion-fission hybrid reactors
[UCRL-75835] 07 p0131 A75-22113

REACTOR MATERIALS

Foreseeable thermal, mechanical, and materials
engineering problems of fusion reactor power
plants
[SNRT PAPER A2/1] 06 p0046 A75-21713

MIT fusion technology program --- nuclear reactors
and reactor materials
[COO-2431-1] 06 p0106 A75-21101

REACTOR TECHNOLOGY

Current expectations for fusion power from
toroidal machines 05 p0014 A75-12996

Foreseeable thermal, mechanical, and materials
engineering problems of fusion reactor power
plants
[SNRT PAPER A2/1] 06 p0046 A75-21713

The economics of nuclear power 06 p0047 A75-22734

Electronbeam heating for fusion 07 p0120 A75-36295

Gaseous fuel nuclear reactor research
08 p0168 A75-40177

High-temperature nuclear reactors as an energy
source for hydrogen production 08 p0175 A75-44758

The technology and economics of hydrogen
production from fusion reactors 08 p0176 A75-44767

Thermal power conversion systems for fusion plants
08 p0187 A75-45953

RECLAMATION

SUBJECT INDEX

- Review of direct energy conversion of ion beams:
Experimental results and reactor applications
[UCRL-75600] 05 p0028 N75-11466
- Survey of applications of fusion power technology
to the chemical and material processing industry
[BNL-18866] 05 p0031 N75-12443
- Nuclear power growth, 1974 - 2000 --- forecasting
future reactor technology
[WASH-1139-74] 05 p0031 N75-12723
- RECLAMATION**
Biological conversion of organic refuse to methane
[PB-235468/6] 05 p0041 N75-15183
- RECYCLING**
Bureau of Mines research programs on recycling and
disposal of mineral, metal, and energy-based
wastes
[PB-227476/9] 05 p0042 N75-15203
- RED SEA**
The hot deeps of the Red Sea as a potential heat
source for thermoelectric power generation
05 p0004 A75-10516
- REDUCTION (CHEMISTRY)**
Electrically rechargeable redox flow cells
05 p0008 A75-10573
- Redox thermogalvanic cells for direct energy
conversion
08 p0191 A75-45999
- Development of a soluble reactants and products
secondary battery
07 p0127 N75-21790
- REFINING**
Impact of motor gasoline lead additive regulations
on petroleum refineries and energy resources,
1974-1980, phase 1
[PB-234185/7] 05 p0025 N75-10601
- National Crude Oil Refinery Development Act, part 2
[GPO-35-578] 05 p0027 N75-10860
- The National Coal Conversion Act and the National
Crude Oil Refinery Development Act
[GPO-28-964] 05 p0027 N75-10861
- Retorting indexes for oil-shale pyrolyses from
ethylene-ethane ratios of product gases
[PB-234050/3] 05 p0034 N75-13399
- Effects of changing the proportions of automotive
distillate and gasoline produced by petroleum
refining
[PB-236900/7] 06 p0085 N75-18443
- Industrial energy study of the petroleum refining
industry
[PB-238671/2] 07 p0130 N75-21818
- A simulation model of the development of petroleum
refining capacity --- using recursive linear
programming
[AD-A003723] 07 p0161 N75-27569
- REFRACTORY MATERIALS**
Aluminum nitride and silicon nitride for
high-temperature vehicular gas turbine engines
05 p0011 A75-11362
- Corrosion studies of materials for auxiliary
equipment in MHD power plants
06 p0055 A75-24384
- Materials screening program for the LLL geothermal
project
[UCRL-75353] 06 p0082 N75-17815
- Refractory materials for coal-fueled MHD power
generation
[PB-239607/5] 07 p0157 N75-26524
- REFRIGERATING**
Power conversion of energy fluctuations
05 p0011 A75-11497
- Solar energy storage within the absorption cycle
[ASME PAPER 74-WA/HT-18] 05 p0017 A75-16864
- REFRIGERATING MACHINERY**
Selection and evaluation of the University of
Florida's solar powered absorption air
conditioning system
[ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
- Cooling by solar heat --- heating and cooling
system for buildings
[AIAA PAPER 75-609] 06 p0062 A75-28590
- Statistical relation between heat transfer from a
closed area and meteorological parameters during
the use of a solar refrigerating plant
08 p0169 A75-41072
- Study on parameter variations for solar powered
lithium bromide absorption cooling
08 p0186 A75-45938
- Nuclear heat source for cryogenic refrigerators in
space --- Pu-238 battery design
08 p0191 A75-46006
- Heat pumps in large buildings --- a refrigerating
unit for heating and cooling
[OA-TRANS-939] 06 p0078 N75-17184
- Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] 07 p0133 N75-22747
- REGENERATION (ENGINEERING)**
Recuperator development trends for future high
temperature gas turbines --- heat exchanger design
[ASME PAPER 75-GT-50] 07 p0116 A75-34607
- Evaluation of a fossil fuel fired ceramic
regenerative heat exchanger
[PB-236346/3] 06 p0092 N75-19599
- REGENERATIVE COOLING**
Evaluation of solar-assisted Rankine cycle concept
for the cooling of buildings
08 p0194 A75-46040
- REGIONAL PLANNING**
Regional economics: A subset of simulation of the
effects of coal-fired power development in the
four corners region
06 p0107 N75-21153
- Evaluation of power facilities; A reviewer's
handbook --- electric and nuclear power plants
[PB-239221/5] 07 p0146 N75-24198
- Regional impacts of alternative energy allocation
strategies --- environmental impact of energy
crisis and its shortages
[PB-241125/4] 08 p0205 N75-30667
- Master plan for REIS implementation
[PB-241126/2] 08 p0205 N75-30945
- Design considerations for a comprehensive regional
energy information system
[PB-241123/9] 08 p0206 N75-30946
- REGULATIONS**
Institutional and environmental problems in
geothermal resource development
06 p0100 N75-20843
- Preliminary investigation into regulatory powers
and policies on electric utility peak load pricing
[PB-239761/0] 07 p0151 N75-25324
- RELIABILITY ANALYSIS**
Operating experiences with terrestrial solar
battery systems in Japan
05 p0005 A75-10531
- Compatibility and reliability of heat pipe materials
[AIAA PAPER 75-660] 07 p0114 A75-32918
- Estimates of the reliability of energy-supply
systems employing solar energy
08 p0181 A75-45064
- RELIABILITY ENGINEERING**
Development of a thermal battery for emergency
radio power under arctic conditions
05 p0007 A75-10560
- Silicon solar cells for highly concentrated sunlight
07 p0120 A75-36363
- Generation of electric power at high reliability
levels using a group of solar power plants in an
energy system
07 p0122 A75-37159
- Principles of a composite study involving combined
use of solar and wind energy
07 p0122 A75-37160
- Generalizations of composite studies involving
combined use of wind and solar energy
07 p0122 A75-37161
- Wind capture and diversion through pneumatic
energy recovery with large capacity aerogenerators
08 p0175 A75-44762
- Preliminary results of the large experimental wind
turbine phase of the national wind energy program
08 p0196 A75-47798
- REMOTE REGIONS**
Some aspects of a solar battery system and its use
for irrigation in remote sun-rich regions
06 p0054 A75-24256
- Testing of a photoelectric generator in a
mountainous region of the Azerbaidzhan SSR
06 p0057 A75-26714
- Photoelectric generator testing in the
Azerbaidzhan SSR mountains
07 p0122 A75-37165
- REMOTE SENSORS**
Milliwatt fuel cell system for sensors
05 p0008 A75-10565

SUBJECT INDEX

RESERVES

- Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications 06 p0050 A75-23790
- Remote sensing applied to energy-related problems; Proceedings of the Symposium-Course, Miami, Fla., December 2-4, 1974 07 p0118 A75-35451
- Remote sensing for Western coal and oil shale development planning and environmental analysis 07 p0118 A75-35458
- Determining potential solar power sites in western hemisphere ocean and land areas based upon satellite observations of cloud cover 07 p0118 A75-35461
- Multispectral data systems for energy related problems --- strip mining and power plant site monitoring 07 p0118 A75-35464
- Remote sensing applied to mine subsidence - Experience in Pennsylvania and the Midwest 07 p0121 A75-36809
- REMOTELY PILOTED VEHICLES**
Engine development program for the APL remotely piloted vehicle [AD-787507] 06 p0065 N75-15658
- RENDEZVOUS TRAJECTORIES**
Solar electric propulsion spacecraft power subsystem for an Encke comet rendezvous mission 05 p0002 A75-10481
- REQUIREMENTS**
Energy-related research and development in the United States Air Force 06 p0075 N75-16979
- RESEARCH**
Radioisotope space power generator [GA-A-12848] 05 p0038 N75-14832
- RESEARCH AND DEVELOPMENT**
Combustion dynamics research for 'Project Independence' [AIAA PAPER 74-1069] 05 p0001 A75-10262
- Combustion R&D - Key to our energy future --- pollution reduction using hydrocarbon fuels 05 p0009 A75-10596
- Wind energy developments in the 20th century 05 p0020 A75-17503
- Technology utilization - Incentives and solar energy 06 p0048 A75-22913
- The application of aerospace technology in the cryogenics field 06 p0048 A75-23239
- Report on photovoltaics research and technology in the United States 06 p0051 A75-24214
- Progress in the development of cadmium sulphide terrestrial solar batteries 06 p0052 A75-24224
- Development of a flexible, fold-out solar array --- power to weight ratio for communication satellites 06 p0053 A75-24252
- The future of silicon solar cells for terrestrial use 06 p0058 A75-27717
- DPVLR activities in the area of energy research 07 p0118 A75-35096
- Energy survey - What can R&D do by 1985 --- fossil fuel utilization 08 p0169 A75-40617
- Research opportunities in cryogenic hydrogen-energy systems 08 p0171 A75-42280
- Energy transportation, distribution, and storage [WASH-1281-4] 05 p0024 N75-10595
- A review of the status of MHD power generation technology including suggestions for a Canadian MHD research program [UTIAS-39] 05 p0035 N75-13641
- Bureau of Mines energy program, 1973 --- discovery and production of oil, gas, and fluid fuels [PB-234682/3] 05 p0040 N75-15172
- Idaho geothermal R and D project report for period 16 December 1973 - 15 March 1974 [ANCR-1155] 06 p0076 N75-16985
- Recommended research program in geothermal chemistry [WASH-1344] 06 p0077 N75-16997
- US energy R and D policy: The role of economics [RFP-WORKING-PAPER-EN-4] 06 p0080 N75-17783
- Research and technology operating plan summary: Fiscal year 1975 research and technology program --- space programs, energy technology, and aerospace sciences [NASA-TM-X-70410] 06 p0096 N75-20155
- Wind power installations. Present condition and possible lines of development [NASA-TT-F-16204] 07 p0128 N75-21796
- Energy R/D Data Workshop [PB-237493/2] 07 p0130 N75-21811
- A review of the Project Independence report submitted to Office of Energy Research and Development, National Science Foundation, 10 January 1975 [PB-238791/8] 07 p0131 N75-21823
- The role for Federal R and D on alternative automotive power systems [PB-238771/0] 07 p0137 N75-23391
- NSF-RANN energy abstracts. A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-6] 07 p0146 N75-24532
- Solar Energy Research, Development, and Demonstration Act of 1974 [GPO-39-827] 07 p0149 N75-25299
- Materials technology in the near-term energy program [PB-240942/3] 08 p0205 N75-30665
- Solar Energy Research, Development, and Demonstration Act of 1974 [GPO-39-827] 08 p0207 N75-31567
- A systems approach to innovative solutions to the energy problem [PB-242189/9] 08 p0213 N75-33505
- RESEARCH FACILITIES**
The Florida Solar Energy Center 08 p0169 A75-40614
- Mission and organization of the DPVLR: Two years of integrated society of German aeronautical and space flight research [NASA-TT-F-16086] 05 p0035 N75-13882
- Solar collector performance evaluated outdoors at NASA-Lewis Research Center [NASA-TM-X-71689] 07 p0128 N75-21794
- Incorporating energy conservation techniques in the operation of existing LERC R and D facilities --- energy policy/NASA programs [NASA-TM-X-71813] 08 p0212 N75-33494
- RESEARCH MANAGEMENT**
Rationale for setting priorities for new energy technology research and development [UCRL-51511] 05 p0024 N75-10594
- Electric power systems analysis research [PB-239236/3] 07 p0143 N75-24139
- Institutional and legal constraints to cooperative energy research and development [PB-240929/0] 08 p0200 N75-28530
- RESEARCH PROJECTS**
Roles for solar thermal conversion systems in our energy economy 06 p0059 A75-27784
- The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development 06 p0075 N75-16977
- Geothermal reservoir engineering research 06 p0101 N75-20853
- Phase 0 study for a geothermal superheated water proof of concept facility 06 p0102 N75-20858
- Scientific research seeks new sources of energy 06 p0107 N75-21216
- Various research tasks related to energy information and data activities: Task 4 priorities analysis [PB-240424/2] 07 p0151 N75-25329
- Scientific research in power engineering [JPRS-65422] 08 p0205 N75-30648
- RESERVES**
The reserve base of bituminous coal and anthracite for underground mining in the Eastern United States [PB-237815/6] 06 p0085 N75-18713
- Mineral resources and the environment. Appendix to section 1: Report of panel on materials conservation through technology [PB-239580/4] 07 p0153 N75-26487
- Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources [PB-239581/2] 07 p0153 N75-26488

RESERVOIRS

SUBJECT INDEX

RESERVOIRS

- Optimising pumped storage with tidal power in an estuary
[ASME PAPER 74-WA/PWR-7] 05 p0018 A75-16881
- Relationships of earth fracture systems to productivity of a gas storage reservoir
[PB-237894/1] 06 p0089 N75-18759
- RESIDENTIAL AREAS**
- A case study - Utilization of solar energy in residential dwellings
[ASME PAPER 74-WA/SOL-2] 05 p0018 A75-16885
- The Solar Community - Energy for residential heating, cooling, and electrical power
06 p0059 A75-27785
- Design and construction of a residential solar heating and cooling system
07 p0109 A75-29472
- Residential energy conservation
[TID-26534] 05 p0031 N75-12442
- Design and construction of a residential solar heating and cooling system
[PB-237042/7] 06 p0082 N75-17823
- The development of a solar residential heating and cooling system
[NASA-CR-142728] 07 p0140 N75-24107
- The residential user and the electrical load factor
[PB-238535/9] 07 p0145 N75-24152
- Project conserve, a pilot project in homeowner energy conservation
[PB-240407/7] 07 p0161 N75-27577
- Investigation of current university research concerning energy conversion and conservation in small single-family dwellings
[NASA-CR-143430] 08 p0207 N75-31570
- RESONANT FREQUENCIES**
- A resonant point absorber of ocean-wave power
08 p0170 A75-41425
- RESOURCE ALLOCATION**
- Oversight: Mandatory petroleum allocation programs
[GPO-31-027] 06 p0081 N75-17806
- Electric power rights: One approach to rationing
[PB-238537/5] 07 p0143 N75-24138
- An approach to the power shortage problem: Optimal allocation of existing excess reserves through interregional transmission
[PB-238578/9] 07 p0144 N75-24151
- Energy rationing and energy conservation: Foundations for a social policy
[PB-239766] 07 p0162 N75-27579
- RESOURCES MANAGEMENT**
- U.S. energy resources - Outlook for the future
05 p0014 A75-12999
- Energy. Volume 1 - Demands, resources, impact, technology, and policy --- Book
06 p0045 A75-20066
- Energy supply and demand challenges and some possible solutions
06 p0059 A75-27779
- Fuels, minerals, and human survival --- Book
07 p0117 A75-34850
- How might the hydrogen economy affect our resources and environment
08 p0179 A75-44809
- Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority
[GPO-32-403] 05 p0026 N75-10859
- Project Independence
05 p0029 N75-12428
- Energy from US and Canadian tar sands: Technical, environmental, economic, legislative, and policy aspects
[GPO-43-005] 06 p0067 N75-16083
- Energy resources and utilization
06 p0075 N75-16983
- Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding
[PB-237209/2] 06 p0083 N75-17826
- Methanol from forestry, municipal, and agricultural organic residues
[BNWL-SA-5053] 06 p0085 N75-18702
- Overview of Reclamation's geothermal program in Imperial Valley, California
06 p0098 N75-20835
- Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California
[IGPP-UCR-74-31] 06 p0098 N75-20836
- The Colorado School of Mines Nevada geothermal study
06 p0099 N75-20837
- Heat flow and geothermal potential of the East Mesa KGRA, Imperial Valley, California
06 p0099 N75-20838
- A brief description of geological and geophysical exploration of the Marysville geothermal area
06 p0099 N75-20839
- Hawaii geothermal project
06 p0099 N75-20840
- Measuring ground movement in geothermal areas of Imperial Valley, California
06 p0099 N75-20842
- Imperial Valley's proposal to develop a guide for geothermal development within its county
06 p0100 N75-20844
- The Lawrence Berkeley Laboratory geothermal program in northern Nevada
06 p0100 N75-20845
- The total flow concept for geothermal energy conversion
06 p0100 N75-20846
- San Diego Gas and Electric Company Imperial Valley geothermal activities
06 p0100 N75-20847
- Progress of the LANS dry hot rock geothermal energy project
06 p0100 N75-20848
- The Marysville, Montana Geothermal Project
06 p0100 N75-20849
- Preliminary results of geothermal desalting operations at the East Mesa test site Imperial Valley, California
06 p0101 N75-20850
- Geothermal reservoir engineering research
06 p0101 N75-20853
- Geothermal down well pumping system
06 p0101 N75-20854
- Phase 0 study for a geothermal superheated water proof of concept facility
06 p0102 N75-20858
- Cooperative efforts by industry and government to develop geothermal resources
06 p0102 N75-20861
- Energy system modeling-interfuel competition
[PB-239292/6] 07 p0143 N75-24140
- National energy flow accounts
[PB-239275/1] 07 p0146 N75-24539
- Evaluation of the suitability of Skylab data for the purpose of petroleum exploration
[B75-10257] 07 p0147 N75-25237
- Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300
- Energy legislation --- energy conservation and resources management
[GPO-33-571] 07 p0149 N75-25301
- Five year program planning document for end use energy conservation, research, development, and demonstration
[PB-240406/9] 07 p0152 N75-25331
- Mineral resources and the environment --- energy conservation and energy policy
[PB-239579/6] 07 p0153 N75-26486
- An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- National materials policy --- earth resources management
[PB-240941/5] 08 p0199 N75-28503
- Energy conservation study of Veterans Administration hospitals. Stage 1: Base line survey
[PB-241095/9] 08 p0203 N75-29559
- Energy conservation study of Veterans Administration hospitals. Stage 2: Operational study
[PB-241096/7] 08 p0203 N75-29560
- Energy conservation study of Veterans Administration hospitals. Stage 3: Hospital energy control system
[PB-241097/5] 08 p0203 N75-29561
- Energy conservation study of Veterans Administration hospitals. Stage 4: Basic detail data for stage 1, 2, and 3
[PB-241098/3] 08 p0203 N75-29562

- Regional impacts of alternative energy allocation strategies --- environmental impact of energy crisis and its shortages
[PB-241125/4] 08 p0205 N75-30667
- The need for a national materials policy, part 1
[GPO-39-885] 08 p0209 N75-31954
- The need for a national materials policy, part 2
[GPO-40-687] 08 p0209 N75-31955
- The need for a national materials policy, part 3
[GPO-40-687] 08 p0209 N75-31956
- ROCKET ENGINE DESIGN**
Lasers investigated for space propulsion
06 p0061 A75-28439
- Application of rocket engine technology to energy
08 p0185 A75-45933
- ROCKS**
Geothermal energy: A new application of rock mechanics
[LA-UR-74-821] 06 p0068 N75-16089
- ROCKY MOUNTAINS (NORTH AMERICA)**
Progress and problems in developing nuclear and other experimental techniques for recovering natural gas in the Rocky Mountain area.
[B-164105] 06 p0075 N75-16975
- ROTATING BODIES**
Investigations of the factors affecting the performance of a rotating heat pipe
07 p0120 A75-36357
- ROTATING ELECTRICAL MACHINES**
A high-speed superconducting generator
06 p0060 A75-27960
- ROTATING GENERATORS**
Electrical generating equipment and electric utility requirements for high-power wind generator systems
08 p0193 A75-46025
- Wind power system optimization
08 p0193 A75-46026
- ROTOR AERODYNAMICS**
Unsteady aerodynamics of variable pitch vertical axis windmill
[AIAA PAPER 75-649] 06 p0063 A75-28604
- ROTOR BLADES**
The effect of atmospheric turbulence on windmill performance
08 p0174 A75-44756
- Wind capture and diversion through pneumatic energy recovery with large capacity aerogenerators
08 p0175 A75-44762
- ROTOR BLADES (TURBOMACHINERY)**
Structural analysis of wind turbine rotors for NSF-NASA Mod-0 wind power system
[NASA-TM-X-3198] 06 p0080 N75-17712
- Applied aerodynamics of wind power machines --- rotor blades (turbomachinery)
[PB-238595/3] 07 p0133 N75-22669
- ROVER PROJECT**
Application of technology from the Rover program and related developments --- to energy needs
[LA-5558] 05 p0028 N75-11468
- RUBBER**
An evaluation of discarded tires as a potential source of fuel
05 p0012 A75-12416
- An evaluation: The potential of discarded tires as a source of fuel
[NASA-TM-X-58143] 05 p0038 N75-15153
- S**
- SAFETY DEVICES**
Non-hazardous primary lithium-organic electrolyte battery BA-5590 ()/U
[AD-A003312] 07 p0129 N75-21804
- SAFETY FACTORS**
Procedure for preparation for shipment of natural gas storage vessel
[NASA-CR-141455] 05 p0036 N75-14135
- SAFETY MANAGEMENT**
Cryogenics safety in a hydrogen fuel society
06 p0061 A75-27973
- Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle
[ORNL-NSF-EP-30] 06 p0090 N75-18769
- Multi-hundred watt radioisotope thermoelectric generator program, part 1 --- ground support equipment and safety management
[GESP-7107-PT-1] 06 p0092 N75-19354
- Dimensions/NBS, volume 59, number 2, February 1975 --- energy conservation, safety management, toxic hazards
[COM-75-50141/02] 07 p0151 N75-25330
- Technology and current practices for processing, transferring and storing liquefied natural gas
[PB-241048/8] 08 p0202 N75-29271
- National Bureau of Standards annual report: Fiscal year 1974 --- including a discussion of measuring instruments, energy, safety engineering, and computers
[COM-75-10465/3] 08 p0206 N75-30948
- Study of potential for motor vehicle fuel economy improvement. Safety implications panel report no. 2
[PB-241772/3] 08 p0212 N75-33410
- SATELLITE ANTENNAS**
Latest developments of the circular solar array --- with deployment structure for central antenna communication satellite
06 p0053 A75-24246
- Report on studies of space to earth microwave power transmission systems
[IAF PAPER 75-005] 08 p0183 A75-45814
- SATELLITE ATTITUDE CONTROL**
Effect of attitude constraints on solar-electric geocentric transfers
[AIAA PAPER 75-350] 06 p0055 A75-24957
- Design and testing of an energy flywheel for an Integrated Power/Attitude Control System /IPACS/
[AIAA PAPER 75-1107] 08 p0171 A75-41669
- SATELLITE DESIGN**
The technology of the solar generator on the Symphonie satellite
06 p0053 A75-24237
- Power generation for the X4 spacecraft - A step in the development of a high power/mass ratio, hybrid solar array for applications spacecraft
06 p0053 A75-24251
- The satellite solar power station option --- for solar energy transmission to earth
07 p0118 A75-35465
- Deployable Symphonie solar generator
[IAF PAPER 75-009] 08 p0183 A75-45819
- The ATS-6 power system - An optimized design for maximum power source utilization
08 p0192 A75-46017
- SATELLITE INSTRUMENTS**
A flexible cryogenic heat pipe
[AIAA PAPER 75-658] 07 p0114 A75-32916
- SATELLITE OBSERVATION**
Determining potential solar power sites in western hemisphere ocean and land areas based upon satellite observations of cloud cover.
07 p0118 A75-35461
- SATELLITE POWER TRANSMISSION (TO EARTH)**
The satellite solar power station - An option for energy production on earth
[AIAA PAPER 75-637] 06 p0063 A75-28600
- The adaptation of free space power transmission technology to the SSPS concept --- Satellite Solar Power Stations
[AIAA PAPER 75-642] 06 p0063 A75-28602
- Geosynchronous satellite solar power --- energy transmission to earth
07 p0111 A75-31272
- Satellites for energy transmission to earth - Technical and socioeconomic studies
07 p0125 A75-38644
- Report on studies of space to earth microwave power transmission systems
[IAF PAPER 75-005] 08 p0183 A75-45814
- The satellite solar power station - A step toward the industrial use of space
[IAF PAPER 75-003] 08 p0183 A75-45903
- Solar power generating systems as sources of non-polluting energy (power generation in space and power generation on the ground)
[NASA-TT-F-16091] 05 p0033 N75-13383
- Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space
08 p0199 N75-28517
- SATELLITE SOLAR ENERGY CONVERSION**
Analysis of different systems concerning the energy distribution on board a satellite
[IAF PAPER 74-084] 05 p0014 A75-13716

- Geosynchronous satellite solar power --- energy transmission to earth
07 p0111 A75-31272
- Storage of energy in kinetic batteries for an earth resources satellite
[IAF PAPER ST-75-09] 08 p0183 A75-45875
- The satellite solar power station - A step toward the industrial use of space
[IAF PAPER 75-003] 08 p0183 A75-45903
- A comparison of the COMSAT violet and non-reflective cells
08 p0192 A75-46015
- The ATS-6 power system - An optimized design for maximum power source utilization
08 p0192 A75-46017
- Orbital solar energy technology advances
08 p0192 A75-46018
- Solar power generating systems as sources of non-polluting energy (power generation in space and power generation on the ground)
[NASA-TT-P-16091] 05 p0033 N75-13383
- Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space
08 p0199 N75-28517
- SATELLITE SOLAR POWER STATIONS**
- The satellite solar power station - An option for energy production on earth
[AIAA PAPER 75-637] 06 p0063 A75-28600
- Overcoming two significant hurdles to space power generation Transportation and assembly
[AIAA PAPER 75-641] 06 p0063 A75-28601
- The adaptation of free space power transmission technology to the SSPS concept --- Satellite Solar Power Stations
[AIAA PAPER 75-642] 06 p0063 A75-28602
- Derivation of a total satellite energy system --- solar power station for terrestrial consumption
[AIAA PAPER 75-640] 06 p0064 A75-29118
- The satellite solar power station option --- for solar energy transmission to earth
07 p0118 A75-35465
- An overview of solar energy applications
08 p0166 A75-39196
- Economic analysis of space-based electric power generation and transmission systems
[IAF PAPER 75-006] 08 p0183 A75-45829
- The satellite solar power station - A step toward the industrial use of space
[IAF PAPER 75-003] 08 p0183 A75-45903
- Solar power generating systems as sources of non-polluting energy (power generation in space and power generation on the ground)
[NASA-TT-P-16091] 05 p0033 N75-13383
- The modular solar energy satellite: Investigation on large solar cell surfaces in space for the purpose of earth power supply
[ILR-17-1974] 05 p0036 N75-14271
- Feasibility study of a satellite solar power station
[NASA-CR-2357] 07 p0138 N75-23683
- Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space
08 p0199 N75-28517
- SCALE MODELS**
- Development of a flexible, fold-out solar array --- power to weight ratio for communication satellites
06 p0053 A75-24252
- A practical model law for chemical explosive fracture of oil shale
06 p0078 N75-17023
- SCHOOLS**
- Solar energy school heating augmentation experiment. Design, construction and construction and initial operation
[PB-239397/3] 07 p0150 N75-25314
- SCHOTTKY DIODES**
- Temperature effects in Schottky-barrier silicon solar cells
07 p0115 A75-34175
- Enhancement of Schottky solar cell efficiency above its semiempirical limit
08 p0171 A75-42166
- Design considerations in Schottky solar cells
08 p0188 A75-45962
- SCIENTISTS**
- Demand for scientific and technical manpower in energy-related industries: United States 1970-1985
[PB-240865] 08 p0201 N75-28964
- SCRAP**
- Bureau of Mines research programs on recycling and disposal of mineral, metal, and energy-based wastes
[PB-227476/9] 05 p0042 N75-15203
- SEA GRASSES**
- The oceanic biomass energy plantation --- seaweed harvesting for food and fuel
[AIAA PAPER 75-635] 06 p0063 A75-28599
- SEA WATER**
- Steady state free convection in an unconfined geothermal reservoir
05 p0009 A75-11069
- Electrolysis of sea water --- for hydrogen fuel production
08 p0176 A75-44775
- Solar sea power
[PB-235469/4] 05 p0038 N75-14284
- Solar sea power --- axial flow pumps
[PB-236997/3] 06 p0082 N75-17821
- Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant
[PB-238571/4] 07 p0130 N75-21821
- Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process
[PB-239374/2] 07 p0150 N75-25317
- Ocean thermal difference power plant turbine design
[PB-239371/8] 07 p0150 N75-25318
- An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant --- hydrodynamics/sea water-energy policy
[PB-242569/2] 08 p0213 N75-33508
- SECONDARY INJECTION**
- Evaluation of thermal methods for recovery of viscous oils in Missouri and Kansas
[PB-237831/3] 06 p0090 N75-18762
- SECURITY**
- Energy and security: Implications for American policy
[AD-785084] 05 p0032 N75-12857
- SEDIMENTARY ROCKS**
- Stratigraphy, sedimentology and oil and gas geology of the Lower Cretaceous in central Alberta
07 p0137 N75-22961
- SEEBECK EFFECT**
- High efficiency thermoelectric generator
05 p0014 A75-13067
- SEISMOLOGY**
- Measuring ground movement in geothermal areas of Imperial Valley, California
06 p0099 N75-20842
- SELENIDES**
- RTG technology development - Where we are/where we are going --- radioisotope thermoelectric generator
05 p0002 A75-10496
- A 10% efficient economic RTG design --- radioisotope thermoelectric generator
05 p0003 A75-10506
- RTG electrical power for spacecraft --- Radioisotope Thermoelectric Generators
06 p0057 A75-26067
- SEMICONDUCTING FILMS**
- High efficiency thermoelectric generator
05 p0014 A75-13067
- Dynamic method for calculating the series resistance of a semiconductor photoelectric converter
06 p0057 A75-26713
- A 15% efficient antireflection-coated metal-oxide-semiconductor solar cell
07 p0119 A75-36275
- Dynamic calculation of semiconductor photoconverter series resistance
07 p0122 A75-37164
- Thick semiconductor films for photothermal solar energy conversion
08 p0165 A75-38956
- SEMICONDUCTOR DEVICES**
- Advanced betavoltaic power sources
05 p0007 A75-10563

- Solar cells - Operation, development and applications 05 p0015 A75-15201
- Effectiveness of using semiconductor heat pumps under the conditions of the Turkmén SSR 05 p0020 A75-17083
- Effect of heat transfer from the lateral surfaces of semiconductor thermocouples on the energy characteristics of a thermoelectric generator 05 p0021 A75-18798
- Enhancement of Schottky solar cell efficiency above its semiempirical limit 08 p0171 A75-42166
- Devices based on thermoelectrical phenomena [AD-783821] 05 p0026 A75-10836
- Development of low cost thin film polycrystalline silicon solar cells for terrestrial applications [PB-238505/2] 06 p0105 A75-20890
- SEMICONDUCTOR JUNCTIONS**
- Technique for producing 'good' GaAs solar cells using poor-quality substrates 08 p0195 A75-46721
- Glass-Si heterojunction solar cells [PB-239282/7] 07 p0145 A75-24156
- SEMICONDUCTORS (MATERIALS)**
- Solar selective surfaces made of semiconducting powders [ASME PAPER 74-WA/HT-13] 05 p0017 A75-16857
- SEPARATORS**
- Porous matrix structures for alkaline electrolyte fuel cells 07 p0123 A75-37243
- SERVICE LIFE**
- Development of a thermal battery for emergency radio power under arctic conditions 05 p0007 A75-10560
- A novel negative-limited sealed nickel-cadmium cell 05 p0008 A75-10571
- Solar cell modules for lightweight solar arrays --- onboard communication satellites 06 p0057 A75-26068
- Compatibility and reliability of heat pipe materials [AIAA PAPER 75-660] 07 p0114 A75-32918
- CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- The practical lithium/poly-carbonmonofluoride battery system 08 p0188 A75-45964
- Nickel-hydrogen secondary battery 08 p0191 A75-45997
- Solar-thermal electric power generation using a system of distributed parabolic trough collectors [AIChE PAPER 12] 08 p0196 A75-47511
- SEWAGE**
- Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage 07 p0125 A75-38648
- SHALE OIL**
- Shale from oil shale economically 08 p0168 A75-40182
- Economic impact of the oil shale industry in western Colorado [GPO-28-608] 05 p0024 A75-10588
- Oil shale development, part 2 [GPO-30-368] 05 p0027 A75-11455
- Retorting indexes for oil-shale pyrolyses from ethylene-ethane ratios of product gases [PB-234050/3] 05 p0034 A75-13399
- Primary data on economic activity and water use in prototype oil shale development areas of Colorado: An initial inquiry [PB-236039/4] 05 p0037 A75-14277
- Prototype oil shale leasing program [GPO-28-686] 05 p0039 A75-15160
- AEC in situ oil shale program [UCID-16520] 06 p0068 A75-16090
- Average oil yield tables for oil shale sequences in cores from the Uinta Basin, Utah, that average 15, 20, 25, 30, 35, and 40 gallons per ton [PB-236068/3] 06 p0072 A75-16124
- Pollutional problems and research needs for an oil shale industry [PB-236608/6] 06 p0084 A75-17848
- In situ oil shale: A cost sensitivity analysis [SAND-74-0146] 06 p0087 A75-18727
- Shale retorting in a 150-ton batch-type pilot plant [PB-240263/4] 07 p0151 A75-25328
- Determination of carbonate minerals of Green River formation oil shales, Piceance Creek Basin, Colorado [PB-240669/2] 07 p0159 A75-27554
- Technological feasibility of alternative energy sources --- a discussion of coal gasification, geothermal energy, and shale oil [AD-A005549] 08 p0199 A75-28522
- SHALES**
- A practical model law for chemical explosive fracture of oil shale 06 p0078 A75-17023
- Mechanical properties of oil shale from Anvill Point under conditions of uniaxial compression [SAND-74-0035] 06 p0092 A75-19390
- In situ oil shale conversion and recovery [SLA-74-0162] 06 p0093 A75-19825
- The identification of gamma-valerolactone in waste from an oil-shale in situ retort --- determination of chemical composition by mass spectroscopy of effluents from crude oil shales causing water pollution [PB-240098/4] 07 p0147 A75-24852
- Producing SHG by hydrogasifying in situ crude shale oil [PB-240841/7] 08 p0201 A75-28548
- SHORT HAUL AIRCRAFT**
- Design of short haul aircraft for fuel conservation [SAE PAPER 750587] 08 p0169 A75-40502
- Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft [NASA-CR-2502] 06 p0073 A75-16557
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525] 06 p0096 A75-20291
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526] 06 p0097 A75-20292
- SIBERIA**
- Improving the oil storage system of western Siberia [AD-A002717] 06 p0092 A75-19705
- SILICON**
- Solar selective surfaces made of semiconducting powders [ASME PAPER 74-WA/HT-13] 05 p0017 A75-16857
- Polycrystalline silicon layers for solar cells 08 p0165 A75-38958
- Indium tin oxide-coated silicon as a selective absorber --- for solar radiation 08 p0195 A75-46951
- Development of low cost thin film polycrystalline silicon solar cells for terrestrial applications [PB-238505/2] 06 p0105 A75-20890
- V-grooved silicon solar cells [NASA-TN-X-71715] 07 p0141 A75-24119
- Research and development of low cost processes for integrated solar arrays [PB-239760/2] 07 p0156 A75-26519
- SILICON FILMS**
- Methods for low cost manufacture of silicon solar arrays [ASME PAPER 74-WA/EMER-4] 05 p0016 A75-16836
- SILICON JUNCTIONS**
- The effects of irradiation on high-efficiency silicon solar cells 06 p0051 A75-24199
- Improvements in analysis and technology of silicon solar cells with increased efficiency 06 p0051 A75-24216
- High efficiency silicon solar cells 06 p0052 A75-24217
- Development and space qualification of new high-efficiency silicon solar cells 06 p0052 A75-24218
- Investigation of the technology and performance of lithium doped solar cells --- feasibility study for mass production 06 p0052 A75-24219
- High-speed silicon processing for low cost solar cells - A comparative analysis 06 p0052 A75-24222
- Performance of advanced silicon solar cells in a space environment 06 p0052 A75-24232
- The future of silicon solar cells for terrestrial use 06 p0058 A75-27717

SILICON NITRIDES

SUBJECT INDEX

- Investigation of the electrical and temperature characteristics of a silicon photoelectric converter under natural conditions
07 p0116 A75-34314
- Temperature dependence of the spectral characteristics of quick-response silicon photocells
07 p0119 A75-36013
- V-grooved silicon solar cells
07 p0123 A75-37397
- Effects of high doping levels on silicon solar cell performance
07 p0123 A75-37403
- An Al p-silicon MOS photovoltaic cell
08 p0173 A75-43459
- Outlook for Si photovoltaic devices for terrestrial solar-energy utilization
08 p0181 A75-45509
- Design considerations in Schottky solar cells
08 p0188 A75-45962
- SILICON NITRIDES**
Aluminum nitride and silicon nitride for high-temperature vehicular gas turbine engines
05 p0011 A75-11362
- SILVER**
Transparent heat-mirror films of TiO₂/Ag/TiO₂ for solar energy collection and radiation insulation
05 p0015 A75-16378
- SINTERING**
High energy density sintered plate type sealed nickel cadmium battery cells. I - The positive electrode/plaque relationships
05 p0008 A75-10569
- High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes
05 p0008 A75-10570
- SITES**
Nuclear energy center site survey: Scope of work [PB-240453/1]
07 p0152 A75-25348
- SIZE DETERMINATION**
Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-71805]
08 p0210 A75-32593
- SKYLAB 4**
The detection of geothermal areas from Skylab thermal data [NASA-CR-143133]
07 p0158 A75-27540
- SNAP 19**
SNAP 19 Viking RTG flight configuration and integration testing --- Radioisotope Thermoelectric Generator
05 p0003 A75-10504
- SNOW COVER**
Snow and ice removal from pavements using stored earth energy --- via heat pipes [PB-240623/9]
07 p0162 A75-27581
- SOCIAL FACTORS**
Social and environmental context of the hydrogen economy
08 p0179 A75-44807
- SODIUM CARBONATES**
Coal gasification by Atonics International's Rockgas process [ASME PAPER 74-WA/PWR-11]
05 p0018 A75-16883
- SOIL MAPPING**
Helium survey, a possible technique for locating geothermal reservoirs
07 p0118 A75-35438
- SOIL MOISTURE**
An agro-power-waste water complex for land disposal of waste heat and waste water [PB-239675/2]
07 p0161 A75-27570
- SOLAR ARRAYS**
NASA objectives for improved solar power plants
05 p0002 A75-10485
- Solar cell and array standardization for Air Force spacecraft
05 p0002 A75-10486
- Status of JPL solar powered experiments for terrestrial applications
05 p0005 A75-10530
- Methods for low cost manufacture of silicon solar arrays [ASME PAPER 74-WA/ENER-4]
05 p0016 A75-16836
- Report on photovoltaics research and technology in the United States
06 p0051 A75-24214
- The technology of the solar generator on the Symphonie satellite
06 p0053 A75-24237
- An analysis of photovoltaic power generation and thermal control interfaces --- for solar arrays
06 p0053 A75-24243
- Latest developments of the circular solar array --- with deployment structure for central antenna communication satellite
06 p0053 A75-24246
- Design and qualification of the CTS solar cell blanket --- onboard Canadian Communications Technology Satellite
06 p0053 A75-24248
- Power generation for the X4 spacecraft - A step in the development of a high power/mass ratio, hybrid solar array for applications spacecraft
06 p0053 A75-24251
- Development of a flexible, fold-out solar array --- power to weight ratio for communication satellites
06 p0053 A75-24252
- Solar cell modules for lightweight solar arrays --- onboard communication satellites
06 p0057 A75-26068
- Photovoltaic power --- solar energy for terrestrial applications
07 p0111 A75-31271
- Power collection reduction by mirror surface nonflatness and tracking error for a central receiver solar power system
07 p0120 A75-36305
- The nation's first private industrial solar heating system - General Electric's Valley Forge Space Center
08 p0184 A75-45925
- SEPS solar array design and technology evaluation
08 p0192 A75-46016
- The ATS-6 power system - An optimized design for maximum power source utilization
08 p0192 A75-46017
- Test report SEPS solar array root section model [NASA-CR-120606]
06 p0067 A75-16085
- Solar Power Array for the Concentration of Energy (SPACE)
[PB-236247/3]
06 p0071 A75-16114
- Cost competitiveness of a solar cell array power source for ATS-6 educational TV terminal [NASA-TM-X-71720]
07 p0140 A75-24110
- Research on solar cell arrays and electric energy [PB-239338/7]
07 p0155 A75-26504
- Research and development of low cost processes for integrated solar arrays [PB-239760/2]
07 p0156 A75-26519
- SOLAR CELLS**
Solar cell and array standardization for Air Force spacecraft
05 p0002 A75-10486
- Analysis of conversion efficiency of organic-semiconductor solar cells
05 p0010 A75-11146
- Recent advances in components of space power systems [IAF PAPER 74-083]
05 p0014 A75-13715
- Solar cells - Operation, development and applications
05 p0015 A75-15201
- Radiation effects on high efficiency silicon-solar cells
06 p0051 A75-24197
- The effects of irradiation on high-efficiency silicon solar cells
06 p0051 A75-24199
- Optimisation of solar cell shielding for geostationary missions
06 p0051 A75-24203
- Photovoltaic power generation; Proceedings of the International Conference, Hamburg, West Germany, September 25-27, 1974
06 p0051 A75-24213
- Improvements in analysis and technology of silicon solar cells with increased efficiency
06 p0051 A75-24216
- High efficiency silicon solar cells
06 p0052 A75-24217
- Development and space qualification of new high-efficiency silicon solar cells
06 p0052 A75-24218

SUBJECT INDEX

SOLAR CELLS CONTD

- Investigation of the technology and performance of lithium doped solar cells --- feasibility study for mass production 06 p0052 A75-24219
- High-speed silicon processing for low cost solar cells - A comparative analysis 06 p0052 A75-24222
- CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- Progress in the development of cadmium sulphide terrestrial solar batteries 06 p0052 A75-24224
- Further progress in the technology of silk screened CdS solar cells 06 p0052 A75-24225
- Development of very low cost solar cells for terrestrial power generation 06 p0052 A75-24226
- Performance of advanced silicon solar cells in a space environment 06 p0052 A75-24232
- Electron and proton irradiation of high-efficiency silicon solar cells 06 p0053 A75-24233
- The COMSAT non-reflective silicon solar cell - A second generation improved cell 06 p0053 A75-24245
- Solar one - The Delaware solar house and results obtained during the first year of operation 06 p0054 A75-24254
- The use of solar cells in the lighthouse service 06 p0054 A75-24255
- Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions 06 p0054 A75-24256
- Terrestrial applications of FEP-encapsulated solar cell modules --- power systems using Fluorinated Ethylene Propylene encapsulation 06 p0054 A75-24258
- Process development for low cost integrated solar arrays 06 p0054 A75-24259
- Epitaxial silicon solar cell 06 p0056 A75-25086
- Solar cell modules for lightweight solar arrays --- onboard communication satellites 06 p0057 A75-26068
- High-efficiency graded band-gap Al_xGa_{1-x}As-GaAs solar cell 06 p0058 A75-27519
- GaAs concentrator solar cell 06 p0058 A75-27520
- Solar cells - Present state and perspectives on terrestrial applications 06 p0058 A75-27716
- The future of silicon solar cells for terrestrial use 06 p0058 A75-27717
- Solar electric and thermal conversion system in close proximity to the consumer --- solar panels on house roofs [AIAA PAPER 75-628] 06 p0062 A75-28597
- Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator 07 p0109 A75-29478
- Temperature effects in Schottky-barrier silicon solar cells 07 p0115 A75-34175
- Temperature dependence of the spectral characteristics of quick-response silicon photocells 07 p0119 A75-36013
- Efficient CuInSe₂/CdS solar cells 07 p0119 A75-36274
- A 15% efficient antireflection-coated metal-oxide-semiconductor solar cell 07 p0119 A75-36275
- The conversion efficiency of ideal Shockley p-n junction photovoltaic converters in concentrated sunlight 07 p0120 A75-36362
- Silicon solar cells for highly concentrated sunlight 07 p0120 A75-36363
- Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels 07 p0122 A75-37162
- The effect of sunshine testing on terrestrial solar cell system components 07 p0123 A75-37396
- V-grooved silicon solar cells 07 p0123 A75-37397
- The high intensity solar cell - Key to low cost photovoltaic power 07 p0123 A75-37400
- Advances in the theory and application of BSP cells --- Back Surface Field solar cells 07 p0123 A75-37402
- Effects of high doping levels on silicon solar cell performance 07 p0123 A75-37403
- Effect of impurity doping concentration on solar cell output 07 p0124 A75-37404
- Polycrystalline silicon layers for solar cells 08 p0165 A75-38958
- An overview of solar energy applications 08 p0166 A75-39196
- Enhancement of Schottky solar cell efficiency above its semiempirical limit 08 p0171 A75-42166
- An Al p-silicon MOS photovoltaic cell 08 p0173 A75-43459
- Solar cells for power generation on communication satellites 08 p0174 A75-44005
- Reliability of low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy 08 p0174 A75-44754
- Outlook for Si photovoltaic devices for terrestrial solar-energy utilization 08 p0181 A75-45509
- Solar One, two years experience --- prototype home thermal and electrical system 08 p0184 A75-45922
- CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- Design considerations in Schottky solar cells 08 p0188 A75-45962
- Concentrated photovoltaic power generation systems 08 p0188 A75-45963
- A comparison of the COMSAT violet and non-reflective cells 08 p0192 A75-46015
- Technique for producing 'good' GaAs solar cells using poor-quality substrates 08 p0195 A75-46721
- The modular solar energy satellite: Investigation on large solar cell surfaces in space for the purpose of earth power supply [ILR-17-1974] 05 p0036 A75-14271
- Direct solar energy conversion for large scale terrestrial use [PB-236193/9] 06 p0071 A75-16115
- Development of low cost thin film polycrystalline silicon solar cells for terrestrial applications [PB-238505/2] 06 p0105 A75-20890
- Photovoltaic cell array [NASA-CASE-NPS-22458-1] 07 p0134 A75-22900
- Columnar silicon film solar cells for terrestrial applications [PB-238534/2] 07 p0135 A75-22916
- Summary of high efficiency silicon solar cell meeting held at NASA-Lewis [NASA-TH-X-71729] 07 p0138 A75-23681
- Feasibility study of a satellite solar power station [NASA-CR-2357] 07 p0138 A75-23683
- Photovoltaic solar power systems 07 p0139 A75-24098
- Space satellite power system --- conversion of solar energy by photovoltaic solar cell arrays [NASA-CR-142799] 07 p0139 A75-24099
- The high intensity solar cell: Key to low cost photovoltaic power [NASA-TH-X-71718] 07 p0140 A75-24108
- The effect of sunshine testing on terrestrial solar cell system components [NASA-TH-X-71722] 07 p0140 A75-24109
- V-grooved silicon solar cells [NASA-TH-X-71715] 07 p0141 A75-24119
- Terrestrial photovoltaic power systems with sunlight concentration [PB-238506/0] 07 p0143 A75-24136

- Glass-Si heterojunction solar cells
 [PE-239282/7] 07 p0145 N75-24156
- Research on solar cell arrays and electric energy
 [PB-239338/7] 07 p0155 N75-26504
- Research and development of low cost processes for
 integrated solar arrays
 [PB-239760/2] 07 p0156 N75-26519
- Direct solar energy conversion for large scale
 terrestrial use
 [PE-241007/4] 08 p0201 N75-28545
- SOLAR COLLECTORS**
- Heat mirrors for solar-energy collection and
 radiation insulation
 05 p0004 A75-10525
- Comparative performance characteristics of
 cylindrical parabolic and flat plate solar
 energy collectors
 [ASHE PAPER 74-WA/ENER-3] 05 p0016 A75-16835
- Solar selective surfaces made of semiconducting
 powders
 [ASHE PAPER 74-WA/HT-13] 05 p0017 A75-16857
- Natural convection in enclosed spaces - A review
 of application to solar energy collection
 [ASHE PAPER 74-WA/HT-12] 05 p0017 A75-16860
- Solar radiation heat transfer to high temperature
 heat carriers
 [ASHE PAPER 74-WA/HT-14] 05 p0017 A75-16861
- The analysis of the performance of a pancake
 absorber-heat exchanger for a solar concentrator
 [ASHE PAPER 74-WA/SOL-1] 05 p0018 A75-16884
- A case study - Utilization of solar energy in
 residential dwellings
 [ASHE PAPER 74-WA/SOL-2] 05 p0018 A75-16885
- An analytical and experimental investigation of a
 laboratory solar pond model
 [ASHE PAPER 74-WA/SOL-3] 05 p0019 A75-16886
- Performance of the thermal trap solar collector
 [ASHE PAPER 74-WA/SOL-5] 05 p0019 A75-16888
- Design of a tubular heat collector for a solar
 power installation with a parabolocylindric
 concentrator
 05 p0020 A75-17069
- Simulation of a solar heating and cooling system
 --- for houses
 06 p0048 A75-23018
- Some aspects of a solar battery system and its use
 for irrigation in remote sun-rich regions
 06 p0054 A75-24256
- Method for calculating solar radiation for
 semicylindrical collectors
 06 p0057 A75-26718
- GaAs concentrator solar cell
 06 p0058 A75-27520
- Solar collector performance evaluated outdoors at
 NASA-Lewis Research Center
 06 p0058 A75-27531
- Status of the NASA-Lewis flat-plate collector
 tests with a solar simulator
 06 p0058 A75-27533
- Cooling by solar heat --- heating and cooling
 system for buildings
 [AIAA PAPER 75-609] 06 p0062 A75-28590
- Solar ponds for space heating --- energy storage
 by convectionless shallow water
 07 p0109 A75-29471
- Parametric performance and cost models for solar
 concentrators
 07 p0109 A75-29476
- Performance of a solar battery using
 quasi-cylindrical array of plane mirrors as a
 concentrator
 07 p0109 A75-29478
- Calculation of flat-plate collector loss
 coefficients --- of solar radiation
 07 p0109 A75-29480
- Solar-thermal electric power
 07 p0111 A75-31270
- Trapezoidal grooves as moderately concentrating
 solar energy collectors
 [AIAA PAPER 75-738] 07 p0113 A75-32860
- Numerical modeling of flat plate solar collectors
 [AIAA PAPER 75-739] 07 p0113 A75-32861
- Outdoor flat-plate collector performance
 prediction from solar simulator test data
 [AIAA PAPER 75-741] 07 p0113 A75-32862
- Glass solar heat collector development
 [AIAA PAPER 75-740] 07 p0115 A75-33758
- Optimal solar energy collector system
 07 p0115 A75-33970
- On the optimum tilt of a solar collector
 07 p0115 A75-33971
- Field performance and operation of a flat-glass
 solar heat collector
 07 p0115 A75-33973
- Evaluation of central solar tower power plant
 07 p0116 A75-34531
- Modeling of solar absorption air conditioning
 07 p0117 A75-34932
- Solar characteristics of new absorptive coatings
 used on solar collectors
 07 p0117 A75-34934
- Methodology of research of flat-plate solar
 collector absorptive coatings
 07 p0117 A75-34935
- An ecologic solar heated and cooled home
 07 p0118 A75-34937
- Determination of the surface shapes of fila-type
 solar energy concentrators with seams
 07 p0119 A75-36017
- Power collection reduction by mirror surface
 nonflatness and tracking error for a central
 receiver solar power system
 07 p0120 A75-36305
- Solar energy - The physics of the greenhouse effect
 07 p0120 A75-36306
- Stationary concentrating reflector cum tracking
 absorber solar energy collector - Optical design
 characteristics
 07 p0120 A75-36307
- Fabricating paraboloidal high-temperature solar
 concentrators from mollified sectors
 07 p0122 A75-37166
- Semi-transparent solar collector window systems
 08 p0167 A75-39405
- Effect of diffusion on concentration profiles in a
 solar pond
 08 p0167 A75-39412
- Laboratory based activities in solar energy at the
 National Bureau of Standards
 08 p0168 A75-40299
- Evaluation of focusing solar energy collectors
 08 p0168 A75-40300
- Calculation of the radiant energy field for a
 biparaboloidal radiation furnace with a carbon arc
 08 p0170 A75-41540
- Thermokinetics of a flat solar collector of
 constant heat capacity
 08 p0171 A75-41768
- A tower-top point focus solar energy collector
 08 p0174 A75-44753
- A technique for calibrating photometric curves
 obtained in solar concentrator tests
 08 p0180 A75-45060
- Investigation of a solar concentrator with
 hexahedral glass facets
 08 p0180 A75-45061
- A nearly perfect solar energy concentrator made up
 of tapered mirror facets with constant
 transverse curvature
 08 p0180 A75-45062
- Optical coatings for collection and conservation
 of solar energy
 08 p0181 A75-45512
- Design and operation of a solar-powered
 turbocompressor air-conditioning and heating
 system
 08 p0186 A75-45939
- Development of a 540-sq-ft prototype faceted fixed
 mirror solar concentrator
 08 p0186 A75-45940
- The EPA-Van - A clean energy system for the home
 --- mobile test station for nonpolluting systems
 08 p0186 A75-45946
- Collector work function improvements and the
 development of low temperature thermionic
 converters
 08 p0188 A75-45960
- Industrial process heat from solar energy ---
 energy storage in water pond
 08 p0190 A75-45992
- Evaluation of solar-assisted Rankine cycle concept
 for the cooling of buildings
 08 p0194 A75-46040
- Application of heat pipes to solar collectors
 08 p0195 A75-46045
- Solar-thermal electric power generation using a
 system of distributed parabolic trough collectors
 [AICHE PAPER 12] 08 p0196 A75-47511

SUBJECT INDEX

SOLAR ENERGY

- Moderately concentrating flat-plate solar energy collectors
[ASME PAPER 75-HT-54] 08 p0196 A75-47526
- Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator
08 p0197 A75-47804
- Solar incidence factor and other geometric considerations of solar energy collection
[SAND-74-26] 05 p0034 N75-13390
- Axial temperature differential analysis of linear focused collectors for solar power
[SLA-74-5078] 05 p0036 N75-14268
- Design analysis of asymmetric solar receivers
[SAND-74-0124] 06 p0076 N75-16986
- Collection and concentration of solar energy using Fresnel type lenses
[NASA-CR-142194] 06 p0080 N75-17784
- The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors
[PB-236412/3] 06 p0083 N75-17830
- Solar kine: Answer to the agricultural energy challenge of our time
06 p0086 N75-18721
- Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies
[PB-238002/0] 06 p0087 N75-18733
- Summary of results of solar power arrays for the concentration of energy study
[PB-238003/8] 06 p0089 N75-18756
- Report and recommendations of the Solar Energy Data Workshop
[PB-238066/5] 06 p0089 N75-18757
- Solar collector thermal power system. Volume 1: Preliminary technology systems study
[AD-A000940] 06 p0091 N75-19339
- Solar collector thermal power system. Volume 2: Development, fabrication, and testing of fifteen foot heat pipes
[AD-A000941] 06 p0091 N75-19340
- Solar collector thermal power system. Volume 3: Basic study and experimental evaluation of thermal train components
[AD-A000942] 06 p0091 N75-19341
- Sizing of focused solar collector fields with specified collector tube inlet temperature --- Rankine cycle
[SLA-74-5288] 06 p0094 N75-19832
- Comparative performance characteristics of cylindrical parabolic focusing and flat plate solar energy collectors
[CONF-741104-3] 06 p0103 N75-20872
- Solar heating and cooling of buildings study conducted for department of the Army. Volume 1: Executive summary and implementation plans
[AD-A002576] 06 p0104 N75-20879
- Solar heating and cooling of buildings study conducted for Department of the Army. Volume 2: Technical report
[AD-A002563] 06 p0104 N75-20880
- Research on the application of solar energy to the food drying industry
[PB-238073/1] 06 p0105 N75-20888
- Solar collector performance evaluated outdoors at NASA-Lewis Research Center
[NASA-TM-X-71689] 07 p0128 N75-21794
- The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors
[PB-238509/4] 07 p0130 N75-21822
- Outdoor flat-plate collector performance prediction from solar simulator test data
[NASA-TM-X-71707] 07 p0140 N75-24111
- Standardized solar simulator tests of flat plate solar collectors. 1: Soltex collector with two transparent covers
[NASA-TM-X-71738] 07 p0141 N75-24118
- Interim standard for solar collectors, first draft
[PB-239757/8] 07 p0150 N75-25313
- Solar energy school heating augmentation experiment. Design, construction and construction and initial operation
[PB-239397/3] 07 p0150 N75-25314
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating. Solar collector performance studies
[PB-239355/1] 07 p0150 N75-25320
- Method of testing for rating solar collectors based on thermal performance --- flat plate collectors
[COM-75-10276/4] 07 p0150 N75-25321
- Development of flat-plate solar collectors for the heating and cooling of buildings
[NASA-CR-134804] 07 p0154 N75-26495
- Solar heating experiment on the Grover Cleveland School, Boston, Massachusetts
[PB-239516/8] 07 p0155 N75-26505
- Solar heating and cooling experiment for a school in Atlanta
[PB-240611/4] 07 p0155 N75-26510
- Solar collector performance studies
[PB-239758/6] 07 p0156 N75-26520
- Research applied to solar thermal systems
[PB-241089/2] 08 p0200 N75-28543
- Solar collector performance evaluation with the NASA-Lewis solar simulator-results for an all-glass-evacuated-tubular selectively-coated collector with a diffuse reflector
[NASA-TM-X-71695] 08 p0207 N75-31568
- Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator
[NASA-TM-X-71626] 08 p0211 N75-32595
- SOLAR ELECTRIC PROPULSION**
- Solar electric propulsion spacecraft power subsystem for an Encke comet rendezvous mission
05 p0002 A75-10481
- Interplanetary spacecraft design using solar electric propulsion
[AIAA PAPER 74-1084] 05 p0010 A75-11283
- SEPS solar array design and technology evaluation
08 p0192 A75-46016
- Natural environment design criteria for the Solar Electric Propulsion Stage (SEPS)
[NASA-TM-X-64929] 07 p0138 N75-23682
- Solar electric propulsion system thermal analysis --- including heat pipes and multilayer insulation
[NASA-CR-120770] 07 p0147 N75-24842
- SOLAR ENERGY**
- Prospects for tapping solar energy on a large scale
05 p0015 A75-14014
- A case study - Utilization of solar energy in residential dwellings
[ASME PAPER 74-WA/SOL-2] 05 p0018 A75-16885
- Some generalizations of sample water-supply calculations for solar-powered pumping plants
05 p0020 A75-17077
- Experience in setting up solar-energy survey for Azerbaïdzhân
05 p0020 A75-17081
- Technology utilization - Incentives and solar energy
06 p0048 A75-22913
- Simulation of a solar heating and cooling system --- for houses
06 p0048 A75-23018
- Solar operation of ammonia-water multistage air conditioning cycles in the tropics
06 p0048 A75-23021
- The Solar Community - Energy for residential heating, cooling, and electrical power
06 p0059 A75-27785
- The nature of the sunspot phenomenon. III - Energy consumption and energy transport. IV - The intrinsic instability of the magnetic configuration
06 p0064 A75-29137
- Hydrogen production from solar energy
07 p0109 A75-29477
- A commentary on solar energy
07 p0116 A75-34532
- Laboratory based activities in solar energy at the National Bureau of Standards
08 p0168 A75-40299
- The Florida Solar Energy Center
08 p0169 A75-40614
- Data monitoring and information availability - A key to solar energy utilization
08 p0169 A75-40618
- Cooling a light industrial building in Puerto Rico using solar energy
[AIAA PAPER 75-612] 08 p0170 A75-41178

- Effective utilization of solar energy to produce clean fuel
[PB-233956/2] 05 p0026 N75-10605
- Our prodigal sun --- solar energy technology
[NASA-EP-118] 05 p0032 N75-12885
- Utilization of solar energy --- an assessment of present technology
[NASA-TT-F-16090] 05 p0033 N75-13382
- Prospects for solar energy utilization
[SAND-74-8604] 05 p0034 N75-13389
- Solar incidence factor and other geometric considerations of solar energy collection
[SAND-74-26] 05 p0034 N75-13390
- Solar energy: Sandia's photovoltaic research program
[SLA-74-281] 05 p0034 N75-13392
- Axial temperature differential analysis of linear focused collectors for solar power
[SLA-74-5078] 05 p0036 N75-14268
- Photochemical conversion of solar energy
[PB-236266/3] 05 p0037 N75-14281
- Photochemical conversion of solar energy --- study of iron-thionine photogalvanic cells
[PB-235474/4] 05 p0038 N75-14282
- Solar sea power
[PB-235469/4] 05 p0038 N75-14284
- Solar energy
[NASA-TT-F-16092] 05 p0038 N75-15149
- Research applied to solar-thermal power systems: Chemical vapor deposition research for fabrication of solar energy converters
[PB-234565/0] 05 p0041 N75-15186
- Photochemical conversion of solar energy
[PB-235503/0] 06 p0070 N75-16106
- Air-stable selective surfaces for solar energy collectors
[PB-236196/2] 06 p0071 N75-16116
- Research on cadmium stannate selective optical films for solar energy applications
[PB-236208/5] 06 p0071 N75-16117
- Solar thermal electric power systems
[PB-236368/7] 06 p0071 N75-16118
- Chemical vapor deposition research for fabrication of solar energy converters
[PB-236189/7] 06 p0072 N75-16119
- Terrestrial photovoltaic power systems with sunlight concentration
[PB-236180/6] 06 p0072 N75-16120
- Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers
[PB-236164/0] 06 p0072 N75-16122
- Sensible heat storage in liquids --- solar energy applications
[SLL-73-0263] 06 p0074 N75-16773
- Solar energy program plan for heating and cooling buildings
[WASH-1337-5-DRAFT] 06 p0077 N75-16993
- Solar total energy program
[SAND-74-0208] 06 p0081 N75-17810
- Use of solar energy in buildings in New York state
[PB-236974/2] 06 p0083 N75-17825
- Solar thermal subsystem specification study
[PB-238005/3] 06 p0083 N75-17829
- Solar energy concentrator system for crystal growth and zone refining in space
[NASA-CN-120623] 06 p0086 N75-18719
- Summary of results of solar power arrays for the concentration of energy study
[PB-238003/8] 06 p0089 N75-18756
- LLL-SOHIO solar process heat project
[UCID-16630-74-1] 06 p0093 N75-19827
- Solar energy: A bibliography
[TID-3351] 06 p0103 N75-20871
- Comparative performance characteristics of cylindrical parabolic focusing and flat plate solar energy collectors
[CONF-741104-3] 06 p0103 N75-20872
- Research on the application of solar energy to the food drying industry
[PB-238073/1] 06 p0105 N75-20888
- Putting the sun to work: A history and directory of currently available solar energy applications
[PB-238189/5] 07 p0129 N75-21810
- Photovoltaic cell array
[NASA-CASE-NFS-22458-1] 07 p0134 N75-22900
- Electric power for space satellites
[NASA-TM-X-66808] 07 p0137 N75-23678
- Oceanic and atmospheric energy sources
07 p0139 N75-24101
- The national solar energy program
07 p0139 N75-24102
- Solar energy research and development
[GPO-40-684] 07 p0139 N75-24104
- V-grooved silicon solar cells
[NASA-TM-X-71715] 07 p0141 N75-24119
- Terrestrial photovoltaic power systems with sunlight concentration
[PB-238506/0] 07 p0143 N75-24136
- Proceedings of 5th annual symposium: Energy Research and Development --- solar energy, windpower utilization, thermonuclear power generation
[AD-A007799] 07 p0144 N75-24142
- A preliminary technology assessment of ocean thermal gradient energy generation
[PB-238646/4] 07 p0144 N75-24147
- Symposium on the Material Science Aspects of Thin Film Systems for Solar Energy Conversion
[PB-239270/2] 07 p0144 N75-24150
- Solar energy for process steam generation
[PB-238109/3] 07 p0145 N75-24154
- Solar Energy Research, Development, and Demonstration Act of 1974
[GPO-39-827] 07 p0149 N75-25299
- Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process
[PB-239374/2] 07 p0150 N75-25317
- Solar heating and cooling experiment for a school in Atlanta
[PB-240611/4] 07 p0155 N75-26510
- Fluid manifold design for a solar energy storage tank
[NASA-TM-X-64940] 07 p0160 N75-27562
- Feasibility study of solar energy utilization in modular integrated utility systems
[NASA-CN-141929] 08 p0199 N75-28518
- Integrated solar powered climate conditioning systems
[PB-239759/4] 08 p0200 N75-28527
- Research applied to solar thermal power systems
[PB-241090/0] 08 p0201 N75-28544
- Proceedings of a Workshop on Solar Energy and the Law
[PB-241051/2] 08 p0201 N75-28551
- Assessment of a single family residence solar heating system in a suburban development setting
[PB-240784/9] 08 p0203 N75-29552
- Assessment of a single family residence solar heating system in a suburban development setting
[PB-240553/8] 08 p0203 N75-29570
- Solar heating/cooling of buildings: Current building community projects
[PB-241117/1] 08 p0205 N75-30668
- Solar Energy Research, Development, and Demonstration Act of 1974
[GPO-39-827] 08 p0207 N75-31567
- The NASA-Lewis/ERDA solar heating and cooling technology program --- project planning/energy policy
[NASA-TM-X-71800] 08 p0210 N75-32592
- SOLAR ENERGY ABSORBERS**
- Solar farms utilizing low-pressure closed-cycle gas turbines
05 p0003 A75-10514
- Operating experiences with terrestrial solar battery systems in Japan
05 p0005 A75-10531
- Solar thermal absorption heat pump breakeven coefficient of performance
[ASHE PAPER 74-WA/ENER-2] 05 p0015 A75-16834
- Solar energy storage within the absorption cycle
[ASHE PAPER 74-WA/HT-18] 05 p0017 A75-16864
- The analysis of the performance of a pancake absorber-heat exchanger for a solar concentrator
[ASHE PAPER 74-WA/SOL-1] 05 p0018 A75-16884
- Thin film coatings in solar-thermal power systems
06 p0056 A75-25679
- Modeling of the CSU heating/cooling system --- Colorado State University solar house computer simulation
07 p0109 A75-29473
- A new concept for solar energy thermal conversion
07 p0110 A75-30368

SUBJECT INDEX

SOLAR ENERGY CONVERSION

- Determination of some thermophysical characteristics of a solar-type pebble accumulator
07 p0116 A75-34317
- Solar characteristics of new absorptive coatings used on solar collectors
07 p0117 A75-34934
- Methodology of research of flat-plate solar collector absorptive coatings
07 p0117 A75-34935
- The University of Florida solar powered intermittent ammonia/water absorption air conditioner
07 p0118 A75-34936
- Stationary concentrating reflector cum tracking absorber solar energy collector - Optical design characteristics
07 p0120 A75-36307
- Solar absorption air conditioning alternatives
08 p0167 A75-39410
- Determination of some thermophysical properties of pebble-type solar heat accumulators
08 p0170 A75-41530
- Thermal performance analysis of the stationary reflector/tracking absorber /SRTA/ solar concentrator
[ASME PAPER 75-HT-FFF] 08 p0173 A75-43881
- Principles and applications of selective solar coatings
08 p0181 A75-45511
- Solar-energy materials preparation techniques
08 p0181 A75-45513
- Thermal energy storage --- solar storage materials performance
08 p0185 A75-45932
- Study on parameter variations for solar powered lithium bromide absorption cooling
08 p0186 A75-45938
- Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy
08 p0190 A75-45994
- Orbital solar energy technology advances
08 p0192 A75-46018
- Indium tin oxide-coated silicon as a selective absorber --- for solar radiation
08 p0195 A75-46951
- Solar energy absorber
[NASA-CASE-MPS-22743-1] 05 p0024 N75-10585
- Solar energy trap
[NASA-CASE-MPS-22744-1] 05 p0024 N75-10586
- The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors
[PB-236412/3] 06 p0083 N75-17830
- Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies
[PB-238002/0] 06 p0087 N75-18733
- Solar thermal power systems based on optical transmission
[PB-237005/4] 06 p0088 N75-18742
- Reflector-absorber systems for solar thermionic converters
[ESRO-TT-123] 06 p0104 N75-20878
- Terrestrial photovoltaic power systems with sunlight concentration
[PB-238582/1] 06 p0105 N75-20886
- Workshop Proceedings on Solar Cooling for buildings, held in conjunction with the Semiannual Meeting of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)
[PB-239419/5] 07 p0144 N75-24145
- Solar collector performance studies
[PB-239758/6] 07 p0156 N75-26520
- Solar pond
[NASA-CASE-NPO-13581-1] 07 p0160 N75-27560
- Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] 08 p0199 N75-28519
- Research applied to solar thermal power systems
[PB-241090/0] 08 p0201 N75-28544
- SOLAR ENERGY CONVERSION**
- Evaluation of central solar tower power plant
05 p0003 A75-10515
- Economics analyses of solar energy utilization
05 p0004 A75-10520
- Metal hydrides for thermal energy storage
05 p0004 A75-10522
- A prototype solar powered, Rankine Cycle system providing residential air conditioning and electricity
05 p0004 A75-10523
- Solar augmented home heating heat pump system
05 p0004 A75-10524
- Heat mirrors for solar-energy collection and radiation insulation
05 p0004 A75-10525
- Analysis of conversion efficiency of organic-semiconductor solar cells
05 p0010 A75-11146
- Study of channel-type systems for solar-energy radiative heat transport
05 p0010 A75-11196
- GaP p-n junctions and possibilities for their application in the conversion of solar energy into electric
05 p0011 A75-12198
- Solar energy: Technology and applications --- Book
05 p0012 A75-12425
- II-VI photovoltaic heterojunctions for solar energy conversion
05 p0012 A75-12734
- Utilization of solar energy today
05 p0012 A75-12987
- Solar energy conversion and storage systems for the future
05 p0013 A75-12988
- Solar cells - Operation, development and applications
05 p0015 A75-15201
- Transparent heat-mirror films of TiO₂/Ag/TiO₂ for solar energy collection and radiation insulation
05 p0015 A75-16378
- Methods for low cost manufacture of silicon solar arrays
[ASME PAPER 74-WA/ENER-4] 05 p0016 A75-16836
- Natural convection in enclosed spaces - A review of application to solar energy collection
[ASME PAPER 74-WA/HT-12] 05 p0017 A75-16860
- Sizing of solar energy storage systems using local weather records
[ASME PAPER 74-WA/HT-20] 05 p0017 A75-16865
- Dynamic response of solar heat storage systems
[ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867
- Performance of the thermal trap solar collector
[ASME PAPER 74-WA/SOL-5] 05 p0019 A75-16888
- Selection and evaluation of the University of Florida's solar powered absorption air conditioning system
[ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
- Assessment of Rankine cycle for potential application to solar-powered cooling of buildings
[ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890
- Dynamic simulation for performance analysis of solar heated and cooled buildings
[ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
- Energy problems - Solar energy and manure gas
05 p0020 A75-17024
- Concepts for central solar electric power generation
05 p0021 A75-17504
- Compact solar energy concentrator
05 p0021 A75-19050
- Material considerations involved in solar energy conversion
06 p0047 A75-22522
- Thermodynamic analysis of a solar energy system with a closed-cycle gas-turbine converter
06 p0049 A75-23402
- A study of channel systems for radiative solar-heat transfer
06 p0049 A75-23408
- Considerations regarding a utilization of solar energy --- thermal, electric and wind energy systems
06 p0050 A75-23510
- The introduction of the principles of biological energy supply in future technical systems
06 p0050 A75-23511
- Photovoltaic power generation; Proceedings of the International Conference, Hamburg, West Germany, September 25-27, 1974
06 p0051 A75-24213
- Report on photovoltaics research and technology in the United States
06 p0051 A75-24214

- Historic development of photovoltaic power generation
06 p0051 A75-24215
- Solar one - The Delaware solar house and results obtained during the first year of operation
06 p0054 A75-24254
- Effect of attitude constraints on solar-electric geocentric transfers
[AIAA PAPER 75-350] 06 p0055 A75-24957
- Use of flexible reflective surfaces for solar energy concentration
06 p0056 A75-25678
- Dynamic method for calculating the series resistance of a semiconductor photoelectric converter
06 p0057 A75-26713
- Roles for solar thermal conversion systems in our energy economy
06 p0059 A75-27784
- Solar/hydroelectric combined power systems
06 p0059 A75-27786
- Ocean thermal power and windpower systems - Natural solar energy conversion for near-term impact on world energy markets
06 p0060 A75-27790
- Prospects of photosynthetic energy production
06 p0060 A75-27792
- SIMSHAC - A simulation program for solar heating and cooling of buildings
06 p0061 A75-28093
- Solar energy in earth processes --- review
06 p0061 A75-28437
- Solar energy and energy conservation in a state-assisted housing for the elderly project
[AIAA PAPER 75-611] 06 p0062 A75-28591
- Systems aspects of ocean thermal energy conversion
[AIAA PAPER 75-615] 06 p0062 A75-28593
- Site limitations on Solar Sea Power Plants
[AIAA PAPER 75-618] 06 p0062 A75-28594
- 100 MWe solar power plant design configuration and performance
[AIAA PAPER 75-623] 06 p0062 A75-28595
- A central receiver solar power plant in a hybrid mode of operation --- solar/fossil-fueled steam power plant
[AIAA PAPER 75-624] 06 p0062 A75-28596
- The oceanic biomass energy plantation --- seaweed harvesting for food and fuel
[AIAA PAPER 75-635] 06 p0063 A75-28599
- The satellite solar power station - An option for energy production on earth
[AIAA PAPER 75-637] 06 p0063 A75-28600
- Overcoming two significant hurdles to space power generation Transportation and assembly
[AIAA PAPER 75-641] 06 p0063 A75-28601
- Tropical ocean thermal power plants and potential products
[AIAA PAPER 75-617] 06 p0064 A75-29116
- Solar thermal conversion mission analysis
[AIAA PAPER 75-619] 06 p0064 A75-29117
- Design and construction of a residential solar heating and cooling system
07 p0109 A75-29472
- A method of simulation of solar processes and its application --- energy collection processes
07 p0109 A75-29474
- Parametric performance and cost models for solar concentrators
07 p0109 A75-29476
- A new concept for solar energy thermal conversion
07 p0110 A75-30368
- Solar energy for earth: An AIAA assessment --- Book
07 p0110 A75-31267
- Solar-thermal electric power
07 p0111 A75-31270
- Photovoltaic power --- solar energy for terrestrial applications
07 p0111 A75-31271
- Fuel production /biomass energy/ --- by fuel plantation development
07 p0111 A75-31275
- Energy, environment and building --- Book
07 p0111 A75-31448
- Pilot solar air-conditioning plant and results of its use
07 p0111 A75-31512
- Solar production of electrical energy
07 p0112 A75-31588
- Solar energy and architecture
07 p0112 A75-31698
- Minimum cost solar thermal electric power systems - A dynamic programming based approach
07 p0112 A75-32097
- Analysis of gas dissociation solar thermal power system
07 p0115 A75-33974
- Complex utilization of a solar power plant
07 p0116 A75-34320
- Evaluation of central solar tower power plant
07 p0116 A75-34531
- Solar air conditioning systems using Bankine power cycles - Design and test results of prototype three ton unit
07 p0117 A75-34931
- Heating buildings with solar energy
07 p0117 A75-34933
- The University of Florida solar powered intermittent ammonia/water absorption air conditioner
07 p0118 A75-34936
- The satellite solar power station option --- for solar energy transmission to earth
07 p0118 A75-35465
- Solar energy - The physics of the greenhouse effect
07 p0120 A75-36306
- The conversion efficiency of ideal Shockley p-n junction photovoltaic converters in concentrated sunlight
07 p0120 A75-36362
- Controlling the response of thermoelements that generate electricity
07 p0121 A75-37154
- Generation of electric power at high reliability levels using a group of solar power plants in an energy system
07 p0122 A75-37159
- Principles of a composite study involving combined use of solar and wind energy
07 p0122 A75-37160
- Generalizations of composite studies involving combined use of wind and solar energy
07 p0122 A75-37161
- Dynamic calculation of semiconductor photoconverter series resistance
07 p0122 A75-37164
- Summary of NASA-Lewis Research Center solar heating and cooling and wind energy programs
07 p0123 A75-37240
- Optical interfaces in solar energy utilization
07 p0123 A75-37331
- Energy and Resources - A plan is outlined according to which solar and wind energy would supply Denmark's needs by the year 2050 --- solar and wind power utilization for Denmark
07 p0124 A75-37846
- Satellites for energy transmission to earth - Technical and socioeconomic studies
07 p0125 A75-38644
- The potential of natural energy sources
08 p0165 A75-38865
- Thick semiconductor films for photothermal solar energy conversion
08 p0165 A75-38956
- An overview of solar energy applications
08 p0166 A75-39196
- Year round performance studies on a built-in storage type solar water heater at Jodhpur, India
08 p0167 A75-39406
- Effect of diffusion on concentration profiles in a solar pond
08 p0167 A75-39412
- Solar climate control - Evaluating the commercial possibilities
08 p0168 A75-40297
- Solar energy powered systems - History and current status
08 p0168 A75-40298
- Statistical relation between heat transfer from a closed area and meteorological parameters during the use of a solar refrigerating plant
08 p0169 A75-41072
- Comprehensive utilization of a solar installation
08 p0170 A75-41533
- Sunlight to electricity: Prospects for solar energy conversion by photovoltaics --- Book
08 p0170 A75-41608

SUBJECT INDEX

SOLAR ENERGY CONVERSION CONRD

- Solar tower thermo-chemical energy cycles
08 p0171 A75-42277
- Photoproduction of hydrogen via microbial and biochemical processes
08 p0171 A75-42279
- Solar energy conversion by water photodissociation
08 p0173 A75-43510
- Is massive solar energy conversion a practical prospect
08 p0174 A75-44752
- A tower-top point focus solar energy collector
08 p0174 A75-44753
- Reliability of low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy
08 p0174 A75-44754
- Ocean based solar-to-hydrogen energy conversion macro system
08 p0175 A75-44764
- Photolysis of water as a solar energy conversion process - An assessment
08 p0176 A75-44766
- The utilization of solar energy for hydrogen production by cell-free system of photosynthetic organisms
08 p0176 A75-44770
- A nearly perfect solar energy concentrator made up of tapered mirror facets with constant transverse curvature
08 p0180 A75-45062
- Solar energy - An overview
08 p0181 A75-45508
- Outlook for Si photovoltaic devices for terrestrial solar-energy utilization
08 p0181 A75-45509
- Optical coatings for collection and conservation of solar energy
08 p0181 A75-45512
- Solar-energy materials preparation techniques
08 p0181 A75-45513
- Solar-energy conversion at high solar intensities
08 p0181 A75-45514
- Space and energy - Some legal problems --- extraterrestrial resources and solar energy exploitation
08 p0183 A75-45885
- Solar One, two years experience --- prototype home thermal and electrical system
08 p0184 A75-45922
- Optimum properties of working fluids for solar powered heat pumps
08 p0185 A75-45937
- A computer program to determine the optimum configuration of solar assisted building heating and cooling systems based upon life-cycle cost
08 p0186 A75-45941
- Concentrated photovoltaic power generation systems
08 p0188 A75-45963
- The selection and use of energy storage for solar thermal electric application
08 p0189 A75-45980
- The design of a solar cavity steam generator for electrical power generation
08 p0190 A75-45982
- Ground based solar energy technology advances
08 p0190 A75-45984
- Continuous duty solar energy system concepts
08 p0190 A75-45993
- A 100 watt Stirling electric generator for solar or solid fuel heat sources
08 p0192 A75-46014
- Solar-thermal electric power generation using a system of distributed parabolic trough collectors [AICHE PAPER 12]
08 p0196 A75-47511
- The NASA-Lewis/ERDA Solar Heating and Cooling Technology Program
08 p0197 A75-47803
- Development of solar engineering in the USSR [AD-784708]
05 p0025 A75-10597
- Solar Sea Power Plants (SSPP): A critical review and survey [NASA-TM-X-70783]
05 p0028 A75-11459
- Bioconversion --- of solar energy and solid waste energy into useable fuels [GPO-37-403]
05 p0028 A75-11463
- Shallow solar pond energy conversion system: An analysis of a conceptual 10-MWe plant [UCRL-51533-REV-1]
05 p0028 A75-11467
- Solar photovoltaic energy [GPO-39-576]
05 p0032 A75-13379
- A system utilizing solar energy [NASA-TT-F-16089]
05 p0033 A75-13386
- Japanese/United States Symposium on Solar Energy systems. Volume 1: Summary of proceedings [MTR-6284-VOL-1]
05 p0036 A75-14264
- Wind and solar power engineering [AD-786844]
05 p0039 A75-15168
- Solar heating and cooling of buildings, phase 0. Volume 2: Final report [PB-235423/1]
05 p0042 A75-15190
- Solar heating and cooling of buildings, phase 0: Feasibility and planning study. Volume 3, book 1, appendix A, task 1: Development of requirements. Appendix B, task 2: Systems definition [PB-235433/0]
05 p0042 A75-15191
- Solar heating and cooling of buildings. Phase 0: Final report, volume 1 [PB-235427/2]
05 p0042 A75-15192
- Solar heating and cooling of buildings. Phase 0: Final report. Volume 2: Appendices A-W [PB-235428/0]
05 p0042 A75-15193
- Solar heating and cooling of buildings. Phase 0: Final report. Volume 3: Appendices O-Y [PB-235429/8]
05 p0042 A75-15194
- Dynamic conversion of solar generated heat to electricity [NASA-CR-134724]
06 p0066 A75-16079
- Test report SEPS solar array root section model [NASA-CR-120606]
06 p0067 A75-16085
- Proceedings of the Solar Heating and Cooling for Buildings Workshop. Part 2: Panel sessions, March 23 [PB-235483/5]
06 p0069 A75-16095
- Proceedings of the Workshop on Bio-Solar Conversion [PB-236142/6]
06 p0069 A75-16096
- Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 1: Working group and panel reports [NASA-CR-138209]
06 p0069 A75-16097
- Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers [NASA-CR-138193]
06 p0069 A75-16098
- Solar heating and cooling of buildings. Phase 0: Feasibility and planning study. Volume 1: [PB-235431/4]
06 p0069 A75-16101
- Solar heating and cooling of buildings. Phase 0: Feasibility and planning study. Volume 2: Technical report [PB-235432/2]
06 p0069 A75-16102
- Solar heating and cooling of buildings, phase 0. Volume 3: Appendices [PB-235424/9]
06 p0070 A75-16103
- Solar heating and cooling of buildings, phase 0. Volume 1: Executive summary [PB-235422/3]
06 p0070 A75-16107
- Solar Power Array for the Concentration of Energy, (SPACE) [PB-236247/3]
06 p0071 A75-16114
- Direct solar energy conversion for large scale terrestrial use [PB-236193/9]
06 p0071 A75-16115
- Photovoltaic conversion of solar energy for Terrestrial Applications. Volume 1: Working group and panel reports [PB-236163/2]
06 p0072 A75-16121
- Integration of photovoltaic and solar thermal energy conversion systems [SAND-74-0093]
06 p0076 A75-16992
- Control system design and simulation for solar heated structures [LA-UR-74-1085]
06 p0082 A75-17813
- Thermodynamic analysis and parameter optimization of a solar thermoelectric power unit with radiation heat dissipation [AD-A000211]
06 p0082 A75-17819
- Solar kine: Answer to the agricultural energy challenge of our time
06 p0086 A75-18721
- Sizing of focused solar collector fields with specified collector tube inlet temperature --- Rankine cycle [SLA-74-5288]
06 p0094 A75-19832
- Reflector-absorber systems for solar thermionic converters [ESRO-TT-123]
06 p0104 A75-20878

- Technology for the conversion of solar energy to fuel gas [PB-238103/6] 06 p0104 N75-20883
- Environmental aspects of cadmium sulfide usage in solar energy conversion. Part 1: Toxicological and environmental health considerations, a bibliography [PB-238285/1] 06 p0105 N75-20884
- Solar power system and component research program [PB-238642/3] 07 p0135 N75-22915
- Columnar silicon film solar cells for terrestrial applications [PB-238534/2] 07 p0135 N75-22916
- Technology for the conversion of solar energy to fuel gas [PB-238545/8] 07 p0136 N75-22919
- Solar power system and component research program [PB-239185/2] 07 p0136 N75-22930
- Photovoltaic solar power systems 07 p0139 N75-24098
- Space satellite power system --- conversion of solar energy by photovoltaic solar cell arrays [NASA-CR-142799] 07 p0139 N75-24099
- Solar photothermal power conversion 07 p0139 N75-24100
- The national solar energy program 07 p0139 N75-24102
- The energy plantation 07 p0139 N75-24103
- Photochemical conversion of solar energy [PB-238533/4] 07 p0143 N75-24132
- Chemical vapor deposition research for fabrication of solar energy converters [PB-238947/6] 07 p0143 N75-24137
- Symposium on the Material Science Aspects of Thin Film Systems for Solar Energy Conversion [PB-239270/2] 07 p0144 N75-24150
- Proceedings of the Solar Thermal Conversion Workshop [PB-239277/7] 07 p0145 N75-24157
- Heat exchangers for sea solar power plants [PB-239369/2] 07 p0150 N75-25319
- Solar heating experiment on the Grover Cleveland School, Boston, Massachusetts [PB-239516/8] 07 p0155 N75-26505
- Design and test report for transportable solar laboratory program [PB-240609/8] 07 p0156 N75-26512
- Direct solar energy conversion for large scale terrestrial use [PB-241007/4] 08 p0201 N75-28545
- Solar energy power system [NASA-CASE-HFS-21628-2] 08 p0202 N75-29548
- Solar energy projects of the Federal Government [PB-241620/4] 08 p0208 N75-31582
- Full-scale testing of high-voltage photocells of fotovolt type at elevated light flux levels 08 p0210 N75-32590
- Solar Heating and Cooling Demonstration Act of 1974: Oversight hearings [GPO-55-814] 08 p0212 N75-33495
- Hot water hydraulics of the Gulf Stream sited OTGH [PB-242151/9] 08 p0213 N75-33502
- An evaluation of oceanographic and socioeconomic aspects of a nearshore ocean thermal energy conversion pilot plant in subtropical Hawaiian waters [PB-242167/5] 08 p0213 N75-33509
- SOLAR FLUX DENSITY**
- Experience in setting up solar-energy survey for Azerbaidzhan 05 p0020 A75-17081
- Investigation of photoelectric converter operation under conditions of strong illumination 07 p0119 A75-36015
- The high intensity solar cell - Key to low cost photovoltaic power 07 p0123 A75-37400
- Data monitoring and information availability - A key to solar energy utilization 08 p0169 A75-40618
- Operation of photoconverters under conditions of strong illumination 08 p0170 A75-41538
- Solar-energy conversion at high solar intensities 08 p0181 A75-45514
- SOLAR GENERATORS**
- Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
- Study of energy distribution in the field of concentration of a solar power plant with a hyperboloid counterreflector 05 p0010 A75-11195
- Analysis of different systems concerning the energy distribution on board a satellite [IAP PAPER 74-084] 05 p0014 A75-13716
- Utilization of tubular thermoelectric modules in solar generators 05 p0020 A75-17067
- Design of a tubular heat collector for a solar power installation with a parabolocylindric concentrator 05 p0020 A75-17069
- Prospects for using dynamic thermocompression converter in solar power plants 05 p0020 A75-17076
- Concepts for central solar electric power generation 05 p0021 A75-17504
- Thermodynamic analysis of a solar energy system with a closed-cycle gas-turbine converter 06 p0049 A75-23402
- Energy distribution in the concentration field of a solar installation with a hyperboloidal counter-reflector 06 p0049 A75-23407
- Investigations and selection of components and materials for flexible solar generator 06 p0050 A75-24182
- Solar generators for terrestrial applications 06 p0054 A75-24257
- Testing of a photoelectric generator in a mountainous region of the Azerbaidzhan SSR 06 p0057 A75-26714
- Derivation of a total satellite energy system --- solar power station for terrestrial consumption [AIAA PAPER 75-640] 06 p0064 A75-29118
- Dependence of the basic parameters of Al_xGa_{1-x}As-GaAs solar converters on temperature and optical intensity 07 p0112 A75-32824
- Investigation of the electrical and temperature characteristics of a silicon photoelectric converter under natural conditions 07 p0116 A75-34314
- Determining potential solar power sites in western hemisphere ocean and land areas based upon satellite observations of cloud cover 07 p0118 A75-35461
- Investigation of photoelectric converter operation under conditions of strong illumination 07 p0119 A75-36015
- Photoelectric generator testing in the Azerbaidzhan SSR mountains 07 p0122 A75-37165
- Cooling with the sun's heat - Design considerations and test data for a Rankine Cycle prototype 08 p0167 A75-39409
- Operation of photoconverters under conditions of strong illumination 08 p0170 A75-41538
- Effectiveness of using chemically reacting working media in a solar gas-turbine installation 08 p0180 A75-45063
- Estimates of the reliability of energy-supply systems employing solar energy 08 p0181 A75-45064
- Solar residential electrification with high performance heat engines [AIAA PAPER 75-1239] 08 p0182 A75-45651
- Deployable Symphonie solar generator [IAP PAPER 75-009] 08 p0183 A75-45819
- Storage of energy in kinetic batteries for an earth resources satellite [IAP PAPER ST-75-09] 08 p0183 A75-45875
- The selection and use of energy storage for solar thermal electric application 08 p0189 A75-45980
- Solar-heated-air turbine generating systems 08 p0190 A75-45981
- The design of a solar cavity steam generator for electrical power generation 08 p0190 A75-45982
- Continuous duty solar energy system concepts 08 p0190 A75-45993
- Power processor design considerations for a solar electric propulsion spacecraft [NASA-CR-140842] 05 p0029 N75-12064

SUBJECT INDEX

SOLAR HEATING

- Solar power system and component research program
[PB-236159/0] 05 p0037 N75-14280
- Solar thermal electric power systems
[PB-235475/1] 05 p0038 N75-14283
- Chemical vapor deposition research for fabrication
of solar energy converters
[PB-235481/9] 05 p0041 N75-15185
- Research applied to solar-thermal power systems:
Chemical vapor deposition research for
fabrication of solar energy converters
[PB-234565/0] 05 p0041 N75-15186
- Solar thermal electric power systems
[PB-236368/7] 06 p0071 N75-16118
- Terrestrial photovoltaic power systems with
sunlight concentration
[PB-236180/6] 06 p0072 N75-16120
- Technical and economic feasibility of the ocean
thermal differences process as a solar-driven
energy process
[PB-236422/2] 06 p0077 N75-17003
- Solar sea power --- axial flow pumps
[PB-236997/3] 06 p0082 N75-17821
- Solar thermal power systems based on optical
transmission
[PB-237005/4] 06 p0088 N75-18742
- Assessment of the Rankine cycle for potential
application to solar powered cooling of buildings
[PB-238069/9] 06 p0089 N75-18755
- Summary of results of solar power arrays for the
concentration of energy study
[PB-238003/8] 06 p0089 N75-18756
- Terrestrial photovoltaic power systems with
sunlight concentration
[PB-238582/1] 06 p0105 N75-20886
- Photovoltaic cell array
[NASA-CASE-MPS-22458-1] 07 p0134 N75-22900
- Solar power system and component research program
[PB-238642/3] 07 p0135 N75-22915
- Formulation of a data base for the analysis,
evaluation and selection of a low temperature
solar powered air conditioning system
[PB-238683/7] 07 p0136 N75-22928
- Solar power system and component research program
[PB-239185/2] 07 p0136 N75-22930
- Chemical vapor deposition research for fabrication
of solar energy converters
[PB-238947/6] 07 p0143 N75-24137
- Proceedings of the Solar Thermal Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- Solar generator and power systems for
communication satellites 08 p0206 N75-31165
- SOLAR HEATING**
- Solar augmented home heating heat pump system
05 p0004 A75-10524
- Thermal energy storage devices suitable for solar
heating 05 p0007 A75-10553
- Utilization of solar energy today 05 p0012 A75-12987
- Solar thermal absorption heat pump breakeven
coefficient of performance
[ASME PAPER 74-WA/EMER-2] 05 p0015 A75-16834
- Sizing of solar energy storage systems using local
weather records
[ASME PAPER 74-WA/HT-20] 05 p0017 A75-16865
- Convergence and speed of calculations for
thermoelectric heat pump 05 p0020 A75-17084
- Solar collector performance evaluated outdoors at
NASA-Lewis Research Center 06 p0058 A75-27531
- Solar heating and cooling of buildings
06 p0059 A75-27783
- SIRSHAC - A simulation program for solar heating
and cooling of buildings 06 p0061 A75-28093
- Solar energy and energy conservation in a
state-assisted housing for the elderly project
[AIAA PAPER 75-611] 06 p0062 A75-28591
- Solar electric and thermal conversion system in
close proximity to the consumer --- solar panels
on house roofs
[AIAA PAPER 75-628] 06 p0062 A75-28597
- Solar ponds for space heating --- energy storage
by convectionless shallow water 07 p0109 A75-29471
- Design and construction of a residential solar
heating and cooling system 07 p0109 A75-29472
- A method of simulation of solar processes and its
application --- energy collection processes
07 p0109 A75-29474
- Solar energy for earth: An AIAA assessment --- Book
07 p0110 A75-31267
- Solar heating and cooling 07 p0111 A75-31269
- Solar-thermal electric power 07 p0111 A75-31270
- Theoretical determination of the temperature in a
solar water heater /steady state/
07 p0112 A75-31513
- Theoretical research on the operation of a solar
water heater and comparison with experimental data
07 p0112 A75-31515
- Solar energy and architecture 07 p0112 A75-31698
- Design charts for hot liquid energy storage
systems utilizing forced circulation
[AIAA PAPER 75-742] 07 p0113 A75-32851
- Solar stills for agricultural purposes
07 p0115 A75-33972
- Underground storage of heat in solar heating systems
07 p0115 A75-33975
- Solar heating and cooling of buildings using heat
pumps /Brief survey/
07 p0116 A75-34321
- Heating buildings with solar energy
07 p0117 A75-34933
- An ecologic solar heated and cooled home
07 p0118 A75-34937
- Study of the influence of container design and the
thermal inertness of solar water heaters on
their efficiency 07 p0119 A75-36018
- Energy distribution in the concentration field of
a two-mirror device with a paraboloidal back
reflector 07 p0122 A75-37157
- Use of solar heat pumps for heating and air
conditioning - A brief survey 08 p0170 A75-41534
- Investigation of the effect of boiler design and
finite thermal response of solar water heaters
on efficiency 08 p0170 A75-41541
- Thermochemical water cracking using solar heat
08 p0175 A75-44765
- Solar-energy conversion at high solar intensities
08 p0181 A75-45514
- Technical and economic evaluation of solar heating
and cooling of buildings 08 p0184 A75-45921
- Operational experience - Solar heating a Boston
school 08 p0184 A75-45923
- A large mechanical contracting corporation solar
heats its own offices 08 p0184 A75-45924
- The nation's first private industrial solar
heating system - General Electric's Valley Forge
Space Center 08 p0184 A75-45925
- Solar heating and cooling of Army buildings
08 p0184 A75-45926
- An integrated solar heated and cooled mobile home
08 p0184 A75-45927
- Solar heat pump comfort heating systems
08 p0185 A75-45936
- Design and operation of a solar-powered
turbocompressor air-conditioning and heating
system 08 p0186 A75-45939
- Development of a 540-sq-ft prototype faceted fixed
mirror solar concentrator 08 p0186 A75-45940
- A computer program to determine the optimum
configuration of solar assisted building heating
and cooling systems based upon life-cycle cost
08 p0186 A75-45941
- Solar-heated-air turbine generating systems
08 p0190 A75-45981
- Industrial process heat from solar energy ---
energy storage in water pond 08 p0190 A75-45992

- New dimensions in water heating in the Northwest -
A study of solar energy utilization --- computer
model 08 p0191 A75-45995
- Wind and solar thermal combinations for space
heating 08 p0192 A75-46010
- The NASA-Lewis/ERDA Solar Heating and Cooling
Technology Program 08 p0197 A75-47803
- Research, development, and the energy crisis
[GPO-27-032] 05 p0023 N75-10580
- Solar heating and cooling of buildings. Phase 0:
Final report. Executive summary
[PB-235426/4] 05 p0042 N75-15195
- Dynamic conversion of solar generated heat to
electricity
[NASA-CR-134724] 06 p0066 N75-16079
- Solar heating and cooling of buildings. Phase 0:
Feasibility and planning study. Volume 1:
[PB-235431/4] 06 p0069 N75-16101
- Solar heating and cooling of buildings. Phase 0:
Feasibility and planning study. Volume 2:
Technical report
[PB-235432/2] 06 p0069 N75-16102
- Solar heating and cooling of buildings, phase 0.
Volume 3: Appendices
[PB-235424/9] 06 p0070 N75-16103
- Solar heating and cooling of buildings, phase 0.
Volume 1: Executive summary
[PB-235422/3] 06 p0070 N75-16107
- Solar heating and cooling of buildings. Phase 0.
Feasibility and planning study. Volume 3, book
2, appendix c, task 3: Assessment of capture
potential. Appendix d, task 4: Social and
environmental study
[PB-235434/8] 06 p0070 N75-16108
- Latent heat and sensible heat storage for solar
heating systems
[PB-236190/5] 06 p0077 N75-17005
- Comparison of computer programs used for modeling
solar heating and air conditioning systems for
buildings
[LBL-3066] 06 p0079 N75-17279
- Design and construction of a residential solar
heating and cooling system
[PB-237042/7] 06 p0082 N75-17823
- Use of solar energy in buildings in New York state
[PB-236974/2] 06 p0083 N75-17825
- Solar thermal conversion program. Central
receiver POCE project, subsystem specifications
studies
[PB-238002/0] 06 p0087 N75-18733
- LLL-SOHIO solar process heat project
[UCID-16630-74-1] 06 p0093 N75-19827
- Solar heating and cooling of buildings study
conducted for department of the Army. Volume 1:
Executive summary and implementation plans
[AD-A002576] 06 p0104 N75-20879
- Solar heating and cooling of buildings study
conducted for Department of the Army. Volume 2:
Technical report
[AD-A002563] 06 p0104 N75-20880
- Feasibility demonstration of a solar powered
turbocompressor air conditioning and heating
system
[PB-238570/6] 07 p0130 N75-21816
- Solar residential heating and cooling system
development test program
[NASA-TM-X-64924] 07 p0135 N75-22903
- Modeling of solar heating and air conditioning
[PB-239189/4] 07 p0136 N75-22926
- The development of a solar residential heating and
cooling system
[NASA-CR-142728] 07 p0140 N75-24107
- Interim standard for solar collectors, first draft
[PB-239757/8] 07 p0150 N75-25313
- Solar energy school heating augmentation
experiment. Design, construction and
construction and initial operation
[PB-239397/3] 07 p0150 N75-25314
- Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating. Solar collector performance
studies
[PB-239355/1] 07 p0150 N75-25320
- Development of flat-plate solar collectors for the
heating and cooling of buildings
[NASA-CR-134804] 07 p0154 N75-26495
- Summary of NASA Lewis Research Center solar
heating and cooling and wind energy programs
[NASA-TM-X-71745] 07 p0154 N75-26497
- Research on solar cell arrays and electric energy
[PB-239338/7] 07 p0155 N75-26504
- Solar heating experiment on the Grover Cleveland
School, Boston, Massachusetts
[PB-239516/8] 07 p0155 N75-26505
- Solar heating and cooling experiment for a school
in Atlanta
[PB-240611/4] 07 p0155 N75-26510
- Investment possibility of financial institutions
in solar heating
[PB-239756/0] 07 p0155 N75-26511
- Design and test report for transportable solar
laboratory program
[PB-240609/8] 07 p0156 N75-26512
- Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating
[PB-239395/7] 07 p0157 N75-26521
- Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating, executive summary
[PB-239394/0] 07 p0157 N75-26522
- Integrated solar powered climate conditioning
systems
[PB-239759/4] 08 p0200 N75-28527
- Assessment of a single family residence solar
heating system in a suburban development setting
[PB-240784/9] 08 p0203 N75-29552
- Assessment of a single family residence solar
heating system in a suburban development setting
[PB-240553/8] 08 p0203 N75-29570
- Solar heating/cooling of buildings: Current
building community projects
[PB-241117/1] 08 p0205 N75-30668
- The NASA-Lewis/ERDA solar heating and cooling
technology program --- project planning/energy
policy
[NASA-TM-X-71800] 08 p0210 N75-32592
- Initial comparisons of solar collector performance
data obtained out-of doors and with a solar
simulator
[NASA-TM-X-71626] 08 p0211 N75-32595
- Solar Heating and Cooling Demonstration Act of
1974: Oversight hearings
[GPO-55-414] 08 p0212 N75-33495
- Seminar on Industrial Energy Conservation and
Seminar on Solar Space Heating and Cooling
[PB-241462/1] 08 p0212 N75-33498
- SOLAR MAGNETIC FIELD**
- The nature of the sunspot phenomenon. III - Energy
consumption and energy transport. IV - The
intrinsic instability of the magnetic
configuration 06 p0064 A75-29137
- SOLAR PHYSICS**
- The Nitre solar energy demonstration system
06 p0055 A75-24676
- SOLAR PROPULSION**
- Power processor design considerations for a solar
electric propulsion spacecraft
[NASA-CR-140842] 05 p0029 N75-12064
- SOLAR RADIATION**
- Solar radiation heat transfer to high temperature
heat carriers
[ASHE PAPER 74-WA/HT-14] 05 p0017 A75-16861
- The effect of sunshine testing on terrestrial
solar cell system components 07 p0123 A75-37396
- Solar energy --- and solar powered equipment
[NASA-TT-F-16155] 06 p0081 N75-17787
- Report and recommendations of the Solar Energy
Data Workshop
[PB-238066/5] 06 p0089 N75-18757
- SOLAR REFLECTORS**
- Study of energy distribution in the field of
concentration of a solar power plant with a
hyperboloid counterreflector 05 p0010 A75-11195
- Compact solar energy concentrator 05 p0021 A75-19050
- Material considerations involved in solar energy
conversion 06 p0047 A75-22522

SUBJECT INDEX

SPACECRAFT DESIGN

- Energy distribution in the concentration field of a solar installation with a hyperboloidal counter-reflector 06 p0049 A75-23407
- Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator 07 p0109 A75-29478
- Method of calibrating a solar power plant with a paraboloidal mirror 07 p0116 A75-34315
- Energy distribution in the concentration field of a two-mirror device with a paraboloidal back reflector 07 p0122 A75-37157
- Semi-transparent solar collector window systems 08 p0167 A75-39405
- Thermal performance analysis of the stationary reflector/tracking absorber /SRTA/ solar concentrator [ASME PAPER 75-HT-FFF] 08 p0173 A75-43881
- Reflector-absorber systems for solar thermionic converters [ESRO-TT-123] 06 p0104 A75-20878
- Low cost solar energy collection system [NASA-CASE-NPO-13579-1] 08 p0199 A75-28519
- SOLAR SEA POWER PLANTS**
Solar sea power plants /SSPP/ --- using ocean thermal gradients 08 p0191 A75-45996
- SOLAR SIMULATION**
Modeling of solar absorption air conditioning 07 p0117 A75-34932
- SOLAR SIMULATORS**
Status of the NASA-Lewis flat-plate collector tests with a solar simulator 06 p0058 A75-27533
- Outdoor flat-plate collector performance prediction from solar simulator test data [AIAA PAPER 75-741] 07 p0113 A75-32862
- Outdoor flat-plate collector performance prediction from solar simulator test data [NASA-TM-X-71707] 07 p0140 A75-24111
- Standardized solar simulator tests of flat plate solar collectors. 1: Soltex collector with two transparent covers [NASA-TM-X-71738] 07 p0141 A75-24118
- Solar collector performance evaluation with the NASA-Lewis solar simulator-results for an all-glass-evacuated-tubular selectively-coated collector with a diffuse reflector [NASA-TM-X-71695] 08 p0207 A75-31568
- Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator [NASA-TM-X-71626] 08 p0211 A75-32595
- SOLID PROPELLANTS**
Use of low grade solid fuels in gas turbines [ASME PAPER 74-WA/ENER-5] 05 p0016 A75-16837
- SOLIDS**
Energy recovery from solid waste --- production engineering model 06 p0079 A75-17200
- Solids emission from power station furnaces --- industrial pollution control [BLL-CE-TRANS-6524-(9022.09)] 07 p0157 A75-26528
- SOLVENT EXTRACTION**
Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 3 Products from coal minerals [PB-237764/6] 06 p0095 A75-19840
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 4. Sulfur removal from coal minerals [PB-237765/3] 06 p0095 A75-19841
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 5. Developmental and rate studies in processing of coal minerals [PB-237766/1] 06 p0095 A75-19842
- Solvent refined coal studies [PB-238532/6] 07 p0134 A75-22897
- Technology and use of lignite [PB-238666/2] 07 p0142 A75-24131
- SOUNDING ROCKETS**
The International Heat Pipe Experiment --- ten experiments in zero gravity [AIAA PAPER 75-726] 07 p0113 A75-32870
- SOUTHERN CALIFORNIA**
Outer continental shelf oil and gas leasing off southern California: Analysis of issues [GPO-41-659] 08 p0209 A75-31958
- SPACE ENVIRONMENT SIMULATION**
Performance of advanced silicon solar cells in a space environment 06 p0052 A75-24232
- Electron and proton irradiation of high-efficiency silicon solar cells 06 p0053 A75-24233
- SPACE LAW**
Space and energy - Some legal problems --- extraterrestrial resources and solar energy exploitation 08 p0183 A75-45885
- SPACE MANUFACTURING**
Solar energy concentrator system for crystal growth and zone refining in space [NASA-CR-120623] 06 p0086 A75-18719
- SPACE MISSIONS**
Natural environment design criteria for the Solar Electric Propulsion Stage (SEPS) [NASA-TM-X-64929] 07 p0138 A75-23682
- SPACE POWER REACTORS**
Comparison and evaluation of nuclear power plant options for geosynchronous power stations 08 p0193 A75-46027
- Economic radioisotope thermoelectric generator program: Program plan [IESD-3112-3] 05 p0034 A75-13393
- SPACE PROGRAMS**
Technology application at Rockwell International 06 p0078 A75-17189
- Research and technology operating plan summary: Fiscal year 1975 research and technology program --- space programs, energy technology, and aerospace sciences [NASA-TM-X-70410] 06 p0096 A75-20155
- Future space transportation systems systems analysis study, phase 1 technical report [NASA-CR-141856] 07 p0147 A75-24802
- SPACE SHUTTLE ORBITERS**
Electrical power generation subsystem for Space Shuttle Orbiter 05 p0002 A75-10477
- SPACE SHUTTLES**
Overcoming two significant hurdles to space power generation Transportation and assembly [AIAA PAPER 75-641] 06 p0063 A75-28601
- SPACE TRANSPORTATION**
Overcoming two significant hurdles to space power generation Transportation and assembly [AIAA PAPER 75-641] 06 p0063 A75-28601
- Propulsion technology needs for advanced space transportation systems [AIAA PAPER 75-1246] 08 p0182 A75-45656
- Future space transportation systems systems analysis study, phase 1 technical report [NASA-CR-141856] 07 p0147 A75-24802
- SPACEBORNE PHOTOGRAPHY**
The detection of geothermal areas from Skylab thermal data [NASA-CR-143133] 07 p0158 A75-27540
- SPACECRAFT COMPONENTS**
Investigations and selection of components and materials for flexible solar generator 06 p0050 A75-24182
- Solar collector thermal power system. Volume 1: Preliminary technology systems study [AD-A000940] 06 p0091 A75-19339
- Solar collector thermal power system. Volume 2: Development, fabrication, and testing of fifteen foot heat pipes [AD-A000941] 06 p0091 A75-19340
- Solar collector thermal power system. Volume 3: Basic study and experimental evaluation of thermal train components [AD-A000942] 06 p0091 A75-19341
- SPACECRAFT DESIGN**
Interplanetary spacecraft design using solar electric propulsion [AIAA PAPER 74-1084] 05 p0010 A75-11283
- The heat pipe - Its development, and its aerospace applications 05 p0015 A75-15054

SPACECRAFT ENVIRONMENTS

SUBJECT INDEX

SPACECRAFT ENVIRONMENTS

The International Heat Pipe Experiment --- ten experiments in zero gravity [AIAA PAPER 75-726] 07 p0113 A75-32870

SPACECRAFT INSTRUMENTS
Nuclear heat source for cryogenic refrigerators in space --- Pu-238 battery design 08 p0191 A75-46006

SPACECRAFT LAUNCHING
How spacecraft are fueled --- technology of fueling spacecraft for flight [JPRS-63514] 05 p0027 N75-10983

SPACECRAFT MODULES
The modular solar energy satellite: Investigation on large solar cell surfaces in space for the purpose of earth power supply [ILR-17-1974] 05 p0036 N75-14271

SPACECRAFT POWER SUPPLIES
Electrical power generation subsystem for Space Shuttle Orbiter 05 p0002 A75-10477

Solar electric propulsion spacecraft power subsystem for an Encke comet rendezvous mission 05 p0002 A75-10481

Technology considerations for Organic Rankine Cycle Electric Power Systems 05 p0002 A75-10484

NASA objectives for improved solar power plants 05 p0002 A75-10485

Solar cell and array standardization for Air Force spacecraft 05 p0002 A75-10486

RTG technology development - Where we are/where we are going --- radioisotope thermoelectric generator 05 p0002 A75-10496

Performance testing of thermoelectric generators at JPL 05 p0002 A75-10503

SNAP 19 Viking RTG flight configuration and integration testing --- Radioisotope Thermoelectric Generator 05 p0003 A75-10504

Space power systems - Retrospect and prospect [IAF PAPER 74-082] 05 p0014 A75-13714

Recent advances in components of space power systems [IAF PAPER 74-083] 05 p0014 A75-13715

Analysis of different systems concerning the energy distribution on board a satellite [IAF PAPER 74-084] 05 p0014 A75-13716

Advances in space power generation [IAF PAPER 74-086] 05 p0015 A75-13718

Fundamentals of automatic control of space nuclear power plants --- Russian book 06 p0048 A75-23229

Radiation effects on high efficiency silicon-solar cells 06 p0051 A75-24197

Optimisation of solar cell shielding for geostationary missions 06 p0051 A75-24203

Photovoltaic power generation; Proceedings of the International Conference, Hamburg, West Germany, September 25-27, 1974 06 p0051 A75-24213

Historic development of photovoltaic power generation 06 p0051 A75-24215

Development and space qualification of new high-efficiency silicon solar cells 06 p0052 A75-24218

Latest developments of the circular solar array --- with deployment structure for central antenna communication satellite 06 p0053 A75-24246

Design and qualification of the CTS solar cell blanket --- onboard Canadian Communications Technology Satellite 06 p0053 A75-24248

Power generation for the I4 spacecraft - A step in the development of a high power/mass ratio, hybrid solar array for applications spacecraft 06 p0053 A75-24251

Development of a flexible, fold-out solar array --- power to weight ratio for communication satellites 06 p0053 A75-24252

RTG electrical power for spacecraft --- Radioisotope Thermoelectric Generators 06 p0057 A75-26067

Lasers investigated for space propulsion 06 p0061 A75-28439

Design and testing of an energy flywheel for an Integrated Power/Attitude Control System /IPACS/ [AIAA PAPER 75-1107] 08 p0171 A75-41669

Solar cells for power generation on communication satellites 08 p0174 A75-44005

Deployable Symphonic solar generator [IAF PAPER 75-009] 08 p0183 A75-45819

Storage of energy in kinetic batteries for an earth resources satellite [IAF PAPER ST-75-09] 08 p0183 A75-45875

SEPS solar array design and technology evaluation 08 p0192 A75-46016

The ATS-6 power system - An optimized design for maximum power source utilization 08 p0192 A75-46017

Orbital solar energy technology advances 08 p0192 A75-46018

Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/ 08 p0193 A75-46019

Design and test of a flywheel energy storage unit for spacecraft application 08 p0193 A75-46028

Power processor design considerations for a solar electric propulsion spacecraft [NASA-CR-140842] 05 p0029 N75-12064

Evaluation of an ion exchange membrane fuel cell for space power [AD-786888] 05 p0037 N75-14274

Development of advanced fuel cell system, phase 3 [NASA-CR-134818] 07 p0154 N75-26496

Solar energy power system [NASA-CASE-NFS-21628-2] 08 p0202 N75-29548

SPACECRAFT PROPULSION
Nuclear propulsion technology transfer to energy systems [AIAA PAPER 74-1072] 05 p0001 A75-10264

Interplanetary spacecraft design using solar electric propulsion [AIAA PAPER 74-1084] 05 p0010 A75-11283

Physics and potentials of fissioning plasmas for space power and propulsion [IAF PAPER 74-087] 05 p0015 A75-13719

Lasers investigated for space propulsion 06 p0061 A75-28439

French activity in electric propulsion 07 p0120 A75-36539

Propulsion technology needs for advanced space transportation systems [AIAA PAPER 75-1246] 08 p0182 A75-45656

Terrestrial and space applications of the sigma controlled fusion concept [AIAA PAPER 75-1263] 08 p0182 A75-45663

SPECIFIC HEAT
Thermokinetics of a flat solar collector of constant heat capacity 08 p0171 A75-41768

Nuclear reactor process heat capabilities, potential, and economics [CONF-741032-1] 07 p0131 N75-22112

SPECTRAL REFLECTANCE
Use of flexible reflective surfaces for solar energy concentration 06 p0056 A75-25678

Indium tin oxide-coated silicon as a selective absorber --- for solar radiation 08 p0195 A75-46951

SPECTRAL SIGNATURES
Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications 06 p0050 A75-23790

SPECTROSCOPIC ANALYSIS
Mass spectrometric analysis of product water from coal gasification [PB-240835/9] 07 p0158 N75-27120

SPECTRUM ANALYSIS
Temperature dependence of the spectral characteristics of quick-response silicon photocells 07 p0119 A75-36013

- SPECULAR REFLECTION**
Investigation of a solar concentrator with hexahedral glass facets 08 p0180 A75-45061
- SPONGES (MATERIALS)**
Hydrogen sponge heat pump --- Carnot cycle system on lanthanum pentanickel 08 p0194 A75-46035
- SPRINGS (WATER)**
Helium survey, a possible technique for locating geothermal reservoirs 07 p0118 A75-35438
- STAINLESS STEELS**
Compatibility and reliability of heat pipe materials [AIAA PAPER 75-660] 07 p0114 A75-32918
- STANDARDS**
Energy and environmental standards --- environmental standards and energy policy [GPO-37-171] 05 p0030 N75-12431
Interim standard for solar collectors, first draft [PB-239757/8] 07 p0150 N75-25313
- STATIONARY ORBITS**
Optimization of solar cell shielding for geostationary missions 06 p0051 A75-24203
- STATISTICAL ANALYSIS**
Statistical estimation of wildcat well outcome probabilities by visual analysis of structure contour maps of Stafford County, Kansas 06 p0092 N75-19778
- STATISTICAL CORRELATION**
Statistical relation between heat transfer from a closed area and meteorological parameters during the use of a solar refrigerating plant 08 p0169 A75-41072
- STEAM**
Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle [ORNL-RSP-EP-30] 06 p0090 N75-18769
The direct production of hydrocarbons from coal-steam systems [PB-239356/9] 07 p0138 N75-23740
- STEAM FLOW**
Analytical description of the modern steam automobile [NASA-TN-X-72199] 05 p0035 N75-14134
Coal processing by electrofluids [PB-236588/0] 06 p0088 N75-18743
Geothermal steam condensate reinjection 06 p0102 N75-20863
- STEAM TURBINES**
A central receiver solar power plant in a hybrid mode of operation --- solar/fossil-fueled steam power plant [AIAA PAPER 75-624] 06 p0062 A75-28596
A non-polluting powerplant for large airships [AIAA PAPER 75-927] 07 p0121 A75-37005
The design of a solar cavity steam generator for electrical power generation 08 p0190 A75-45982
Geothermal steam condensate reinjection 06 p0102 N75-20863
- STEELS**
The impact of energy shortages on the iron and steel industries [PB-238749/6] 07 p0145 N75-24158
- STELLARATORS**
Plasma heating methods --- for controlled fusion 07 p0119 A75-35920
- STILLS**
Solar stills for agricultural purposes 07 p0115 A75-33972
- STIRLING CYCLE**
Prospects for using dynamic thermocompression converter in solar power plants 05 p0020 A75-17076
Stirling engines - Capabilities and prospects 06 p0048 A75-23237
The Stirling engine for vehicle propulsion 06 p0050 A75-23509
A 100 watt Stirling electric generator for solar or solid fuel heat sources 08 p0192 A75-46014
Stirling cycle engine and refrigeration systems [NASA-CASE-NPO-13613-1] 07 p0133 N75-22747
Development and evaluation of a Stirling-Cycle energy conversion system [PB-239086/2] 07 p0136 N75-22918
- STOCHASTIC PROCESSES**
Principles of a composite study involving combined use of solar and wind energy 07 p0122 A75-37160
- STOCKPILING**
Fuel and energy data: United States by states and regions, 1972 [PB-236581/5] 06 p0077 N75-17004
- STORAGE**
Metal hydrides as hydrogen storage media [BNL-18887] 05 p0030 N75-12440
- STORAGE BATTERIES**
Operating experiences with terrestrial solar battery systems in Japan 05 p0005 A75-10531
60 watt hydride-air fuel cell system 05 p0008 A75-10567
Predicted energy densities for nickel-hydrogen and silver-hydrogen cells embodying metallic hydrides for hydrogen storage 05 p0008 A75-10572
The impact of advanced batteries on electric power generation 05 p0013 A75-12991
Recent advances in components of space power systems [IAF PAPER 74-083] 05 p0014 A75-13715
Analysis of different systems concerning the energy distribution on board a satellite [IAF PAPER 74-084] 05 p0014 A75-13716
Corrosion and related problems in high-temperature cells 06 p0055 A75-24377
Fundamental research on the selection of new electrochemical generators of medium power 06 p0060 A75-27827
Storage of energy in kinetic batteries for an earth resources satellite [IAF PAPER ST-75-09] 08 p0183 A75-45875
Energy storage by high-pressure, moderate-temperature electrolytic techniques 08 p0185 A75-45931
Nickel-hydrogen secondary battery 08 p0191 A75-45997
Nickel-hydrogen as an alternative to lead-acid and nickel-cadmium systems in non-space applications 08 p0191 A75-45998
Sulfur-based lithium-organic electrolyte secondary batteries [AD-A003309] 06 p0104 N75-20882
Development of a soluble reactants and products secondary battery 07 p0127 N75-21790
- STORAGE STABILITY**
Technology and current practices for processing, transferring and storing liquefied natural gas [PB-241048/8] 08 p0202 N75-29271
- STORAGE TANKS**
Thermal energy storage devices suitable for solar heating 05 p0007 A75-10553
A hot liquid energy storage system utilizing natural circulation [ASME PAPER 74-WA/HT-16] 05 p0017 A75-16862
Storage of summertime waste heat from electric generating plants for use in wintertime [AIAA PAPER 75-743] 07 p0113 A75-32852
Improving the oil storage system of western Siberia [AD-A002717] 06 p0092 N75-19705
Erecting gas storage facilities and oil centers [AD-A006559] 07 p0134 N75-22783
Fluid manifold design for a solar energy storage tank [NASA-TN-X-64940] 07 p0160 N75-27562
- STORM DAMAGE**
OCS oil and gas: An environmental assessment, volume 3 --- effect of natural phenomena on OCS gas and oil development 06 p0083 N75-17836
- STRATIGRAPHY**
Stratigraphy, sedimentology and oil and gas geology of the Lower Cretaceous in central Alberta 07 p0137 N75-22961
- STREAM FUNCTIONS (FLUIDS)**
Steady state free convection in an unconfined geothermal reservoir 05 p0009 A75-11069

STRESS-STRAIN DIAGRAMS

SUBJECT INDEX

STRESS-STRAIN DIAGRAMS

Investigations and selection of components and materials for flexible solar generator
06 p0050 A75-24182

STRIP MINING
Determine utility of ERTS-1 to detect and monitor area strip mining and reclamation --- southeastern Ohio
[E75-10327] 07 p0158 N75-27515

STRONTIUM FLUORIDES
Strontium fluoride research in heat source and compatibility tests --- waste utilization
[BNWL-1845-2] 07 p0152 N75-25695
Strontium heat source development programs --- waste utilization
[BNWL-1845-4] 07 p0152 N75-25696

STRUCTURAL ANALYSIS
Structural analysis of wind turbine rotors for NSF-NASA Mod-0 wind power system
[NASA-TN-X-3198] 06 p0080 N75-17712
Coal structure and reactivity
[TID-26637] 06 p0097 N75-20805
Potential structural material problems in a hydrogen energy system
[NASA-TN-X-71752] 07 p0154 N75-26500

STRUCTURAL DESIGN
Solar cell modules for lightweight solar arrays --- onboard communication satellites
06 p0057 A75-26068
The Shell natural gas airship, and other L.T.A. activities by Aerospace Developments
[AIAA PAPER 75-932] 07 p0121 A75-37008
Economic and energy conservation relationship relevant to state of New York building design and contract awards
[PB-237006/2] 06 p0082 N75-17824
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text
[AD-A006804] 07 p0142 N75-24129
Propulsion units for high speed ships
[JPNS-64897] 07 p0148 N75-25295
Research design construction and evaluation of a low energy utilization school, research phase 1
[PB-242217/8] 08 p0213 N75-33504

STRUCTURAL DESIGN CRITERIA
Design analysis of asymmetric solar receivers
[SAND-74-0124] 06 p0076 N75-16986
Solar 10 kW turboalternator silent power program
[AD-A006549] 08 p0203 N75-29555

STRUCTURAL ENGINEERING
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary
[AD-A006803] 07 p0149 N75-25304
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices
[AD-A006805] 07 p0149 N75-25305

SUBSIDENCE
Remote sensing applied to mine subsidence - Experience in Pennsylvania and the Midwest
07 p0121 A75-36809

SUBSONIC AIRCRAFT
The use of hydrogen in commercial aircraft - An assessment
05 p0006 A75-10542
Advanced subsonic transports - A challenge for the 1990's
[AIAA PAPER 75-304] 06 p0049 A75-23251
On the future of jet propulsion in subsonic transport aviation
06 p0058 A75-27777
Hydrogen for the subsonic transport --- aircraft design and fuel requirements
08 p0178 A75-44791

SUBSONIC FLOW
Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator
06 p0045 A75-19959

SUBSTRATES
Polycrystalline silicon layers for solar cells
08 p0165 A75-38958

SUBURBAN AREAS
Assessment of a single family residence solar heating system in a suburban development setting
[PB-240553/8] 08 p0203 N75-29570

SULFUR

Characterization of sulfur recovery from refinery fuel gas
[PB-239777/6] 07 p0151 N75-25326

SULFUR COMPOUNDS
The hydrogen sulfide emissions abatement program at the Geysers Geothermal Power Plant
06 p0102 N75-20859
Sulfur in coals
[TT-70-57216] 07 p0155 N75-26503

SULFUR OXIDES
Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment
[PB-239582/0] 07 p0153 N75-26489
Report to Congress on control of sulfur oxides
[PB-241021/5] 08 p0204 N75-29597

SUN
Our prodigal sun --- solar energy technology
[NASA-EP-118] 05 p0032 N75-12885

SUNSPOTS
The nature of the sunspot phenomenon. III - Energy consumption and energy transport. IV - The intrinsic instability of the magnetic configuration
06 p0064 A75-29137

SUPERCONDUCTING MAGNETS
Will superconducting magnetic energy storage be used on electric utility systems
06 p0056 A75-25832
Superconducting synchronous machine
06 p0061 A75-27967
Cryogenic engineering and fusion power --- superconducting magnet application to reactor design
08 p0173 A75-43979
Superconducting magnetic energy storage --- theta pinch thermonuclear fusion test reactor
[LA-UR-74-737] 05 p0032 N75-12814
Energy and cryoengineering
[LA-UR-74-741] 06 p0082 N75-17814

SUPERCONDUCTING POWER TRANSMISSION
Application of superconducting electrical machinery to the propulsion systems of commercial vessels --- gas turbines
[COM-75-10137] 07 p0147 N75-25200

SUPERCONDUCTIVITY
A superconducting microwave engine
06 p0056 A75-25831
Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings
08 p0173 A75-43976
Wisconsin superconductive energy storage project, volume 1
[PB-238082/2] 06 p0105 N75-20887

SUPERCONDUCTORS
The Electric Power Research Institute's role in applying superconductivity to future utility systems
06 p0056 A75-25827
A high-speed superconducting generator
06 p0060 A75-27960
Superconductive d.c. generator
06 p0061 A75-27961
Main problems met in the study of cryogenic generators
06 p0061 A75-27962
Economic and system aspects of a superconducting magnetic energy storage device and a dc superconducting transmission line
[LA-UR-74-1145] 06 p0091 N75-19080

SUPERSONIC TRANSPORTS
Conceptual design of reduced energy transports
[AIAA PAPER 75-303] 06 p0047 A75-22508
Study of active cooling for supersonic transports
[NASA-CR-132573] 06 p0079 N75-17336

SURFACE COOLING
Effect of heat transfer from the lateral surfaces of semiconductor thermocouples on the energy characteristics of a thermoelectric generator
05 p0021 A75-18798

SURFACE ENERGY
Net radiation and other energy-related maps from remotely sensed imagery
07 p0121 A75-36811

- SURFACE FINISHING**
V-grooved silicon solar cells 07 p0123 A75-37397
- SURFACE GEOMETRY**
The COMSAT non-reflective silicon solar cell - A second generation improved cell 06 p0053 A75-24245
Trapezoidal grooves as moderately concentrating solar energy collectors [AIAA PAPER 75-738] 07 p0113 A75-32860
Determination of the surface shapes of film-type solar energy concentrators with seams 07 p0119 A75-36017
Calculation of the radiant energy field for a biparaboloidal radiation furnace with a carbon arc 08 p0170 A75-41540
Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization 08 p0173 A75-43860
The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors [PB-236412/3] 06 p0083 A75-17830
- SURFACE IONIZATION**
Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization 08 p0173 A75-43860
- SURFACE NAVIGATION**
The use of solar cells in the lighthouse service 06 p0054 A75-24255
- SURFACE PROPERTIES**
Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795
Air-stable selective surfaces for solar energy collectors [PB-236196/2] 06 p0071 A75-16116
Fracture-induced permeability: Present situation and prospects for coal [UCID-16593] 06 p0094 A75-19830
The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors [PB-238509/4] 07 p0130 A75-21822
- SURFACE VEHICLES**
Mode shift strategies in intercity transportation and their effect on energy consumption [AIAA PAPER 75-315] 06 p0055 A75-25013
- SURFACE WATER**
Determine utility of ERTS-1 to detect and monitor area strip mining and reclamation --- southeastern Ohio [E75-10327] 07 p0158 A75-27515
- SURFACTANTS**
Oil displacement by different surfactant and polymer waterflood systems 07 p0134 A75-22858
- SYMPHONIE SATELLITES**
The technology of the solar generator on the Symphonie satellite 06 p0053 A75-24237
Deployable Symphonie solar generator [IAP PAPER 75-009] 08 p0183 A75-45819
- SYNCHRONOUS MOTORS**
Superconducting synchronous machine 06 p0061 A75-27967
- SYNCHRONOUS SATELLITES**
The technology of the solar generator on the Symphonie satellite 06 p0053 A75-24237
Geosynchronous satellite solar power --- energy transmission to earth 07 p0111 A75-31272
Comparison and evaluation of nuclear power plant options for geosynchronous power stations 08 p0193 A75-46027
- SYNTHANE**
Conceptual design of a heat pipe methanator --- conversion of synthesis coal gas to methane [LA-5596] 06 p0074 A75-16774
Bio-conversion of water hyacinths into methane gas, part 1 [NASA-TM-X-72725] 07 p0160 A75-27564
- SYNTHETIC FUELS**
The economics of coal-based synthetic gas 08 p0168 A75-39925
- Char oil energy development 05 p0025 A75-10603 [PB-233263/3]
Coal processing by electrofluids 06 p0088 A75-18743 [PB-236588/0]
Synthetic Liquid Fuel Research and Development Act of 1974 --- energy conservation and cost analyses [GPO-44-818] 06 p0103 A75-20867
Synthetic fuels for ground transportation with special emphasis on hydrogen [NASA-TM-X-72652] 06 p0103 A75-20868
Synthetic fuels from fusion reactors [BNL-19351] 06 p0106 A75-21098
Synopsis of studies on synthetic fuels production by fusion reactors [BNL-19336] 06 p0106 A75-21104
Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137653] 07 p0134 A75-22902
Preparation of gas turbine engine fuel from synthetic crude oil derived from coal [AD-A007923] 07 p0147 A75-24966
Conversion of cellulosic wastes to oil [PB-240839/1] 07 p0161 A75-27572
Process and environmental technology for producing SHG and liquid fuels [PB-242774/8] 08 p0212 A75-33491
- SYSTEM EFFECTIVENESS**
Electrostatic voltage generation from flowing water 05 p0009 A75-10580
Derivation of a total satellite energy system --- solar power station for terrestrial consumption [AIAA PAPER 75-640] 06 p0064 A75-29118
On the optimum tilt of a solar collector 07 p0115 A75-33971
Getting at the big facts in transportation --- private and public transit efficiencies 08 p0173 A75-42973
Assessment of a single family residence solar heating system in a suburban development setting [PB-240784/9] 08 p0203 A75-29552
- SYSTEMS ANALYSIS**
Energy systems - Modeling and policy analysis 06 p0055 A75-24750
Solar power system and component research program [PB-236159/0] 05 p0037 A75-14280
Electric power systems analysis research [PB-239236/3] 07 p0143 A75-24139
Using systems methods for analysing integrated energy supply, summary [BLL-CE-TRANS-6473-(9022.09)] 07 p0153 A75-26491
- SYSTEMS ENGINEERING**
Cost effective designing for the economic RTG --- radioisotope thermoelectric generators 05 p0003 A75-10507
Light-weight radioisotope thermoelectric generator design 05 p0003 A75-10508
A planning methodology for the analysis and design of wind-power systems 05 p0004 A75-10517
Small coal burning gas turbine for modular integrated utility systems 05 p0006 A75-10546
Independent energy systems for better efficiency 05 p0006 A75-10549
Conceptual design of a series of laser-fusion power plants of 100 to 3000 MW/e/ 05 p0007 A75-10562
Sizing of solar energy storage systems using local weather records [ASME PAPER 74-WA/HT-20] 05 p0017 A75-16865
Systems aspects of ocean thermal energy conversion [AIAA PAPER 75-615] 06 p0062 A75-28593
100 MWe solar power plant design configuration and performance [AIAA PAPER 75-623] 06 p0062 A75-28595
Design and construction of a residential solar heating and cooling system 07 p0109 A75-29472
Solar-thermal electric power 07 p0111 A75-31270
Ocean thermal energy conversion 07 p0111 A75-31274
Minimum cost solar thermal electric power systems - A dynamic programming based approach 07 p0112 A75-32097
Optimal solar energy collector system 07 p0115 A75-33970

Component design considerations for gas turbine
HTGR power plant --- High-Temperature Gas-cooled
Reactor
[ASME PAPER 75-GT-67] 07 p0116 A75-34620

Solar air conditioning systems using Rankine power
cycles - Design and test results of prototype
three ton unit 07 p0117 A75-34931

Principles of a composite study involving combined
use of solar and wind energy 07 p0122 A75-37160

Generalizations of composite studies involving
combined use of wind and solar energy 07 p0122 A75-37161

Development of the KIVA-I MHD open cycle generator 07 p0124 A75-37686

Solar energy powered systems - History and current
status 08 p0168 A75-40298

Generation schemes for wind power plants 08 p0169 A75-40688

A large mechanical contracting corporation solar
heats its own offices 08 p0184 A75-45924

An integrated solar heated and cooled mobile home 08 p0184 A75-45927

Application of fuel cells with heat recovery for
integrated utility systems 08 p0187 A75-45949

The design of a solar cavity steam generator for
electrical power generation 08 p0190 A75-45982

Advanced heat source concepts --- module design
for space electric power generation
[MLM-2134] 05 p0024 A75-10591

Caltech seminar series on energy consumption in
private transportation
[PB-235348/0] 05 p0040 A75-15179

State of the art and prospects for electric vehicles
[BLL-OA-TRANS-1250-(6196.3)] 06 p0074 A75-16712

The multiring superflywheel
[AD-A001081] 06 p0085 A75-18594

Large diameter 300 PSI gasifier. Preliminary
engineering report. Volume 1: Description
[PB-238360/2] 06 p0105 A75-20889

Problems of the future and potentialities of
system engineering --- metallic materials,
plastics, traffic and energy supplies
[ESRO-TT-110] 06 p0107 A75-21218

The development of a solar residential heating and
cooling system
[NASA-CR-142728] 07 p0140 A75-24107

Vulnerability of natural gas systems ---
industrial management and operations
[AD-A007583] 07 p0144 A75-24143

Long term power system dynamics. Volume 1:
Summary and technical report
[PB-240799/7] 07 p0161 A75-27573

SYSTEMS MANAGEMENT

Management of power plant waste heat in cold regions
[AD-A003217] 06 p0104 A75-20881

T

TABLES (DATA)

Fuel and energy data: United States by states and
regions, 1972
[PB-236581/5] 06 p0077 A75-17004

A study of technological improvements in
automobile fuel consumption. Volume 3A:
Appendix 1 - 111
[PB-238695/1] 07 p0133 A75-22483

TANK GEOMETRY

Study of the influence of container design and the
thermal inertness of solar water heaters on
their efficiency 07 p0119 A75-36018

Investigation of the effect of boiler design and
finite thermal response of solar water heaters
on efficiency 08 p0170 A75-41541

TANKER SHIPS

On the potentialities of polyphenylene oxide (PPO)
as a wet-insulation material for cargo tanks of
LNG-carriers
[REPT-194-M] 05 p0035 A75-14002

TAR SANDS

Energy from US and Canadian tar sands: Technical,
environmental, economic, legislative, and policy
aspects
[GPO-43-005] 06 p0067 A75-16083

TECHNOLOGICAL FORECASTING

Hydrogen for the electric utilities - Long range
possibilities 05 p0005 A75-10536

Next generation transports will emphasize fuel
savings 05 p0011 A75-11426

Fuel outlook dictating technical transport research 05 p0011 A75-11427

Fusion reactors as future energy sources 05 p0011 A75-11735

Solar energy conversion and storage systems for
the future 05 p0013 A75-12988

The impact of advanced batteries on electric power
generation 05 p0013 A75-12991

Current expectations for fusion power from
toroidal machines 05 p0014 A75-12996

Windpower - Look backward, then move forward
confidently --- for electric power generation in
rural areas 05 p0014 A75-12997

U.S. energy resources - Outlook for the future 05 p0014 A75-12999

Prospects for tapping solar energy on a large scale 05 p0015 A75-14014

Power from ocean waves
[ASME PAPER 74-WA/PWR-5] 05 p0018 A75-16879

The energy perspective --- world fossil fuel
reserves and alternate energy sources 05 p0019 A75-17000

Future long-range transports - Prospects for
improved fuel efficiency
[AIAA PAPER 75-316] 06 p0047 A75-22514

Advanced subsonic transports - A challenge for the
1990's
[AIAA PAPER 75-304] 06 p0049 A75-23251

The future of silicon solar cells for terrestrial
use 06 p0058 A75-27717

On the future of jet propulsion in subsonic
transport aviation 06 p0058 A75-27777

Energy supply and demand challenges and some
possible solutions 06 p0059 A75-27779

The outlook for fusion energy sources - Remaining
technological hurdles 06 p0059 A75-27782

New technology challenges in exploration,
exploitation and environmental impact of
geothermal systems 06 p0060 A75-27788

Prospects of photosynthetic energy production 06 p0060 A75-27792

Geothermal energy --- technology assessment 06 p0060 A75-27826

Fundamental research on the selection of new
electrochemical generators of medium power 06 p0060 A75-27827

Solar energy in earth processes --- review 06 p0061 A75-28437

Energy: A plan for action --- Book 07 p0110 A75-30375

Energy's hazy future --- electric generating
capacity scenarios and forecasts 07 p0110 A75-31195

A commentary on solar energy 07 p0116 A75-34532

Fuels, minerals, and human survival --- Book 07 p0117 A75-34850

DFVLR activities in the area of energy research 07 p0118 A75-35096

Laser energy conversion 07 p0125 A75-38474

Prospects for electrolytic hydrogen for
chemical/industrial plants 08 p0168 A75-40179

Future hydrogen fueled commercial transports
[SAE PAPER 750615] 08 p0169 A75-40521

- Energy survey - What can R&D do by 1985 --- fossil fuel utilization
08 p0169 A75-40617
- Sunlight to electricity: Prospects for solar energy conversion by photovoltaics --- Book
08 p0170 A75-41608
- Will hydrogen transmission replace electricity
08 p0172 A75-42281
- Aviation usage of liquid hydrogen fuel - Prospects and problems
08 p0172 A75-42282
- Cryogenic H2 and national energy needs
08 p0173 A75-43977
- Hydrogen as an energy carrier --- feasibility analysis
08 p0178 A75-44796
- Future United States demand patterns and the use of hydrogen
08 p0179 A75-44806
- Social and environmental context of the hydrogen economy
08 p0179 A75-44807
- How might the hydrogen economy affect our resources and environment
08 p0179 A75-44809
- Hydrogen - Mechanisms and strategies of market penetration
08 p0180 A75-44811
- Technical problems facing the hydrogen economy
08 p0180 A75-44812
- An engineering assessment of the hydrogen economy
08 p0180 A75-44814
- Ultimate energy, the ultimate fuel, and the hydrogen link in the electrical energy system
08 p0180 A75-44815
- Propulsion technology needs for advanced space transportation systems
[AIAA PAPER 75-1246] 08 p0182 A75-45656
- The satellite solar power station - A step toward the industrial use of space
[IAF PAPER 75-003] 08 p0183 A75-45903
- Continuous duty solar energy system concepts
08 p0190 A75-45993
- Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge
08 p0195 A75-47081
- Liquid hydrogen - Fuel of the future --- for aircraft
[SAWE PAPER 1065] 08 p0195 A75-47495
- The NASA-Lewis/ERDA Solar Heating and Cooling Technology Program
08 p0197 A75-47803
- Nuclear power growth, 1974 - 2000 --- forecasting future reactor technology
[WASH-1139-74] 05 p0031 A75-12723
- Dependence of the United States on essential imported materials, year 2000; volume 1
[AD-A000842] 06 p0096 A75-20157
- Dependence of the United States on essential imported materials, year 2000. Volume 2: Appendices.
[AD-A000843] 06 p0096 A75-20158
- Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections
[PB-238878/3] 07 p0131 A75-22200
- Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis
[PB-238879/1] 07 p0131 A75-22201
- TECHNOLOGY ASSESSMENT**
- Combustion dynamics research for 'Project Independence'
[AIAA PAPER 74-1069] 05 p0001 A75-10262
- Intersociety Energy Conversion Engineering Conference, 9th, San Francisco, Calif., August 26-30, 1974, Proceedings
05 p0001 A75-10476
- RTG technology development - Where we are/where we are going --- radioisotope thermoelectric generator
05 p0002 A75-10496
- Economics analyses of solar energy utilization
05 p0004 A75-10520
- Status of JPL solar powered experiments for terrestrial applications
05 p0005 A75-10530
- A review of thermal battery technology
05 p0007 A75-10557
- Advanced betavoltaic power sources
05 p0007 A75-10563
- Energy crisis - Fact or fiction
05 p0011 A75-12115
- Energy development; Proceedings of the Energy Sources Conference, Anaheim, Calif., July 14-19, 1974
05 p0012 A75-12986
- Progress in coal gasification
05 p0013 A75-12993
- Fusion power research - Where do we stand
05 p0013 A75-12995
- Space power systems - Retrospect and prospect
[IAF PAPER 74-082] 05 p0014 A75-13714
- Recent advances in components of space power systems
[IAF PAPER 74-083] 05 p0014 A75-13715
- Advances in space power generation
[IAF PAPER 74-086] 05 p0015 A75-13718
- Rating aircraft on energy
05 p0015 A75-14346
- Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc
[ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
- The energy perspective --- world fossil fuel reserves and alternate energy sources
05 p0019 A75-17000
- Fusion power - Prospects and impact
05 p0021 A75-18080
- Air transportation energy consumption - Yesterday, today, and tomorrow
[AIAA PAPER 75-319] 06 p0047 A75-22515
- Some LNG vehicle developments --- for automotive conversion systems and fueling stations
06 p0048 A75-23236
- Stirling engines - Capabilities and prospects
06 p0048 A75-23237
- Report on photovoltaics research and technology in the United States
06 p0051 A75-24214
- Historic development of photovoltaic power generation
06 p0051 A75-24215
- Latest developments of the circular solar array --- with deployment structure for central antenna communication satellite
06 p0053 A75-24246
- Review of central power magnetohydrodynamics
[AIAA PAPER 75-264] 06 p0055 A75-25005
- Lighter than air - A look at the past, a look at the possibilities
06 p0056 A75-25995
- Status of the NASA-Lewis flat-plate collector tests with a solar simulator
06 p0058 A75-27533
- Solar cells - Present state and perspectives on terrestrial applications
06 p0058 A75-27716
- Thermoelectric generators --- using semiconductor thermocouples
06 p0058 A75-27718
- Coal gasification - A review of status and technology
06 p0059 A75-27781
- Solar heating and cooling of buildings
06 p0059 A75-27783
- Solar energy for earth: An AIAA assessment --- Book
07 p0110 A75-31267
- Photovoltaic power --- solar energy for terrestrial applications
07 p0111 A75-31271
- Fuel production /biomass energy/ --- by fuel plantation development
07 p0111 A75-31275
- Solar production of electrical energy
07 p0112 A75-31588
- Laser thermonuclear fusion
07 p0112 A75-32617
- Energy sources for ocean technology --- for unmanned surface stations and manned underwater stations
07 p0114 A75-33118
- Solar heating and cooling of buildings using heat pumps /Brief survey/
07 p0116 A75-34321

- Economic and technical aspects of wind generation systems
07 p0116 A75-34533
- Recuperator development trends for future high temperature gas turbines --- heat exchanger design [ASME PAPER 75-GT-50] 07 p0116 A75-34607
- Alternative fuels for aviation 07 p0121 A75-36719
- Energy and Resources - A plan is outlined according to which solar and wind energy would supply Denmark's needs by the year 2050 --- solar and wind power utilization for Denmark 07 p0124 A75-37846
- Storing electrical energy on a large scale 08 p0165 A75-38864
- Generation of power from the wind --- windmill electric generators 08 p0167 A75-39365
- Shale from oil shale economically 08 p0168 A75-40182
- Solar climate control - Evaluating the commercial possibilities 08 p0168 A75-40297
- Solar energy powered systems - History and current status 08 p0168 A75-40298
- Use of solar heat pumps for heating and air conditioning - A brief survey 08 p0170 A75-41534
- Research opportunities in cryogenic hydrogen-energy systems 08 p0171 A75-42280
- A technology assessment of the hydrogen economy concept 08 p0172 A75-42286
- Getting at the big facts in transportation --- private and public transit efficiencies 08 p0173 A75-42973
- Photolysis of water as a solar energy conversion process - An assessment 08 p0176 A75-44766
- An analysis of hydrogen production via closed-cycle schemes --- thermochemical processings from water 08 p0176 A75-44771
- Utilization of hydrogen as an appliance fuel 08 p0178 A75-44794
- Hydrogen-energy storage for electrical utility systems 08 p0178 A75-44798
- An engineering assessment of the hydrogen economy 08 p0180 A75-44814
- Solar energy - An overview 08 p0181 A75-45508
- Solar-energy conversion at high solar intensities 08 p0181 A75-45514
- MHD electrical power generation from fossil fuels [AIAA PAPER 75-1236] 08 p0182 A75-45648
- Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems [AIAA PAPER 75-1261] 08 p0182 A75-45661
- Report on studies of space to earth microwave power transmission systems [IAF PAPER 75-005] 08 p0183 A75-45814
- Energy 10; Annual Intersociety Energy Conversion and Engineering Conference, 10th, University of Delaware, Newark, Del., August 18-22, 1975, Record 08 p0183 A75-45920
- Solid polymer electrolysis fuel cell status report 08 p0186 A75-45942
- The growth of thermionic energy conversion 08 p0187 A75-45954
- Ground based solar energy technology advances 08 p0190 A75-45984
- Solar sea power plants /SSPP/ --- using ocean thermal gradients 08 p0191 A75-45996
- SEPS solar array design and technology evaluation 08 p0192 A75-46016
- Orbital solar energy technology advances 08 p0192 A75-46018
- Hydrogen production by electrolysis - Present and future 08 p0193 A75-46022
- A technology assessment of the hydrogen economy concept 08 p0194 A75-46037
- MEGASTAR: The Meaning of Energy Growth: An Assessment of Systems, Technologies, and Requirements [NASA-CR-120355] 05 p0023 N75-10584
- How spacecraft are fueled --- technology of fueling spacecraft for flight [JPRS-63514] 05 p0027 N75-10983
- Utilization of solar energy --- an assessment of present technology [NASA-TT-F-16090] 05 p0033 N75-13382
- A review of the status of MHD power generation technology including suggestions for a Canadian MHD research program [UTIAS-39] 05 p0035 N75-13641
- Solar energy [NASA-TT-F-16092] 05 p0038 N75-15149
- Assessment of the technology required to develop photovoltaic power system for large scale national energy applications [NSF/RA/N-74-072] 06 p0080 N75-17785
- Energy systems analysis and technology assessment program [BLL-18984] 06 p0094 N75-19831
- Energy utilization by households and technology assessment as a way to increase its effectiveness --- management methods and family decision making 06 p0097 N75-20829
- DOT/NASA comparative assessment of Brayton engines for guideway vehicles and busses. Volume 2: Analysis and results [NASA-SP-354-VOL-2] 07 p0133 N75-22745
- Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137654] 07 p0134 N75-22901
- Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137653] 07 p0134 N75-22902
- A preliminary technology assessment of ocean thermal gradient energy generation [PB-238646/4] 07 p0144 N75-24147
- Technology assessment of portable energy RDT and P [NASA-CR-137655] 07 p0160 N75-27565
- Process and environmental technology for producing SNG and liquid fuels [PB-242774/8] 08 p0212 N75-33491
- TECHNOLOGY TRANSFER**
- Nuclear propulsion technology transfer to energy systems [AIAA PAPER 74-1072] 05 p0001 A75-10264
- The application of aerospace technology in the cryogenics field 06 p0048 A75-23239
- Solar cells - Present state and perspectives on terrestrial applications 06 p0058 A75-27716
- Application of rocket engine technology to energy 08 p0185 A75-45933
- Technology and community development materials processing, and electrical and nuclear technology --- technical research center of Finland 05 p0031 N75-12695
- Lead accumulator batteries in telecommunications [BLL-TRANS-2943-(9022.81)] 06 p0074 N75-16967
- Proceedings of the first 1974 Technology Transfer Conference [NASA-CR-142119] 06 p0078 N75-17188
- Technology application at Rockwell International 06 p0078 N75-17189
- The Environmental protection agency industrial technology transfer program 06 p0078 N75-17193
- Transfer of space technology to industry 06 p0078 N75-17195
- Applications of aerospace technology in the electric power industry 06 p0079 N75-17197
- The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology 06 p0079 N75-17203
- Economic modeling and energy policy planning --- technology transfer, market research 06 p0079 N75-17210
- TECHNOLOGY UTILIZATION**
- Two-watt radioisotope power generators for underwater applications 05 p0007 A75-10556

SUBJECT INDEX

TEMPERATURE GRADIENTS

- Applications of plasma core reactors to terrestrial energy systems
[AIAA PAPER 74-1074] 05 p0010 A75-11281
- Mission applications of electric propulsion
[AIAA PAPER 74-1085] 05 p0010 A75-11284
- Solar energy: Technology and applications --- Book
05 p0012 A75-12425
- Prospects and scientific problems of the utilization of methods of direct electric power generation from chemical fuels /fuel cells/
05 p0012 A75-12911
- Utilization of solar energy today
05 p0012 A75-12987
- The heat pipe - Its development, and its aerospace applications
05 p0015 A75-15054
- New applications for optical components - High energy focusing
05 p0015 A75-16525
- Coal gasification by Atomics International's Rockgas process
[ASME PAPER 74-WA/PWR-11] 05 p0018 A75-16883
- A case study - Utilization of solar energy in residential dwellings
[ASME PAPER 74-WA/SOL-2] 05 p0018 A75-16885
- Energy. Volume 1 - Demands, resources, impact, technology, and policy --- Book
06 p0045 A75-20066
- Progress in heat pipe and porous heat exchanger technology
06 p0045 A75-20686
- Liquid hydrogen ---, liquefaction, transportation, applications
06 p0046 A75-22043
- Technology utilization - Incentives and solar energy
06 p0048 A75-22913
- Solar generators for terrestrial applications
06 p0054 A75-24257
- Current worldwide utilization and ultimate potential of geothermal energy systems
06 p0060 A75-27787
- The adaptation of free space power transmission technology to the SSPS concept --- Satellite Solar Power Stations
[AIAA PAPER 75-642] 06 p0063 A75-28602
- Optical interfaces in solar energy utilization
07 p0123 A75-37331
- Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings
08 p0173 A75-43976
- Hydrogen as energy storage element --- in windpower systems
08 p0176 A75-44772
- Laser application of heat pipe technology in energy related programs
08 p0195 A75-46044
- Application of heat pipes to solar collectors
08 p0195 A75-46045
- Advanced nuclear research
[GPO-41-253] 05 p0026 N75-10764
- Application of technology from the Rover program and related developments --- to energy needs
[LA-5558] 05 p0028 N75-11468
- Applications of fusion power technology to the chemical industry
[BNL-18815] 05 p0029 N75-11730
- A survey of LNG technological needs in the USA: 1974 to beyond 2000
05 p0030 N75-12435
- Survey of applications of fusion power technology to the chemical and material processing industry
[BNL-18866] 05 p0031 N75-12443
- Japanese/United States Symposium on Solar Energy systems. Volume 1: Summary of proceedings
[MTR-6284-VOL-1] 05 p0036 N75-14264
- Beneficial uses of waste heat
[RT/PROT-(74)10] 06 p0068 N75-16091
- Energy conversion from coal utilizing CPU-400 technology
[PB-235817/4] 06 p0068 N75-16093
- Air conditioning of office buildings with all-electric supply. Part 1: Technical conception
[OA-TRANS-938-PT-1] 06 p0074 N75-16970
- Review of thermal battery technology
[SLA-74-5381] 06 p0076 N75-16989
- Proceedings of the first 1974 Technology Transfer Conference
[NASA-CR-142119] 06 p0078 N75-17188
- Energy recovery from solid waste --- production engineering model
06 p0079 N75-17200
- The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology
06 p0079 N75-17203
- Combining total energy and energy industrial center concepts to increase utilization efficiency of geothermal energy
06 p0102 N75-20860
- Cooperative efforts by industry and government to develop geothermal resources
06 p0102 N75-20861
- Putting the sun to work: A history and directory of currently available solar energy applications
[PB-238189/5] 07 p0129 N75-21810
- Insufficient utilization of scientific advances --- sociopolitical and economic management of technological development
07 p0137 N75-23365
- Science and Technology Applications Act of 1974 --- energy sources and environment protection
[GPO-41-407] 08 p0209 N75-31961
- TELECOMMUNICATION**
Low-power turbines using organic vapor
07 p0110 A75-30892
- Lead accumulator batteries in telecommunications
[BLL-TRANS-2943-(9022.81)] 06 p0074 N75-16967
- TEMPERATURE CONTROL**
A design parameter for assessing wicking capabilities of heat pipes
[AIAA PAPER 74-1266] 05 p0010 A75-11107
- The heat pipe - Its development, and its aerospace applications
05 p0015 A75-15054
- An analysis of photovoltaic power generation and thermal control interfaces --- for solar arrays
06 p0053 A75-24243
- Heat pipe thermal control set point shift
07 p0115 A75-33271
- Heat pipe applications development in Europe
08 p0195 A75-46043
- Study of active cooling for supersonic transports
[NASA-CR-132573] 06 p0079 N75-17336
- TEMPERATURE DISTRIBUTION**
Determination of the temperature field in a tubular thermoelectric module
05 p0020 A75-17068
- Approximate analysis of the steady temperature field of a parallelepiped with a local energy source
07 p0112 A75-32212
- Thermokinetics of a flat solar collector of constant heat capacity
08 p0171 A75-41768
- Sizing of focused solar collector fields with specified collector tube inlet temperature --- Rankine cycle
[SLA-74-5288] 06 p0094 N75-19832
- TEMPERATURE EFFECTS**
Dependence of the basic parameters of Al_xGa_{1-x}As-GaAs solar converters on temperature and optical intensity
07 p0112 A75-32824
- Temperature effects in Schottky-barrier silicon solar cells
07 p0115 A75-34175
- Temperature dependence of the spectral characteristics of quick-response silicon photocells
07 p0119 A75-36013
- Electrodes for thermionic energy conversion
08 p0188 A75-45957
- The practical lithium/poly-carbonmonofluoride battery system
08 p0188 A75-45964
- Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies
08 p0193 A75-46023
- TEMPERATURE GRADIENTS**
Hot side heat exchanger for an ocean thermal difference power plant
05 p0004 A75-10527
- A heat pump powered by natural thermal gradients
05 p0006 A75-10550

TEMPERATURE MEASUREMENT

SUBJECT INDEX

- Ocean thermal gradient hydraulic power plant 07 p0124 A75-37849
- Foam solar sea power plant 07 p0124 A75-37850
- Solar sea power plants /SSPP/ --- using ocean thermal gradients 08 p0191 A75-45996
- Axial temperature differential analysis of linear focused collectors for solar power [SLA-74-5078] 05 p0036 N75-14268
- TEMPERATURE MEASUREMENT**
- Theoretical determination of the temperature in a solar water heater /steady state/ 07 p0112 A75-31513
- Investigation of the electrical and temperature characteristics of a silicon photoelectric converter under natural conditions 07 p0116 A75-34314
- Computation of water temperature at the mouth of a geothermal well 08 p0170 A75-41547
- TEMPERATURE MEASURING INSTRUMENTS**
- Methodical approach to temperature and pressure measurements for in situ energy-recovery processes [UCID-16631] 06 p0097 N75-20693
- TEMPERATURE PROFILES**
- Thermal performance characteristics of heat pipes 06 p0046 A75-21465
- TEMPERATURE SENSORS**
- Temperature sensor for photoelectric energy converters 06 p0057 A75-26712
- Photoelectric energy converter temperature sensor 07 p0122 A75-37163
- TERMINOLOGY**
- Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem [PB-240423/4] 07 p0152 N75-25774
- TEST FACILITIES**
- Recent MHD generator testing at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-7] 05 p0016 A75-16839
- TETHERED BALLOONS**
- Airborne windmills - Energy source for communication aerostats [AIAA PAPER 75-923] 08 p0165 A75-38868
- TEXAS**
- Evaluation of the suitability of Skylab data for the purpose of petroleum exploration [B75-10257] 07 p0147 N75-25237
- THERMAL ABSORPTION**
- Solar thermal absorption heat pump breakeven coefficient of performance [ASME PAPER 74-WA/ENER-2] 05 p0015 A75-16834
- Moderately concentrating flat-plate solar energy collectors [ASME PAPER 75-BT-54] 08 p0196 A75-47526
- THERMAL BATTERIES**
- A review of thermal battery technology 05 p0007 A75-10557
- Development and performance of a miniature, high-voltage thermal battery 05 p0007 A75-10559
- Development of a thermal battery for emergency radio power under arctic conditions 05 p0007 A75-10560
- Corrosion and related problems in high-temperature cells 06 p0055 A75-24377
- Development and performance of a miniature, high-voltage thermal battery [SLA-74-5363] 06 p0076 N75-16988
- Review of thermal battery technology [SLA-74-5381] 06 p0076 N75-16989
- Pellet type thermal battery [SAND-74-0007] 06 p0076 N75-16991
- Sixty minute thermal battery: A feasibility study [SLA-73-5888] 06 p0077 N75-16994
- THERMAL COMFORT**
- Solar heat pump comfort heating systems 08 p0185 A75-45936
- THERMAL CONDUCTIVITY**
- Transverse header heat pipe [AIAA PAPER 75-656] 07 p0114 A75-32914
- Heat pipe thermal control set point shift 07 p0115 A75-33271
- THERMAL CONTROL COATINGS**
- Solar characteristics of new absorptive coatings used on solar collectors 07 p0117 A75-34934
- Solar-energy materials preparation techniques 08 p0181 A75-45513
- Solar electric propulsion system thermal analysis --- including heat pipes and multilayer insulation [NASA-CR-120770] 07 p0147 N75-24842
- THERMAL DEGRADATION**
- Silicon solar cells for highly concentrated sunlight 07 p0120 A75-36363
- Pyrolysis system evaluation study [NASA-CR-141664] 06 p0086 N75-18722
- Energy recovery from solid waste. Volume 2: Technical report --- pyrolysis and biodegradation [NASA-CR-2526] 07 p0148 N75-25292
- THERMAL DISSOCIATION**
- Thermolysis of water for the generation of hydrogen 06 p0049 A75-23504
- THERMAL ENERGY**
- Solar farms utilizing low-pressure closed-cycle gas turbines 05 p0003 A75-10514
- Metal hydrides for thermal energy storage 05 p0004 A75-10522
- Thermal energy storage devices suitable for solar heating 05 p0007 A75-10553
- The Harwell thermo-mechanical generator 05 p0009 A75-10579
- Performance of the thermal trap solar collector [ASME PAPER 74-WA/SOL-5] 05 p0019 A75-16888
- Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544
- Roles for solar thermal conversion systems in our energy economy 06 p0059 A75-27784
- Current worldwide utilization and ultimate potential of geothermal energy systems 06 p0060 A75-27787
- New technology challenges in exploration, exploitation and environmental impact of geothermal systems 06 p0060 A75-27788
- Ocean thermal power and windpower systems - Natural solar energy conversion for near-term impact on world energy markets 06 p0060 A75-27790
- Thermal power plants --- German book 06 p0064 A75-28962
- Ocean thermal energy conversion system evaluation [AIAA PAPER 75-616] 06 p0064 A75-29115
- Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617] 06 p0064 A75-29116
- Solar thermal conversion mission analysis [AIAA PAPER 75-619] 06 p0064 A75-29117
- A new concept for solar energy thermal conversion 07 p0110 A75-30368
- Ocean thermal energy conversion 07 p0111 A75-31274
- Approximate analysis of the steady temperature field of a parallelepiped with a local energy source 07 p0112 A75-32212
- Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173
- Problems of direct conversion of thermal and nuclear energy to electric energy 07 p0120 A75-36415
- Ocean thermal gradient hydraulic power plant 07 p0124 A75-37849
- Thick semiconductor films for photothermal solar energy conversion 08 p0165 A75-38956
- The utilization of ocean energy for electrical energy generation 08 p0168 A75-40181
- Sea thermal power as a hydrogen and methanol generator 08 p0175 A75-44763
- Application of fuel cells with heat recovery for integrated utility systems 08 p0187 A75-45949

SUBJECT INDEX

THERMODYNAMIC CYCLES

- Thermal power conversion systems for fusion plants
08 p0187 A75-45953
- Heat pipe thermal recovery units --- for process
exhaust energy utilization
08 p0194 A75-46041
- Research applied to solar-thermal power systems:
Chemical vapor deposition research for
fabrication of solar energy converters
[PB-234565/0] 05 p0041 N75-15186
- Geothermal energy: A new application of rock
mechanics
[LA-UR-74-821] 06 p0068 N75-16089
- Evaluation of thermal methods for recovery of
viscous oils in Missouri and Kansas
[PB-237831/3] 06 p0090 N75-18762
- Hot water hydraulics of the Gulf Stream sited OTGM
[PB-242151/9] 08 p0213 N75-33502
- An evaluation of oceanographic and socioeconomic
aspects of a nearshore ocean thermal energy
conversion pilot plant in subtropical Hawaiian
waters
[PB-242167/5] 08 p0213 N75-33509
- THERMAL FATIGUE**
Investigations and selection of components and
materials for flexible solar generator
06 p0050 A75-24182
- THERMAL INSULATION**
Heat mirrors for solar-energy collection and
radiation insulation
05 p0004 A75-10525
- On the potentialities of polyphenylene oxide (PPO)
as a wet-insulation material for cargo tanks of
LNG-carriers
[REPT-194-N] 05 p0035 N75-14002
- Project conserve, a pilot project in homeowner
energy conservation
[PB-240407/7] 07 p0161 N75-27577
- THERMAL MAPPING**
The detection of geothermal areas from Skylab
thermal data
[NASA-CR-143133] 07 p0158 N75-27540
- THERMAL POLLUTION**
Environmental impact of a geothermal power plant
06 p0049 A75-23291
- Beneficial uses of waste heat
[ET/PROT-(74)10] 06 p0068 N75-16091
- THERMAL RADIATION**
An analytical and experimental investigation of a
laboratory solar pond model
[ASHE PAPER 74-WA/SOL-3] 05 p0019 A75-16886
- THERMAL REACTORS**
Thermal power plants --- German book
06 p0064 A75-28962
- THERMAL RESISTANCE**
Controlled heat pipes
05 p0012 A75-12912
- Determination of the temperature field in a
tubular thermoelectric module
05 p0020 A75-17068
- Optimization of parameters of permeable
thermoelectric generators
07 p0110 A75-30487
- Designing heat pipe heat sinks
[AIAA PAPER 75-724] 07 p0113 A75-32868
- THERMAL SIMULATION**
Modeling of the CSU heating/cooling system ---
Colorado State University solar house computer
simulation
07 p0109 A75-29473
- THERMIONIC CATHODES**
Influence of the geometrical development of the
cathode surface on the specific power of a
thermionic converter with surface ionization
08 p0173 A75-43860
- THERMIONIC CONVERTERS**
Empirical method of designing the current-voltage
characteristics for the discharge mode of a
thermionic converter
06 p0057 A75-26332
- Design study of the energy characteristics of
thermionic electric power generating components
and assemblies
06 p0064 A75-28893
- Influence of the geometrical development of the
cathode surface on the specific power of a
thermionic converter with surface ionization
08 p0173 A75-43860
- The growth of thermionic energy conversion
08 p0187 A75-45954
- The ERDA thermionic program --- for nuclear
propulsion and utility power plants
08 p0187 A75-45955
- NASA thermionic converter research and technology
program --- nuclear electric propulsion
application
08 p0188 A75-45956
- Electrodes for thermionic energy conversion
08 p0188 A75-45957
- Collector work function improvements and the
development of low temperature thermionic
converters
08 p0188 A75-45960
- Topping cycle applications of thermionic conversion
08 p0188 A75-45972
- Thermionic topping of electric power plants
08 p0189 A75-45973
- Reflector-absorber systems for solar thermionic
converters
[ESRO-TT-123] 06 p0104 N75-20878
- Electric power generation system directory from
laser power
[NASA-CASE-NPO-13308-1] 08 p0204 N75-30524
- THERMIONIC EMITTERS**
Electrodes for thermionic energy conversion
08 p0188 A75-45957
- THERMIONIC POWER GENERATION**
Design study of the energy characteristics of
thermionic electric power generating components
and assemblies
06 p0064 A75-28893
- The growth of thermionic energy conversion
08 p0187 A75-45954
- The ERDA thermionic program --- for nuclear
propulsion and utility power plants
08 p0187 A75-45955
- NASA thermionic converter research and technology
program --- nuclear electric propulsion
application
08 p0188 A75-45956
- Results of work on thermoemission conversion
[AD-A002655] 07 p0131 N75-22114
- THERMISTORS**
Temperature sensor for photoelectric energy
converters
06 p0057 A75-26712
- Photoelectric energy converter temperature sensor
07 p0122 A75-37163
- THERMOCHEMICAL PROPERTIES**
The generation of hydrogen by the thermal
decomposition of water
05 p0005 A75-10532
- THERMOCHEMISTRY**
Nuclear energy requirements for hydrogen
production from water
05 p0005 A75-10533
- Efficiencies of electrolytic and thermochemical
hydrogen production
06 p0045 A75-20300
- Energy, hydrogen, and pollution --- energy
technology
06 p0046 A75-22041
- Massive production of hydrogen by a
thermo-electrochemical method
08 p0172 A75-42531
- Analysis of thermochemical water-splitting cycles
--- energy efficiency evaluation
08 p0177 A75-44781
- A search for thermochemical water-splitting cycles
--- for energy production
08 p0177 A75-44782
- Fundamental aspects of systems for the
thermochemical production of hydrogen from water
[LA-UR-74-1459] 07 p0127 N75-21391
- THERMOCOUPLES**
Effect of heat transfer from the lateral surfaces
of semiconductor thermocouples on the energy
characteristics of a thermoelectric generator
05 p0021 A75-18798
- THERMODYNAMIC CYCLES**
Small coal burning gas turbine for modular
integrated utility systems
05 p0006 A75-10546
- Solar operation of ammonia-water multistage air
conditioning cycles in the tropics
06 p0048 A75-23021
- On the future of jet propulsion in subsonic
transport aviation
06 p0058 A75-27777

- Part load specific fuel consumption of gas turbines
06 p0063 A75-28650
- Thermal power plants --- German book
06 p0064 A75-28962
- Development of the KIVA-I MHD open cycle generator
07 p0124 A75-37686
- Solar absorption air conditioning alternatives
08 p0167 A75-39410
- Solar tower thermo-chemical energy cycles
08 p0171 A75-42277
- A search for thermochemical water-splitting cycles
--- for energy production
08 p0177 A75-44782
- Effectiveness of using chemically reacting working
media in a solar gas-turbine installation
08 p0180 A75-45063
- Solar residential electrification with high
performance heat engines
[AIAA PAPER 75-1239]
08 p0182 A75-45651
- Thermionic topping of electric power plants
08 p0189 A75-45973
- Comparison and evaluation of nuclear power plant
options for geosynchronous power stations
08 p0193 A75-46027
- High temperature air preheaters for open cycle MHD
energy conversion systems
[AIChE PAPER 16]
08 p0196 A75-47512
- The role of heat transfer in solving geothermal
energy problems to accelerate its effective
application
[ASME PAPER 75-HT-57]
08 p0196 A75-47527
- THERMODYNAMIC EFFICIENCY**
- Prospects for using dynamic thermocompression
converter in solar power plants
05 p0020 A75-17076
- Thermodynamic considerations of 'solid state
engines' based on thermoelastic martensitic
transformations and the shape memory effect
06 p0045 A75-19631
- Efficiencies of electrolytic and thermochemical
hydrogen production
06 p0045 A75-20300
- Thermodynamic analysis of a solar energy system
with a closed-cycle gas-turbine converter
06 p0049 A75-23402
- Thermodynamics of multistage air-cooled gas turbine
06 p0050 A75-23817
- A generalization of the Carnot theorem - The
theorem of useful power
06 p0057 A75-26448
- Part load specific fuel consumption of gas turbines
06 p0063 A75-28650
- Available energy conversion and utilization in the
United States
[ASME PAPER 74-WA/PWR-1]
08 p0166 A75-39349
- Laboratory based activities in solar energy at the
National Bureau of Standards
08 p0168 A75-40299
- On methods for the large-scale production of
hydrogen from water
08 p0176 A75-44773
- Engine performance with gasoline and hydrogen - A
comparative study
08 p0177 A75-44787
- Optimum properties of working fluids for solar
powered heat pumps
08 p0185 A75-45937
- Method of testing for rating solar collectors
based on thermal performance --- flat plate
collectors
[CON-75-10276/4]
07 p0150 N75-25321
- THERMODYNAMIC PROPERTIES**
- A heat pump powered by natural thermal gradients
05 p0006 A75-10550
- Application of thermodynamic and material- and
energy-balance calculations to gasification
processes
06 p0055 A75-24785
- Evaluation of multi-step thermochemical processes
for the production of hydrogen from water
08 p0177 A75-44778
- Thermal energy storage --- solar storage materials
performance
08 p0185 A75-45932
- Heat Pipe Symposium/Workshop.
[PB-236008/9]
05 p0035 N75-14094
- Analytical description of the modern steam
automobile
[NASA-TM-X-72199]
05 p0035 N75-14134
- THERMODYNAMICS**
- Thermodynamics of liquid metal MHD converters
[AD-A007415]
07 p0144 N75-24141
- THERMOELASTICITY**
- Thermodynamic considerations of 'solid state
engines' based on thermoelastic martensitic
transformations and the shape memory effect
06 p0045 A75-19631
- THERMOELECTRIC COOLING**
- Convergence and speed of calculations for
thermoelectric heat pump
05 p0020 A75-17084
- Optimization of the operating conditions of a
combined generator-cooler thermoelement
07 p0121 A75-37155
- THERMOELECTRIC GENERATORS**
- RTG technology development - Where we are/where we
are going --- radioisotope thermoelectric
generator
05 p0002 A75-10496
- A modular heat source for curium-244 and
plutonium-238
05 p0002 A75-10497
- Performance testing of thermoelectric generators
at JPL
05 p0002 A75-10503
- SNAP 19 Viking RTG flight configuration and
integration testing --- Radioisotope
Thermoelectric Generator
05 p0003 A75-10504
- Operational testing of the high performance
thermoelectric generator /HPG-02/
05 p0003 A75-10505
- A 10% efficient economic RTG design ---
radioisotope thermoelectric generator
05 p0003 A75-10506
- Cost effective designing for the economic RTG ---
radioisotope thermoelectric generators
05 p0003 A75-10507
- Light-weight radioisotope thermoelectric generator
design
05 p0003 A75-10508
- Two-watt radioisotope power generators for
underwater applications
05 p0007 A75-10556
- The Harwell thermo-mechanical generator
05 p0009 A75-10579
- High efficiency thermoelectric generator
05 p0014 A75-13067
- Utilization of tubular thermoelectric modules in
solar generators
05 p0020 A75-17067
- Determination of the temperature field in a
tubular thermoelectric module
05 p0020 A75-17068
- Effect of heat transfer from the lateral surfaces
of semiconductor thermocouples on the energy
characteristics of a thermoelectric generator
05 p0021 A75-18798
- RTG electrical power for spacecraft ---
Radioisotope Thermoelectric Generators
06 p0057 A75-26067
- Thermoelectric generators --- using semiconductor
thermocouples
06 p0058 A75-27718
- Optimization of parameters of permeable
thermoelectric generators
07 p0110 A75-30487
- Optimization of the operating conditions of a
combined generator-cooler thermoelement
07 p0121 A75-37155
- The selection and use of energy storage for solar
thermal electric application
08 p0189 A75-45980
- Water-splitting system synthesized by
photochemical and thermoelectric utilizations of
solar energy
08 p0190 A75-45994
- Devices based on thermoelectrical phenomena
[AD-783821]
05 p0026 N75-10836
- Economic radioisotope thermoelectric generator
program: Program plan
[IESD-3112-3]
05 p0034 N75-13393
- Economic radioisotope thermoelectric generator
study program
[IESD-3112-1]
05 p0036 N75-14269
- Economic radioisotope thermoelectric generator
study program: Appendices.
[IESD-3112-2]
05 p0036 N75-14270

SUBJECT INDEX

THIS FILMS

- Multi-hundred watt radioisotope thermoelectric generator program, part 1 --- ground support equipment and safety management [GESP-7107-PT-1] 06 p0092 N75-19354
- Multi-hundred watt radioisotope thermoelectric generator program, part 2 --- ground support equipment [GESP-7107-PT-2] 06 p0092 N75-19355
- Heat transfer design and proof tests of a radioisotope thermoelectric generator [AD-A002218] 06 p0092 N75-19608
- Manportable thermoelectric generator [AD-A002042] 06 p0095 N75-19847
- Thermal diagrams of thermoelectrical devices [AD-787420] 07 p0135 N75-22911
- THERMOELECTRIC POWER GENERATION**
- Solar farms utilizing low-pressure closed-cycle gas turbines 05 p0003 A75-10514
- Evaluation of central solar tower power plant 05 p0003 A75-10515
- The hot deeps of the Red Sea as a source for thermoelectric power generation 05 p0004 A75-10516
- Thin film coatings in solar-thermal power systems 06 p0056 A75-25679
- Solar energy for earth: An AIAA assessment --- Book [AD-787420] 07 p0110 A75-31267
- Solar-thermal electric power 07 p0111 A75-31270
- Photovoltaic power --- solar energy for terrestrial applications 07 p0111 A75-31271
- Geosynchronous satellite solar power --- energy transmission to earth 07 p0111 A75-31272
- Minimum cost solar thermal electric power systems - A dynamic programming based approach 07 p0112 A75-32097
- Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173
- Controlling the response of thermoelements that generate electricity 07 p0121 A75-37154
- Efficient thermo-mechanical generation of electricity from the heat of radioisotopes 08 p0192 A75-46013
- Devices based on thermoelectrical phenomena [AD-783821] 05 p0026 N75-10836
- Thermodynamic analysis and parameter optimization of a solar thermoelectric power unit with radiation heat dissipation [AD-A000211] 06 p0082 N75-17819
- In situ combustion of coal for energy [PB-241892/9] 08 p0211 N75-32603
- THERMOELECTRICITY**
- Redox thermogalvanic cells for direct energy conversion 08 p0191 A75-45999
- Solar collector thermal power system. Volume 1: Preliminary technology systems study [AD-A000940] 06 p0091 N75-19339
- Solar collector thermal power system. Volume 2: Development, fabrication, and testing of fifteen foot heat pipes [AD-A000941] 06 p0091 N75-19340
- Solar collector thermal power system. Volume 3: Basic study and experimental evaluation of thermal train components [AD-A000942] 06 p0091 N75-19341
- Thermal diagrams of thermoelectrical devices [AD-787420] 07 p0135 N75-22911
- THERMOHYDRAULICS**
- Gulf stream based ocean thermal power plants [AIAA PAPER 75-643] 06 p0063 A75-28603
- Theoretical research on the operation of a solar water heater and comparison with experimental data 07 p0112 A75-31515
- THERMOLUMINESCENCE**
- Novel materials for power systems. Part 3: Selective emitters for energy conversion [AD-784449] 05 p0026 N75-10608
- THERMONUCLEAR POWER GENERATION**
- Conceptual design of a series of laser-fusion power plants of 100 to 3000 MW/e/ 05 p0007 A75-10562
- Fusion reactors as future energy sources 05 p0011 A75-11735
- Fusion power research - Where do we stand 05 p0013 A75-12995
- Current expectations for fusion power from toroidal machines 05 p0014 A75-12996
- Fusion power - Prospects and impact 05 p0021 A75-18080
- An electron beam initiated fusion neutron generator 06 p0045 A75-19657
- Numerical simulation of direct energy conversion --- from fusion reactions 06 p0045 A75-19660
- Foreseeable thermal, mechanical, and materials engineering problems of fusion reactor power plants [SBRT PAPER A2/1] 06 p0046 A75-21713
- Plasma heating methods --- for controlled fusion 07 p0119 A75-35920
- Environmental aspects of fusion reactors 08 p0170 A75-41434
- Plasma physics and controlled nuclear fusion research 1974; Proceedings of the Fifth International Conference, Tokyo, Japan, November 11-15, 1974. Volumes 1 & 2 08 p0174 A75-44736
- Ion-beam implosion of fusion targets 08 p0181 A75-45386
- Terrestrial and space applications of the sigma controlled fusion concept [AIAA PAPER 75-1263] 08 p0182 A75-45663
- DCTR power supply and energy storage review meeting [WASH-1310] 05 p0031 N75-12445
- Superconducting magnetic energy storage --- theta pinch thermonuclear fusion test reactor [LA-UR-74-737] 05 p0032 N75-12814
- Status and objective of Tokamak systems for fusion research [WASH-1295] 05 p0035 N75-13644
- New approaches to CTR: General relativistic power plants [UCRL-75443] 06 p0073 N75-16362
- Steps into the future. Development of the power industry in the USSR [BLL-M-23330-(5828.4F)] 06 p0085 N75-18714
- Man-made sun. Thermonuclear engineering developments [BLL-M-23333-(5828.4F)] 06 p0091 N75-19014
- Proceedings of 5th annual symposium: Energy Research and Development --- solar energy, windpower utilization, thermonuclear power generation [AD-A007799] 07 p0144 N75-24142
- THERMONUCLEAR REACTIONS**
- Thermal power conversion systems for fusion plants 08 p0187 A75-45953
- THERMOPHYSICAL PROPERTIES**
- Determination of some thermophysical characteristics of a solar-type pebble accumulator 07 p0116 A75-34317
- Determination of some thermophysical properties of pebble-type solar heat accumulators 08 p0170 A75-41530
- THETA PINCH**
- Superconducting magnetic energy storage --- theta pinch thermonuclear fusion test reactor [LA-UR-74-737] 05 p0032 N75-12814
- THICK FILMS**
- Thick semiconductor films for photothermal solar energy conversion 08 p0165 A75-38956
- THIN FILMS**
- Heat mirrors for solar-energy collection and radiation insulation 05 p0004 A75-10525
- Development of very low cost solar cells for terrestrial power generation 06 p0052 A75-24226
- Use of flexible reflective surfaces for solar energy concentration 06 p0056 A75-25678
- Thin film coatings in solar-thermal power systems 06 p0056 A75-25679
- Determination of the surface shapes of film-type solar energy concentrators with seams 07 p0119 A75-36017

- Calculation of the radiant energy field for a
biparaboloidal radiation furnace with a carbon arc
08 p0170 A75-41540
- Solar cells for power generation on communication
satellites 08 p0174 A75-44005
- Solar-energy materials preparation techniques
08 p0181 A75-45513
- Research on cadmium stannate selective optical
films for solar energy applications
[PB-236208/5] 06 p0071 N75-16117
- Development of low cost thin film polycrystalline
silicon solar cells for terrestrial applications
[PB-238505/2] 06 p0105 N75-20890
- Symposium on the Material Science Aspects of Thin
Film Systems for Solar Energy Conversion
[PB-239270/2] 07 p0144 N75-24150
- THORIUM**
- Assessment of uranium and thorium resources in the
United States and the effect of policy
alternatives
[PB-238658/9] 07 p0143 N75-24133
- THRUST CONTROL**
- Powerplant energy management --- transport
aircraft engine thrust control
[AIAA PAPER 74-1066] 05 p0001 A75-10259
- THRUST VECTOR CONTROL**
- Effect of attitude constraints on solar-electric
geocentric transfers
[AIAA PAPER 75-350] 06 p0055 A75-24957
- French activity in electric propulsion
07 p0120 A75-36539
- Thrust vector control by magnetic field --- of
NHD-generator rocket engine
[IAF PAPER 75-027] 08 p0183 A75-45822
- TIDE POWERED GENERATORS**
- Tidal power and its integration into the electric
system 05 p0013 A75-12994
- The potential of natural energy sources
08 p0165 A75-38865
- TIDEPower**
- Tidal power and its integration into the electric
system 05 p0013 A75-12994
- Optimising pumped storage with tidal power in an
estuary
[ASME PAPER 74-WA/PWR-7] 05 p0018 A75-16881
- Other primary energy resources --- geothermal,
tidal, wind, waterwave and glacier energy
utilization 06 p0050 A75-23512
- TIME LAG**
- 'Time is energy' /Henson and Stringfellow Memorial
Lecture/ --- VTOL aircraft developments
07 p0112 A75-32324
- Controlling the response of thermoelements that
generate electricity 07 p0121 A75-37154
- TIME OPTIMAL CONTROL**
- Effect of attitude constraints on solar-electric
geocentric transfers
[AIAA PAPER 75-350] 06 p0055 A75-24957
- TIRES**
- An evaluation of discarded tires as a potential
source of fuel 05 p0012 A75-12416
- An evaluation: The potential of discarded tires
as a source of fuel
[NASA-TN-X-58143] 05 p0038 N75-15153
- TITANIUM COMPOUNDS**
- Iron titanium hydride as a source of hydrogen fuel
for stationary and automotive applications
[BNL-18651] 05 p0030 N75-12441
- TITANIUM OXIDES**
- Transparent heat-mirror films of TiO₂/Ag/TiO₂ for
solar energy collection and radiation insulation
05 p0015 A75-16378
- TOKAMAK FUSION REACTORS**
- Fusion power research - Where do we stand
05 p0013 A75-12995
- Foreseeable thermal, mechanical, and materials
engineering problems of fusion reactor power
plants
[SMRT PAPER A2/1] 06 p0046 A75-21713
- Plasma heating methods --- for controlled fusion
07 p0119 A75-35920
- Optimization of fusion power density in the
two-energy-component tokamak reactor
07 p0124 A75-37836
- man-made sun. Thermonuclear engineering
developments
[BNL-N-23333-(5828.4P)] 06 p0091 N75-19014
- Synthetic fuels from fusion reactors
[BNL-19351] 06 p0106 N75-21098
- TOROIDAL PLASMAS**
- Current expectations for fusion power from
toroidal machines 05 p0014 A75-12996
- Foreseeable thermal, mechanical, and materials
engineering problems of fusion reactor power
plants
[SMRT PAPER A2/1] 06 p0046 A75-21713
- Plasma heating methods --- for controlled fusion
07 p0119 A75-35920
- TOWERS**
- Evaluation of central solar tower power plant
07 p0116 A75-34531
- Solar tower thermo-chemical energy cycles
08 p0171 A75-42277
- A tower-top point focus solar energy collector
08 p0174 A75-44753
- TOXIC HAZARDS**
- Dimensions/NBS, volume 59, number 2, February 1975
--- energy conservation, safety management,
toxic hazards
[COH-75-50141/02] 07 p0151 N75-25330
- TOXICOLOGY**
- Environmental aspects of cadmium sulfide usage in
solar energy conversion. Part 1: Toxicological
and environmental health considerations, a
bibliography
[PB-238285/1] 06 p0105 N75-20884
- TRACE ELEMENTS**
- Trace elements by instrumental neutron activation
analysis for pollution monitoring 08 p0166 A75-39335
- TRAFFIC**
- Problems of the future and potentialities of
system engineering --- metallic materials,
plastics, traffic and energy supplies
[ESRO-TT-110] 06 p0107 N75-21218
- TRAJECTORY OPTIMIZATION**
- Effect of attitude constraints on solar-electric
geocentric transfers
[AIAA PAPER 75-350] 06 p0055 A75-24957
- TRANSIENT HEATING**
- Dynamic response of solar heat storage systems
[ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867
- TRANSMISSION LINES**
- The Electric Power Research Institute's role in
applying superconductivity to future utility
systems 06 p0056 A75-25827
- Economic and system aspects of a superconducting
magnetic energy storage device and a dc
superconducting transmission line
[LA-UR-74-1145] 06 p0091 N75-19080
- TRANSONIC WIND TUNNELS**
- A generalised analysis of the performance of a
variety of drive systems for high Reynolds
number, transonic wind tunnels
[BAE-TR-73134] 06 p0073 N75-16572
- TRANSPARENCE**
- Semi-transparent solar collector window systems
08 p0167 A75-39405
- TRANSPORT AIRCRAFT**
- Powerplant energy management --- transport
aircraft engine thrust control
[AIAA PAPER 74-1066] 05 p0001 A75-10259
- Next generation transports will emphasize fuel
savings 05 p0011 A75-11426
- Fuel outlook dictating technical transport research
05 p0011 A75-11427
- Rating aircraft on energy 05 p0015 A75-14346
- Conceptual design of reduced energy transports
[AIAA PAPER 75-303] 06 p0047 A75-22508
- Future long-range transports - Prospects for
improved fuel efficiency
[AIAA PAPER 75-316] 06 p0047 A75-22514
- Advanced subsonic transports - A challenge for the
1990's
[AIAA PAPER 75-304] 06 p0049 A75-23251

SUBJECT INDEX

TURBOGENERATORS

- Future hydrogen fueled commercial transports
[SAB PAPER 750615] 08 p0169 A75-40521
- Fuel conservation possibilities for terminal area compatible transport aircraft
[AIAA PAPER 75-1036] 08 p0171 A75-41698
- Aviation usage of liquid hydrogen fuel - Prospects and problems 08 p0172 A75-42282
- Weight contribution to fuel conservation for terminal area compatible aircraft
[SAWE PAPER 1091] 08 p0196 A75-47509
- Future long-range transports: Prospects for improved fuel efficiency
[NASA-TM-X-72659] 06 p0079 N75-17339
- Fuel conservation possibilities for terminal area compatible aircraft
[NASA-CR-132608] 06 p0091 N75-19224
- TRANSPORT VEHICLES**
A comparative analysis of the energy consumption for several urban passenger ground transportation systems
[PB-238041/8] 06 p0107 N75-21160
- TRANSPORTATION**
Getting at the big facts in transportation --- private and public transit efficiencies
08 p0173 A75-42973
- Guidelines to reduce energy consumption through transportation actions
[PB-235983/4] 06 p0068 N75-16094
- Transportation and the new energy policies: Truck sizes and weights, part 2
[GPO-29-802] 06 p0073 N75-16410
- Submarine tanker concepts and problems
[COM-75-10009/9] 07 p0132 N75-22264
- Transportation energy conservation: A program plan of policy-oriented research
[PB-240734/4] 08 p0200 N75-28528
- Application of fast sparse-matrix techniques and an energy estimation model for large transportation networks 08 p0201 N75-28967
- TRANSPORTATION ENERGY**
Fuel energy systems - Conversion and transport efficiencies 05 p0007 A75-10554
- Evaluation of the energy perfection of the different forms of transport --- aerodynamic coefficients and lift drag ratio
[AD-A006562] 07 p0137 N75-23392
- TRAPS**
Solar energy trap
[NASA-CASE-MFS-22744-1] 05 p0024 N75-10586
- TRAVELING WAVE AMPLIFIERS**
Power generation and efficiency in GaAs traveling-wave amplifiers 07 p0110 A75-30750
- TREES (PLANTS)**
Energy plantations: Should we grow trees for power plant fuel?
[VP-X-129] 05 p0030 N75-12436
- Energy plantations: Should we grow trees for power plant fuel
[PB-238417/0] 07 p0130 N75-21815
- The energy plantation 07 p0139 N75-24103
- TROPICAL REGIONS**
Solar operation of ammonia-water multistage air conditioning cycles in the tropics 06 p0048 A75-23021
- Tropical ocean thermal power plants and potential products
[AIAA PAPER 75-617] 06 p0064 A75-29116
- TRUCKS**
Independent truckers and the energy crisis
[GPO-31-412] 05 p0023 N75-10581
- Transportation and the new energy policies: Truck sizes and weights, part 2
[GPO-29-802] 06 p0073 N75-16410
- Study of potential for motor vehicle fuel economy improvement. Truck and bus panel report no. 7
[PB-241777/2] 08 p0212 N75-33411
- TUBE HEAT EXCHANGERS**
The analysis of the performance of a pancake absorber-heat exchanger for a solar concentrator
[ASME PAPER 74-WI/SOL-1] 05 p0018 A75-16884
- Utilization of tubular thermoelectric modules in solar generators 05 p0020 A75-17067
- Design of a tubular heat collector for a solar power installation with a parabolocylindric concentrator 05 p0020 A75-17069
- TUNGSTEN**
Collector work function improvements and the development of low temperature thermionic converters 08 p0188 A75-45960
- TUNGSTEN CARBIDES**
Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795
- TUNING**
Interferometric tuning of a 15-atm CO2 laser 06 p0058 A75-27518
- TUNNELING (EXCAVATION)**
Legal economic, and energy considerations in the use of underground space
[PB-236755/5] 06 p0080 N75-17749
- TURBINE BLADES**
Aluminum nitride and silicon nitride for high-temperature vehicular gas turbine engines 05 p0011 A75-11362
- TURBINE ENGINES**
Thermal power plants --- German book 06 p0064 A75-28962
- Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173
- Space power application of the all purpose mini-Brayton rotating unit /mini-BRU/ 08 p0193 A75-46019
- Preliminary results of the large experimental wind turbine phase of the national wind energy program 08 p0196 A75-47798
- Turbine design and application, volume 3
[NASA-SP-290-VOL-3] 07 p0147 N75-24741
- TURBINE PUMPS**
Energy storage underground --- hydroelectric pumped-storage and combustion turbine facilities 05 p0013 A75-12989
- Pumped air storage for electric power generation 05 p0013 A75-12990
- TURBOCOMPRESSORS**
Design and operation of a solar-powered turbocompressor air-conditioning and heating system 08 p0186 A75-45939
- Feasibility demonstration of a solar powered turbocompressor air conditioning and heating system
[PB-238570/6] 07 p0130 N75-21816
- TURBOFAN ENGINES**
Gas turbine engines - A state-of-the-art review 05 p0009 A75-10840
- On the future of jet propulsion in subsonic transport aviation 06 p0058 A75-27777
- Study of the costs and benefits of composite materials in advanced turbofan engines
[NASA-CR-134696] 06 p0073 N75-16637
- Preliminary study of advanced turbofans for low energy consumption
[NASA-TM-X-71663] 06 p0084 N75-18241
- TURBOGENERATORS**
Concepts for central solar electric power generation 05 p0021 A75-17504
- Low-power turbines using organic vapor 07 p0110 A75-30892
- Wind power --- electricity generation 07 p0111 A75-31273
- Thermionic topping of electric power plants 08 p0189 A75-45973
- Solar-heated-air turbine generating systems 08 p0190 A75-45981
- The design of a solar cavity steam generator for electrical power generation 08 p0190 A75-45982
- Geothermal power station --- using heat pipes
[AD-785948] 05 p0037 N75-14275
- Electric power generation utilizing a heat pipe turbine-generator 07 p0139 N75-24096
- Variations in heat exchanger design for ocean thermal difference power plants
[PB-238572/2] 07 p0143 N75-24134

- The 100 kW experimental wind turbine generator project
[NASA-TM-X-71758] 08 p0202 N75-29546
- Solar 10 kW turboalternator silent power program
[AD-A006549] 08 p0203 N75-29555
- TURBOJET ENGINES**
Availability and propulsion --- fuel combustion energy calculations for turbojet 08 p0195 A75-46548
- TURBOPROP ENGINES**
Gas turbine engines - A state-of-the-art review 05 p0009 A75-10840
Preliminary study of advanced turboprops for low energy consumption
[NASA-TM-X-71740] 07 p0146 N75-24739
- TURBOSHAPTS**
Gas turbine engines - A state-of-the-art review 05 p0009 A75-10840
- TURBULENCE EFFECTS**
The effect of atmospheric turbulence on windmill performance 08 p0174 A75-44756
- TWO PHASE FLOW**
Investigations of the factors affecting the performance of a rotating heat pipe 07 p0120 A75-36357
- U**
- U.S.S.R.**
Energy from the earth's depths
[BLL-M-23516-(5828.4F)] 06 p0074 N75-16968
Exploration of Antarctica: Past and present
[BLL-M-23343-(5828.4F)] 06 p0080 N75-17722
Steps into the future. Development of the power industry in the USSR
[BLL-M-23330-(5828.4F)] 06 p0085 N75-18714
Soviet energy potential
[BLL-M-23413-(5828.4F)] 08 p0199 N75-28516
Scientific research in power engineering
[JPRS-65422] 08 p0205 N75-30648
- UNDERGROUND EXPLOSIONS**
Stimulation and reservoir engineering of geothermal resources
[PB-239718/0] 07 p0153 N75-26485
- UNDERGROUND STORAGE**
Energy storage underground --- hydroelectric pumped-storage and combustion turbine facilities 05 p0013 A75-12989
Underground storage of heat in solar heating systems 07 p0115 A75-33975
Legal economic, and energy considerations in the use of underground space
[PB-236755/5] 06 p0080 N75-17749
Erecting gas storage facilities and oil centers
[AD-A006559] 07 p0134 N75-22783
- UNDERWATER ENGINEERING**
Two-watt radioisotope power generators for underwater applications 05 p0007 A75-10556
Energy sources for ocean technology --- for unmanned surface stations and manned underwater stations 07 p0114 A75-33118
- UNDERWATER STRUCTURES**
Prospects for utilization of underwater houses and chambers in development of marine oil deposits 05 p0029 N75-11606
- UNIQUENESS THEOREM**
Convergence and speed of calculations for thermoelectric heat pump 05 p0020 A75-17084
- UNITED STATES OF AMERICA**
MEGASTAR: The Meaning of Energy Growth: An Assessment of Systems, Technologies, and Requirements
[NASA-CR-120355] 05 p0023 N75-10584
Energy and security: Implications for American policy
[AD-785084] 05 p0032 N75-12857
Energy required to develop power in the United States 05 p0032 N75-13378
Japanese/United States Symposium on Solar Energy systems. Volume 1: Summary of proceedings
[MTR-6284-VOL-1] 05 p0036 N75-14264
Conservation and efficient use of energy
[H-REPT-93-1634] 05 p0036 N75-14265
- Fuel and energy data: United States by states and regions, 1972
[PB-236581/5] 06 p0077 N75-17004
The reserve base of bituminous coal and anthracite for underground mining in the Eastern United States
[PB-237815/6] 06 p0085 N75-18713
The USA: The scientific and technical revolution and trends in foreign policy
[NASA-TT-F-16102] 06 p0096 N75-20160
World oil developments and US oil import policies
[GPO-22-893] 07 p0148 N75-25294
US energy and fuel demand to 1985, a composite projection by user within Petroleum Administration for Defense (PAD) districts
[PB-239343/7] 07 p0151 N75-25322
Scientific research in power engineering
[JPRS-65422] 08 p0205 N75-30648
Solar Energy Research, Development, and Demonstration Act of 1974
[GPO-39-827] 08 p0207 N75-31567
Project Independence report: A review of US energy needs up to 1985
[PB-242142/8] 08 p0213 N75-33506
- UNIVERSITIES**
Proceedings of the 2nd Annual Illinois Energy Conference
[PB-240548/8] 07 p0161 N75-27575
- URANIUM**
Assessment of uranium and thorium resources in the United States and the effect of policy alternatives
[PB-238658/9] 07 p0143 N75-24133
Uranium resources to meet long term uranium requirements
[PB-239515/0] 08 p0199 N75-28508
- URANIUM FLUORIDES**
The UF6 Breeder - A solution to the problems of nuclear power 08 p0187 A75-45951
- URANIUM PLASMAS**
Applications of plasma core reactors to terrestrial energy systems
[AIAA PAPER 74-1074] 05 p0010 A75-11281
Physics and potentials of fissioning plasmas for space power and propulsion
[IAP PAPER 74-087] 05 p0015 A75-13719
- URBAN DEVELOPMENT**
Energy from urban wastes 05 p0006 A75-10548
- URBAN PLANNING**
The Solar Community - Energy for residential heating, cooling, and electrical power 06 p0059 A75-27785
- URBAN TRANSPORTATION**
Energy efficiency of current intercity passenger transportation modes
[AIAA PAPER 75-314] 06 p0047 A75-22513
Mode shift strategies in intercity transportation and their effect on energy consumption
[AIAA PAPER 75-315] 06 p0055 A75-25013
A comparative analysis of the energy consumption for several urban passenger ground transportation systems
[PB-238041/8] 06 p0107 N75-21160
Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report
[PB-238877/5] 07 p0131 N75-22199
Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections
[PB-238878/3] 07 p0131 N75-22200
Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis
[PB-238879/1] 07 p0131 N75-22201
DOT/NASA comparative assessment of Brayton engines for guideway vehicles and busses. Volume 2: Analysis and results
[NASA-SP-354-VOL-2] 07 p0133 N75-22745
Papers and proceedings of two energy crisis seminars --- for urban transportation
[PB-239164/7] 07 p0156 N75-26513
Energy use of public transit systems
[PB-241351/6] 08 p0209 N75-31962

SUBJECT INDEX

VOLTAGE GENERATORS

- The NBS computerized carpool matching system:
 User's guide
 [CON-75-10691/4] 08 p0214 N75-33749
- USER MANUALS (COMPUTER PROGRAMS)**
 Long term power system dynamics. Volume 2:
 Long-term power system dynamics simulation program
 [PB-240800/3] 07 p0161 N75-27574
- The NBS computerized carpool matching system:
 User's guide
 [CON-75-10691/4] 08 p0214 N75-33749
- USER REQUIREMENTS**
 Solar electric and thermal conversion system in
 close proximity to the consumer --- solar panels
 on house roofs
 [AIAA PAPER 75-628] 06 p0062 A75-28597
- UTAH**
 Average oil yield tables for oil shale sequences
 in cores from the Uinta Basin, Utah, that
 average 15, 20, 25, 30, 35, and 40 gallons per ton
 [PB-236068/3] 06 p0072 N75-16124
- UTILITIES**
 Small coal burning gas turbine for modular
 integrated utility systems 05 p0006 A75-10546
- The Energy Systems Optimization Computer Program
 /ESOP/ developed for Modular Integrated Utility
 Systems /MIUS/ analysis 05 p0006 A75-10551
- The PCG-1 fuel cell powerplant for electric
 utility use 05 p0013 A75-12992
- The Hydrogen Economy - A utility perspective ---
 energy technology 05 p0014 A75-12998
- An energy utility company's view of hydrogen energy
 08 p0172 A75-42283
- Hydrogen storage and production in utility systems
 [BHL-18920] 06 p0097 N75-20580
- Utility company views of geothermal development
 06 p0102 N75-20864
- UTILIZATION**
 Effective utilization of solar energy to produce
 clean fuel
 [PB-233956/2] 05 p0026 N75-10605
- V**
- V GROOVES**
 V-grooved silicon solar cells 07 p0123 A75-37397
- VACUUM DEPOSITION**
 Thin film coatings in solar-thermal power systems
 06 p0056 A75-25679
- VACUUM TESTS**
 Ames Heat Pipe Experiment (AHPE) experiment
 description document --- performance testing in
 a vacuum environment
 [NASA-CR-114413] 07 p0138 N75-23880
- VAPOR DEPOSITION**
 Polycrystalline silicon layers for solar cells
 08 p0165 A75-38958
- Chemical vapor deposition research for fabrication
 of solar energy convertors
 [PB-235481/9] 05 p0041 N75-15185
- Research applied to solar-thermal power systems:
 Chemical vapor deposition research for
 fabrication of solar energy convertors
 [PB-234565/0] 05 p0041 N75-15186
- Chemical vapor deposition research for fabrication
 of solar energy convertors
 [PB-236189/7] 06 p0072 N75-16119
- Chemical vapor deposition research for fabrication
 of solar energy convertors
 [PB-238947/6] 07 p0143 N75-24137
- VAPOR PHASES**
 Workshop in Gas-Phase Molecular Interactions and
 the Nation's Energy Problem
 [PB-236712/6] 06 p0086 N75-18718
- VAPORIZING**
 Operational, maintenance, and environmental
 problems associated with a fossil fuel-fired
 potassium steam binary vapor cycle
 [ORNL-NSF-EP-30] 06 p0090 N75-18769
- VEGETATION**
 Effective utilization of solar energy to produce
 clean fuel
 [PB-233956/2] 05 p0026 N75-10605
- Determine utility of ERTS-1 to detect and monitor
 area strip mining and reclamation ---
 southeastern Ohio
 [E75-10327] 07 p0158 N75-27515
- VEHICLES**
 Study of potential for motor vehicle fuel economy
 improvement. Truck and bus panel report no. 7
 [PB-241777/2] 08 p0212 N75-33411
- VEHICULAR TRACKS**
 A wind energy conversion system based on the
 tracked-vehicle airfoil concept 05 p0004 A75-10518
- VERTICAL TAKEOFF AIRCRAFT**
 'Time is energy' /Henson and Stringfellow Memorial
 Lecture/ --- VTOL aircraft developments
 07 p0112 A75-32324
- VIKING MARS PROGRAM**
 SNAP 19 Viking RTG flight configuration and
 integration testing --- Radioisotope
 Thermoelectric Generator 05 p0003 A75-10504
- VIRGINIA**
 Interdisciplinary study of atmospheric processes
 and constituents of the mid-Atlantic coastal
 region. Attachment 3: Data set for Craney
 Island oil refinery installation experiment ---
 air pollution monitoring
 [NASA-CR-142823] 07 p0141 N75-24121
- Interdisciplinary study of atmospheric processes
 and constituents of the mid-Atlantic coastal
 region. Attachment 4: Data set for background
 investigation of atmospheric constituents for
 Hansemond River site --- a proposed oil refinery
 site
 [NASA-CR-142821] 07 p0141 N75-24122
- VISCOUS FLUIDS**
 Theoretical study of the energy output of two
 magnetohydrodynamic generators 07 p0125 A75-38568
- VOLT-AMPERE CHARACTERISTICS**
 Methanol/air acidic fuel cell system 05 p0008 A75-10566
- Report on progress in achieving direct conversion
 of a major fraction of sonic flow kinetic power
 into electrical power by electrofluid dynamic
 /EPD/ processes 05 p0009 A75-10576
- Further progress in the technology of silk
 screened CdS solar cells 06 p0052 A75-24225
- Empirical method of designing the current-voltage
 characteristics for the discharge mode of a
 thermionic converter 06 p0057 A75-26332
- Temperature effects in Schottky-barrier silicon
 solar cells 07 p0115 A75-34175
- Investigation of photoelectric converter operation
 under conditions of strong illumination 07 p0119 A75-36015
- The conversion efficiency of ideal Shockley p-n
 junction photovoltaic converters in concentrated
 sunlight 07 p0120 A75-36362
- Effects of high doping levels on silicon solar
 cell performance 07 p0123 A75-37403
- Operation of photoconverters under conditions of
 strong illumination 08 p0170 A75-41538
- An Al p-silicon MOS photovoltaic cell 08 p0173 A75-43459
- Hydrogen generation through static-feed water
 electrolysis 08 p0177 A75-44776
- Hydrogen generation by solid-polymer electrolyte
 water electrolysis 08 p0177 A75-44777
- Hydrogen production by water electrolysis -
 Methods for approaching ideal efficiencies 08 p0193 A75-46023
- VOLTAGE CONVERTERS (DC TO DC)**
 Milliwatt fuel cell system for sensors 05 p0008 A75-10565
- VOLTAGE GENERATORS**
 Electrostatic voltage generation from flowing water
 05 p0009 A75-10580

W

WALL TEMPERATURE

Thermal performance characteristics of heat pipes
06 p0046 A75-21465

WASTE DISPOSAL

Soil burial of radioisotopic fuel capsules
06 p0046 A75-21274

Biological conversion of organic refuse to methane
[PB-235468/6] 05 p0041 N75-15183

Bureau of Mines research programs on recycling and disposal of mineral, metal, and energy-based wastes
[PB-227476/9] 05 p0042 N75-15203

Pollutional problems and research needs for an oil shale industry
[PB-236608/6] 06 p0084 N75-17848

Nuclear system that burns its own wastes shows promise
[NASA-NEWS-RELEASE-75-44] 06 p0085 N75-18716

Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843

Energy recovery from solid waste. Volume 1: Summary report
[NASA-CR-2525] 06 p0098 N75-20830

Waste heat disposal from nuclear power plants
[COM-75-10407/5] 07 p0158 N75-27324

An agro-power-waste water complex for land disposal of waste heat and waste water
[PB-239675/2] 07 p0161 N75-27570

Glass recycling and reuse
[PB-239674/5] 08 p0200 N75-28536

Waste automotive lubricating oil reuse as a fuel
[PB-241357/3] 08 p0204 N75-30331

Converting cellulosic waste to fuel: A literature review
[AD-A009400] 08 p0211 N75-32596

WASTE ENERGY UTILIZATION

Economics of a hydrogen storage peaking power plant
[ASME PAPER 74-WA/PWR-6] 05 p0018 A75-16880

Urban waste energy resources
[AIAA PAPER 75-632] 06 p0062 A75-28598

Storage of summertime waste heat from electric generating plants for use in wintertime
[AIAA PAPER 75-743] 07 p0113 A75-32852

Application of fuel cells with heat recovery for integrated utility systems
08 p0187 A75-45949

Heat pipe thermal recovery units --- for process exhaust energy utilization
08 p0194 A75-46041

High temperature heat pipes for energy conservation --- thermal waste recovery system
08 p0194 A75-46042

Bioconversion --- of solar energy and solid waste energy into useable fuels
[GPO-37-403] 05 p0028 N75-11463

Air conditioning of office buildings with all-electric supply. Part 1: Technical conception
[OA-TRANS-938-PT-1] 06 p0074 N75-16970

Energy recovery from solid waste --- production engineering model
06 p0079 N75-17200

Energy recovery from solid waste. Volume 1: Summary report
[NASA-CR-2525] 06 p0098 N75-20830

Management of power plant waste heat in cold regions
[AD-A003217] 06 p0104 N75-20881

Production of gaseous fuel by pyrolysis of municipal solid waste
[NASA-CR-141791] 07 p0140 N75-24105

Utilisation of waste heat from inductive melting installations
[BLL-OA-TRANS-949-(6196.3)] 07 p0153 N75-26492

Animal waste conversion systems based on thermal discharge
[PB-240113] 07 p0159 N75-27548

Use of thermally enriched water for growing field crops in Minnesota
[PB-240112] 07 p0159 N75-27549

An agro-power-waste water complex for land disposal of waste heat and waste water
[PB-239675/2] 07 p0161 N75-27570

Waste automotive lubricating oil reuse as a fuel
[PB-241357/3] 08 p0204 N75-30331

Liquid-metal binary cycles for stationary power
[NASA-TN-D-7955] 08 p0205 N75-30649

Converting cellulosic waste to fuel: A literature review
[AD-A009400] 08 p0211 N75-32596

WASTE UTILIZATION

Potential of Rankine engines to produce power from waste heat streams
05 p0006 A75-10547

Energy from urban wastes
05 p0006 A75-10548

An evaluation of discarded tires as a potential source of fuel
05 p0012 A75-12416

Two-stage methane production from solid wastes
[ASME PAPER 74-WA/EHER-11] 05 p0017 A75-16842

Gasification of solid wastes in fixed beds
[ASME PAPER 74-WA/PWR-10] 05 p0018 A75-16882

Energy problems - Solar energy and manure gas
05 p0020 A75-17024

Energy - Engineering - Environment; Proceedings of the Seventh Annual Frontiers of Power Technology Conference, Stillwater, Okla., October 9, 10, 1974
08 p0168 A75-40176

Methanol from forestry, municipal, and agricultural organic residues
[BNWL-SA-5053] 06 p0085 N75-18702

Pyrolysis system evaluation study
[NASA-CR-141664] 06 p0086 N75-18722

Waste lubricating oil research. A comparison of bench-test properties of re-refined and virgin lubricating oils --- materials recovery
[PB-238124/2] 06 p0097 N75-20746

Energy recovery from solid waste. Volume 1: Summary report
[NASA-CR-2525] 06 p0098 N75-20830

Energy and fixed nitrogen from agricultural residues
[BNWL-SA-5070] 06 p0103 N75-20874

Where the boilers are: A survey of electric utility boilers with potential capacity for burning solid waste as fuel
[PB-239392/4] 07 p0143 N75-24135

Energy recovery from solid waste. Volume 2: Technical report --- pyrolysis and biodegradation
[NASA-CR-2526] 07 p0148 N75-25292

Strontium fluoride research in heat source and compatibility tests --- waste utilization
[BNWL-1845-2] 07 p0152 N75-25695

Strontium heat source development programs --- waste utilization
[BNWL-1845-4] 07 p0152 N75-25696

Study of an integrated power, water and wastewater utility complex
[PB-239408/8] 07 p0157 N75-26523

Conversion of cellulosic wastes to oil
[PB-240839/1] 07 p0161 N75-27572

Glass recycling and reuse
[PB-239674/5] 08 p0200 N75-28536

The need for a national materials policy, part 1
[GPO-39-885] 08 p0209 N75-31954

The need for a national materials policy, part 2
[GPO-40-687] 08 p0209 N75-31955

The need for a national materials policy, part 3
[GPO-40-687] 08 p0209 N75-31956

WATER

The generation of hydrogen by the thermal decomposition of water
05 p0005 A75-10532

Nuclear energy requirements for hydrogen production from water
05 p0005 A75-10533

Thermolysis of water for the generation of hydrogen
06 p0049 A75-23504

Nuclear water splitting and high temperature reactors
08 p0175 A75-44757

Thermochemical water cracking using solar heat
08 p0175 A75-44765

Photolysis of water as a solar energy conversion process - An assessment
08 p0176 A75-44766

An analysis of hydrogen production via closed-cycle schemes --- thermochemical processings from water
08 p0176 A75-44771

Hydrogen generation through static-feed water electrolysis
08 p0177 A75-44776

Hydrogen generation by solid-polymer electrolyte water electrolysis
08 p0177 A75-44777

SUBJECT INDEX

WEIGHT ANALYSIS

- Evaluation of multi-step thermochemical processes for the production of hydrogen from water
08 p0177 A75-44778
- Considerations on iron-chloride-oxygen reactions in relation to thermochemical water-splitting
08 p0177 A75-44779
- Analysis of thermochemical water-splitting cycles --- energy efficiency evaluation
08 p0177 A75-44781
- A search for thermochemical water-splitting cycles --- for energy production
08 p0177 A75-44782
- Primary data on economic activity and water use in prototype oil shale development areas of Colorado: An initial inquiry
[PB-236039/4] 05 p0037 N75-14277
- Production of hydrogen from water using nuclear energy. A review --- for hydrogen-based energy
[JAERI-M-5642] 06 p0093 N75-19824
- Fundamental aspects of systems for the thermochemical production of hydrogen from water
[LA-UR-74-1459] 07 p0127 N75-21391
- WATER CONSUMPTION**
The economics of using wind power for electricity supply in the Netherlands and for water supply on Curacao
[NASA-TT-F-15982] 05 p0024 N75-10587
- WATER FLOW**
Hot side heat exchanger for an ocean thermal difference power plant
05 p0004 A75-10527
- Electrostatic voltage generation from flowing water
05 p0009 A75-10580
- Steady state free convection in an unconfined geothermal reservoir
05 p0009 A75-11069
- Production of oil from fractured reservoirs by water displacement
07 p0127 N75-21716
- Solar powered pump
[NASA-CASE-NPO-13567-1] 07 p0133 N75-22746
- Oil displacement by different surfactant and polymer waterflood systems
07 p0134 N75-22858
- WATER INJECTION**
Profitability analysis of producing crude oil by waterflooding using a simulation technique
[PB-237843/8] 06 p0088 N75-18738
- Solvent stimulation tests in two California oilfields
[PB-237849/5] 06 p0090 N75-18761
- WATER MANAGEMENT**
Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions
06 p0054 A75-24256
- Proceedings of the Workshop on Research Needs Related to Water for Energy
[PB-241346/6] 08 p0208 N75-31581
- WATER POLLUTION**
Environmental impact of a geothermal power plant
06 p0049 A75-23291
- Trace elements by instrumental neutron activation analysis for pollution monitoring
08 p0166 A75-39335
- Benthal decomposition of adsorbed octadecane --- impact of oil pollution, deoxygenation of waterways
06 p0106 N75-20891
- At-sea testing of a high seas oil recovery system
[AD-A006938] 07 p0136 N75-22953
- Marine pollution monitoring (petroleum):
Proceedings of a Symposium and Workshop held at the National Bureau of Standards
[COM-75-50071/0] 07 p0146 N75-24183
- The identification of gamma-valerolactone in waste from an oil-shale in situ retort --- determination of chemical composition by mass spectroscopy of effluents from crude oil shales causing water pollution
[PB-240098/4] 07 p0147 N75-24852
- WATER QUALITY**
Mass spectrometric analysis of product water from coal gasification
[PB-240835/9] 07 p0158 N75-27120
- WATER RESOURCES**
Some generalizations of sample water-supply calculations for solar-powered pumping plants
05 p0020 A75-17077
- Complex utilization of a solar power plant
07 p0116 A75-34320
- Comprehensive utilization of a solar installation
08 p0170 A75-41533
- Solar energy conversion by water photodissociation
08 p0173 A75-43510
- Digest of energy facts for water resources studies in Minnesota
[PB-239961/6] 07 p0156 N75-26515
- The impact of energy development on water resources in arid lands. Literature review and annotated bibliography
[PB-240008/3] 07 p0157 N75-26550
- WATER TEMPERATURE**
Theoretical determination of the temperature in a solar water heater /steady state/
07 p0112 A75-31513
- Theoretical research on the operation of a solar water heater and comparison with experimental data
07 p0112 A75-31515
- Study of the influence of container design and the thermal inertness of solar water heaters on their efficiency
07 p0119 A75-36018
- Year round performance studies on a built-in storage type solar water heater at Jodhpur, India
08 p0167 A75-39406
- Investigation of the effect of boiler design and finite thermal response of solar water heaters on efficiency
08 p0170 A75-41541
- Computation of water temperature at the mouth of a geothermal well
08 p0170 A75-41547
- Industrial process heat from solar energy --- energy storage in water pond
08 p0190 A75-45992
- New dimensions in water heating in the Northwest - A study of solar energy utilization --- computer model
08 p0191 A75-45995
- Collection and concentration of solar energy using Fresnel type lenses
[NASA-CR-142194] 06 p0080 N75-17784
- Animal waste conversion systems based on thermal discharge
[PB-240113] 07 p0159 N75-27548
- WATER TREATMENT**
Solar stills for agricultural purposes
07 p0115 A75-33972
- Study of an integrated power, water and wastewater utility complex
[PB-239408/8] 07 p0157 N75-26523
- WATER VAPOR**
High-efficiency electrochemical plant
08 p0189 A75-45977
- WATERWAVE ENERGY**
Other primary energy resources --- geothermal, tidal, wind, waterwave and glacier energy utilization
06 p0050 A75-23512
- WATERWAVE ENERGY CONVERSION**
Characteristics of a rocking wave power device --- for waterwave energy conversion
06 p0062 A75-28450
- Site limitations on Solar Sea Power Plants
[AIAA PAPER 75-618] 06 p0062 A75-28594
- The potential of natural energy sources
08 p0165 A75-38865
- A resonant point absorber of ocean-wave power
08 p0170 A75-41425
- WATERWAVE POWERED MACHINES**
The oceanic biomass energy plantation --- seaweed harvesting for food and fuel
[AIAA PAPER 75-635] 06 p0063 A75-28599
- WEATHER DATA RECORDERS**
Sizing of solar energy storage systems using local weather records
[ASHE PAPER 74-WA/HT-20] 05 p0017 A75-16865
- WEATHER MODIFICATION**
Solar climate control - Evaluating the commercial possibilities
08 p0168 A75-40297
- WEIGHT ANALYSIS**
Light-weight radioisotope thermoelectric generator design
05 p0003 A75-10508

WEIGHT REDUCTION

Solar cell modules for lightweight solar arrays
--- onboard communication satellites

06 p0057 A75-26068

WEIGHT REDUCTION

Evaluation of the overall fuel mass penalty of an
aircraft system

07 p0121 A75-36720

SEPS solar array design and technology evaluation

08 p0192 A75-46016

Weight contribution to fuel conservation for
terminal area compatible aircraft
[SAVE PAPER 1091]

08 p0196 A75-47509

WEIGHTLESS FLUIDS

Cryogenic heat pipe experiment - Flight
performance onboard a sounding rocket
[AIAA PAPER 75-729]

07 p0113 A75-32872

WEIGHTLESSNESS

The International Heat Pipe Experiment --- ten
experiments in zero gravity
[AIAA PAPER 75-726]

07 p0113 A75-32870

WELLS

Computation of water temperature at the mouth of a
geothermal well

08 p0170 A75-41547

Offshore investigation: Produccible shut-in
leases, January 1974, phase 1 --- potentially
productive oil and gas wells

05 p0027 A75-11457

Radiological surveillance program for the project
Gasbuggy production test, 15 May - 6 November 1973
[NERC-LV-539-30]

06 p0073 A75-16337

Dry oil
[BLL-M-23508-(5828.4F)]

06 p0074 A75-16969

WEST INDIES

The economics of using wind power for electricity
supply in the Netherlands and for water supply
on Curacao
[NASA-TT-F-15982]

05 p0024 A75-10587

WHEELS

Wind power machines --- including operating
principles
[NASA-TT-F-16195]

06 p0080 A75-17786

WHISKERS (SINGLE CRYSTALS)

A new concept for solar energy thermal conversion

07 p0110 A75-30368

WICKS

A design parameter for assessing wicking
capabilities of heat pipes
[AIAA PAPER 74-1266]

05 p0010 A75-11107

An investigation of heat-pipe wick characteristics

05 p0012 A75-12914

WIND (METEOROLOGY)

Benefit-cost methodology study with example
application of the use of wind generators
[NASA-CR-134864]

08 p0207 A75-31571

WIND EFFECTS

Radiation cooling of structures with infrared
transparent wind screens

08 p0167 A75-39407

WIND SHEAR

Structural analysis of wind turbine rotors for
NSP-NASA Mod-0 wind power system
[NASA-TM-X-3198]

06 p0080 A75-17712

WIND TUNNEL DRIVES

A generalised analysis of the performance of a
variety of drive systems for high Reynolds
number, transonic wind tunnels
[RAE-TR-73134]

06 p0073 A75-16572

WIND TUNNEL TESTS

Tornado-type wind energy system --- a
multimegawatt power output unit

08 p0192 A75-46012

WIND TUNNELS

Wind engines and wind installations
[NASA-TT-F-16170]

07 p0135 A75-22904

WIND VELOCITY MEASUREMENT

Wind power potential of Alaska, Part 1: Surface
wind data from specific coastal sites
[PB-238507/8]

06 p0105 A75-20885

WINDMILLS (WINDPOWERED MACHINES)

Unsteady aerodynamics of variable pitch vertical
axis windmill
[AIAA PAPER 75-649]

06 p0063 A75-28604

Utilization of wind energy

07 p0110 A75-30891

Wind power --- electricity generation

07 p0111 A75-31273

SUBJECT INDEX

Economic and technical aspects of wind generation
systems

07 p0116 A75-34533

Wind energy utilization prospects

07 p0117 A75-34928

Airborne windmills - Energy source for
communication aerostats
[AIAA PAPER 75-923]

08 p0165 A75-38868

Generation of power from the wind --- windmill
electric generators

08 p0167 A75-39365

The effect of atmospheric turbulence on windmill
performance

08 p0174 A75-44756

Preliminary results of the large experimental wind
turbine phase of the national wind energy program

08 p0196 A75-47798

Standardized wind electric power unit
[AD-783764]

05 p0025 A75-10598

Wind power projects of the French electrical
authority

[NASA-TT-F-16057] 05 p0033 A75-13384

Exploiting wind power for the production of
electricity --- windmill utilization in Denmark
[NASA-TT-F-16058]

05 p0033 A75-13385

Structural analysis of wind turbine rotors for
NSP-NASA Mod-0 wind power system
[NASA-TM-X-3198]

06 p0080 A75-17712

Wind power machines --- including operating
principles

[NASA-TT-F-16195] 06 p0080 A75-17786

Wind motors: Theory, construction, assembly and
use in drawing water and generating electricity
[NASA-TT-F-16201]

06 p0093 A75-19821

Applied aerodynamics of wind power machines ---
rotor blades (turboachinery)

[PB-238595/3] 07 p0133 A75-22669

WINDOWS (APERTURES)

Semi-transparent solar collector window systems

08 p0167 A75-39405

WINDPOWER UTILIZATION

A planning methodology for the analysis and design
of wind-power systems

05 p0004 A75-10517

Windpower - Look backward, then move forward
confidently --- for electric power generation in
rural areas

05 p0014 A75-12997

Prospects for tapping solar energy on a large scale

05 p0015 A75-14014

Considerations regarding a utilization of solar
energy --- thermal, electric and wind energy
systems

06 p0050 A75-23510

Other primary energy resources --- geothermal,
tidal, wind, waterwave and glacier energy
utilization

06 p0050 A75-23512

Ocean thermal power and windpower systems -
Natural solar energy conversion for near-term
impact on world energy markets

06 p0060 A75-27790

Utilization of wind energy

07 p0110 A75-30891

Wind power --- electricity generation

07 p0111 A75-31273

Wind energy utilization prospects

07 p0117 A75-34928

Principles of a composite study involving combined
use of solar and wind energy

07 p0122 A75-37160

Generalizations of composite studies involving
combined use of wind and solar energy

07 p0122 A75-37161

Energy and Resources - A plan is outlined
according to which solar and wind energy would
supply Denmark's needs by the year 2050 ---
solar and wind power utilization for Denmark

07 p0124 A75-37846

Airborne windmills - Energy source for
communication aerostats

[AIAA PAPER 75-923] 08 p0165 A75-38868

An overview of solar energy applications

08 p0166 A75-39196

Generation of power from the wind --- windmill
electric generators

08 p0167 A75-39365

- Hydrogen as energy storage element --- in windpower systems 08 p0176 A75-44772
- Harnessing wind power in developing countries 08 p0191 A75-46009
- Wind and solar thermal combinations for space heating 08 p0192 A75-46010
- Tornado-type wind energy system --- a multimegawatt power output unit 08 p0192 A75-46012
- Plans and status of the NASA-Lewis Research Center wind energy project 08 p0197 A75-47802
- The economics of using wind power for electricity supply in the Netherlands and for water supply on Curacao [NASA-TT-F-15982] 05 p0024 N75-10587
- Wind energy developments in the 20th century [NASA-TM-X-71634] 05 p0033 N75-13380
- Wind power projects of the French electrical authority [NASA-TT-F-16057] 05 p0033 N75-13384
- Exploiting wind power for the production of electricity --- windmill utilization in Denmark [NASA-TT-F-16058] 05 p0033 N75-13385
- Wind energy [GPO-37-390] 05 p0033 N75-13387
- Report of the Wind Power Committee --- a feasibility analysis of the use of wind for a major energy source [NASA-TT-F-16062] 05 p0039 N75-15154
- Wind power potential of Alaska. Part 1: Surface wind data from specific coastal sites [PB-238507/8] 06 p0105 N75-20885
- Plans and status of the NASA-Lewis Research Center wind energy project [NASA-TM-X-71701] 07 p0128 N75-21795
- Wind power installations. Present condition and possible lines of development [NASA-TT-F-16204] 07 p0128 N75-21796
- Wind engines and wind installations [NASA-TT-F-16170] 07 p0135 N75-22904
- Oceanic and atmospheric energy sources 07 p0139 N75-24101
- Proceedings of 5th annual symposium: Energy Research and Development --- solar energy, windpower utilization, thermonuclear power generation [AD-A007799] 07 p0144 N75-24142
- Development of an electrical generator and electrolysis cell for a wind energy conversion system [PB-239272/8] 07 p0150 N75-25315
- Summary of NASA Lewis Research Center solar heating and cooling and wind energy programs [NASA-TM-X-71745] 07 p0154 N75-26497
- The 100 kW experimental wind turbine generator project [NASA-TM-X-71758] 08 p0202 N75-29546
- Preliminary results of the large experimental wind turbine phase of the national wind energy program [NASA-TM-X-71796] 08 p0210 N75-32594
- WINDPOWERED GENERATORS**
- A planning methodology for the analysis and design of wind-power systems 05 p0004 A75-10517
- A wind energy conversion system based on the tracked-vehicle airfoil concept 05 p0004 A75-10518
- Windpower - Look backward, then move forward confidently --- for electric power generation in rural areas 05 p0014 A75-12997
- Wind energy developments in the 20th century 05 p0020 A75-17503
- Utilization of wind energy 07 p0110 A75-30891
- Wind power --- electricity generation 07 p0111 A75-31273
- Economic and technical aspects of wind generation systems 07 p0116 A75-34533
- Summary of NASA-Lewis Research Center solar heating and cooling and wind energy programs 07 p0123 A75-37240
- The potential of natural energy sources 08 p0165 A75-38865
- Generation schemes for wind power plants 08 p0169 A75-40688
- High intensity wind belts as massive energy sources 08 p0172 A75-42532
- Wind capture and diversion through pneumatic energy recovery with large capacity aerogenerators 08 p0175 A75-44762
- Continuous duty solar energy system concepts 08 p0190 A75-45993
- Harnessing wind power in developing countries 08 p0191 A75-46009
- Tornado-type wind energy system --- a multimegawatt power output unit 08 p0192 A75-46012
- Electrical generation by wind power 08 p0193 A75-46024
- Electrical generating equipment and electric utility requirements for high-power wind generator systems 08 p0193 A75-46025
- Wind power system optimization 08 p0193 A75-46026
- Wind and solar power engineering [AD-786844] 05 p0039 N75-15168
- Wind motors: Theory, construction, assembly and use in drawing water and generating electricity [NASA-TT-F-16201] 06 p0093 N75-19821
- Applied aerodynamics of wind power machines --- rotor blades (turbomachinery) [PB-238595/3] 07 p0133 N75-22669
- Development of an electrical generator and electrolysis cell for a wind energy conversion system [PB-239272/8] 07 p0150 N75-25315
- The 100 kW experimental wind turbine generator project [NASA-TM-X-71758] 08 p0202 N75-29546
- Preliminary results of the large experimental wind turbine phase of the national wind energy program [NASA-TM-X-71796] 08 p0210 N75-32594
- WINDPOWERED PUMPS**
- Wind motors: Theory, construction, assembly and use in drawing water and generating electricity [NASA-TT-F-16201] 06 p0093 N75-19821
- Wind engines and wind installations [NASA-TT-F-16170] 07 p0135 N75-22904
- WORK FUNCTIONS**
- Electrodes for thermionic energy conversion 08 p0188 A75-45957
- Collector work function improvements and the development of low temperature thermionic converters 08 p0188 A75-45960
- WORKING FLUIDS**
- Dynamic response of solar heat storage systems [ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867
- Stirling engines - Capabilities and prospects 06 p0048 A75-23237
- Transverse header heat pipe [AIAA PAPER 75-656] 07 p0114 A75-32914
- Measurements of the performance of an electrohydrodynamic heat pipe [AIAA PAPER 75-659] 07 p0114 A75-32917
- Compatibility and reliability of heat pipe materials [AIAA PAPER 75-660] 07 p0114 A75-32918
- Analysis of gas dissociation solar thermal power system 07 p0115 A75-33974
- Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173
- Optimum properties of working fluids for solar powered heat pumps 08 p0185 A75-45937
- High temperature heat pipes for energy conservation --- thermal waste recovery system 08 p0194 A75-46042
- Application of heat pipes to solar collectors 08 p0195 A75-46045
- WYOMING**
- Preliminary evaluation of underground coal gasification at Hanna, Wyoming [BH-TPR-82] 05 p0025 N75-10599

Z

ZONE MELTING

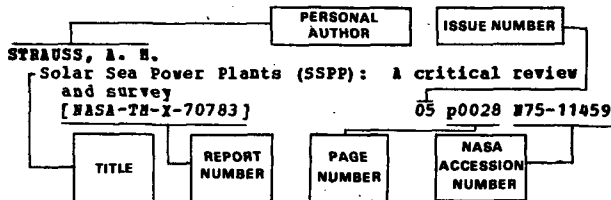
Solar energy concentrator system for crystal
growth and zone refining in space
[NASA-CR-120623] 06 p0086 N75-18719

PERSONAL AUTHOR INDEX

ENERGY / A Continuing Bibliography (Issue 8)

FEBRUARY 1976

Typical Personal Author Index Listing



Listings in this index are arranged alphabetically by personal author. The title of the document provides the user with a brief description of the subject matter. The report number helps to indicate the type of document listed (e.g. NASA report, translation, NASA contractor report). The issue, page and accession numbers are located beneath and to the right of the title, e.g., 05 p0028 N75-11459. Under any one author's name the accession numbers are arranged in sequence with the IAA accession numbers appearing first.

A

- AAHOT, H. W. C.
Management of power plant waste heat in cold regions
[AD-A003217] Q6 p0104 N75-20881
- ABBASI, S.
Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300
- ABBIN, J. P., JR.
Sizing of focused solar collector fields with
specified collector tube inlet temperature
[SLA-74-5288] 06 p0094 N75-19832
- ABDUAZIZOV, A.
Fabricating paraboloidal high-temperature solar
concentrators from mollified sectors
07 p0122 N75-37166
Investigation of a solar concentrator with
hexahedral glass facets
08 p0180 N75-45061
A nearly perfect solar energy concentrator made up
of tapered mirror facets with constant
transverse curvature
08 p0180 N75-45062
- ABENS, S. G.
Phosphoric acid fuel cell stack development
08 p0186 N75-45943
- ABEAT, A.
Investigation of bubble formation in arteries of
gas-controlled heat pipes
[AIAA PAPER 75-655] 07 p0114 N75-32913
- ABIDOV, T. Z.
Design of a tubular heat collector for a solar
power installation with a parabolocylindric
concentrator
05 p0020 N75-17069
- ABRAMS, M. J.
The detection of geothermal areas from Skylab
thermal data
[NASA-CR-143133] 07 p0158 N75-27540
- ACKERMAN, J. P.
Status and outlook for energy conversion via fuel
cells
[CONP-740462-1] 06 p0087 N75-18729
- ACTON, J. F.
Electricity conservation measures in the
commercial sector: The Los Angeles experience
[R-1592-PEA] 05 p0034 N75-13388
- ADAMS, D.
Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 3: Data set for Craney
Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
- Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 4: Data set for background
investigation of atmospheric constituents for
Hanscom River site
[NASA-CR-142821] 07 p0141 N75-24122
- ADAMS, K. G.
In situ oil shale: A cost sensitivity analysis
[SAND-74-0146] 06 p0087 N75-18727
- ADAMS, R. G.
Component design considerations for gas turbine
HTGR power plant
[ASME PAPER 75-GT-67] 07 p0116 N75-34620
- AFANASEV, I. V.
Laser thermonuclear fusion
07 p0112 N75-32617
- AIKENS, D. A.
Electrochemical power sources
[AD-A001610] 06 p0094 N75-19836
- AKIYAMA, S.
Superconducting synchronous machine
06 p0061 N75-27967
- AL-JUMAILY, F. K.
Investigations of the factors affecting the
performance of a rotating heat pipe
07 p0120 N75-36357
- ALAVUTDINOV, D. M.
Investigation of a solar concentrator with
hexahedral glass facets
08 p0180 N75-45061
- ALEREZA, T.
Assessment of Rankine cycle for potential
application to solar-powered cooling of buildings
[ASME PAPER 74-WA/SOL-7] 05 p0019 N75-16890
Assessment of the Rankine cycle for potential
application to solar powered cooling of buildings
[PB-238069/9] 06 p0089 N75-18755
- ALEXANDER, A. D., III
United States transportation fuel economics (1975
- 1995)
[NASA-TX-X-3197] 06 p0107 N75-21154
- ALFP, R. K.
Pumped air storage for electric power generation
05 p0013 N75-12990
- ALFORD, W. J., JR.
Future long-range transports - Prospects for
improved fuel efficiency
[AIAA PAPER 75-316] 06 p0047 N75-22514
Future long-range transports: Prospects for
improved fuel efficiency
[NASA-TX-X-72659] 06 p0079 N75-17339
- ALICH, J. A., JR.
Energy from agriculture
08 p0191 N75-46000
Effective utilization of solar energy to produce
clean fuel
[PB-233956/2] 05 p0026 N75-10605
- ALIEV, N. P.
Testing of a photoelectric generator in a
mountainous region of the Azerbaïdzhan SSR
06 p0057 N75-26714
Investigation of the electrical and temperature
characteristics of a silicon photoelectric
converter under natural conditions
07 p0116 N75-34314
Photoelectric generator testing in the
Azerbaïdzhan SSR mountains
07 p0122 N75-37165
- ALINOV, A. K.
Fabricating paraboloidal high-temperature solar
concentrators from mollified sectors
07 p0122 N75-37166
Investigation of a solar concentrator with
hexahedral glass facets
08 p0180 N75-45061

- ALLAN, D.
Technology and current practices for processing,
transferring and storing liquefied natural gas
[PB-241048/8] 08 p0202 N75-29271
- ALLEN, A. E.
Energy storage underground 05 p0013 A75-12989
- ALLEN, C. H.
A process for cleaning and removal of sulfur
compounds from low Btu gases
[PB-236522/9] 06 p0065 N75-15768
- ALLEN, G. W.
The hydrogen sulfide emissions abatement program
at the Geysers Geothermal Power Plant 06 p0102 N75-20859
- ALLEN, H. L., III
Benthal decomposition of adsorbed octadecane 06 p0106 N75-20891
- ALLEN, R.
Proceedings of the Solar Heating and Cooling for
Buildings Workshop. Part 2: Panel sessions,
March 23
[PB-235483/5] 06 p0069 N75-16095
- ALLEN, R. A.
Optimum properties of working fluids for solar
powered heat pumps 08 p0185 A75-45937
- ALLER, P. F.
A modular heat source for curium-244 and
plutonium-238 05 p0002 A75-10497
- ALLISON, H. J.
Solar energy conversion and storage systems for
the future 05 p0013 A75-12988
Prospects for tapping solar energy on a large scale 05 p0015 A75-14014
Economic and technical aspects of wind generation
systems 07 p0116 A75-34533
Wind energy utilization prospects 07 p0117 A75-34928
Energy storage by high-pressure,
moderate-temperature electrolytic techniques 08 p0185 A75-45931
Development of an electrical generator and
electrolysis cell for a wind energy conversion
system [PB-239272/8] 07 p0150 N75-25315
- ALLISON, J.
The COMSAT non-reflective silicon solar cell - A
second generation improved cell 06 p0053 A75-24245
- ALLISON, J. P.
A comparison of the COMSAT violet and
non-reflective cells 08 p0192 A75-46015
- ALLRED, E. E.
Use of thermally enriched water for growing field
crops in Minnesota [PB-240112] 07 p0159 N75-27549
- ALTMAN, E.
Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating [PB-239395/7] 07 p0157 N75-26521
Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating, executive summary [PB-239394/0] 07 p0157 N75-26522
- ALTSEIMER, J. E.
Nuclear propulsion technology transfer to energy
systems [AIAA PAPER 74-1072] 05 p0001 A75-10264
- ALYAUTDINOV, R. A.
Electronic model of the U-25 device 06 p0081 N75-17794
- ANATO, R. V.
Remote sensing applied to mine subsidence -
Experience in Pennsylvania and the Midwest 07 p0121 A75-36809
- ANAWD, A. H.
Procedure for preparation for shipment of natural
gas storage vessel [NASA-CR-141455] 05 p0036 N75-14135
- ANBS, L. L.
Ocean thermal difference power plant turbine design
[PB-239371/8] 07 p0150 N75-25318
- ANINGUAL, D.
The effects of irradiation on high-efficiency
silicon solar cells 06 p0051 A75-24199
High efficiency silicon solar cells 06 p0052 A75-24217
- ANAGHASTOU, E.
The effect of sunshine testing on terrestrial
solar cell system components 07 p0123 A75-37396
The effect of sunshine testing on terrestrial
solar cell system components
[NASA-TN-X-71722] 07 p0140 N75-24109
- ANAND, D. K.
Heat Pipe Symposium/Workshop
[PB-236008/9] 05 p0035 N75-14094
- ANBAR, M.
Pollution-free electrochemical power generation
from low grade coal [PB-236162/4] 06 p0070 N75-16109
- ANDERSON, B.
An ecologic solar heated and cooled home 07 p0118 A75-34937
- ANDERSON, J. E.
Sea thermal power as a hydrogen and methanol
generator 08 p0175 A75-44763
Heat exchangers for sea solar power plants
[PB-239369/2] 07 p0150 N75-25319
- ANDERSON, K. E.
Development of lithium/sulfur cells for
application to electric automobiles
[CONF-740805-7] 06 p0094 N75-19829
- ANDERSON, L. C.
Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843
- ANDERSON, R. L.
Glass-Si heterojunction solar cells
[PB-239282/7] 07 p0145 N75-24156
- ANDERSON, T. D.
Study of the application of HTGR to a petroleum
refinery petrochemical complex
[CONF-741144-1] 07 p0142 N75-24126
- ANDERSON, W. A.
Temperature effects in Schottky-barrier silicon
solar cells 07 p0115 A75-34175
Design considerations in Schottky solar cells 08 p0188 A75-45962
- ANDRUS, S.
Development and evaluation of a Stirling-Cycle
energy conversion system [PB-239086/2] 07 p0136 N75-22918
- ANTONELLI, A.
Beneficial uses of waste heat
[BT/PROT-(74)10] 06 p0068 N75-16091
- ANTONELLI, E.
Contribution to the improvement of the regulating
process of ignition controlled engines
[PUBL-165] 08 p0206 N75-31285
- APFEL, J. H.
Optical coatings for collection and conservation
of solar energy 08 p0181 A75-45512
- APPELL, H. E.
Conversion of cellulosic wastes to oil
[PB-240839/1] 07 p0161 N75-27572
- APPLEBY, A. J.
Efficiencies of electrolytic and thermochemical
hydrogen production 06 p0045 A75-20300
- ARAD, U. B.
Energy and security: Implications for American
policy [AD-785084] 05 p0032 N75-12857
- ARBATOV, G. A.
The USA: The scientific and technical revolution
and trends in foreign policy [NASA-TT-F-16102] 06 p0096 N75-20160
- ARDA, U.
A study of energy systems command, control and
communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- ARDENA, M. D.
Conceptual design of reduced energy transports
[AIAA PAPER 75-303] 06 p0047 A75-22508

- ARIPOV, U. A.**
 Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels 07 p0122 A75-37162
 Development of solar engineering in the USSR [AD-784708] 05 p0025 N75-10597
 Full-scale testing of high-voltage photocells of fotovolt type at elevated light flux levels 08 p0210 N75-32590
- ARMSTRONG, J. E.**
 Plausibility of a restricted energy use scenario [COM-75-10749/0] 08 p0213 N75-33507
- ARNOLD, E.**
 The COMSAT non-reflective silicon solar cell - A second generation improved cell 06 p0053 A75-24245
- ARNOLD, E. A.**
 A Comparison of the COMSAT violet and non-reflective cells 08 p0192 A75-46015
- ARNOLD, H. D.**
 Evaluation of thermal methods for recovery of viscous oils in Missouri and Kansas [PB-237831/3] 06 p0090 N75-18762
- ASAKURA, S.**
 Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy 08 p0190 A75-45994
- ASCHOFF, V.**
 Mission and organization of the DFVLR: Two years of integrated society of German aeronautical and space flight research [NASA-TT-F-16086] 05 p0035 N75-13882
- ASHWORTH, E. A.**
 Low Btu gasification high temperature-low temperature H₂S removal comparison effect on overall thermal efficiency in a combined cycle power plant [PB-235780/4] 06 p0072 N75-16125
- ATALLAH, S.**
 Technology and current practices for processing, transferring and storing liquefied natural gas [PB-241048/8] 08 p0202 N75-29271
- ATCHISON, K.**
 Nuclear system that burns its own wastes shows promise [NASA-NEWS-RELEASE-75-44] 06 p0085 N75-18716
- ATKINS, K. L.**
 Mission applications of electric propulsion [AIAA PAPER 74-1085] 05 p0010 A75-11284
- ATZEL, A.**
 Investigation of the technology and performance of lithium doped solar cells 06 p0052 A75-24219
- AUSTIN, A. L.**
 A comparison of methods for electric power generation from geothermal hot water deposits [ASME PAPER 74-WA/ENER-10] 05 p0016 A75-16841
 US energy flow charts for 1950, 1960, 1970, 1980, 1985, and 1990 [UCRL-51487] 05 p0024 N75-10593
 The total flow concept for geothermal energy conversion 06 p0100 N75-20846
- AVEBY, W. E.**
 Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617] 06 p0064 A75-29116
- AVEZOV, B. B.**
 Determination of some thermophysical characteristics of a solar-type pebble accumulator 07 p0116 A75-34317
 Solar heating and cooling of buildings using heat pumps /Brief survey/ 07 p0116 A75-34321
 Study of the influence of container design and the thermal inertness of solar water heaters on their efficiency 07 p0119 A75-36018
 Determination of some thermophysical properties of pebble-type solar heat accumulators 08 p0170 A75-41530
 Use of solar heat pumps for heating and air conditioning - A brief survey 08 p0170 A75-41534
- Investigation of the effect of boiler design and finite thermal response of solar water heaters on efficiency 08 p0170 A75-41541
- AWERBUCH, L.**
 Advanced heat transfer methods for geothermal power applications 08 p0185 A75-45934
- AXTHANN, R. C.**
 Environmental impact of a geothermal power plant 06 p0049 A75-23291
 Utilization of plasma exhaust energy for fuel production [COO-3028-7] 05 p0028 N75-11465
- AYER, F. A.**
 Symposium proceedings: Environmental Aspects of Fuel Conversion Technology [PB-238304/0] 07 p0145 N75-24179

B

- BABA, Y.**
 Operating experiences with terrestrial solar battery systems in Japan 05 p0005 A75-10531
- BABANIN, V. I.**
 Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization 08 p0173 A75-43860
- BABEL, E. W.**
 Material considerations involved in solar energy conversion 06 p0047 A75-22522
- BABIN, V. P.**
 Controlling the response of thermoelements that generate electricity 07 p0121 A75-37154
 Optimization of the operating conditions of a combined generator-cooler thermoelement 07 p0121 A75-37155
- BACHER, K.**
 Putting the sun to work: A history and directory of currently available solar energy applications [PB-238189/5] 07 p0129 N75-21810
- BACHNER, F. J.**
 Transparent heat-mirror films of TiO₂/Ag/TiO₂ for solar energy collection and radiation insulation 05 p0015 A75-16378
- BACKUS, C. E.**
 Solar-energy conversion at high solar intensities 08 p0181 A75-45514
 Terrestrial photovoltaic power systems with sunlight concentration [PB-236180/6] 06 p0072 N75-16120
 Terrestrial photovoltaic power systems with sunlight concentration [PB-238582/1] 06 p0105 N75-20886
 Terrestrial photovoltaic power systems with sunlight concentration [PB-238506/0] 07 p0143 N75-24136
- BADGLEY, P. C.**
 Stratigraphy, sedimentology and oil and gas geology of the Lower Cretaceous in central Alberta 07 p0137 N75-22961
- BAIBUTAEV, K. B.**
 Method for calculating solar radiation for semicylindrical collectors 06 p0057 A75-26718
- BAILIE, R. C.**
 Application of thermodynamic and material- and energy-balance calculations to gasification processes 06 p0055 A75-24785
- BAIRANOV, R.**
 Theoretical determination of the temperature in a solar water heater /steady state/ 07 p0112 A75-31513
 Theoretical research on the operation of a solar water heater and comparison with experimental data 07 p0112 A75-31515
- BAKER, B. S.**
 Milliwatt fuel cell system for sensors 05 p0008 A75-10565
 60 watt hydride-air fuel cell system 05 p0008 A75-10567
 Phosphoric acid fuel cell stack development 08 p0186 A75-45943

- Electrolyte for hydrocarbon air fuel cells
[AD-A007220] 07 p0136 N75-22917
- BAKER, J. W.
A city invests in its future 06 p0102 N75-20862
- BAKER, W. B.
Oxides of nitrogen control techniques for
appliance conversion to hydrogen fuel 05 p0006 A75-10541
- BAKER, W. E.
A practical model law for chemical explosive
fracture of oil shale 06 p0078 N75-17023
- BAKIROV, M. IA.
Testing of a photoelectric generator in a
mountainous region of the Azerbaïdzhān SSR 06 p0057 A75-26714
Investigation of the electrical and temperature
characteristics of a silicon photoelectric
converter under natural conditions 07 p0116 A75-34314
Photoelectric generator testing in the
Azerbaïdzhān SSR mountains 07 p0122 A75-37165
- BAKSTAD, P.
Systems aspects of ocean thermal energy conversion
[AIAA PAPER 75-615] 06 p0062 A75-28593
- BALASUBRAMANIAM, M.
Solar thermal absorption heat pump breakeven
coefficient of performance 05 p0015 A75-16834
[ASHE PAPER 74-WA/ENER-2]
- BALCOMB, J. D.
Nuclear propulsion technology transfer to energy
systems 05 p0001 A75-10264
[AIAA PAPER 74-1072]
High-temperature nuclear reactors as an energy
source for hydrogen production 08 p0175 A75-44758
Control system design and simulation for solar
heated structures 06 p0082 N75-17813
[LA-UR-74-1085]
- BALDWIN, A. B.
Sixty minute thermal battery: A feasibility study
[SLA-73-5888] 06 p0077 N75-16994
- BALL, D.
Study of potential problems and optimum
opportunities in retrofitting industrial
processes to low and intermediate energy gas
from coal 06 p0088 N75-18739
[PB-237116/9]
- BALZANI, V.
Solar energy conversion by water photodissociation
08 p0173 A75-43510
- BANANN, D. E.
The collaborative study of EPA methods, 5, 6, and
7 in fossil fuel-fired steam generators
[PB-237695/2] 06 p0091 N75-18788
- BANDY, A.
Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 3: Data set for Crane
Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
- BANDY, E. C.
Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 4: Data set for background
investigation of atmospheric constituents for
Hansemond River site 07 p0141 N75-24122
[NASA-CR-142821]
- BANKSTON, C. A.
The initiatives of the Los Alamos Scientific
Laboratory in the transfer of a new excavation
technology 06 p0079 N75-17203
- BANNERBOT, R. B.
Trapezoidal grooves as moderately concentrating
solar energy collectors 07 p0113 A75-32860
[AIAA PAPER 75-738]
Moderately concentrating flat-plate solar energy
collectors 08 p0196 A75-47526
[ASHE PAPER 75-HT-54]
The evaluation of surface geometry modification to
improve the directional selectivity of solar
energy collectors 06 p0083 N75-17830
[PB-236412/3]
- The evaluation of surface geometry modification to
improve the directional selectivity of solar
energy collectors 07 p0130 N75-21822
[PB-238509/4]
- BARTIST, O. C.
Solvent stimulation tests in two California
oilfields 06 p0090 N75-18761
[PB-237849/5]
- BARAKER, A. E.
Petroleum in Alabama 06 p0085 N75-18442
[PB-237353/8]
- BARBONA, C. E.
V-grooved silicon solar cells 07 p0123 A75-37397
Effects of high doping levels on silicon solar
cell performance 07 p0123 A75-37403
V-grooved silicon solar cells
[NASA-TN-Y-71715] 07 p0141 N75-24119
- BARBER, R.
Cooling with the sun's heat - Design
considerations and test data for a Rankine Cycle
prototype 08 p0167 A75-39409
- BARBER, R. E.
A prototype solar powered, Rankine Cycle system
providing residential air conditioning and
electricity 05 p0004 A75-10523
Potential of Rankine engines to produce power from
waste heat streams 05 p0006 A75-10547
Solar air conditioning systems using Rankine power
cycles - Design and test results of prototype
three ton unit 07 p0117 A75-34931
- BARBER, R. J.
Independent energy systems for better efficiency
05 p0006 A75-10549
- BARKEE, L. E.
Producing SHG by hydrogasifying in situ crude
shale oil 08 p0201 N75-28548
[PB-240841/7]
- BARLOW, E. W. R.
Animal waste conversion systems based on thermal
discharge 07 p0159 N75-27548
[PB-240113]
- BARRETT, B.
Energy supply in a closed cycle 06 p0049 A75-23503
Thermolysis of water for the generation of hydrogen
06 p0049 A75-23504
Nuclear water splitting and high temperature
reactors 08 p0175 A75-44757
- BARRETT, W. J.
Cost effective designing for the economic RTC
05 p0003 A75-10507
- BARON, S.
The economics of the production of liquid fuel and
fertilizer by the fixation of atmospheric carbon
and nitrogen using nuclear power 08 p0191 A75-46001
- BARR, W. L.
DART: A simulation code for a direct energy
converter for fusion reactors 05 p0043 N75-15462
[UCRL-51557]
Direct conversion of plasma energy to electricity
for mirror fusion reactors 07 p0129 N75-21800
[UCRL-76051]
- BASE, T. E.
The effect of atmospheric turbulence on windmill
performance 08 p0174 A75-44756
- BASHKATOV, V. A.
Electronic model of the U-25 device 06 p0081 N75-17794
- BASIULIS, A.
Compatibility and reliability of heat pipe materials
[AIAA PAPER 75-660] 07 p0114 A75-32918
High temperature heat pipes for energy conservation
08 p0194 A75-46042
- BATHEN, K. H.
An evaluation of oceanographic and socioeconomic
aspects of a nearshore ocean thermal energy
conversion pilot plant in subtropical Hawaiian
waters 08 p0213 N75-33509
[PB-242167/5]

- BATTLES, J. E.**
Development of high specific energy batteries for electric vehicles
[ANL-8058] 06 p0076 N75-16990
- BAUER, D. C.**
Five year program planning document for end use energy conservation, research, development, and demonstration
[PB-240406/9] 07 p0152 N75-25331
- BAUER, F.**
Progress of ISL research on energy conversion in ferroelectric ceramics of the type Pb(ZrLxTix)O3
[ISL-29/74] 08 p0208 N75-31910
- BAUGHMAN, M. L.**
Energy systems - Modeling and policy analysis
06 p0055 A75-24750
- Interfuel substitution in the consumption of energy in the United States. Part 1:
Residential and commercial sector
[PB-234536/1] 05 p0040 N75-15178
- Energy system modeling-interfuel competition
[PB-239292/6] 07 p0143 N75-24140
- The future of the US nuclear energy industry
[PB-242164/2] 08 p0214 N75-33511
- BAUGHN, J.**
Solar energy storage within the absorption cycle
[ASME PAPER 74-WA/HT-18] 05 p0017 A75-16864
- BAYER, A.**
Energy and the environment in Baden-Wuerttemberg
[FKK-1966-UP] 05 p0030 N75-12439
- BAYLISS, B. P.**
Combining total energy and energy industrial center concepts to increase utilization efficiency of geothermal energy
06 p0102 N75-20860
- BEACH, B. L.**
At-sea testing of a high seas oil recovery system
[AD-A006938] 07 p0136 N75-22953
- BEACHLEY, W. E.**
Increased fuel economy in transportation systems by use of energy management. Volume 1: General results and discussion
[PB-240220/4] 07 p0163 N75-27970
- BEALE, W. T.**
A 100 watt Stirling electric generator for solar or solid fuel heat sources
08 p0192 A75-46014
- BEARD, D. S.**
Fusion power by magnetic confinement - Plans and the associated need for nuclear engineers
08 p0170 A75-41433
- DCTR power supply and energy storage review meeting
[WASH-1310] 05 p0031 N75-12445
- BECK, E. J.**
Ocean thermal gradient hydraulic power plant
07 p0124 A75-37849
- Heat transfer design and proof tests of a radioisotope thermoelectric generator
[AD-A002218] 06 p0092 N75-19608
- BECKER, F. E.**
Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc
[ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
- High temperature air preheaters for open cycle MHD energy conversion systems
[AIChE PAPER 16] 08 p0196 A75-47512
- BECKMAN, W. A.**
Simulation of a solar heating and cooling system
06 p0048 A75-23018
- Modeling of the CSU heating/cooling system
07 p0109 A75-29473
- A method of simulation of solar processes and its application
07 p0109 A75-29474
- Modeling of solar heating and air conditioning
[PB-239189/4] 07 p0136 N75-22926
- BECKMAN, D. E.**
A method of simulation of solar processes and its application
07 p0109 A75-29474
- BEKINOV, A. G.**
Energy characteristics of coaxial plasma source
[AD-787419] 06 p0073 N75-16368
- BELL, F. E.**
Component design considerations for gas turbine HTGR power plant
[ASME PAPER 75-GT-67] 07 p0116 A75-34620
- BELL, W. F.**
Development of advanced fuel cell system, phase 2
[NASA-CR-134721] 06 p0067 N75-16084
- Development of advanced fuel cell system, phase 3
[NASA-CR-134818] 07 p0154 N75-26496
- BELLER, M.**
Applications of fusion power technology to the chemical industry
[BNL-18815] 05 p0029 N75-11730
- Survey of applications of fusion power technology to the chemical and material processing industry
[BNL-18866] 05 p0031 N75-12443
- Energy systems analysis and technology assessment program
[BNL-18984] 06 p0094 N75-19831
- BENFORD, J.**
Electronbeam heating for fusion
07 p0120 A75-36295
- BENNETT, J. A.**
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- BENNETT, L. L.**
Nuclear reactor process heat capabilities, potential, and economics
[CONF-741032-1] 07 p0131 N75-22112
- BERTZ, C. E.**
The role of computers in future propulsion controls
07 p0137 N75-23582
- BERGER, B.-J.**
Environmental aspects of methanol as vehicular fuel: Health and environmental effects
[UCRL-76076] 06 p0095 N75-19867
- BERGMAN, P. D.**
Conceptual design and economics of an MHD pilot plant
08 p0189 A75-45974
- BERNARD, J.**
The effects of irradiation on high-efficiency silicon solar cells
06 p0051 A75-24199
- BERNATOWICZ, D. T.**
Summary of high efficiency silicon solar cell meeting held at NASA-Lewis
[NASA-TM-X-71729] 07 p0138 N75-23681
- BERNIERE, M.**
The technology of the solar generator on the Symphonie satellite
06 p0053 A75-24237
- BESSLER, W.**
Study on parameter variations for solar powered lithium bromide absorption cooling
08 p0186 A75-45938
- BEVENSEE, R. E.**
Three-dimensional subsurface delineation via a novel method for determining the subsurface electrical profile
[UCRL-51685] 07 p0127 N75-21781
- BEVERLY, W. D.**
Glass solar heat collector development
[AIAA PAPER 75-740] 07 p0115 A75-33758
- BEYCHOK, M. R.**
Process and environmental technology for producing SNG and liquid fuels
[PB-242774/8] 08 p0212 N75-33491
- BEZAUDUN, M.R.**
Analysis of different systems concerning the energy distribution on board a satellite
[IAF PAPER 74-084] 05 p0014 A75-13716
- BEZLER, P.**
Synthetic fuels from fusion reactors
[BNL-19351] 06 p0106 N75-21098
- BHUTANI, J.**
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- BIANCARDI, P. R.**
Applications of plasma core reactors to terrestrial energy systems
[AIAA PAPER 74-1074] 05 p0010 A75-11281
- Design and operation of a solar-powered turbocompressor air-conditioning and heating system
08 p0186 A75-45939

- Feasibility demonstration of a solar powered turbocompressor air conditioning and heating system
[PB-238570/6] 07 p0130 N75-21816
- BIENERT, W. B.
Application of heat pipes to solar collectors 08 p0195 A75-46045
Snow and ice removal from pavements using stored earth energy
[PB-240623/9] 07 p0162 N75-27581
- BIENSTOCK, D.
Conceptual design and economics of an MHD pilot plant 08 p0189 A75-45974
- BIGGS, F.
Flywheel energy systems
[SAND-74-0113] 07 p0129 N75-21802
- BILGEM, E.
Solar radiation heat transfer to high temperature heat carriers
[ASME PAPER 74-WA/HT-14] 05 p0017 A75-16861
- BILLEBECK, W. J.
Solar cell modules for lightweight solar arrays 06 p0057 A75-26068
- BILLMAN, K. W.
Laser energy conversion 07 p0125 A75-38474
- BIRD, D. K.
Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California
[IGPP-UCR-74-31] 06 p0098 N75-20836
- BISHOP, E. H.
A wind energy conversion system based on the tracked-vehicle airfoil concept 05 p0004 A75-10518
- BLACK, B. E.
Advanced subsonic transports - A challenge for the 1990's
[AIAA PAPER 75-304] 06 p0049 A75-23251
- BLACKBETTER, D. O.
A wind energy conversion system based on the tracked-vehicle airfoil concept 05 p0004 A75-10518
- BLACKWELL, D. D.
A brief description of geological and geophysical exploration of the Marysville geothermal area 06 p0099 N75-20839
- BLACKWOOD, T. R.
Efficiencies in power generation
[PB-234160/0] 05 p0034 N75-13398
- BLAIS, E.
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Mansfield River site
[NASA-CR-142821] 07 p0141 N75-24122
- BLAKE, F. A.
Solar/hydroelectric combined power systems 06 p0059 A75-27786
100 MWe solar power plant design configuration and performance
[AIAA PAPER 75-623] 06 p0062 A75-28595
Solar power system and component research program
[PB-236159/0] 05 p0037 N75-14280
Solar power system and component research program
[PB-238642/3] 07 p0135 N75-22915
Solar power system and component research program
[PB-239185/2] 07 p0136 N75-22930
- BLAKE, E. L.
Extracting minerals from geothermal brines: A literature study
[PB-240681/7] 08 p0202 N75-29545
- BLANK, L. T.
Future United States demand patterns and the use of hydrogen 08 p0179 A75-44806
- BLASKI, M. F.
Electrical power generation subsystem for Space Shuttle Orbiter 05 p0002 A75-10477
- BLASKO, D. P.
Natural gas fields, Cook Inlet Basin, Alaska
[PB-235767/1] 06 p0066 N75-16071
- BLASKOWSKI, H. J.
Low-BTU gasification of coal for electric power generation
[PB-236972/6] 06 p0088 N75-18740
- BLAUGHER, R. B.
A high-speed superconducting generator 06 p0060 A75-27960
- BLECHER, W. A.
Design and operation of a solar-powered turbocompressor air-conditioning and heating system 08 p0186 A75-45939
- BLICKSMAN, L. R.
Energy conservation: A case study for a large manufacturing plant
[PB-239302/3] 07 p0151 N75-25323
- BLOCKWICK, T. W.
At-sea testing of a high seas oil recovery system
[AD-A006938] 07 p0136 N75-22953
- BLOKHWIN, A.
Energy from the earth's depths
[BLL-H-23516-(5828.4F)] 06 p0074 N75-16968
- BLOND, E.
Solar thermal conversion mission analysis
[AIAA PAPER 75-619] 06 p0064 A75-29117
- BLOOMFIELD, H. S.
The NASA-Lewis/ERDA Solar Heating and Cooling Technology Program 08 p0197 A75-47803
The NASA-Lewis/ERDA solar heating and cooling technology program
[NASA-TM-X-71800] 08 p0210 N75-32592
- BLOW, S. J.
Energy: An annotated bibliography
[NASA-TM-X-66766] 07 p0159 N75-27557
Energy: An annotated bibliography
[NASA-TM-X-72433] 07 p0159 N75-27558
- BOCKEIS, J. O'M.
Massive production of hydrogen by a thermo-electrochemical method 08 p0172 A75-42531
High intensity wind belts as massive energy sources 08 p0172 A75-42532
Is massive solar energy conversion a practical prospect 08 p0174 A75-44752
On methods for the large-scale production of hydrogen from water 08 p0176 A75-44773
- BOEER, K. W.
Solar one - The Delaware solar house and results obtained during the first year of operation
06 p0054 A75-24254
Solar electric and thermal conversion system in close proximity to the consumer
[AIAA PAPER 75-628] 06 p0062 A75-28597
Solar One, two years experience 08 p0184 A75-45922
CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- BOEHM, H.
Methanol/air acidic fuel cell system 05 p0008 A75-10566
- BOER, K. W.
Direct solar energy conversion for large scale terrestrial use
[PB-241007/4] 08 p0201 N75-28545
- BOERI, G.
Beneficial uses of waste heat
[RT/PROT-(74)10] 06 p0068 N75-16091
- BOERSMA, L.
Animal waste conversion systems based on thermal discharge
[PB-240113] 07 p0159 N75-27548
- BOGOMOLOV, E. M.
Thermodynamics of multistage air-cooled gas turbine 06 p0050 A75-23817
- BOHM, T.
Nuclear district-heating and nuclear long-distance energy
[JUL-1077] 06 p0093 N75-19828
- BOLLETTA, P.
Solar energy conversion by water photodissociation 08 p0173 A75-43510

- BOED, P. A.
The design and development of an interactive energy model
[PB-236144/2] 06 p0070 N75-16110
- BONDIE, Y. S.
Electronic model of the U-25 device 06 p0081 N75-17794
- BONNEVILLE, B.
Wind power projects of the French electrical authority
[NASA-TT-P-16057] 05 p0033 N75-13384
- BONNERAY, H.
Fundamental research on the selection of new electrochemical generators of medium power 06 p0060 A75-27827
- BONNET, D.
Solar cells - Operation, development and applications 05 p0015 A75-15201
- BOON, B. W.
Wisconsin superconductive energy storage project, volume 1
[PB-238082/2] 06 p0105 N75-20887
- BOOT, J. L.
Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant
[PB-238571/4] 07 p0130 N75-21821
- BOOTH, L. A.
High-temperature nuclear reactors as an energy source for hydrogen production 08 p0175 A75-44758
- BORETT, J. E.
Technology considerations for Organic Rankine Cycle Electric Power Systems 05 p0002 A75-10484
- BORIN, A. A.
Evaluation of the energy perfection of the different forms of transport
[AD-A006562] 07 p0137 N75-23392
- BORKO, B.
National energy flow accounts
[PB-239275/1] 07 p0146 N75-24539
- BORZONI, J. T.
Development of flat-plate solar collectors for the heating and cooling of buildings
[NASA-CR-134804] 07 p0154 N75-26495
- BOS, P. B.
Solar thermal conversion mission analysis
[AIAA PAPER 75-619] 06 p0064 A75-29117
Solar-thermal electric power 07 p0111 A75-31270
- ROSER, O.
The rate limiting processes for the sorption of hydrogen in LaNi₅ 08 p0194 A75-46036
- BOTKIN, D. B.
Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment
[PB-239582/0] 07 p0153 N75-26489
- BOURKE, E. D.
Solar heating and cooling of buildings 06 p0059 A75-27783
- BOUSSUGE, BR.
Analysis of different systems concerning the energy distribution on board a satellite
[IAF PAPER 74-084] 05 p0014 A75-13716
- BOWDEN, C.
The impact of energy development on water resources in arid lands. Literature review and annotated bibliography
[PB-240008/3] 07 p0157 N75-26550
- BOUDEN, M. K.
Design of short haul aircraft for fuel conservation
[SAR PAPER 750587] 08 p0169 A75-40502
Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft
[NASA-CR-2502] 06 p0073 N75-16557
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- BOWMAN, E. G.
Fundamental aspects of systems for the thermochemical production of hydrogen from water
[LA-UR-74-1459] 07 p0127 N75-21391
- BOWSER, G. C., JR.
Development of a thermal battery for emergency radio power under arctic conditions 05 p0007 A75-10560
- BOYD, R. E.
Preliminary evaluation of underground coal gasification at Hanna, Wyoming
[BM-TPR-82] 05 p0025 N75-10599
- BOZZUTO, C. E.
Low-BTU gasification of coal for electric power generation
[PB-236972/6] 06 p0088 N75-18740
- BRASCH, B.
Investigations and selection of components and materials for flexible solar generator 06 p0050 A75-24182
- BRADKE, M. V.
Collector work function improvements and the development of low temperature thermionic converters 08 p0188 A75-45960
- BRADSHAW, G. C.
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832
- BRANDENBURG, C. F.
Preliminary evaluation of underground coal gasification at Hanna, Wyoming
[BM-TPR-82] 05 p0025 N75-10599
- BRANDHORST, H. W.
V-grooved silicon solar cells 07 p0123 A75-37397
- BRANDHORST, H. W., JR.
Effects of high doping levels on silicon solar cell performance 07 p0123 A75-37403
V-grooved silicon solar cells
[NASA-TM-X-71715] 07 p0141 N75-24119
- BRANDLI, A. E.
The Energy Systems Optimization Computer Program /ESOP/ developed for Modular Integrated Utility Systems /MIUS/ analysis 05 p0006 A75-10551
- BRANDSTETTER, A.
The hot deeps of the Red Sea as a potential heat source for thermoelectric power generation 05 p0004 A75-10516
- BRANTLEY, L. W., JR.
Solar energy absorber
[NASA-CASE-MFS-22743-1] 05 p0024 N75-10585
Solar energy trap
[NASA-CASE-MFS-22744-1] 05 p0024 N75-10586
- BRAREN, R.
Variations in heat exchanger design for ocean thermal difference power plants
[PB-238572/2] 07 p0143 N75-24134
- BRAUN, C.
The economic incentive for introducing electric storage devices into the national energy system 08 p0184 A75-45929
- BREELLE, Y.
Hydrogen fuel cells and motors 06 p0046 A75-22042
- BRENNAN, P. J.
ERTS-C (Landsat 3) cryogenic heat pipe experiment definition
[NASA-CR-143797] 07 p0138 N75-23882
- BREWSTER, G. D.
Aviation usage of liquid hydrogen fuel - Prospects and problems 08 p0172 A75-42282
Study of active cooling for supersonic transports
[NASA-CR-132573] 06 p0079 N75-17336
- BRICE, A.
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- BRIDGES, D. W.
Production of gaseous fuel by pyrolysis of municipal solid waste
[NASA-CR-141791] 07 p0140 N75-24105
- BRIGGS, D. E.
Evaluation of coal conversion processes to provide clean fuels, part 1
[PB-234202/0] 05 p0025 N75-10600
Evaluation of coal conversion processes to provide clean fuels, part 2
[PB-234203/8] 05 p0025 N75-10604

- BRIGHAM, W. E.
Geothermal reservoir engineering research
06 p0101 A75-20853
- BRINN, D. G.
The gasification of coal: A bibliography
[PB-234294/7] 05 p0034 A75-13400
- BRITT, E. J.
Thermonic topping of electric power plants
08 p0189 A75-45973
- BRITTAI, W. M.
SNAP 19 Viking RTG flight configuration and
integration testing
05 p0003 A75-10504
- BROCK, T. D.
Mineral resources and the environment. Appendix
to section 3: Report of panel on the
implications of mineral production for health
and the environment
[PB-239582/0] 07 p0153 A75-26489
- BRONICKI, L.
Low-power turbines using organic vapor
07 p0110 A75-30892
- BROMOEL, G.
Fundamental research on the selection of new
electrochemical generators of medium power
06 p0060 A75-27827
- BROST, O.
Heat pipe applications development in Europe
08 p0195 A75-46043
- BROTT, C. A.
A brief description of geological and geophysical
exploration of the Marysville geothermal area
06 p0099 A75-20839
- BROVALSKII, IU. A.
Design study of the energy characteristics of
thermionic electric power generating components
and assemblies
06 p0064 A75-28893
- BROWN, D. W.
Geothermal energy: A new application of rock
mechanics
[LA-UR-74-821] 06 p0068 A75-16089
- BROWN, H. L.
Utilization analysis of energy systems
[PB-239291/8] 07 p0144 A75-24144
- BROWN, L. S.
At-sea testing of a high seas oil recovery system
[AD-A006938] 07 p0136 A75-22953
- BROWN, R. E.
Assessment of uranium and thorium resources in the
United States and the effect of policy
alternatives
[PB-238658/9] 07 p0143 A75-24133
- BROWN, W. C.
The adaptation of free space power transmission
technology to the SSPS concept
[AIAA PAPER 75-642] 06 p0063 A75-28602
- BROWNSTEIN, A. B.
Financial incentives and pollution control: A
case study
[PB-241479/5] 08 p0208 A75-31610
- BRUGHAN, J.
Investment and operating costs of binary cycle
geothermal power plants
06 p0101 A75-20855
- BRUNLEVE, T. D.
Prospects for solar energy utilization
[SAND-74-8604] 05 p0034 A75-13389
- Sensible heat storage in liquids
[SLL-73-0263] 06 p0074 A75-16773
- BRUNNER, S. B.
Sulfur-based lithium-organic electrolyte secondary
batteries
[AD-A003309] 06 p0104 A75-20882
- BUBE, R. H.
II-VI photovoltaic heterojunctions for solar
energy conversion
05 p0012 A75-12734
- BUCH, F.
II-VI photovoltaic heterojunctions for solar
energy conversion
05 p0012 A75-12734
- BUCHBERG, B.
Natural convection in enclosed spaces - A review
of application to solar energy collection
[ASHE PAPER 74-WA/HT-12] 05 p0017 A75-16860
- BUDAR, K.
A resonant point absorber of ocean-wave power
08 p0170 A75-41425
- BUDENHOLZER, B. A.
U.S. energy resources - Outlook for the future
05 p0014 A75-12999
- BULLARD, C. W., III
Energy use in the commercial and industrial
sectors of the US economy, 1963
[PB-235487/6] 06 p0070 A75-16104
- BUNAS, S. J.
The EPA-Van. - A clean energy system for the home
08 p0186 A75-45946
- BUNDSCHUH, V.
Other primary energy resources
06 p0050 A75-23512
- BUNDY, B. H.
Converting cellulosic waste to fuel: A literature
review
[AD-A009400] 08 p0211 A75-32596
- BUNKER, A. F.
Energy exchange at the surface of the western
North Atlantic Ocean
[AD-A007296] 07 p0146 A75-24285
- BUPP, I. C.
The economics of nuclear power
06 p0047 A75-22734
- BURGER, J. H.
Energy storage for utilities via hydrogen systems
05 p0005 A75-10537
- An energy utility company's view of hydrogen energy
08 p0172 A75-42283
- Energy storage for utilities via hydrogen systems
[BRL-19266] 06 p0086 A75-18725
- BURMHAM, J. B.
Assessment of uranium and thorium resources in the
United States and the effect of policy
alternatives
[PB-238658/9] 07 p0143 A75-24133
- BURRIS, L.
Development of high specific energy batteries for
electric vehicles
[ANL-8058] 06 p0076 A75-16990
- BURROWS, B. W.
Redox thermogalvanic cells for direct energy
conversion
08 p0191 A75-45999
- BURTON, J. S.
The Mitre solar energy demonstration system
06 p0055 A75-24676
- BUSH, D. H.
Pellet type thermal battery
[SAND-74-0007] 06 p0076 A75-16991
- Sixty minute thermal battery: A feasibility study
[SLA-73-5888] 06 p0077 A75-16994
- BUTLER, D. R.
Cooperative efforts by industry and government to
develop geothermal resources
06 p0102 A75-20861
- BUTZ, L. W.
Simulation of a solar heating and cooling system
06 p0048 A75-23018
- BUYCO, E. H.
Outdoor flat-plate collector performance
prediction from solar simulator test data
[AIAA PAPER 75-741] 07 p0113 A75-32862
- Outdoor flat-plate collector performance
prediction from solar simulator test data
[NASA-TN-X-71707] 07 p0140 A75-24111
- BUZANOVA, L. K.
Temperature dependence of the spectral
characteristics of quick-response silicon
photocells
07 p0119 A75-36013
- BYRD, J., JR.
The design and development of an interactive
energy model
[PB-236144/2] 06 p0070 A75-16110
- BYSTROV, V. V.
Method of calibrating a solar power plant with a
paraboloidal mirror
07 p0116 A75-34315
- BYSZEWSKI, W. W.
Conversion of electrical energy into laser
radiation energy in high pressure mixtures of
molecular gases
07 p0133 A75-22722

C

- CADY, T. C.
The hydrogen economy and the law 08 p0180 A75-44813
- CAHN, R. P.
Feasibility study of alternative fuels for automotive transportation. Volume 1: Executive summary [PB-235581/6] 05 p0041 N75-15187
Feasibility study of alternative fuels for automotive transportation. Volume 2: Technical section [PB-235582/4] 05 p0041 N75-15188
Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices [PB-235583/2] 05 p0041 N75-15189
- CAIRNS, R. J.
Corrosion and related problems in high-temperature cells 06 p0055 A75-24377
- CALISE, A. J.
Extended energy management methods for flight performance optimization [AIAA PAPER 75-30] 05 p0021 A75-18269
- CARBERN, J. R.
Materials and the new dimensions of conflict, revised version [AD-A004263] 07 p0154 N75-26499
- CAMP, R. N.
Milliwatt fuel cell system for sensors 05 p0008 A75-10565
- CAMPBELL, G. G.
Preliminary evaluation of underground coal gasification at Hanna, Wyoming [BN-TPR-82] 05 p0025 N75-10599
- CARPOS, G.
Problems in electric power production [ISS-T-73/16] 07 p0128 N75-21793
- CAPUTO, R. S.
Two-watt radioisotope power generators for underwater applications 05 p0007 A75-10556
- CARASSO, M.
Path to self-sufficiency directions and constraints [PB-239099] 07 p0142 N75-24128
- CARAWAY, W. H.
Solvent stimulation tests in two California oilfields [PB-237849/5] 06 p0090 N75-18761
- CARBONE, R. J.
Laser application of heat pipe technology in energy related programs 08 p0195 A75-46044
- CARLINE, A. J. K.
Future hydrogen fueled commercial transports [SAE PAPER 750615] 08 p0169 A75-40521
- CARLSON, G. A.
Interesting possibilities of fusion-fission [BNWL-SA-5069] 06 p0096 N75-20106
Direct conversion of plasma energy to electricity for mirror fusion reactors [UCRL-76051] 07 p0129 N75-21800
- CARBOLL, J.
Waste automotive lubricating oil reuse as a fuel [PB-241357/3] 08 p0204 N75-30331
- CARTY, R. H.
Evaluation of multi-step thermochemical processes for the production of hydrogen from water 08 p0177 A75-44778
- CASHION, W. B.
Average oil yield tables for oil shale sequences in cores from the Uinta Basin, Utah, that average 15, 20, 25, 30, 35, and 40 gallons per ton [PB-236068/3] 06 p0072 N75-16124
- CASSEL, T. A. V.
Solar heat pump comfort heating systems 08 p0185 A75-45936
- CATTANI, J. A.
Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis [PB-238879/1] 07 p0131 N75-22201
- CATTON, I.
Natural convection in enclosed spaces - A review of application to solar energy collection [ASHE PAPER 74-WA/HT-12] 05 p0017 A75-16860
- CHAIKEN, R. F.
In situ combustion of coal for energy [PB-241892/9] 08 p0211 N75-32603
- CHALCHAL, S.
Coal combustion and desulfurization in a rotating fluidized bed reactor [BNL-19308] 07 p0129 N75-21799
- CHAMPLY, R.
Wind motors: Theory, construction, assembly and use in drawing water and generating electricity [NASA-TT-P-16201] 06 p0093 N75-19821
- CHAN, D. C.
Residential energy consumption and small scale options of energy systems for space heating [PB-239941/8] 07 p0154 N75-26501
- CHAN, F. K.
A SASOL type process for gasoline, methanol, SNG, and low-Btu gas from coal [PB-237670/5] 06 p0095 N75-19838
- CHANSKY, S.
Waste automotive lubricating oil reuse as a fuel [PB-241357/3] 08 p0204 N75-30331
- CHAO, R. E.
An analysis of hydrogen production via closed-cycle schemes 08 p0176 A75-44771
- CHARLSON, E. J.
An Al p-silicon MOS photovoltaic cell 08 p0173 A75-43459
- CHASTEEN, A. J.
Geothermal steam condensate reinjection 06 p0102 N75-20863
- CHEW, C. S.
Cooling by solar heat [AIAA PAPER 75-609] 06 p0062 A75-28590
Solar heating and cooling 07 p0111 A75-31269
- CHEW, D. Y.
Design of energy storage reactors for dc-to-dc converters [NASA-CR-143327] 08 p0204 N75-30438
- CHENG, P.
Steady state free convection in an unconfined geothermal reservoir 05 p0009 A75-11069
- CHEPURNIY, M.
An analytical and experimental investigation of a laboratory solar pond model [ASHE PAPER 74-WA/SOL-3] 05 p0019 A75-16886
Effect of diffusion on concentration profiles in a solar pond 08 p0167 A75-39412
- CHEKASSKI, I. KH.
Photoelectric energy converter temperature sensor 07 p0122 A75-37163
- CHEKASSKII, A. KH.
Temperature sensor for photoelectric energy converters 06 p0057 A75-26712
- CHEPNE, J. H.
Solar energy - An overview 08 p0181 A75-45508
- CHEPNIIVSKIY, E. A.
On the role of hydrogen in electric energy storage 08 p0178 A75-44779
The economic incentive for introducing electric storage devices into the national energy system 08 p0184 A75-45929
- CHERVANY, M. L.
A regional energy information system for Minnesota: A preliminary design [PB-241124/7] 08 p0205 N75-30944
Design considerations for a comprehensive regional energy information system [PB-241123/9] 08 p0206 N75-30946
- CHIKOVANI, V. V.
Effectiveness of using chemically reacting working media in a solar gas-turbine installation 08 p0180 A75-45063
- CHILLIER DUCHATEL, M.
Hydrazine as a fuel for a fuel cell 08 p0166 A75-39132
- CHINNAPPA, J. C. V.
Solar operation of ammonia-water multistage air conditioning cycles in the tropics 06 p0048 A75-23021
- CHIU, S. C.
Economics of a hydrogen storage peaking power plant [ASHE PAPER 74-WA/PWR-6] 05 p0018 A75-16880

CHOI, P.

PERSONAL AUTHOR INDEX

- CHOI, P.
Assessment of the potential of clean fuels and energy technology [PB-239970/7] 07 p0162 N75-27583
- CHRISTENBURY, S. T.
SNAP 19 Viking RTG flight configuration and integration testing 05 p0003 A75-10504
- CHRISTENSEN, D.
Getting at the big facts in transportation 08 p0173 A75-42973
- CHU, T. L.
Polycrystalline silicon layers for solar cells 08 p0165 A75-38958
Development of low cost thin film polycrystalline silicon solar cells for terrestrial applications [PB-238505/2] 06 p0105 N75-20890
- CHUBB, T. A.
Analysis of gas dissociation solar thermal power system 07 p0115 A75-33974
- CLARK, A. P.
Industrial process heat from solar energy 08 p0190 A75-45992
Shallow solar pond energy conversion system: An analysis of a conceptual 10-MWe plant [UCRL-51533-REV-1] 05 p0028 N75-11467
- CLARK, H. A.
Solar characteristics of new absorptive coatings used on solar collectors 07 p0117 A75-34934
- CLARK, R. P.
Development and performance of a miniature, high-voltage thermal battery 05 p0007 A75-10559
Development and performance of a miniature, high-voltage thermal battery [SLA-74-5363] 06 p0076 N75-16988
- CLARK, W. D. K.
Photogalvanic cells 08 p0167 A75-39403
- CLARKE, J. H.
Availability and propulsion 08 p0195 A75-46548
- CLAUSER, M. J.
Ion-beam implosion of fusion targets 08 p0181 A75-45386
- CLAUSI, J. V.
Study of fuel cell powerplant with heat recovery [NASA-CR-141854] 07 p0148 N75-25296
- CLEMENT, J. D.
The UF6 Breeder - A solution to the problems of nuclear power 08 p0187 A75-45951
- CLOUTIER, P. D.
A preliminary technology assessment of ocean thermal gradient energy generation [PB-238646/4] 07 p0144 N75-24147
- COBBLE, E. E.
Numerical modeling of flat plate solar collectors [AIAA PAPER 75-739] 07 p0113 A75-32861
- COCHET-NUCHY, B.
Energy, hydrogen, and pollution 06 p0046 A75-22041
- COFFMAN, F. E.
Environmental aspects of fusion reactors 08 p0170 A75-41434
- COHEN, A. D.
Technical and economic evaluation of solar heating and cooling of buildings 08 p0184 A75-45921
- COHEN, A. S.
Environmental regulations and energy for home heating [PB-240699/9] 08 p0203 N75-29587
- COHN, R. H.
NASA objectives for improved solar power plants 05 p0002 A75-10485
- COLARDELLE, P.
The effects of irradiation on high-efficiency silicon solar cells 06 p0051 A75-24199
High efficiency silicon solar cells 06 p0052 A75-24217
- COLASURDO, G.
Contribution to the improvement of the regulating process of ignition controlled engines [PUBL-165] 08 p0206 N75-31285
- COLCORD, A. R.
Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes 08 p0187 A75-45950
- COLE, R. B.
Hydrogen as a fuel [AD-787484] 06 p0066 N75-15818
Hydrogen as a fuel [AD-A006984] 07 p0132 N75-22477
- COLIN, R.
Lead accumulator batteries in telecommunications [BLL-TRANS-2943-(9022.81)] 06 p0074 N75-16967
- COLLINS, B.
Power generation for the X4 spacecraft - A step in the development of a high power/mass ratio, hybrid solar array for applications spacecraft 06 p0053 A75-24251
- COLLINS, L. W.
An evaluation of discarded tires as a potential source of fuel 05 p0012 A75-12416
An evaluation: The potential of discarded tires as a source of fuel [NASA-TN-X-58143] 05 p0038 N75-15153
- COLLINS, E. F.
The EPA-Van - A clean energy system for the home 08 p0186 A75-45946
- COLLINS, R. J.
Evaluation of the suitability of Skylab data for the purpose of petroleum exploration [E75-10257] 07 p0147 N75-25237
- COLLMAN, J. P.
Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems [PB-240177/6] 08 p0200 N75-28524
- COMBS, J.
Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California [IGPP-UCR-74-31] 06 p0098 N75-20836
- COMBS, J. B.
The geology and geophysics of geothermal energy 06 p0061 A75-28438
- COMEAU, R. F.
Papers and proceedings of two energy crisis seminars [PB-239164/7] 07 p0156 N75-26513
- COMMONER, B.
The effect of recent energy price increases on field crop production costs [PB-238659/7] 06 p0107 N75-21155
- CONGER, W. L.
Evaluation of multi-step thermochemical processes for the production of hydrogen from water 08 p0177 A75-44778
- CONNELL, J. W.
Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
Variations in heat exchanger design for ocean thermal difference power plants [PB-238572/2] 07 p0143 N75-24134
- CONNER, J. G.
Coal gasification - A review of status and technology 06 p0059 A75-27781
- CONSOLO, T.
Plasma heating methods 07 p0119 A75-35920
- COOK, C. S.
Evaluation of a fossil fuel fired ceramic regenerative heat exchanger [PB-236346/3] 06 p0092 N75-19599
- COOK, G. L.
Retorting indexes for oil-shale pyrolyses from ethylene-ethane ratios of product gases [PB-234050/3] 05 p0034 N75-13399
Pulsed nuclear magnetic resonance studies of oil shales--estimation of potential oil yields [PB-240023/2] 07 p0148 N75-25283
- COOKE-YARBOROUGH, E. H.
The Harwell thermo-mechanical generator 05 p0009 A75-10579
Efficient thermo-mechanical generation of electricity from the heat of radioisotopes 08 p0192 A75-46013

- COOL, R. W.
Electron and proton irradiation of high-efficiency silicon solar cells
06 p0053 A75-24233
- COON, C. W.
Technological improvements to automobile fuel consumption. Volume 1: Executive summary [PB-238677/9] 07 p0132 N75-22478
Technological improvements to automobile fuel consumption. Volume 2A: Sections 1 through 23 [PB-238678/7] 07 p0132 N75-22479
Technological improvements to automobile fuel consumption. Volume 2B: Sections 24 and 25 and appendixes A through I [PB-238679/5] 07 p0132 N75-22480
- COONLEY, D.
An ecologic solar heated and cooled home
07 p0118 A75-34937
- COOPER, B.
An assessment and analysis of the energy emergency [GPO-25-382] 06 p0066 N75-16076
Energy policy and resource management [GPO-33-634] 07 p0149 N75-25300
- COOPER, P. I.
A method of simulation of solar processes and its application
07 p0109 A75-29474
- COPELAND, G.
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Crane Island oil refinery installation experiment [NASA-CR-142823] 07 p0141 N75-24121
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Hansemond River site [NASA-CR-142821] 07 p0141 N75-24122
- COPELEY, T. B.
Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California [IGPP-UCR-74-31] 06 p0098 N75-20836
- COPPS, S. L.
Energy survey - What can R&D do by 1985
08 p0169 A75-40617
- CORDER, T. E.
SIMSHAC - A simulation program for solar heating and cooling of buildings
06 p0061 A75-28093
- CORDER, W. C.
Design installation and operation of a 25 ton-a-day coal gasification process development unit for the agglomerating burner-gasification [PB-237625/9] 06 p0087 N75-18734
- CORLETT, R. C.
Hydrogen-energy storage for electrical utility systems
08 p0178 A75-44798
- CORNACK, A., III
Design and testing of an energy flywheel for an Integrated Power/Attitude Control System /IPACS/ [AIAA PAPER 75-1107] 08 p0171 A75-41669
Design and test of a flywheel energy storage unit for spacecraft application
08 p0193 A75-46028
- CORNAN, J. C.
Solar augmented home heating heat pump system
05 p0004 A75-10524
- CORNELL, R. E.
Methodical approach to temperature and pressure measurements for in situ energy-recovery processes [UCID-16631] 06 p0097 N75-20693
- COSTELLO, J.
Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment [PB-239582/0] 07 p0153 N75-26489
- COSTOGUE, E. N.
Solar electric propulsion spacecraft power subsystem for an Encke comet rendezvous mission
05 p0002 A75-10481
Power processor design considerations for a solar electric propulsion spacecraft [NASA-CR-140842] 05 p0029 N75-12064
- COTTON, F. O.
Waste lubricating oil research. A comparison of bench-test properties of re-refined and virgin lubricating oils [PB-238124/2] 06 p0097 N75-20746
- COUCH, J. P.
The NASA-Lewis/ERDA Solar Heating and Cooling Technology Program
08 p0197 A75-47803
The NASA-Lewis/ERDA solar heating and cooling technology program [NASA-TN-X-71800] 08 p0210 N75-32592
- COUCH, W. A.
Modeling of solar absorption air conditioning
07 p0117 A75-34932
- COULTER, P. E.
Wind capture and diversion through pneumatic energy recovery with large capacity aerogenerators
08 p0175 A75-44762
- COUNT, B. H.
Characteristics of a rocking wave power device
06 p0062 A75-28450
- COVELL, R. B.
Low-BTU gasification of coal for electric power generation [PB-236972/6] 06 p0088 N75-18740
- COX, K. E.
Hydrogen production from solar energy
07 p0109 A75-29477
An analysis of hydrogen production via closed-cycle schemes
08 p0176 A75-44771
- CRAIG, J. W. T.
Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2 [PB-240632/0] 07 p0159 N75-27556
- CRAIG, R. A.
A review of the Project Independence report submitted to Office of Energy Research and Development, National Science Foundation, 10 January 1975 [PB-238791/8] 07 p0131 N75-21823
- CRANE, T. E.
Production of gaseous fuel by pyrolysis of municipal solid waste [NASA-CR-141791] 07 p0140 N75-24105
- CRAWFORD, L. W.
The MHD power generation system with directly fired coal
05 p0009 A75-10577
- CREWSPON, R. A.
The Colorado School of Mines Nevada geothermal study
06 p0099 N75-20837
- CROTHERS, W. T.
Use of methanol in transportation [UCID-16528] 06 p0077 N75-16996
- CRUMP, L. H.
Fuel and energy data: United States by states and regions, 1972 [PB-236581/5] 06 p0077 N75-17004
- CUNDELL, A. H.
Petroleum degradation in low temperature marine and estuarine environments [AD-A007588] 07 p0146 N75-24191
- CUNNINGHAM, A. R.
Feasibility study of alternative fuels for automotive transportation. Volume 1: Executive summary [PB-235581/6] 05 p0041 N75-15187
Feasibility study of alternative fuels for automotive transportation. Volume 2: Technical section [PB-235582/4] 05 p0041 N75-15188
Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices [PB-235583/2] 05 p0041 N75-15189
Effects of changing the proportions of automotive distillate and gasoline produced by petroleum refining [PB-236900/7] 06 p0085 N75-18443
- CUOMO, J. J.
A new concept for solar energy thermal conversion
07 p0110 A75-30368
- CURRAN, H. H.
Assessment of Rankine cycle for potential application to solar-powered cooling of buildings [ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890

- Evaluation of solar-assisted Rankine cycle concept for the cooling of buildings 08 p0194 A75-46040
- Assessment of the Rankine cycle for potential application to solar powered cooling of buildings [PB-238069/9] 06 p0089 A75-18755
- CURTIN, D. J.**
Electron and proton irradiation of high-efficiency silicon solar cells 06 p0053 A75-24233
- Solar cell modules for lightweight solar arrays 06 p0057 A75-26068
- D**
- DALAL, V. L.**
Epitaxial silicon solar cell 06 p0056 A75-25086
- DALIBOT, B.**
Solar generators for terrestrial applications 06 p0054 A75-24257
- DALTON, C.**
Energy recovery from solid waste 06 p0079 A75-17200
- Energy recovery from solid waste. Volume 2: Technical report [NASA-CR-2526] 07 p0148 A75-25292
- DAMBOLENA, I. G.**
A planning methodology for the analysis and design of wind-power systems 05 p0004 A75-10517
- DANIELS, A.**
Stirling engines - Capabilities and prospects 06 p0048 A75-23237
- DANIELS, W. H. G.**
Materials requirements for advanced energy systems: New fuels. Volume 3: Materials research needs in advanced energy systems using new fuels [AD-A004550] 07 p0158 A75-27168
- DANIELS, T. C.**
Investigations of the factors affecting the performance of a rotating heat pipe 07 p0120 A75-36357
- DARKAZALLI, G.**
Wind and solar thermal combinations for space heating 08 p0192 A75-46010
- DAVIDSON, J. W.**
Fusion power - Prospects and impact 05 p0021 A75-18080
- DAVIES, R. L.**
Coal petrography and petrology. A bibliography 1964 - 1973 [PB-236351/3] 06 p0072 A75-16123
- DAVIS, A.**
The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 A75-25327
- DAVIS, B. K.**
Solar energy power system [NASA-CASE-MFS-21628-2] 08 p0202 A75-29548
- DAVIS, E. S.**
Solar heating and cooling of buildings 06 p0059 A75-27783
- DAVIS, J. P.**
Topping cycle applications of thermionic conversion 08 p0188 A75-45972
- Solar energy for process steam generation [PB-238109/3] 07 p0145 A75-24154
- DAVIS, S. J.**
Documenting helicopter operations from an energy standpoint [NASA-CR-132578] 06 p0084 A75-18220
- DAVITIAN, H.**
Energy carriers in space conditioning and automotive applications - A comparison of hydrogen, methane, methanol and electricity 05 p0005 A75-10540
- DAY, J. A.**
Industrial process heat from solar energy 08 p0190 A75-45992
- Shallow solar pond energy conversion system: An analysis of a conceptual 10-MWe plant [UCRL-51533-REV-1] 05 p0028 A75-11467
- DAY, R. L.**
Oil and US policy [AD-A006473] 08 p0203 A75-29558
- DAY, W. H.**
Pumped air storage for electric power generation 05 p0013 A75-12990
- DE BENI, G.**
Considerations on iron-chloride-oxygen reactions in relation to thermochemical water-splitting 08 p0177 A75-44779
- DEAN, R. H.**
Silicon solar cells for highly concentrated sunlight 07 p0120 A75-36363
- DEB, S.**
Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions 06 p0054 A75-24256
- Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator 07 p0109 A75-29478
- DEBS, R. J.**
Measurements of the performance of an electrohydrodynamic heat pipe [AIAA PAPER 75-659] 07 p0114 A75-32917
- DECORA, A. W.**
Retorting indexes for oil-shale pyrolyses from ethylene-ethane ratios of product gases [PB-234050/3] 05 p0034 A75-13399
- Pulsed nuclear magnetic resonance studies of oil shales--estimation of potential oil yields [PB-240023/2] 07 p0148 A75-25283
- DEITCH, L.**
Institutional and environmental problems in geothermal resource development 06 p0100 A75-20843
- DELANOY, A. E.**
Design considerations in Schottky solar cells 08 p0188 A75-45962
- DELLER, R. W.**
The oxidation of ethylene in automotive engine exhaust gas; an experimental investigation 07 p0138 A75-23719
- DENINET, C.**
Glass solar heat collector development [AIAA PAPER 75-740] 07 p0115 A75-33758
- DENTON, E. E.**
Helium survey, a possible technique for locating geothermal reservoirs 07 p0118 A75-35438
- DENTON, J. C.**
Solar thermal absorption heat pump breakeven coefficient of performance [ASME PAPER 74-WA/ENER-2] 05 p0015 A75-16834
- Research on solar cell arrays and electric energy [PB-239338/7] 07 p0155 A75-26504
- Integrated solar powered climate conditioning systems [PB-239759/4] 08 p0200 A75-28527
- DENTON, J. D.**
The potential of natural energy sources 08 p0165 A75-38865
- DERIAN, J.-C.**
The economics of nuclear power 06 p0047 A75-22734
- DEUI, H.**
Methane emission from U.S. Coal mines in 1973, a survey [PB-240154/5] 07 p0152 A75-25354
- DEUL, H.**
Degasification of the Mary Lee coalbed near Oak Grove, Jefferson County, Alabama, by vertical borehole in advance of mining [BM-RI-7968] 05 p0028 A75-11462
- DEUTCH, H. J.**
International energy problems and environmental policy 05 p0014 A75-13597
- DEVANNEY, J. W.**
The OCS (Outer Continental Shelf) petroleum pie [COM-75-10599/9] 08 p0206 A75-31562
- DEVINE, P. E.**
The MCL-Thurow model supplement [PB-241113/0] 08 p0204 A75-29952
- DEWALLE, D. R.**
An agro-power-waste water complex for land disposal of waste heat and waste water [PB-239675/2] 07 p0161 A75-27570

- DEWINTER, F.**
Workshop Proceedings on Solar Cooling for buildings, held in conjunction with the Semiannual Meeting of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) [PB-239419/5] 07 p0144 875-24145
- DEWITT, D.**
Novel materials for power systems. Part 3: Selective emitters for energy conversion [AD-784449] 05 p0026 875-10608
- DIALLO, A.**
Thermokinetics of a flat solar collector of constant heat capacity 08 p0171 875-41768
- DIALS, G. E.**
Electrochemical heat engines for direct electric power generation and energy storage [AIAA PAPER 75-1237] 08 p0182 875-45649
- DICK, G. J.**
A superconducting microwave engine 06 p0056 875-25831
- DICK, P. J.**
RTG electrical power for spacecraft 06 p0057 875-26067
- DICKINSON, W. C.**
Industrial process heat from solar energy 08 p0190 875-45992
Shallow solar pond energy conversion system: An analysis of a conceptual 10-MWE plant [UCRL-51533-REV-1] 05 p0028 875-11467
LL-SOHIO solar process heat project [UCID-16630-74-1] 06 p0093 875-19827
- DICKS, J. B.**
Review of central power magnetohydrodynamics [AIAA PAPER 75-264] 06 p0055 875-25005
MHD energy conversion [AD-785419] 05 p0032 875-12807
- DICKSON, E. H.**
The use of hydrogen in commercial aircraft - An assessment 05 p0006 875-10542
A technology assessment of the hydrogen economy concept 08 p0172 875-42286
A technology assessment of the hydrogen economy concept 08 p0194 875-46037
- DIETRICH, G.**
Nuclear district-heating and nuclear long-distance energy [JUL-1077] 06 p0093 875-19828
- DIETZMAN, W. D.**
Profitability analysis of producing crude oil by waterflooding using a simulation technique [PB-237843/8] 06 p0088 875-18738
- DINSDALE, K. R.**
Papers and proceedings of two energy crisis seminars [PB-239164/7] 07 p0156 875-26513
- DIPASQUALE, R.**
Phosphoric acid fuel cell stack development 08 p0186 875-45943
- DONELLI, S.**
Problems in electric power production [ISS-T-73/16] 07 p0128 875-21793
- DOONELLY, W.**
Energy policy and resource management [GPO-33-634] 07 p0149 875-25300
- DOHOVAN, T. J.**
Helium survey, a possible technique for locating geothermal reservoirs 07 p0118 875-35438
- DOSSIMONI, R.-P.**
The economics of nuclear power 06 p0047 875-22734
- DOHSE, S.**
Hydrogen production from decomposition of water by means of nuclear reactor heat 08 p0175 875-44760
- DOBOWIAN, R.**
Further progress in the technology of silk screened CdS solar cells 06 p0052 875-24225
- DOUGLAS, D. L.**
The impact of advanced batteries on electric power generation 05 p0013 875-12991
- DOUGLASS, R. H.**
Phase 0 study for a geothermal superheated water proof of concept facility 06 p0102 875-20858
- DOUGLASS, R. H., JR.**
Systems aspects of ocean thermal energy conversion [AIAA PAPER 75-615] 06 p0062 875-28593
- DOUHANI, G. A.**
Development of oil and gas on the Continental Shelf [GPO-31-891] 06 p0075 875-16973
- DOBUDY, M. W.**
Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline 05 p0008 875-10574
- DOHNS, W. R.**
An evaluation of discarded tires as a potential source of fuel 05 p0012 875-12416
An evaluation: The potential of discarded tires as a source of fuel [NASA-TN-X-58143] 05 p0038 875-15153
- DRABKIN, L. S.**
Thermodynamic analysis of a solar energy system with a closed-cycle gas-turbine converter 06 p0049 875-23402
Thermodynamic analysis and parameter optimization of a solar thermoelectric power unit with radiation heat dissipation [AD-A000211] 06 p0082 875-17819
- DRAKE, E.**
Technology and current practices for processing, transferring and storing liquefied natural gas [PB-241048/8] 08 p0202 875-29271
- DRAKE, S.**
Energy policy and resource management [GPO-33-634] 07 p0149 875-25300
- DRUMMOND, J. E.**
Dielectric power conversion 08 p0189 875-45979
- DRUMMOND, W. E.**
Fusion power research - Where do we stand 05 p0013 875-12995
- DUBOIS, J. E.**
Energy problems in a global context 06 p0075 875-16978
- DUFF, W. S.**
The analysis of the performance of a pancake absorber-heat exchanger for a solar concentrator [ASHE PAPER 74-WA/SOL-1] 05 p0018 875-16884
Parametric performance and cost models for solar concentrators 07 p0109 875-29476
Minimum cost solar thermal electric power systems - A dynamic programming based approach 07 p0112 875-32097
- DUFFIE, J. A.**
Simulation of a solar heating and cooling system 06 p0048 875-23018
Modeling of the CSU heating/cooling system 07 p0109 875-29473
A method of simulation of solar processes and its application 07 p0109 875-29474
Modeling of solar heating and air conditioning [PB-239189/4] 07 p0136 875-22926
- DUGAN, J. F., JR.**
Future long-range transports - Prospects for improved fuel efficiency [AIAA PAPER 75-316] 06 p0047 875-22514
Future long-range transports: Prospects for improved fuel efficiency [NASA-TN-X-72659] 06 p0079 875-17339
Fuel-conservative engine technology 08 p0206 875-31074
- DUGGER, G. L.**
Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617] 06 p0064 875-29116
Solar energy for earth: An AIAA assessment 07 p0110 875-31267
Ocean thermal energy conversion 07 p0111 875-31274
- DULNEV, G. N.**
Approximate analysis of the steady temperature field of a parallelepiped with a local energy source 07 p0112 875-32212

- DUNAEV, IU. A.**
Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization
08 p0173 A75-43860
- DUNHAM, J. T.**
Bureau of Mines research programs on recycling and disposal of mineral, metal, and energy-based wastes
[PB-227476/9] 05 p0042 N75-15203
- DUNHAM, B. C.**
Air Force experience in the use of liquid hydrogen as an aircraft fuel
08 p0179 A75-44801
- DURAND, H.**
The future of silicon solar cells for terrestrial use
06 p0058 A75-27717
- DUXBURY, J. H.**
Interplanetary spacecraft design using solar electric propulsion
[AIAA PAPER 74-1084] 05 p0010 A75-11283
- DUY, T. H.**
High efficiency silicon solar cells
06 p0052 A75-24217
- DYAS, B. W.**
Development of oil and gas on the Continental Shelf
[GPO-31-891] 06 p0075 N75-16973
- DYKSTRA, L. J.**
Solar sea power
[PB-236997/3] 06 p0082 N75-17821
- DZHALILOV, B. B.**
Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels
07 p0122 A75-37162
Full-scale testing of high-voltage photocells of photovolt type at elevated light flux levels
08 p0210 N75-32590
- DZITOV, H. S.**
Effectiveness of using chemically reacting working media in a solar gas-turbine installation
08 p0180 A75-45063
- E**
- EASTER, R. W.**
Predicted energy densities for nickel-hydrogen and silver-hydrogen cells embodying metallic hydrides for hydrogen storage
05 p0008 A75-10572
- EASTON, C. R.**
Evaluation of central solar tower power plant
05 p0003 A75-10515
Evaluation of central solar tower power plant
07 p0116 A75-34531
The selection and use of energy storage for solar thermal electric application
08 p0189 A75-45980
- ECKERLE, J.**
Continued development of energy transmission and conversion systems
[PB-236181/4] 05 p0037 N75-14278
- ECKERT, E. R. G.**
Solar-thermal electric power generation using a system of distributed parabolic trough collectors
[AIChE PAPER 12] 08 p0196 A75-47511
Proceedings of the Solar Thermal Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- ECKERT, G. H.**
Hydrocarbon power fuel from the gasoline boiling range
[NASA-TT-F-16399] 07 p0147 N75-24957
- ECKHART, J. A.**
Photogalvanic cells
08 p0167 A75-39403
- ECKHOFF, H. D.**
An engineering assessment of the hydrogen economy
08 p0180 A75-44814
- EDLBAUM, T. H.**
Effect of attitude constraints on solar-electric geocentric transfers
[AIAA PAPER 75-350] 06 p0055 A75-24957
- EDLSTEIN, P.**
Transverse header heat pipe
[AIAA PAPER 75-656] 07 p0114 A75-32914
Heat pipe manufacturing study
[NASA-CR-139100] 05 p0023 N75-10347
Deployable heat pipe radiator
[NASA-CR-143863] 07 p0147 N75-25088
- EDESKUTY, P. J.**
Cryogenics safety in a hydrogen fuel society
06 p0061 A75-27973
- EDGERTON, C. D.**
The mine map repository: A source of mine map data
[PB-240136/2] 07 p0148 N75-25288
- EDWARDS, A., JR.**
Report on studies of space to earth microwave power transmission systems
[IAF PAPER 75-005] 08 p0183 A75-45814
- EDWARDS, D. K.**
Natural convection in enclosed spaces - A review of application to solar energy collection
[ASME PAPER 74-WA/HT-12] 05 p0017 A75-16860
- EGGEN, A. C. W.**
Gasification of solid wastes in fixed beds
[ASME PAPER 74-WA/PWR-10] 05 p0018 A75-16882
- EGOROV, A. S.**
Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage
07 p0125 A75-38648
- EHRICKE, K. A.**
Satellites for energy transmission to earth - Technical and socioeconomic studies
07 p0125 A75-38644
- EICKHOFF, H. G.**
Technological and commercial possibilities which result by using a high temperature reactor for the future supply of mineral oil in the FRG
[JUL-1017-RG] 05 p0029 N75-11470
- EISEN, P. S.**
Preparation of gas turbine engine fuel from synthetic crude oil derived from coal
[AD-A007923] 07 p0147 N75-24966
- EISENHUT, J. C.**
Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections
[PB-238878/3] 07 p0131 N75-22200
Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis
[PB-238879/1] 07 p0131 N75-22201
- EISENSTADT, H. H.**
Hydrogen production from solar energy
07 p0109 A75-29477
- EL-BESSIDI, A. E. S. A.**
Oil displacement by different surfactant and polymer waterflood systems
07 p0134 N75-22858
- ELDER, C. H.**
Degasification of the Mary Lee coalbed near Oak Grove, Jefferson County, Alabama, by vertical borehole in advance of mining
[BH-RI-7968] 05 p0028 N75-11462
- ELDERS, W. A.**
Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California
[IGPP-UCR-74-31] 06 p0098 N75-20836
- ELIASON, J. T.**
Photovoltaic cell array
[NASA-CASE-NFS-22458-1] 07 p0134 N75-22900
- ELLIOTT, G. E. B.**
Electrochemical heat engines for direct electric power generation and energy storage
[AIAA PAPER 75-1237] 08 p0182 A75-45649
- ELLIOTT, J.**
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- ELLIS, D.**
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- ELLS, R. V., JR.**
SRPS solar array design and technology evaluation
08 p0192 A75-46016
- ELSHER, H. B.**
Radioisotope space power generator
[GA-1-12848] 05 p0038 N75-14832
- ELSTON, L. W.**
Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes
08 p0187 A75-45950

- ENDER, A. YA.**
Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization
08 p0173 A75-43860
- ENDERLID, V. I.**
Assessment of uranium and thorium resources in the United States and the effect of policy alternatives
[PB-238658/9] 07 p0143 A75-24133
- ENGDAHL, R.**
Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
[PB-237116/9] 06 p0088 A75-18739
- ENINGER, J. E.**
Capillary flow through heat-pipe wicks
[AIAA PAPER 75-661] 07 p0114 A75-32919
- ENOS, G.**
Recent MHD generator testing at Avco Everett Research Laboratory, Inc
[ASME PAPER 74-WA/ENER-7] 05 p0016 A75-16839
- EPSTEIN, W.**
Powerplant energy management
[AIAA PAPER 74-1066] 05 p0001 A75-10259
- ERNEKOV, M. A.**
The influence of the petrology of the Karagandin coals on their methane contents
[BILL-RTS-9309] 07 p0158 A75-27511
- ERHOLINA, E. I.**
Approximate analysis of the steady temperature field of a parallelepiped with a local energy source
07 p0112 A75-32212
- ESCHER, W. J. D.**
Ocean based solar-to-hydrogen energy conversion macro system
08 p0175 A75-44764
Liquid hydrogen - Future aircraft fuel: Background, payoff, and cryogenic engineering challenge
08 p0195 A75-47081
- ESHAN, V. I.**
Experience in setting up solar-energy survey for Azerbaïdzhân
05 p0020 A75-17081
- ESHEE, M. A.**
Environmental aspects of cadmium sulfide usage in solar energy conversion. Part 1: Toxicological and environmental health considerations, a bibliography
[PB-238285/1] 06 p0105 A75-20884
- ESTRADE, S.**
The utilization of space as a source of energy for the earth
08 p0183 A75-45893
- EVANS, D. L.**
Terrestrial photovoltaic power systems with sunlight concentration
[PB-238582/1] 06 p0105 A75-20886
- EVANS, J. Y. G.**
A generalised analysis of the performance of a variety of drive systems for high Reynolds number, transonic wind tunnels
[RAE-TR-73134] 06 p0073 A75-16572
- EVANS, E. S.**
Energy plantations: Should we grow trees for power plant fuel?
[VP-X-129] 05 p0030 A75-12436
Energy plantations: Should we grow trees for power plant fuel
[PB-238417/0] 07 p0130 A75-21815
- EVDOKIMOV, V. M.**
Investigation of photoelectric converter operation under conditions of strong illumination
07 p0119 A75-36015
Operation of photoconverters under conditions of strong illumination
08 p0170 A75-41538
- EVERETT, J. R.**
Evaluation of the suitability of Skylab data for the purpose of petroleum exploration
[Z75-10257] 07 p0147 A75-25237
- EVERETT, W. L.**
Regional economics: A subset of simulation of the effects of coal-fired power development in the four corners region
06 p0107 A75-21153
- FERA, A. A.**
Technology utilization - Incentives and solar energy
06 p0048 A75-22913
- F**
- FABREGA, S.**
A generalization of the Carnot theorem - The theorem of useful power
06 p0057 A75-26448
- FARBER, R. J.**
Development and evaluation of a Stirling-Cycle energy conversion system
[PB-239086/2] 07 p0136 A75-22918
- FAGAN, T. J.**
A high-speed superconducting generator
06 p0060 A75-27960
- FABRENBRUCH, A. L.**
II-VI photovoltaic heterojunctions for solar energy conversion
05 p0012 A75-12734
- FAIRBANKS, D. R.**
A computer program to determine the optimum configuration of solar assisted building heating and cooling systems based upon life-cycle cost
08 p0186 A75-45941
- FALCONER, D.**
Proceedings of 5th annual symposium: Energy Research and Development
[AD-A007799] 07 p0144 A75-24142
- FALHES, J.**
A resonant point absorber of ocean-wave power
08 p0170 A75-41425
- FAN, J. C. C.**
Heat mirrors for solar-energy collection and radiation insulation
05 p0004 A75-10525
Transparent heat-mirror films of TiO₂/Ag/TiO₂ for solar energy collection and radiation insulation
05 p0015 A75-16378
- FANG, P. H.**
Analysis of conversion efficiency of organic-semiconductor solar cells
05 p0010 A75-11146
Columnar silicon film solar cells for terrestrial applications
[PB-238534/2] 07 p0135 A75-22916
- FARRER, E. A.**
A case study - Utilization of solar energy in residential dwellings
[ASME PAPER 74-WA/SOL-2] 05 p0018 A75-16885
Selection and evaluation of the University of Florida's solar powered absorption air conditioning system
[ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
Heating buildings with solar energy
07 p0117 A75-34933
Solar characteristics of new absorptive coatings used on solar collectors
07 p0117 A75-34934
Methodology of research of flat-plate solar collector absorptive coatings
07 p0117 A75-34935
The University of Florida solar powered intermittent ammonia/water absorption air conditioner
07 p0118 A75-34936
Formulation of a data base for the analysis, evaluation and selection of a low temperature solar powered air conditioning system
[PB-238683/7] 07 p0136 A75-22928
- FARRERMAN, G. H.**
Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems
[AIAA PAPER 75-1261] 08 p0182 A75-45661
- FARRER, E. H.**
Feasibility study of alternative fuels for automotive transportation. Volume 1: Executive summary
[PB-235581/6] 05 p0041 A75-15187
Feasibility study of alternative fuels for automotive transportation. Volume 2: Technical section
[PB-235582/4] 05 p0041 A75-15188
Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices
[PB-235583/2] 05 p0041 A75-15189

- Effects of changing the proportions of automotive distillate and gasoline produced by petroleum refining
[PB-236900/7] 06 p0085 N75-18443
- FARRIS, P. J.
The PCG-1 fuel cell powerplant for electric utility use 05 p0013 A75-12992
- FATEYEV, Y. B.
Wind power installations. Present condition and possible lines of development
[NASA-RT-F-16204] 07 p0128 N75-21796
Wind engines and wind installations
[NASA-TT-F-16170] 07 p0135 N75-22904
- FAUCETT, H. L.
Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants
[PB-241672/5] 08 p0211 N75-32602
- FAUDE, D.
Energy and the environment in Baden-Wuerttemberg
[KFK-1966-UF] 05 p0030 N75-12439
- FAUST, C.
Geothermal reservoir simulation 06 p0101 N75-20852
- FEDORUK, N.
A study of energy systems command, control and communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- FEDOTOV, V.
Standardized wind electric power unit
[AD-783764] 05 p0025 N75-10598
- FEGLEY, K. A.
The residential user and the electrical load factor
[PB-238535/9] 07 p0145 N75-24152
- FEIN, E.
The Hydrogen Economy - A utility perspective 05 p0014 A75-12998
Hydrogen economy: A utility perspective
[BNL-19267] 06 p0103 N75-20870
- FEJER, H. E.
Study of industrial uses of energy relative to environmental effects
[PB-237215/9] 06 p0084 N75-17853
- FELTON, L. A.
Energy conservation: A case study for a large manufacturing plant
[PB-239302/3] 07 p0151 N75-25323
- FENTON, F. H.
Low-BTU gasification of coal for electric power generation
[PB-236972/6] 06 p0088 N75-18740
- FERDEN, S. L.
The Energy Systems Optimization Computer Program /ESOP/ developed for Modular Integrated Utility Systems /MIUS/ analysis 05 p0006 A75-10551
- FERNANDES, R. A.
Hydrogen cycle peak-shaving for electric utilities 05 p0005 A75-10535
- FERRAR, T. A.
Financial incentives and pollution control: A case study
[PB-241479/5] 08 p0208 N75-31610
- FERRILL, R. S.
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- FETKOVICH, J.
Foam solar sea power plant 07 p0124 A75-37850
- FICKETT, A. P.
Hydrogen generation by solid-polymer electrolyte water electrolysis 08 p0177 A75-44777
- FILATOV, A. I.
Effectiveness of using semiconductor heat pumps under the conditions of the Turkmen SSR 05 p0020 A75-17083
- FILBY, B. B.
Possibilities for lithium borohydride recycle
[ICP-1054] 06 p0074 N75-16651
- FILKOV, V. B.
Scientific research in power engineering
[JPRS-65422] 08 p0205 N75-30648
- FIREGOLD, J. B.
Engine performance with gasoline and hydrogen - A comparative study 08 p0177 A75-44787
- FIREGOLD, J. G.
Liquid hydrogen as an automotive fuel 06 p0048 A75-23238
Automotive hydrogen engines, and onboard storage methods 08 p0172 A75-42284
- FISCHER, H.
Improvements in analysis and technology of silicon solar cells with increased efficiency 06 p0051 A75-24216
- FISCHER, H. C.
The annual cycle energy system 08 p0187 A75-45947
- FISCHER, W.
Energy sources for ocean technology 07 p0114 A75-33118
- FISH, J. D.
Utilization of plasma exhaust energy for fuel production
[COO-3028-7] 05 p0028 N75-11465
- FISHELSON, G.
Environmental regulations and energy for home heating
[PB-240699/9] 08 p0203 N75-29587
- FISHER, E. A.
Propulsion units for high speed ships
[JPRS-64897] 07 p0148 N75-25295
- FITZPATRICK, G. O.
Thermionic topping of electric power plants 08 p0189 A75-45973
- FLECHON, J.
Thermokinetics of a flat solar collector of constant heat capacity 08 p0171 A75-41768
- FLEMING, W. S.
Economic and energy conservation relationship relevant to state of New York building design and contract awards
[PB-237006/2] 06 p0082 N75-17824
- FLORSCHUETZ, L. W.
Terrestrial photovoltaic power systems with sunlight concentration
[PB-238582/1] 06 p0105 N75-20886
- FLYNN, T. M.
Selected topics on hydrogen fuel
[CON-75-10619/5] 08 p0207 N75-31575
- FOLEY, G. H.
Transparent heat-mirror films of TiO₂/Ag/TiO₂ for solar energy collection and radiation insulation 05 p0015 A75-16378
- FORESTIERI, A. P.
Terrestrial applications of PEP-encapsulated solar cell modules 06 p0054 A75-24258
The effect of sunshine testing on terrestrial solar cell system components 07 p0123 A75-37396
The effect of sunshine testing on terrestrial solar cell system components
[NASA-TM-X-71722] 07 p0140 N75-24109
- FORSYTH, E. V.
Development and performance of a miniature, high-voltage thermal battery 05 p0007 A75-10559
Development and performance of a miniature, high-voltage thermal battery
[SLA-74-5363] 06 p0076 N75-16988
- FORTESCUE, P.
Component design considerations for gas turbine HTGR power plant
[ASME PAPER 75-GT-67] 07 p0116 A75-34620
- FORTUNE, H. A.
Industrial energy study of the Industrial chemicals group
[PB-236322/4] 06 p0071 N75-16111
Data base for the industrial energy study of the industrial chemicals group
[PB-237845/3] 06 p0087 N75-18732
- FOURAKIS, E.
Dynamic conversion of solar generated heat to electricity
[NASA-CR-134724] 06 p0066 N75-16079

- POWLER, C. D.**
 Solar heating experiment on the Grover Cleveland School, Boston, Massachusetts [PB-239516/8] 07 p0155 N75-26505
- PRAAS, A. P.**
 Small coal burning gas turbine for modular integrated utility systems 05 p0006 A75-10546
 Conceptual design of a series of laser-fusion power plants of 100 to 3000 MW/e/ 05 p0007 A75-10562
 Comparative performance characteristics of cylindrical parabolic and flat plate solar energy collectors [ASME PAPER 74-WA/ENER-3] 05 p0016 A75-16835
 Foreseeable thermal, mechanical, and materials engineering problems of fusion reactor power plants [SNHT PAPER A2/1] 06 p0046 A75-21713
 Design study for a coal-fueled closed cycle gas turbine system for MHD applications 08 p0187 A75-45948
- Survey of gas and oil burners for use with NSF/RANN-ORNL potassium boiler [ORNL-NSF-EP-45] 06 p0087 N75-18728
 Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle [ORNL-NSF-EP-30] 06 p0090 N75-18769
 Comparative performance characteristics of cylindrical parabolic focusing and flat plate solar energy collectors [CONF-741104-3] 06 p0103 N75-20872
- PRAIZE, W. B.**
 Transportation energy conservation: A program plan of policy-oriented research [PB-240734/4] 08 p0200 N75-28528
- FRANCIS, E. J.**
 Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617] 06 p0064 A75-29116
- FRANK, A. A.**
 Increased fuel economy in transportation systems by use of energy management. Volume 1: General results and discussion [PB-240220/4] 07 p0163 N75-27970
- FRANKLIN, E.**
 The Harwell thermo-mechanical generator 05 p0009 A75-10579
- FRANZEN, D.**
 National Bureau of Standards annual report: Fiscal year 1974 [COM-75-10465/3] 08 p0206 N75-30948
- FREEMAN, T. L.**
 A method of simulation of solar processes and its application 07 p0109 A75-29474
- FREHY, J.**
 Development of a flexible, fold-out solar array 06 p0053 A75-24252
- FRETTER, E. P.**
 Report on progress in achieving direct conversion of a major fraction of sonic flow kinetic power into electrical power by electrofluid dynamic /EFD/ processes 05 p0009 A75-10576
- FRIEDEL, R. I.**
 Mass spectrometric analysis of product water from coal gasification [PB-240835/9] 07 p0158 N75-27120
- FRIEDLANDER, G. D.**
 Energy's hazy future 07 p0110 A75-31195
- FRIEDMAN, I.**
 Helium survey, a possible technique for locating geothermal reservoirs 07 p0118 A75-35438
- FRISBIE, W. P.**
 Technology assessment of portable energy RDT and P [NASA-CR-137655] 07 p0160 N75-27565
- FRULLANI, S.**
 Problems in electric power production [ISS-T-73/16] 07 p0128 N75-21793
- FU, Y. C.**
 Conversion of cellulosic wastes to oil [PB-240839/1] 07 p0161 N75-27572
- FUJINO, H.**
 Superconducting synchronous machine 06 p0061 A75-27967
- FUKUDA, M.**
 The practical lithium/poly-carbonmonofluoride battery system 08 p0188 A75-45964
- FULCHER, M. K.**
 Overview of Reclamation's geothermal program in Imperial Valley, California 06 p0098 N75-20835
- FULLAN, E. T.**
 Strontium fluoride research in heat source and compatibility tests [BNWL-1845-2] 07 p0152 N75-25695
 Strontium heat source development programs [BNWL-1845-4] 07 p0152 N75-25696
- FULLMAN, R. I.**
 Energy storage by flywheels 08 p0185 A75-45930
- FUNK, J. E.**
 The generation of hydrogen by the thermal decomposition of water 05 p0005 A75-10532
 Evaluation of multi-step thermochemical processes for the production of hydrogen from water 08 p0177 A75-44778
- FURLONG, D. A.**
 Use of low grade solid fuels in gas turbines [ASME PAPER 74-WA/ENER-5] 05 p0016 A75-16837
- FURNAN, E. R.**
 Liquid-metal binary cycles for stationary power [NASA-TN-D-7955] 08 p0205 N75-30649
- FUSCHILLO, N.**
 Semi-transparent solar collector window systems 08 p0167 A75-39405

G

- GALENA, S.**
 Novel materials for power systems. Part 3: Selective emitters for energy conversion [AD-784449] 05 p0026 N75-10608
- GABLE, R. D.**
 Space power application of the all purpose mini-Brayton rotating unit /mini-BRO/ 08 p0193 A75-46019
- GAFUROV, A. M.**
 Determination of the surface shapes of film-type solar energy concentrators with seams 07 p0119 A75-36017
- GAIBAZAROV, B.**
 Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels 07 p0122 A75-37162
 Full-scale testing of high-voltage photocells of photovolt type at elevated light flux levels 08 p0210 N75-32590
- GALDI, T.**
 Energy policy and resource management [GPO-33-634] 07 p0149 N75-25300
- GALES, C.**
 Production of hydrogen by the electrolysis of water 06 p0046 A75-22044
- GALINOV, E. M.**
 Carbon isotopes in oil-gas geology [NASA-TT-P-682] 07 p0160 N75-27563
- GALLAGHER, J. M.**
 Path to self-sufficiency directions and constraints [PB-239099] 07 p0142 N75-24128
- GALVAS, H. R.**
 A compressor designed for the energy research and development agency automotive gas turbine program [NASA-TN-X-71719] 07 p0141 N75-24116
- GAMALIL, R. G.**
 Laser thermonuclear fusion 07 p0112 A75-32617
- GANEFELD, R. V.**
 Fluctuations of electric power in MHD channels 07 p0110 A75-30949
- GANN, A.**
 On the application of hydrogen as a fuel for automotive vehicles [ESRO-TT-132] 07 p0135 N75-22910
- GANNON, R. E.**
 Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
 Corrosion studies of materials for auxiliary equipment in MHD power plants 06 p0055 A75-24384

- High temperature air preheaters for open cycle MHD energy conversion systems [AICHE PAPER 16] 08 p0196 A75-47512
- GARDNER, G. C.
Storing electrical energy on a large scale 08 p0165 A75-38864
- GARDNER, J. A.
Power processor design considerations for a solar electric propulsion spacecraft [NASA-CR-140842] 05 p0029 N75-12064
- GARDNER, J. L.
Environmental regulations and energy for home heating [PB-240699/9] 08 p0203 N75-29587
- GARG, N. P.
Year round performance studies on a built-in storage type solar water heater at Jodhpur, India 08 p0167 A75-39406
- GARLOW, R. J.
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text [AD-A006804] 07 p0142 N75-24129
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary [AD-A006803] 07 p0149 N75-25304
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices [AD-A006805] 07 p0149 N75-25305
- GATES, G. L.
Solvent stimulation tests in two California oilfields [PB-237849/5] 06 p0090 N75-18761
- GAUTHIER, A.
CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- GAY, E. C.
Development of high specific energy batteries for electric vehicles [AHL-8058] 06 p0076 N75-16990
Development of lithium/sulfur cells for application to electric automobiles [CONF-740805-7] 06 p0094 N75-19829
- GAY, W. F.
Energy statistics. A supplement to the summary of National Transportation statistics [PB-236767/8] 07 p0130 N75-21817
- GAZAKOV, O.
GaP p-n junctions and possibilities for their application in the conversion of solar energy into electric 05 p0011 A75-12198
- GEISOW, J.
The Harwell thermo-mechanical generator 05 p0009 A75-10579
- GENCO, J. H.
Characterization of sulfur recovery from refinery fuel gas [PB-239777/6] 07 p0151 N75-25326
- GEORGE, J. H. B.
Batteries and fuel cells in the electrical generating industry 08 p0166 A75-39198
- GERBER, B.
Proceedings of 5th annual symposium: Energy Research and Development [AD-A007799] 07 p0144 N75-24142
- GERMAN, V. O.
Concerning the use of a nitrogen-potassium gaseous mixture for protection of MHD-generator electrodes by suction 07 p0112 A75-31569
- GETTLER, H.
The effect of recent energy price increases on field crop production costs [PB-238659/7] 06 p0107 N75-21155
- GERVAIS, R. L.
Evaluation of central solar tower power plant 05 p0003 A75-10515
Material considerations involved in solar energy conversion 06 p0047 A75-22522
Solar-thermal electric power 07 p0111 A75-31270
Evaluation of central solar tower power plant 07 p0116 A75-34531
- GIANNINI, F.
Power generation and efficiency in GaAs traveling-wave amplifiers 07 p0110 A75-30750
- GIBBS, H.
Proceedings of the Workshop on Bio-Solar Conversion [PB-236142/6] 06 p0069 N75-16096
- GIBSON, C. J.
Some LNG vehicle developments 06 p0048 A75-23236
- GIBSON, E. K.
An evaluation of discarded tires as a potential source of fuel 05 p0012 A75-12416
An evaluation: The potential of discarded tires as a source of fuel [NASA-TN-X-58143] 05 p0038 N75-15153
- GILG, J. F.
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text [AD-A006804] 07 p0142 N75-24129
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary [AD-A006803] 07 p0149 N75-25304
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices [AD-A006805] 07 p0149 N75-25305
- GILL, W. L.
Technology survey of electrical power generation and distribution for MIUS application [NASA-TN-X-58127] 08 p0207 N75-31573
- GILLATT, W. H.
Fuel use in the US electrical utility industry, 1971 - 1990 07 p0154 N75-26493
- GILLESPIE, A. R.
The detection of geothermal areas from Skylab thermal data [NASA-CR-143133] 07 p0158 N75-27540
- GILLETTE, R. B.
Glass solar heat collector development [AIAA PAPER 75-740] 07 p0115 A75-33758
- GILLEY, J. R.
Use of thermally enriched water for growing field crops in Minnesota [PB-240112] 07 p0159 N75-27549
- GILSINN, J. F.
The NBS computerized carpool matching system: User's guide [CON-75-10691/4] 08 p0214 N75-33749
- GINSBURG, A.
The hot depths of the Red Sea as a potential heat source for thermoelectric power generation 05 p0004 A75-10516
- GISTAU, G.
Liquid hydrogen 06 p0046 A75-22043
- GITONER, S. J.
Numerical simulation of direct energy conversion 06 p0045 A75-19660
- GIVEN, P. H.
The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 N75-25327
- GLANVILLE, R.
The potential of natural energy sources 08 p0165 A75-38865
- GLASER, P. E.
The satellite solar power station - An option for energy production on earth [AIAA PAPER 75-637] 06 p0063 A75-28600
The satellite solar power station option 07 p0118 A75-35465
An overview of solar energy applications 08 p0166 A75-39196
Solar climate control - Evaluating the commercial possibilities 08 p0168 A75-40297
The satellite solar power station - A step toward the industrial use of space [IAP PAPER 75-003] 08 p0183 A75-45903
Feasibility study of a satellite solar power station [NASA-CR-2357] 07 p0138 N75-23683
Space satellite power system [NASA-CR-142799] 07 p0139 N75-24099

- GLASSMAN, A. J.
Turbine design and application, volume 3
[NASA-SP-290-VOL-3] 07 p0147 N75-24741
- GLASSMAN, I.
Summary report of workshop on Energy Related Basic
Combustion Research
[PB-236714/2] 06 p0079 N75-17456
- GLENDENNING, I.
Characteristics of a rocking wave power device
06 p0062 A75-28450
- GLORIA, M.
Solar energy conversion by water photodissociation
08 p0173 A75-43510
- GLIBERMAN, A. IA.
Temperature dependence of the spectral
characteristics of quick-response silicon
photocells
07 p0119 A75-36013
- GLIDDEN, B. J.
The potential of natural energy sources
08 p0165 A75-38865
- GLOBE, S.
A review of the Project Independence report
submitted to Office of Energy Research and
Development, National Science Foundation, 10
January 1975
[PB-238791/8] 07 p0131 N75-21823
- GODLEWSKI, M. P.
Effects of high doping levels on silicon solar
cell performance
07 p0123 A75-37403
- GORTZ, A. F. H.
The detection of geothermal areas from Skylab
thermal data
[NASA-CR-143133] 07 p0158 N75-27540
- GOTZINGER, J. W.
Waste lubricating oil research. A comparison of
bench-test properties of re-refined and virgin
lubricating oils
[PB-238124/2] 06 p0097 N75-20746
- GOPFORTH, T. T.
A brief description of geological and geophysical
exploration of the Marysville geothermal area
06 p0099 N75-20839
- GOGUEL, J.
Geothermal energy
06 p0060 A75-27826
- GOLAEV, M.
Statistical relation between heat transfer from a
closed area and meteorological parameters during
the use of a solar refrigerating plant
08 p0169 A75-41072
- GOLASINSKI, J. A.
Vulnerability of natural gas systems
[AD-A007583] 07 p0144 N75-24143
- GOLDBACH, W. R.
New dimensions in water heating in the Northwest -
A study of solar energy utilization
08 p0191 A75-45995
- GOLDBERGER, W. E.
Design installation and operation of a 25
ton-a-day coal gasification process development
unit for the agglomerating burner-gasification
[PB-237625/9] 06 p0087 N75-18734
- GOLDBERG, H.
RTG technology development - Where we are/where we
are going
05 p0002 A75-10496
- GOLDHAMMER, L. J.
Performance of advanced silicon solar cells in a
space environment
06 p0052 A75-24232
- GOLDNER, R. B.
Indium tin oxide-coated silicon as a selective
absorber
08 p0195 A75-46951
- GOLDSMITH, J. V.
Status of JPL solar powered experiments for
terrestrial applications
05 p0005 A75-10530
- GOLOMB, D.
Study on the effects of the energy crisis and 55
mph speed limit in Michigan
[PB-241843/2] 08 p0212 N75-33499
- GOLOVNER, T. H.
Temperature dependence of the spectral
characteristics of quick-response silicon
photocells
07 p0119 A75-36013
- GONCHARENKO, V. P.
Energy characteristics of coaxial plasma source
[AD-787419] 06 p0073 N75-16368
- GOODELLE, G. S.
Performance of advanced silicon solar cells in a
space environment
06 p0052 A75-24232
- GOODENOUGH, J. B.
Heat mirrors for solar-energy collection and
radiation insulation
05 p0004 A75-10525
- High-efficiency electrochemical plant
08 p0189 A75-45977
- GOODGER, E. H.
Alternative fuels for aviation
07 p0121 A75-36719
- GORADIA, C.
The high intensity solar cell - Key to low cost
photovoltaic power
07 p0123 A75-37400
- The high intensity solar cell: Key to low cost
photovoltaic power
[NASA-TM-X-71718] 07 p0140 N75-24108
- GORDON, J.
Bio-conversion of water hyacinths into methane
gas, part 1
[NASA-TM-X-72725] 07 p0160 N75-27564
- GORDON, T. J.
Geothermal energy as a resource in a hydrogen
energy economy
08 p0174 A75-44755
- Institutional and environmental problems in
geothermal resource development
06 p0100 N75-20843
- GORODETSKII, A. F.
Devices based on thermoelectrical phenomena
[AD-783821] 05 p0026 N75-10836
- GOSCH, W. D.
A USAF energy projection model
[AD-A006928] 07 p0132 N75-22476
- GOSHDEHANOVA, H.
Statistical relation between heat transfer from a
closed area and meteorological parameters during
the use of a solar refrigerating plant
08 p0169 A75-41072
- GRACHEVA, H. H.
Temperature dependence of the spectral
characteristics of quick-response silicon
photocells
07 p0119 A75-36013
- GRASSO, A. P.
Study of fuel cell powerplant with heat recovery
[NASA-CR-141854] 07 p0148 N75-25296
- GRAUBARD, H. E.
Electricity conservation measures in the
commercial sector: The Los Angeles experience
[R-1592-PEA] 05 p0034 N75-13388
- GRAVEN, R. H.
Comparison of computer programs used for modeling
solar heating and air conditioning systems for
buildings
[LBL-3066] 06 p0079 N75-17279
- GRAY, H. R.
Potential structural material problems in a
hydrogen energy system
[NASA-TM-X-71752] 07 p0154 N75-26500
- GRAY, S. L.
Primary data on economic activity and water use in
prototype oil shale development areas of
Colorado: An initial inquiry
[PB-236039/4] 05 p0037 N75-14277
- GREEN, J.
Salt domes, pit craters, and dry steam fields -
Heat pipe applications
06 p0060 A75-27789
- GREEN, M. A.
Enhancement of Schottky solar cell efficiency
above its semiempirical limit
08 p0171 A75-42166
- GREEN, R. J.
The National Geothermal Energy Research Program
06 p0098 N75-20832
- GREENBERG, A. B.
Roles for solar thermal conversion systems in our
energy economy
06 p0059 A75-27784

- GREENBLAT, E. J.
Economic analysis of space-based electric power generation and transmission systems [IAF PAPER 75-006] 08 p0183 A75-45829
- GREENE, M. I.
Char oil energy development [PB-234018/0] 05 p0040 N75-15173
- GREGG, D. W.
Liquid plugging in in situ coal gasification processes [UCRL-51686] 07 p0127 N75-21480
- GREGORY, D. L.
Economics analyses of solar energy utilization 05 p0004 A75-10520
Derivation of a total satellite energy system [AIAA PAPER 75-640] 06 p0064 A75-29118
Ground based solar energy technology advances 08 p0190 A75-45984
Orbital solar energy technology advances 08 p0192 A75-46018
- GREGORY, D. P.
Nuclear energy requirements for hydrogen production from water 05 p0005 A75-10533
Hydrogen - A carrier of energy 06 p0060 A75-27791
Technical problems facing the hydrogen economy 08 p0180 A75-44812
Hydrogen production by electrolysis - Present and future 08 p0193 A75-46022
- GREGORY, J. W.
Propulsion technology needs for advanced space transportation systems [AIAA PAPER 75-1246] 08 p0182 A75-45656
- GREY, J.
Solar energy for earth: An AIAA assessment 07 p0110 A75-31267
- GRFFIN, W.
Energy policy and resource management [GPO-33-634] 07 p0149 N75-25300
- GRIFFITH, H. W.
Report on progress in achieving direct conversion of a major fraction of sonic flow kinetic power into electrical power by electrofluid dynamic /EPD/ processes 05 p0009 A75-10576
- GRIGGS, E. I.
Fluid manifold design for a solar energy storage tank [NASA-TM-X-64940] 07 p0160 N75-27562
- GRIGOREV, V. N.
Utilizing fuel more efficiently in reheating and heat treatment furnaces [BLL-M-21957-(5828.4P)] 06 p0080 N75-17467
- GRINGARTEN, A. C.
Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544
- GROLL, H.
Investigation of bubble formation in arteries of gas-controlled heat pipes [AIAA PAPER 75-655] 07 p0114 A75-32913
- GROHNOVD, G. H.
Technology and use of lignite [PB-238666/2] 07 p0142 N75-24131
- GRONICH, S.
Evaluation of central solar tower power plant 05 p0003 A75-10515
Evaluation of central solar tower power plant 07 p0116 A75-34531
- GROSE, L. T.
The Colorado School of Mines Nevada geothermal study 06 p0099 N75-20837
- GROSS, H. G.
Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications 06 p0050 A75-23790
- GROSSKREUTZ, J. C.
Dynamic conversion of solar generated heat to electricity [NASA-CR-134724] 06 p0066 N75-16079
Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies [PB-238002/0] 06 p0087 N75-18733
- GROSSMAN, G. B.
Investigation of current university research concerning energy conversion and conservation in small single-family dwellings [NASA-CR-143430] 08 p0207 N75-31570
- GUARIGNI, G. E.
Cylindrical erbium oxide radiator structures for thermophotovoltaic generators [AD-A001525] 07 p0129 N75-21806
- GUSOVSKII, V. L.
Utilizing fuel more efficiently in reheating and heat treatment furnaces [BLL-M-21957-(5828.4P)] 06 p0080 N75-17467
- GUTHRIE, E. P.
NSF-RANN energy abstracts: A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-1] 05 p0024 N75-10592
NSF-RANN energy abstracts. A monthly abstract journal of energy research, volume 2, no. 4 [ORNL-EIS-74-52-VOL-2-4] 05 p0029 N75-11469
NSF-RANN energy abstracts [ORNL-EIS-74-52-VOL-2-5] 06 p0068 N75-16092
NSF-RANN energy abstracts. A monthly abstract journal of energy research [ORNL-EIS-74-52-VOL-2-NO-6] 07 p0146 N75-24532
- GUTHANIS, I.
Demand for scientific and technical manpower in energy-related industries: United States 1970-1985 [PB-240865] 08 p0201 N75-28964
- GUTSTEIN, H.
Liquid-metal binary cycles for stationary power [NASA-TM-D-7955] 08 p0205 N75-30649
- GUYOL, H. B.
The approaching energy crisis: A call for action 05 p0030 N75-12432

H

- HAACKE, G.
Research on cadmium stannate selective optical films for solar energy applications [PB-236208/5] 06 p0071 N75-16117
- HAAPALA, U. S.
Electric power generation utilizing a heat pipe turbine-generator 07 p0139 N75-24096
- HAAS, S. A.
An integrated solar heated and cooled mobile home 08 p0184 A75-45927
- HACK, D.
Energy policy and resource management [GPO-33-634] 07 p0149 N75-25300
- HADLEY, H. C., JR.
CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- HAHNEL, B.
Geothermics with special reference to application 05 p0011 A75-11576
- HAFER, J. F.
Control system design and simulation for solar heated structures [LA-UR-74-1085] 06 p0082 N75-17813
- HAFER, I.
Impact on aerodynamic design 06 p0075 N75-16982
- HAGE, H.
Investigation of bubble formation in arteries of gas-controlled heat pipes [AIAA PAPER 75-655] 07 p0114 A75-32913
- HAGGERTY, W. J.
The nation's first private industrial solar heating system - General Electric's Valley Forge Space Center 08 p0184 A75-45925
- HAHN, B. E.
Thick semiconductor films for photothermal solar energy conversion 08 p0165 A75-38956
- HAKKI, A.
Where the boilers are: A survey of electric utility boilers with potential capacity for burning solid waste as fuel [PB-239392/4] 07 p0143 N75-24135
- HALBRITTER, G.
Energy and the environment in Baden-Wuerttemberg [FKF-1966-0P] 05 p0030 N75-12439

- HALCROW, R.**
US energy and fuel demand to 1985, a composite projection by user within Petroleum Administration for Defense (PAD) districts [PB-239343/7] 07 p0151 N75-25322
- HALEY**
Providing for a national fuels and energy conservation policy, establishing an office of energy conservation in the Department of the Interior, and for other purposes [H-REPT-93-1546] 08 p0208 N75-31953
- HALL, C. A.**
Low thermal flux glass-fiber/metal vessels for LH2 storage systems 08 p0177 A75-44783
- HALL, E.**
Assessment of the potential of clean fuels and energy technology [PB-239970/7] 07 p0162 N75-27583
- HALL, J. B.**
Design and operation of a solar-powered turbocompressor air-conditioning and heating system 08 p0186 A75-45939
- HALL, W. K.**
Proceedings of the Workshop on Needs for Fundamental Research in Catalysis as Related to the Energy Problem [PB-236683/9] 06 p0078 N75-17006
- HALLEY, R. W., JR.**
Evaluation of central solar tower power plant 05 p0003 A75-10515
Evaluation of central solar tower power plant 07 p0116 A75-34531
- HALPERN, J.**
Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems [PB-240177/6] 08 p0200 N75-28524
- HALS, P. A.**
Progress in development of auxiliary MHD power plant components at Avco Everett Research Laboratory, Inc [ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
Corrosion studies of materials for auxiliary equipment in MHD power plants 06 p0055 A75-24384
High temperature air preheaters for open cycle MHD energy conversion systems [AIChE PAPER 16] 08 p0196 A75-47512
- HAMIL, H. F.**
The collaborative study of EPA methods, 5, 6, and 7 in fossil fuel-fired steam generators [PB-237695/2] 06 p0091 N75-18788
- HAMILTON, J. T.**
Transfer of space technology to industry 06 p0078 N75-17195
- HAMILTON, W.**
Large diameter 300 PSI gasifier. Preliminary engineering report. Volume 1: Description [PB-238360/2] 06 p0105 N75-20889
- HAMILTON, W. F.**
Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report [PB-238877/5] 07 p0131 N75-22199
Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections [PB-238878/3] 07 p0131 N75-22200
Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis [PB-238879/1] 07 p0131 N75-22201
- HANDEL, E. F.**
Energy and cryoengineering [LA-UR-74-741] 06 p0082 N75-17814
- HANSEN, J. H.**
Dynamic conversion of solar generated heat to electricity [NASA-CR-134724] 06 p0066 N75-16079
- HANNOUD, O.**
The economics of coal-based synthetic gas 08 p0168 A75-39925
- HANNOUD, V. J.**
Methanol from forestry, municipal, and agricultural organic residues [BNWL-SA-5053] 06 p0085 N75-18702
- HANPSON, P. J.**
Can hydrogen transmission replace electricity 08 p0165 A75-38863
Will hydrogen transmission replace electricity 08 p0172 A75-42281
- HANDLEY, L. H.**
Multimegawatt fuel cell power system 07 p0124 A75-37656
Development of advanced fuel cell system, phase 2 [NASA-CR-134721] 06 p0067 N75-16084
Development of advanced fuel cell system, phase 3 [NASA-CR-134818] 07 p0154 N75-26496
- HANKIN, J. W.**
Electric power generation using geothermal brine resources for a proof of concept facility 06 p0101 N75-20857
- HANKINS, R. P., JR.**
Cooling a light industrial building in Puerto Rico using solar energy [AIAA PAPER 75-612] 08 p0170 A75-41178
- HANKS, G. W.**
Fuel conservation possibilities for terminal area compatible transport aircraft [AIAA PAPER 75-1036] 08 p0171 A75-41698
Weight contribution to fuel conservation for terminal area compatible aircraft [SANE PAPER 1091] 08 p0196 A75-47509
- HANNEHAN, R. E.**
Closed loop chemical systems for energy transmission, conversion and storage 05 p0005 A75-10538
- HANOLD, R. J.**
The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology 06 p0079 N75-17203
- HANSELMAN, B.**
The MHD generator: A step toward the energy supply of tomorrow [AD-A000087] 06 p0089 N75-18749
- HANSON, J. A.**
Ocean based solar-to-hydrogen energy conversion macro system 08 p0175 A75-44764
- HANSON, H. S.**
Assessment of uranium and thorium resources in the United States and the effect of policy alternatives [PB-238658/9] 07 p0143 N75-24133
- HAR-OL, P. H.**
Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes 08 p0187 A75-45950
- HARAK, A. E.**
Shale retorting in a 150-ton batch-type pilot plant [PB-240263/4] 07 p0151 N75-25328
- HARDENBERG, H.**
Methane gas engines for commercial vehicles and busses 06 p0050 A75-23507
- HARMAN, W. W.**
Plausibility of a restricted energy use scenario [CON-75-10749/0] 08 p0213 N75-33507
- HARPER, H.**
Conceptual design of reduced energy transports [AIAA PAPER 75-303] 06 p0047 A75-22508
- HARRIS, I.**
On the optimum tilt of a solar collector 07 p0115 A75-33971
- HARRISON, P. L.**
The potential of natural energy sources 08 p0165 A75-38865
- HART, A. B.**
Can hydrogen transmission replace electricity 08 p0165 A75-38863
Storing electrical energy on a large scale 08 p0165 A75-38864
Will hydrogen transmission replace electricity 08 p0172 A75-42281
- HARTLEY, J. H.**
Assessment of uranium and thorium resources in the United States and the effect of policy alternatives [PB-238658/9] 07 p0143 N75-24133
- HARVEY, A. H.**
Evaluation of thermal methods for recovery of viscous oils in Missouri and Kansas [PB-237831/3] 06 p0090 N75-18762

- HARWELL, W.**
The International Heat Pipe Experiment
[AIAA PAPER 75-726] 07 p0113 A75-32870
Cryogenic heat pipe experiment - Flight
performance onboard a sounding rocket
[AIAA PAPER 75-729] 07 p0113 A75-32872
- HASKAL, H. H.**
Indium tin oxide-coated silicon as a selective
absorber 08 p0195 A75-46951
- HASSENZAHN, W. V.**
Will superconducting magnetic energy storage be
used on electric utility systems 06 p0056 A75-25832
Economic and system aspects of a superconducting
magnetic energy storage device and a dc
superconducting transmission line
[LA-UR-74-1145] 06 p0091 N75-19080
- HATSOPOULOS, G. H.**
The growth of thermionic energy conversion 08 p0187 A75-45954
- HAUSHAW, J. A.**
Project Independence report: A review of US
energy needs up to 1985
[PB-242142/8] 08 p0213 N75-33506
- HAYHOS, J.**
The COMSAT non-reflective silicon solar cell - A
second generation improved cell 06 p0053 A75-24245
- HEALY, T. J.**
Energy use of public transit systems
[PB-241351/6] 08 p0209 N75-31962
- HEATH, A. R., JR.**
Fuel conservation possibilities for terminal area
compatible transport aircraft
[AIAA PAPER 75-1036] 08 p0171 A75-41698
- HEDLEY, W. H.**
Effect of gas turbine efficiency and fuel cost on
cost of producing electric power
[PB-234159/2] 05 p0034 N75-13397
Efficiencies in power generation
[PB-234160/0] 05 p0034 N75-13398
- HEDSTROM, J. C.**
Control system design and simulation for solar
heated structures
[LA-UR-74-1085] 06 p0082 N75-17813
- HEHNER, R.**
Solar generator and power systems for
communication satellites 08 p0206 N75-31165
- HEIB, L. A.**
Mechanical thermal motor
[NASA-CASE-NFS-23062-1] 07 p0160 N75-27561
- HEINS, C. F.**
Applications of aerospace technology in the
electric power industry 06 p0079 N75-17197
- HEINNE, R.**
Collector work function improvements and the
development of low temperature thermionic
converters 08 p0188 A75-45960
- HENNIGER, B. R.**
Relationships of earth fracture systems to
productivity of a gas storage reservoir
[PB-237894/1] 06 p0089 N75-18759
- HEHST, W.**
Feasibility study of alternative fuels for
automotive transportation. Volume 1: Executive
summary
[PB-235581/6] 05 p0041 N75-15187
Feasibility study of alternative fuels for
automotive transportation. Volume 2: Technical
section
[PB-235582/4] 05 p0041 N75-15188
Feasibility study of alternative fuels and
automotive transportation. Volume 3: Appendices
[PB-235583/2] 05 p0041 N75-15189
- HERGENROTHER, R. A.**
Energy use in the commercial and industrial
sectors of the US economy, 1963
[PB-235487/6] 06 p0070 N75-16104
- HERGENROTHER, W.**
Technical and economic feasibility of the ocean
thermal differences process as a solar-driven
energy process
[PB-239374/2] 07 p0150 N75-25317
- HERGENROTHER, W. E.**
Windpower - Look backward, then move forward
confidently 05 p0014 A75-12997
Ocean thermal power and windpower systems -
Natural solar energy conversion for near-term
impact on world energy markets 06 p0060 A75-27790
Gulf stream based ocean thermal power plants
[AIAA PAPER 75-643] 06 p0063 A75-28603
Wind and solar thermal combinations for space
heating 08 p0192 A75-46010
Technical and economic feasibility of the ocean
thermal differences process as a solar-driven
energy process
[PB-236422/2] 06 p0077 N75-17003
Oceanic and atmospheric energy sources 07 p0139 N75-24101
- HERWIG, L. O.**
Report on photovoltaics research and technology in
the United States 06 p0051 A75-24214
- HESS, H. V.**
Hydrocarbon power fuel from the gasoline boiling
range
[NASA-TT-F-16399] 07 p0147 N75-24957
- HEWITT, H. C.**
Fluid manifold design for a solar energy storage
tank
[NASA-TM-X-64940] 07 p0160 N75-27562
- HEWSON, E. W.**
Generation of power from the wind 08 p0167 A75-39365
- HEYWOOD, J. B.**
The role for Federal R and D on alternative
automotive power systems
[PB-238771/0] 07 p0137 N75-23391
- HIBBS, A. R.**
Caltech seminar series on energy consumption in
private transportation: Administrative summary
[PB-235349/8] 05 p0041 N75-15184
- HICKMAN, R. G.**
Thermochemical hydrogen production research at
Lawrence Livermore Laboratory 08 p0177 A75-44780
- HICKS, D. C.**
Application of superconducting electrical
machinery to the propulsion systems of
commercial vessels
[CON-75-10137] 07 p0147 N75-25200
- HIGA, W. H.**
Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] 07 p0133 N75-22747
- HIGGINS, F. G., JR.**
Engineering and cost study of air pollution
control for the petrochemical industry, volume
3: Ethylene dichloride manufacture by
oxychlorination
[PB-240492] 07 p0162 N75-27612
- HIGGINS, G. F.**
Intermediate-term energy programs to protect
against crude-petroleum import interruptions:
Feasible alternatives, program costs, and
operational methods of funding
[PB-237209/2] 06 p0083 N75-17826
- HIGGINS, J. H.**
Solar One, two years experience 08 p0184 A75-45922
- HIGHTOWER, J. W.**
Proceedings of the Workshop on Needs for
Fundamental Research in Catalysis as Related to
the Energy Problem
[PB-236683/9] 06 p0078 N75-17006
- HILDEBRANDT, A. F.**
Solar tower thermo-chemical energy cycles
08 p0171 A75-42277
A tower-top point focus solar energy collector
08 p0174 A75-44753
- HILL, J. E.**
Laboratory based activities in solar energy at the
National Bureau of Standards 08 p0168 A75-40299
Method of testing for rating solar collectors
based on thermal performance
[CON-75-10276/4] 07 p0150 N75-25321

- HINCKLEY, B.**
Technology and current practices for processing, transferring and storing liquefied natural gas [PB-241048/8] 08 p0202 N75-29271
- HINRICHS, F. C.**
San Diego Gas and Electric Company Imperial Valley geothermal activities
06 p0100 N75-20847
Utility company views of geothermal development 06 p0102 N75-20864
- HIRSCH, R. L.**
Fusion power by magnetic confinement - Plans and the associated need for nuclear engineers 08 p0170 A75-41433
- HIRST, E.**
Total energy use for commercial aviation in the US [ORNL-NSF-EP-68] 05 p0023 N75-10039
- HISER, H. W.**
Determining potential solar power sites in western hemisphere ocean and land areas based upon satellite observations of cloud cover 07 p0118 A75-35461
- HITTLE, D. C.**
Solar heating and cooling of Army buildings 08 p0184 A75-45926
- HO, R.**
Terrestrial and space applications of the sigma controlled fusion concept [AIAA PAPER 75-1263] 08 p0182 A75-45663
- HOCH, I.**
Legal economic, and energy considerations in the use of underground space [PB-236755/5] 06 p0080 N75-17749
- HODSON, D. R.**
Application of rocket engine technology to energy 08 p0185 A75-45933
- HOEHN, F. W.**
Feasibility demonstration of a road vehicle fueled with hydrogen-enriched gasoline 05 p0008 A75-10574
- HOFFMAN, K. C.**
Economics of hydrogen energy systems 08 p0172 A75-42285
On the role of hydrogen in electric energy storage 08 p0178 A75-44797
Metal hydrides as hydrogen storage media [BNL-18887] 05 p0030 N75-12440
Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651] 05 p0030 N75-12441
Energy systems analysis and technology assessment program [BNL-18984] 06 p0094 N75-19831
Metal hydrides as a source of hydrogen fuel [BNL-14804-R] 06 p0104 N75-20876
- HOFFMAN, L. C.**
Development and evaluation of a Stirling-Cycle energy conversion system [PB-239086/2] 07 p0136 N75-22918
- HOILMAN, K.**
Novel materials for power systems. Part 3: Selective emitters for energy conversion [AD-784449] 05 p0026 N75-10608
- HOLCOMB, R. S.**
Design study for a coal-fueled closed cycle gas turbine system for MIUS applications 08 p0187 A75-45948
- HOLCOMBE, R. G.**
The economic impact of an interruption in United States petroleum imports: 1975 - 2000 [AD-A010914] 08 p0214 N75-33931
- HOLDWAY, H. J.**
A brief description of geological and geophysical exploration of the Marysville geothermal area 06 p0099 N75-20839
- HOLL, R. J.**
The selection and use of energy storage for solar thermal electric application 08 p0189 A75-45980
- HOLLANDER, A.**
Proceedings of the Workshop on Bio-Solar Conversion [PB-236142/6] 06 p0069 N75-16096
- HOLLAND, T. H.**
Development of flat-plate solar collectors for the heating and cooling of buildings [NASA-CR-134804] 07 p0154 N75-26495
- HOLLECK, G. L.**
Sulfur-based lithium-organic electrolyte secondary batteries [AD-A003309] 06 p0104 N75-20882
- HOLLENBERG, J. W.**
Hydrogen as a fuel [AD-787484] 06 p0066 N75-15818
Hydrogen as a fuel [AD-A006984] 07 p0132 N75-22477
- HOLMAN, R. R.**
Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems. [AIAA PAPER 75-1258] 08 p0182 A75-45659
- HOLT, B.**
Investment and operating costs of binary cycle geothermal power plants 06 p0101 N75-20855
- HOLT, J. F.**
MHD energy conversion systems [AIAA PAPER 74-1071] 05 p0001 A75-10263
MHD energy conversion for high power electrical needs 07 p0124 A75-37657
- HOLY, Z. J.**
Comparison of the environmental aspects of nuclear and fossil fueled power stations [CONF-740555-1] 06 p0077 N75-16995
- HONG, S.**
Study of an electrofluidic generator 08 p0189 A75-45978
- HORD, J.**
Research opportunities in cryogenic hydrogen-energy systems 08 p0171 A75-42280
Cryogenic H2 and national energy needs 08 p0173 A75-43977
Selected topics on hydrogen fuel [COM-75-10619/5] 08 p0207 N75-31575
- HORIGONE, T.**
Solar power generating systems as sources of non-polluting energy (power generation in space and power generation on the ground) [NASA-TT-F-16091] 05 p0033 N75-13383
Solar energy [NASA-TT-F-16092] 05 p0038 N75-15149
- HORLOCK, J. H.**
Availability and propulsion 08 p0195 A75-46548
- HOSKEN, R. W.**
Compact solar energy concentrator 05 p0021 A75-19050
- HOTCHKISS, R. C.**
The potential of natural energy sources 08 p0165 A75-38865
- HOUSER, G. M.**
Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections [PB-238878/3] 07 p0131 N75-22200
- HOUSTON, J. E.**
Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795
- HOVEL, H. J.**
Technique for producing 'good' GaAs solar cells using poor-quality substrates 08 p0195 A75-46721
- HOWARD, B. C.**
DART: A simulation code for a direct energy converter for fusion reactors [UCRL-51557] 05 p0043 N75-15462
- HOWARD, F. S.**
Potential structural material problems in a hydrogen energy system [NASA-TM-X-71752] 07 p0154 N75-26500
- HOWELL, J. R.**
Trapezoidal grooves as moderately concentrating solar energy collectors [AIAA PAPER 75-738] 07 p0113 A75-32860
Moderately concentrating flat-plate solar energy collectors [ASME PAPER 75-HT-54] 08 p0196 A75-47526
The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors [PB-236412/3] 06 p0083 N75-17830

- The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors [PB-238509/4] 07 p0130 N75-21822
- HOWERTON, F.**
The design of a solar cavity steam generator for electrical power generation 08 p0190 A75-45982
- HOWLETT, B.**
The Harwell thermo-mechanical generator 05 p0009 A75-10579
- HSU, H. S. S.**
High-efficiency electrochemical plant 08 p0189 A75-45977
- HUANG, C. J.**
Energy recovery from solid waste 06 p0079 N75-17200
Energy recovery from solid waste. Technical report [NASA-CR-2526] 07 p0148 N75-25292
- HUBBERT, H. K.**
Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources [PB-239581/2] 07 p0153 N75-26488
- HUBERMAN, H. H.**
Study on electrofluid dynamic power generation [AD-A004762] 07 p0155 N75-26507
- HUDSON, H.**
Energy and security: Implications for American policy [AD-785084] 05 p0032 N75-12857
- HUDSON, S. H.**
An engine project engineer's view of advanced secondary power systems [SAE PAPER 740884] 05 p0019 A75-16925
- HUFFMAN, F. H.**
The growth of thermionic energy conversion 08 p0187 A75-45954
Electrodes for thermionic energy conversion 08 p0188 A75-45957
Topping cycle applications of thermionic conversion 08 p0188 A75-45972
- HUGHES, F. H.**
The potential of natural energy sources 08 p0165 A75-38865
- HUGHES, W.**
Development of an electrical generator and electrolysis cell for a wind energy conversion system [PB-239272/8] 07 p0150 N75-25315
- HUGHES, W. L.**
Solar energy conversion and storage systems for the future 05 p0013 A75-12988
Prospects for tapping solar energy on a large scale 05 p0015 A75-14014
Economic and technical aspects of wind generation systems 07 p0116 A75-34533
Wind energy utilization prospects 07 p0117 A75-34928
Energy storage by high-pressure, moderate-temperature electrolytic techniques 08 p0185 A75-45931
- HUMPHRIES, W. R.**
Solar residential heating and cooling system development test program [NASA-TN-X-64924] 07 p0135 N75-22903
Fluid manifold design for a solar energy storage tank [NASA-TN-X-64940] 07 p0160 N75-27562
- HURTEN, D. A.**
A study of technological improvements in automotive fuel consumption. Volume 1: Executive summary [PB-238693/6] 07 p0132 N75-22481
A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion [PB-238694/4] 07 p0132 N75-22482
A study of technological improvements in automobile fuel consumption. Volume 3A: Appendixes 1 - 111 [PB-238695/1] 07 p0133 N75-22483
A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7 [PB-238696/9] 07 p0133 N75-22484
- HUST, J. G.**
Selected topics on hydrogen fuel [COM-75-10619/5] 08 p0207 N75-31575
- HUTCHBY, J. A.**
High-efficiency graded band-gap Al_xGa_{1-x}As-GaAs solar cell 06 p0058 A75-27519
- HUTCHINS, S. F.**
Development of a 540-sq-ft prototype faceted fixed mirror solar concentrator 08 p0186 A75-45940
- HUTTER, U.**
Wind power machines [NASA-TT-F-16195] 06 p0080 N75-17786
- IAKUBOV, I. T.**
Calculation of the electrical conductivity of the combustion products of the working medium in an open-cycle MHD generator 07 p0112 A75-31568
- IAKUBOV, IU. N.**
Method for calculating solar radiation for semicylindrical collectors 06 p0057 A75-26718
- IANTUONO, A.**
Industrial process heat from solar energy 08 p0190 A75-45992
- IBRAGIMOV, D. I.**
Effectiveness of using semiconductor heat pumps under the conditions of the Turkmen SSR 05 p0020 A75-17083
- ICERMAN, L.**
Energy. Volume 1 - Demands, resources, impact, technology, and policy 06 p0045 A75-20066
- IIJIMA, T.**
The practical lithium/poly-carbonmonofluoride battery system 08 p0188 A75-45964
- ILARI, O.**
Beneficial uses of waste heat [BT/PROT-(74)10] 06 p0068 N75-16091
- ILES, P. A.**
Effect of impurity doping concentration on solar cell output 07 p0124 A75-37404
- ILLIG, E. G.**
Conversion of cellulosic wastes to oil [PB-240839/1] 07 p0161 N75-27572
- INGLEBY, H. A.**
Selection and evaluation of the University of Florida's solar powered absorption air conditioning system [ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
Heating buildings with solar energy 07 p0117 A75-34933
Solar characteristics of new absorptive coatings used on solar collectors 07 p0117 A75-34934
Methodology of research of flat-plate solar collector absorptive coatings 07 p0117 A75-34935
The University of Florida solar powered intermittent ammonia/water absorption air conditioner 07 p0118 A75-34936
Formulation of a data base for the analysis, evaluation and selection of a low temperature solar powered air conditioning system [PB-238683/7] 07 p0136 N75-22928
- INMAN, R. E.**
Energy from agriculture 08 p0191 A75-46000
Effective utilization of solar energy to produce clean fuel [PB-233956/2] 05 p0026 N75-10605
- IORDANISHVILI, E. K.**
Optimization of the operating conditions of a combined generator-cooler thermoelement 07 p0121 A75-37155
- IORDANISHVILI, E. K.**
Controlling the response of thermoelements that generate electricity 07 p0121 A75-37154

- IRANI, M. C.
Methane emission from U.S. Coal mines in 1973, a survey
[PB-240154/5] 07 p0152 N75-25354
- ISAKSEN, L.
Electric power systems analysis research
[PB-239236/3] 07 p0143 N75-24139
- ISHIDA, H.
Application of thermodynamic and material- and energy-balance calculations to gasification processes
06 p0055 A75-24785
- ISHIHARA, A.
Superconducting synchronous machine
06 p0061 A75-27967
- ISLER, R. J.
Energy storage for utilities via hydrogen systems
05 p0005 A75-10537
On the role of hydrogen in electric energy storage
08 p0178 A75-44797
Energy storage for utilities via hydrogen systems
[BNL-19266] 06 p0086 N75-18725
- ISHAN, H.
Energy problems - Solar energy and manure gas
05 p0020 A75-17024
- IUDITSKII, V. D.
Empirical method of designing the current-voltage characteristics for the discharge mode of a thermionic converter
06 p0057 A75-26332
- IURKEVICH, I. R.
Determination of the temperature field in a tubular thermoelectric module
05 p0020 A75-17068
- IVANOV, O. H.
Erecting gas storage facilities and oil centers
[AD-A006559] 07 p0134 N75-22783
- IVANOV, P. P.
Investigation of the optimal MHD-generator characteristics for combinational open-cycle MHD power generators
07 p0119 A75-36260
Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- J
- JAINSHA, P.
Impact of future fuels on military aero-engines
06 p0075 N75-16981
- JACKMAN, A.
Solar energy storage within the absorption cycle
[ASME PAPER 74-WA/HT-18] 05 p0017 A75-16864
- JACKSON, C. A.
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text
[AD-A006804] 07 p0142 N75-24129
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary
[AD-A006803] 07 p0149 N75-25304
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices
[AD-A006805] 07 p0149 N75-25305
- JACOBI, W. I.
Use of flexible reflective surfaces for solar energy concentration
06 p0056 A75-25678
- JACOBI, W. H.
Clinch River Breeder Reactor: A combined power and fuel source
[CONP-740609-4] 05 p0038 N75-14593
- JACOBSEN, W.
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- JACOBSON, D. L.
Performance of a laser mirror heat pipe
[ASME PAPER 74-WA/HT-61] 05 p0018 A75-16869
An intercell heat pipe for fuel cell and battery cooling
[AD-782888] 05 p0027 N75-11226
Terrestrial photovoltaic power systems with sunlight concentration
[PB-238582/1] 06 p0105 N75-20886
- JACOBSON, I. A., JR.
Retorting indexes for oil-shale pyrolyses from ethylene-ethane ratios of product gases
[PB-234050/3] 05 p0034 N75-13399
- JACOBY, H. D.
The role for Federal R and D on alternative automotive power systems
[PB-238771/0] 07 p0137 N75-23391
- JAHNIG, C. E.
Evaluation of pollution control in fossil fuel conversion processes. Liquefaction: Section 2. SRC process
[PB-241792/1] 08 p0212 N75-32627
- JAMES, E. C.
Unsteady aerodynamics of variable pitch vertical axis windmill
[AIAA PAPER 75-649] 06 p0063 A75-28604
- JAMES, L. W.
Gases concentrator solar cell
06 p0058 A75-27520
- JARVINEN, P. O.
Solar-heated-air turbine generating systems
08 p0190 A75-45981
- JARVIS, P. H.
Pumped air storage for electric power generation
05 p0013 A75-12990
- JASHING, C. E.
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process
[PB-241141/1] 08 p0204 N75-29596
- JASSBY, D. L.
Optimization of fusion power density in the two-energy-component tokamak reactor
07 p0124 A75-37836
- JAYA DEVAIAH, T. S.
Generation schemes for wind power plants
08 p0169 A75-40688
- JAYADEV, T. S.
Electrical generation by wind power
08 p0193 A75-46024
- JAYADEVAIAH, T. S.
Economics of a hydrogen storage peaking power plant
[ASME PAPER 74-WA/PWR-6] 05 p0018 A75-16880
- JEBINS, A. B.
California energy workshop: Developing a plan of action to meet the energy crisis in California
[PB-237045/0] 06 p0082 N75-17822
- JENKINS, J.
The household energy game
[CON-75-10304/4] 07 p0161 N75-27578
- JENKINS, R. H.
An analysis of photovoltaic power generation and thermal control interfaces
06 p0053 A75-24243
- JENSEN, F. C.
Hydrogen generation through static-feed water electrolysis
08 p0177 A75-44776
- JENSEN, R.
Liquid hydrogen - Fuel of the future
[SAWE PAPER 1065] 08 p0195 A75-47495
- JERAN, P. W.
Methane emission from U.S. Coal mines in 1973, a survey
[PB-240154/5] 07 p0152 N75-25354
- JERIE, J.
Part load specific fuel consumption of gas turbines
06 p0063 A75-28650
- JIMISON, J.
Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300
- JOHANSSON, H.
Exploiting wind power for the production of electricity
[NASA-TT-F-16058] 05 p0033 N75-13385
- JOHNS, G. L.
Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2
[PB-240632/0] 07 p0159 N75-27556
- JOHNSON, A. L., JR.
Fuel production /biomass energy/
07 p0111 A75-31275
- JOHNSON, F. D.
Applications of aerospace technology in the electric power industry
06 p0079 N75-17197

- JOHNSON, G. R.
Dynamic simulation for performance analysis of solar heated and cooled buildings
[ASME PAPER 74-WA/SOL-8] 05 p0019 A75-16891
SIMSHAC - A simulation program for solar heating and cooling of buildings 06 p0061 A75-28093
- JOHNSON, J. E.
The economics of liquid hydrogen supply for air transportation 08 p0173 A75-43978
An economic perspective on hydrogen fuel 08 p0176 A75-44769
- JOHNSON, J. H.
High temperature heat pipes for energy conservation 08 p0194 A75-46042
- JOHNSON, R. E.
Potential structural material problems in a hydrogen energy system
[NASA-TM-X-71752] 07 p0154 N75-26500
- JOHNSON, R. T., JR.
Fuel cells: Direct conversion of electrochemical energy into electricity
[SAND-74-0125] 06 p0103 N75-20869
- JOHNSON, T. E.
Radiation cooling of structures with infrared transparent wind screens 08 p0167 A75-39407
- JOHNSON, W.
Plans and status of the NASA-Lewis Research Center wind energy project 08 p0197 A75-47802
Plans and status of the NASA-Lewis Research Center wind energy project
[NASA-TM-X-71701] 07 p0128 N75-21795
- JONES, A. T.
Survey of hydrogen compatibility problems in energy storage and energy transmission applications
[SAND-74-8219] 06 p0087 N75-18726
- JONES, B.
Can hydrogen transmission replace electricity 08 p0165 A75-38863
Will hydrogen transmission replace electricity 08 p0172 A75-42281
- JONES, R. L.
Materials requirements for advanced energy systems: New fuels. Volume 3: Materials research needs in advanced energy systems using new fuels
[AD-A004550] 07 p0158 N75-27168
- JONKE, A. A.
Reduction of atmospheric pollution by the application of fluidized-bed combustion
[PB-235840/6] 06 p0072 N75-16151
- JORDAN, J. F.
Development of very low cost solar cells for terrestrial power generation 06 p0052 A75-24226
- JORDAN, R. C.
Solar energy powered systems - History and current status 08 p0168 A75-40298
Proceedings of the Solar Thermal Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- JOSKOW, P. L.
Interfuel substitution in the consumption of energy in the United States. Part 1: Residential and commercial sector
[PB-234536/1] 05 p0040 N75-15178
Energy system modeling-interfuel competition
[PB-239292/6] 07 p0143 N75-24140
The future of the US nuclear energy industry
[PB-242164/2] 08 p0214 N75-33511
- JOUBERT, J. I.
Conceptual design and economics of an MHD pilot plant 08 p0189 A75-45974
- JOURELMOH, L.
Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects
[PB-241323/5] 08 p0211 N75-32601
- JUETTGEN, H.
The production of gaseous energy carriers from fossil fuels 06 p0049 A75-23502
- JUNGHANS, R. C.
Marine pollution monitoring (petroleum): Proceedings of a Symposium and Workshop held at the National Bureau of Standards
[COM-75-50071/0] 07 p0146 N75-24183
- JURISSON, J.
Principles and applications of selective solar coatings 08 p0181 A75-45511
- JUST, J.
National energy flow accounts
[PB-239275/1] 07 p0146 N75-24539
An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- JUSTUS, C. G.
Benefit-cost methodology study with example application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571
- JUTTEHANN, H.
Heat pumps in large buildings
[OA-TRANS-939] 06 p0078 N75-17184
- JUVINALL, G. L.
A novel negative-limited sealed nickel-cadmium cell 05 p0008 A75-10571

K

- KADOHTSEV, B.
Man-made sun. Thermonuclear engineering developments
[BLL-N-23333-(5828.4F)] 06 p0091 N75-19014
- KAGAN, M. B.
Dependence of the basic parameters of Al/x/Ga/1-x/As-GaAs solar converters on temperature and optical intensity 07 p0112 A75-32824
- KAHLE, A. B.
The detection of geothermal areas from Skylab thermal data
[NASA-CR-143133] 07 p0158 N75-27540
- KAHN, H.
A study of energy systems command, control and communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- KAHN, J. S.
AEC in situ oil shale program
[UCID-16520] 06 p0068 N75-16090
- KAJIKAWA, T.
Studies on improvement of the characteristics of MHD power generating channel
[REPT-749] 07 p0148 N75-25293
- KAKABAEV, A.
Pilot solar air-conditioning plant and results of its use 07 p0111 A75-31512
Statistical relation between heat transfer from a closed area and meteorological parameters during the use of a solar refrigerating plant 08 p0169 A75-41072
- KALAFATI, D. D.
Thermodynamics of liquid metal MHD converters
[AD-A007415] 07 p0144 N75-24141
- KALFADELIS, C. D.
Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process
[PB-237113/6] 06 p0095 N75-19879
Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COED process
[PB-240371/5] 07 p0162 N75-27626
- KALHAMMER, F. R.
Potential for large-scale energy storage in electric utility systems
[ASME PAPER 74-WA/ENER-9] 05 p0016 A75-16840
- KALFER, R. J.
Atlantic outer continental shelf energy resources: An economic analysis
[COM-75-10330/9] 07 p0152 N75-26484
- KAMENSKII, V. T.
Utilization of tubular thermoelectric modules in solar generators 05 p0020 A75-17067
Determination of the temperature field in a tubular thermoelectric module 05 p0020 A75-17068

- KAMINS, B. M.**
Hawaii geothermal project
06 p0099 N75-20840
- KAMINSKY, F. C.**
A planning methodology for the analysis and design of wind-power systems
05 p0004 A75-10517
- KANIYA, H.**
Water-splitting system synthesized by photochemical and thermoelectric utilizations of solar energy
08 p0190 A75-45994
- KANT, F. H.**
Feasibility study of alternative fuels for automotive transportation. Volume 1: Executive summary
[PB-235581/6] 05 p0041 N75-15187
Feasibility study of alternative fuels for automotive transportation. Volume 2: Technical section
[PB-235582/4] 05 p0041 N75-15188
Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices
[PB-235583/2] 05 p0041 N75-15189
Effects of changing the proportions of automotive distillate and gasoline produced by petroleum refining
[PB-236900/7] 06 p0085 N75-18443
- KANTNER, A.**
Solids emission from power station furnaces
[BLL-CE-TRANS-6524-(9022.09)] 07 p0157 N75-26528
- KAPLAN, G. M.**
Liquid-metal binary cycles for stationary power
[NASA-TN-D-7955] 08 p0205 N75-30649
- KAPLAN, B. S.**
Bureau of Mines research programs on recycling and disposal of mineral, metal, and energy-based wastes
[PB-227476/9] 05 p0042 N75-15203
- KAPPELMEYER, O.**
Geothermics with special reference to application
05 p0011 A75-11576
- KAPUR, V.**
Research and development of low cost processes for integrated solar arrays
[PB-239760/2] 07 p0156 N75-26519
- KARAKI, S.**
Utilization of solar energy today
05 p0012 A75-12987
- KARETHNIKOV, D.**
Results of work on thermoemission conversion
[AD-A002655] 07 p0131 N75-22114
- KASPER, H. M.**
Efficient CuInSe₂/CdS solar cells
07 p0119 A75-36274
- KATELL, S.**
An economic analysis of oil shale operations featuring gas combustion retorting
[PB-237851/1] 06 p0093 N75-19813
- KATSAHIS, T.**
Aerodynamic design of a free power turbine for a 75 KW gas turbine automotive engine
[NASA-TN-X-71714] 07 p0140 N75-24106
- KATZ, D. L.**
Evaluation of coal conversion processes to provide clean fuels, part 1
[PB-234202/0] 05 p0025 N75-10600
Evaluation of coal conversion processes to provide clean fuels, part 2
[PB-234203/8] 05 p0025 N75-10604
- KEDDY, E. S.**
Process environment effects on heat pipes for fluid-bed gasification of coal
[LA-UR-74-984] 05 p0029 N75-12252
- KEEMAN, J. D.**
Two-stage methane production from solid wastes
[ASME PAPER 74-WA/ENER-11] 05 p0017 A75-16842
- KEETON, S. C.**
Survey of hydrogen compatibility problems in energy storage and energy transmission applications
[SAND-74-8219] 06 p0087 N75-18726
- KELLER, C.**
Hydrogen production from decomposition of water by means of nuclear reactor heat
08 p0175 A75-44760
- KELLER, G. V.**
New technology challenges in exploration, exploitation and environmental impact of geothermal systems
06 p0060 A75-27788
The Colorado School of Mines Nevada geothermal study
06 p0099 N75-20837
- KELLER, W. E.**
Nuclear propulsion technology transfer to energy systems
[AIAA PAPER 74-1072] 05 p0001 A75-10264
Energy storage for the electric power industry
[LA-UR-74-918] 05 p0031 N75-12447
- KELS, S.**
Reflector-absorber systems for solar thermionic converters
[ESRC-TT-123] 06 p0104 N75-20878
- KEMP, A. J.**
Data monitoring and information availability - A key to solar energy utilization
08 p0169 A75-40618
- KEMP, C. C.**
The energy plantation
07 p0139 N75-24103
- KEMAHAN, C. B.**
Bureau of Mines research programs on recycling and disposal of mineral, metal, and energy-based wastes
[PB-227476/9] 05 p0042 N75-15203
- KENNEDY, D.**
Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities
[AD-A003590] 08 p0202 N75-29550
- KENT, G.**
Glass-Si heterojunction solar cells
[PB-239282/7] 07 p0145 N75-24156
- KERMODE, R. L.**
Synthetic oil from coal
[PB-234460/4] 05 p0040 N75-15176
- KERN, J.**
On the optimum tilt of a solar collector
07 p0115 A75-33971
- KERR, R. L.**
Advances in space power generation
[IAF PAPER 74-086] 05 p0015 A75-13718
- KERR, W.**
Aqueous homogeneous reactor for hydrogen production
08 p0175 A75-44761
- KESSLER, R.**
Recent MHD generator testing at Avco Everett Research Laboratory, Inc
[ASME PAPER 74-WA/ENER-7] 05 p0016 A75-16839
MHD power generation (Viking Series) with hydrocarbon fuels, part 3
[AD-A004216] 07 p0155 N75-26502
- KEULKS, G. W.**
Proceedings of the Workshop on Needs for Fundamental Research in Catalysis as Related to the Energy Problem
[PB-236683/9] 06 p0078 N75-17006
- KHAIDAROV, P.**
GaP p-n junctions and possibilities for their application in the conversion of solar energy into electric
05 p0011 A75-12198
- KHANDURDYEV, A.**
Pilot solar air-conditioning plant and results of its use
07 p0111 A75-31512
- KHARITONOV, V. P.**
Standardized wind electric power unit
[AD-783764] 05 p0025 N75-10598
- KHATANOV, S. O.**
Determination of some thermophysical characteristics of a solar-type pebble accumulator
07 p0116 A75-34317
Determination of some thermophysical properties of pebble-type solar heat accumulators
08 p0170 A75-41530
- KHODZHIEV, M.**
Theoretical determination of the temperature in a solar water heater /steady state/
07 p0112 A75-31513
Theoretical research on the operation of a solar water heater and comparison with experimental data
07 p0112 A75-31515

- KHOIRYSH, G. A.
Improving the oil storage system of western Siberia
[AD-A002717] 06 p0092 N75-19705
- KHOKHLOV, L. K.
Investigation of characteristics of
magnetohydrodynamic generators in industrial
power plants
[AD-A008343] 07 p0149 N75-25307
- KHOZBIEV, A. KH.
Method for calculating solar radiation for
senicylindrical collectors 06 p0057 A75-26718
- KHUBENKO, A. A.
Study of channel-type systems for solar-energy
radiative heat transport 05 p0010 A75-11196
A study of channel systems for radiative
solar-heat transfer 06 p0049 A75-23408
- KIDDER, R. E.
Laser compression of matter - Optical power and
energy requirements 06 p0046 A75-22352
- KILKEARY, B.
The energy crisis and decision making in the family
[PB-237848/7] 06 p0106 N75-21028
- KILLIAN, H. J.
Solar cell and array standardization for Air Force
spacecraft 05 p0002 A75-10486
Solar energy for earth: An AIAA assessment
07 p0110 A75-31267
- KIM, A. G.
Methane in the Pittsburgh coalbed, Washington
County, Pennsylvania
[PB-237848/7] 06 p0089 N75-18760
Low-temperature evolution of hydrocarbon gases
from coal
[PB-238322/2] 07 p0139 N75-24074
- KINCANNON, B.
Waste automotive lubricating oil reuse as a fuel
[PB-241357/3] 08 p0204 N75-30331
- KINDAHL, E. E.
Evaluation of fixed bed, low BTU coal gasification
systems for retrofitting power plants
[PB-241672/5] 08 p0211 N75-32602
- KINDLE, E. C.
Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 3: Data set for Craney
Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 4: Data set for background
investigation of atmospheric constituents for
Nansemond River site
[NASA-CR-142821] 07 p0141 N75-24122
- KING, A. H.
Materials and the new dimensions of conflict,
revised version
[AD-A004263] 07 p0154 N75-26499
- KING, J. H.
Study of fuel cell powerplant with heat recovery
[NASA-CR-141854] 07 p0148 N75-25296
- KING, J. H., JR.
Energy storage for utilities via hydrogen systems
05 p0005 A75-10537
Application of fuel cells with heat recovery for
integrated utility systems 08 p0187 A75-45949
Energy storage for utilities via hydrogen systems
[BRL-19266] 06 p0086 N75-18725
- KING, T. A.
A large mechanical contracting corporation solar
heats its own offices 08 p0184 A75-45924
- KING, W. G.
Nuclear heat source for cryogenic refrigerators in
space 08 p0191 A75-46006
- KINTIGH, J. K.
Concepts for central solar electric power generation
05 p0021 A75-17504
- KIPPENHAN, C. J.
Hydrogen-energy storage for electrical utility
systems 08 p0178 A75-44798
- KIRCHHOFF, R. H.
Hot side heat exchanger for an ocean thermal
difference power plant 05 p0004 A75-10527
Hot water hydraulics of the Gulf Stream sited OTGM
[PB-242151/9] 08 p0213 N75-33502
- KIRGIZBAEV, D. A.
Study of energy distribution in the field of
concentration of a solar power plant with a
hyperboloid counterreflector 05 p0010 A75-11195
Energy distribution in the concentration field of
a solar installation with a hyperboloidal
counter-reflector 06 p0049 A75-23407
Energy distribution in the concentration field of
a two-mirror device with a paraboloidal back
reflector 07 p0122 A75-37157
- KIRILLIN, V. A.
Prospects for magnetohydrodynamic electric power
plants in power engineering 06 p0081 N75-17791
- KIRILLOV, V.
The generator of the future
[AD-A001515] 06 p0089 N75-18754
- KIRPICH, A.
Solar heating and cooling of Army buildings
08 p0184 A75-45926
- KIRSTEN, C. C.
Solar powered pump
[NASA-CASE-NPO-13567-1] 07 p0133 N75-22746
- KISPERT, R. G.
Urban waste energy resources
[AIAA PAPER 75-632] 06 p0062 A75-28598
Fuel gas production from solid waste
[PB-238068/1] 06 p0095 N75-19843
- KISSEL, G.
Hydrogen production by water electrolysis -
Methods for approaching ideal efficiencies
08 p0193 A75-46023
- KITTL, E.
Cylindrical erbium oxide radiator structures for
thermophotovoltaic generators
[AD-A001525] 07 p0129 N75-21806
- KIVEL, B.
Progress in development of auxiliary MHD power
plant components at Avco Everett Research
Laboratory, Inc
[ASME PAPER 74-WA/EMER-6] 05 p0016 A75-16638
- KLEIN, S.
Nickel-hydrogen secondary battery 08 p0191 A75-45997
- KLEIN, S. A.
A method of simulation of solar processes and its
application 07 p0109 A75-29474
Calculation of flat-plate collector loss
coefficients 07 p0109 A75-29480
- KLEPPEIS, J.
Recent MHD generator testing at Avco Everett
Research Laboratory, Inc
[ASME PAPER 74-WA/EMER-7] 05 p0016 A75-16639
- KLEPPE, J.
Production of oil from fractured reservoirs by
water displacement 07 p0127 N75-21716
- KLEPPER, R.
The effect of recent energy price increases on
field crop production costs
[PB-238659/7] 06 p0107 N75-21155
- KLETTE, I. J.
Various research tasks related to energy
information and data activities: Task 4
priorities analysis
[PB-240424/2] 07 p0151 N75-25329
- KLINE, R.
Overcoming two significant hurdles to space power
generation Transportation and assembly
[AIAA PAPER 75-641] 06 p0063 A75-28601
- KLYSCHAEVA, O.
Pilot solar air-conditioning plant and results of
its use 07 p0111 A75-31512

- KNIGHT, J. A.**
Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes
08 p0187 A75-45950
- KNIP, G.**
Preliminary study of advanced turbofans for low energy consumption
[NASA-TN-X-71663]
06 p0084 N75-18241
- KNOBLOCH, P. C.**
Regional impacts of alternative energy allocation strategies
[PB-241125/4]
08 p0205 N75-30667
Master plan for BEIS implementation
[PB-241126/2]
08 p0205 N75-30945
Design considerations for a comprehensive regional energy information system
[PB-241123/9]
08 p0206 N75-30946
- KNOWLES, E. C.**
Hydrocarbon power fuel from the gasoline boiling range
[NASA-TT-F-16399]
07 p0147 N75-24957
- KOPSKY, M. G.**
Aerodynamic design of a free power turbine for a 75 KW gas turbine automotive engine
[NASA-TN-X-71714]
07 p0140 N75-24106
- KOK, B.**
Prospects of photosynthetic energy production
06 p0060 A75-27792
Proceedings of the Workshop on Bio-Solar Conversion
[PB-236142/6]
06 p0069 N75-16096
- KOKLIUEV, G. A.**
Effect of heat transfer from the lateral surfaces of semiconductor thermocouples on the energy characteristics of a thermoelectric generator
05 p0021 A75-18798
- KOLESAR, P.**
Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California
[IGPP-UCR-74-31]
06 p0098 N75-20836
- KOLESHNIKOV, V. K.**
Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator
06 p0045 A75-19959
- KOLSTAD, G. A.**
Recommended research program in geothermal chemistry
[WASH-1344]
06 p0077 N75-16997
- KONETA, K.**
Aluminum nitride and silicon nitride for high-temperature vehicular gas turbine engines
05 p0011 A75-11362
- KONOPKA, A. J.**
Hydrogen production by electrolysis - Present and future
08 p0193 A75-46022
- KONOPEV, A. A.**
Empirical method of designing the current-voltage characteristics for the discharge mode of a thermionic converter
06 p0057 A75-26332
- KONOVALOV, B.**
Wind and solar power engineering
[AD-786844]
05 p0039 N75-15168
- KORIAGINA, G. E.**
Investigation of the optimal MHD-generator characteristics for combinational open-cycle MHD power generators
07 p0119 A75-36260
- KOROLEVA, N. S.**
Dependence of the basic parameters of Al_xGa_{1-x}As-GaAs solar converters on temperature and optical intensity
07 p0112 A75-32824
- KONYCINSKI, P. F.**
Hydrogen for the subsonic transport
08 p0178 A75-44791
- KOSTKO, S. E.**
An investigation of heat-pipe wick characteristics
05 p0012 A75-12914
- KOTYLO, G. E.**
Optimization of parameters of permeable thermoelectric generators
07 p0110 A75-30487
Thermal diagrams of thermoelectrical devices
[AD-787420]
07 p0135 N75-22911
- KOTZ, R.**
Demand for scientific and technical manpower in energy-related industries: United States 1970-1985
[PB-240865]
08 p0201 N75-28964
- KOVARIK, H.**
Optimal solar energy collector system
07 p0115 A75-33970
- KOVASIUK, V. I.**
Investigation of the optimal MHD-generator characteristics for combinational open-cycle MHD power generators
07 p0119 A75-36260
- KOVASYUK, V. I.**
Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- KOWSUN, Z.**
Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2
[PB-240632/0]
07 p0159 N75-27556
- KOYAMA, S.**
Survey on power fluid for thermal power from low temperature and small temperature difference heat source
07 p0119 A75-36173
- KOZIAR, W. W.**
An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H₂O₂/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes
08 p0179 A75-44800
- KOZLOV, V. B.**
Thermodynamics of liquid metal MHD converters
[AD-A007415]
07 p0144 N75-24141
- KRAATZ, R.**
Gasification of solid wastes in fixed beds
[ASHE PAPER 74-WA/PWR-10]
05 p0018 A75-16882
- KRAFT, G. A.**
Preliminary study of advanced turboprops for low energy consumption
[NASA-TN-X-71740]
07 p0146 N75-24739
- KRAJESKI, E.**
An analysis of constraints on increased coal production
[PB-240613/0]
07 p0157 N75-26525
- KRAMER, M. P.**
Industrial energy study of the Industrial chemicals group
[PB-236322/4]
06 p0071 N75-16111
Data base for the industrial energy study of the industrial chemicals group
[PB-237845/3]
06 p0087 N75-18732
- KRAMPITZ, L. O.**
Proceedings of the Workshop on Bio-Solar Conversion
[PB-236142/6]
06 p0069 N75-16096
- KRAN, A.**
High-speed silicon processing for low cost solar cells - A comparative analysis
06 p0052 A75-24222
- KRAUSS, O. P.**
Energy utilization by households and technology assessment as a way to increase its effectiveness
06 p0097 N75-20829
- KRAVCHENKO, A. F.**
Devices based on thermoelectrical phenomena
[AD-783821]
05 p0026 N75-10836
- KREIDER, J. F.**
Thermal performance analysis of the stationary reflector/tracking absorber /SRTA/ solar concentrator
[ASHE PAPER 75-BT-FFF]
08 p0173 A75-43881
- KREITH, F.**
Stationary concentrating reflector cum tracking absorber solar energy collector - Optical design characteristics
07 p0120 A75-36307
Evaluation of focusing solar energy collectors
08 p0168 A75-40300
- KRESSSEL, R.**
Epitaxial silicon solar cell
06 p0056 A75-25086
- KRIEBEL, C.**
Solar sea power
[PB-235469/4]
05 p0038 N75-14284

- Solar sea power
[PB-236997/3] 06 p0082 N75-17821
- KRINVE, V.
Study on electrofluid dynamic power generation
[AD-A004762] 07 p0155 N75-26507
- KRIKORIAN, O. H.
Thermochemical hydrogen production research at
Lawrence Livermore Laboratory 08 p0177 A75-44780
- KRIKUMOV, G. N.
The influence of the petrology of the Karagandin
coals on their methane contents
[BLL-RTS-9309] 07 p0158 N75-27511
- KRISHNAN, C. K.
Numerical simulation of direct energy conversion
06 p0045 A75-19660
- KRISHNAN, R.
A regional energy information system for
Minnesota: A preliminary design
[PB-241124/7] 08 p0205 N75-30944
- KROKHIN, O. N.
Laser thermonuclear fusion 07 p0112 A75-32617
- KROKOSKY, E.
Solar sea power
[PB-236997/3] 06 p0082 N75-17821
- KROLICZEK, E. J.
ERTS-C (Landsat 3) cryogenic heat pipe experiment
definition
[NASA-CR-143797] 07 p0138 N75-23882
- KROPP, E.
Assessment of the potential of clean fuels and
energy technology
[PB-239970/7] 07 p0162 N75-27583
- KRUGER, P.
The NSF/RAND FY 1975 program for geothermal
resources research and technology 06 p0098 N75-20833
- Geothermal reservoir engineering research
06 p0101 N75-20853
- Stimulation and reservoir engineering of
geothermal resources
[PB-239718/0] 07 p0153 N75-26485
- KRYLOV, G. I.
Effectiveness of using chemically reacting working
media in a solar gas-turbine installation
08 p0180 A75-45063
- KUBE, W. R.
Technology and use of lignite
[PB-238666/2] 07 p0142 N75-24131
- KUENNE, R. E.
Intermediate-term energy programs to protect
against crude-petroleum import interruptions:
Feasible alternatives, program costs, and
operational methods of funding
[PB-237209/2] 06 p0083 N75-17826
- KUGLER, K.
Hydrogen as energy carrier in industry and household
06 p0049 A75-23505
- Nuclear district-heating and nuclear long-distance
energy
[JUL-1077] 06 p0093 N75-19828
- KUGLER, M.
Nuclear district-heating and nuclear long-distance
energy
[JUL-1077] 06 p0093 N75-19828
- KUHLBANN, P.
The Stirling engine for vehicle propulsion
06 p0050 A75-23509
- KUHN, H.
Air conditioning of office buildings with
all-electric supply. Part 1: Technical
conception
[OA-TRANS-938-PT-1] 06 p0074 N75-16970
- KUKOTA, I. P.
Concerning the use of a nitrogen-potassium gaseous
mixture for protection of MHD-generator
electrodes by suction 07 p0112 A75-31569
- KULAGIN, A. I.
Full-scale tests of 'photovolt' high-voltage
photocells at high light flux levels
07 p0122 A75-37162
- Full-scale testing of high-voltage photocells of
fotovoltaic type at elevated light flux levels
08 p0210 N75-32590
- KULIYEV, I. P.
Prospects for utilization of underwater houses and
chambers in development of marine oil deposits
05 p0029 N75-11606
- KUNKE, J. P.
Idaho geothermal R and D project report for period
16 December 1973 - 15 March 1974
[ANCR-1155] 06 p0076 N75-16985
- KUO, S. C.
Solar farms utilizing low-pressure closed-cycle
gas turbines 05 p0003 A75-10514
- KURBANOV, M.
Pilot solar air-conditioning plant and results of
its use 07 p0111 A75-31512
- KURISHKO, V. A.
Computation of water temperature at the mouth of a
geothermal well 08 p0170 A75-41547
- KURPIT, S. S.
1.5 and 3KW indirect methanol-air fuel cell power
plants 08 p0186 A75-45944
- KURVIN, C. W.
Remote platform power conserving system
[NASA-CASE-GSC-11182-1] 05 p0032 N75-13007
- KURYLKO, L.
Hydrogen as a fuel
[AD-787484] 06 p0066 N75-15818
- KUSHNIRENKO, K. P.
A short handbook on fuels
[AD-A004358] 07 p0158 N75-27170
- KUSUDA, T.
Method of testing for rating solar collectors
based on thermal performance
[COM-75-10276/4] 07 p0150 N75-25321
- KUWADA, J. T.
The Marysville, Montana Geothermal Project
06 p0100 N75-20849
- KUZNISEKINA, T.
A direct voltage converter without transformer
[NASA-TT-F-16174] 07 p0133 N75-22584

L

- LACKEY, E. E.
Design study for a coal-fueled closed cycle gas
turbine system for MHS applications
08 p0187 A75-45948
- LADY, E. B.
Evaluation of coal conversion processes to provide
clean fuels, part 1
[PB-234202/0] 05 p0025 N75-10600
- Evaluation of coal conversion processes to provide
clean fuels, part 2.
[PB-234203/8] 05 p0025 N75-10604
- LAGER, D. L.
Three-dimensional subsurface delineation via a
novel method for determining the subsurface
electrical profile
[UCL-51685] 07 p0127 N75-21781
- LABODA, E. J.
Development of a soluble reactants and products
secondary battery 07 p0127 N75-21790
- LAHRE, T.
Compilation of air pollutant emission factors,
second edition, supplement no. 3
[PB-235736/6] 06 p0073 N75-16152
- LAI, S.
Glass-Si heterojunction solar cells
[PB-239282/7] 07 p0145 N75-24156
- LAMB, P. G.
An analysis of the potential for shifting electric
power demand within daily load requirement
[PB-239764/4] 07 p0156 N75-26517
- LAMEIRO, G. F.
Parametric performance and cost models for solar
concentrators 07 p0109 A75-29476
- LANNACK, J. R.
Advances in the theory and application of BSP cells
07 p0123 A75-37402
- LANDAU, S.
The HBS computerized carpool matching system:
User's guide
[COM-75-10691/4] 08 p0214 N75-33749

- LANDSHAN, A. P.**
Temperature dependence of the spectral characteristics of quick-response silicon photocells 07 p0119 A75-36013
Investigation of photoelectric converter operation under conditions of strong illumination 07 p0119 A75-36015
Full-scale tests of 'photovolt' high-voltage photocells at high light flux levels 07 p0122 A75-37162
Operation of photoconverters under conditions of strong illumination 08 p0170 A75-41538
Full-scale testing of high-voltage photocells of photovolt type at elevated light flux levels 08 p0210 A75-32590
- LANGLEY, R. A.**
Hydrogen distribution profiling 08 p0179 A75-44805
- LANKFORD, J.**
A practical model law for chemical explosive fracture of oil shale 06 p0078 A75-17023
- LAQUEE, E. L.**
Superconducting magnetic energy storage [LA-UR-74-737] 05 p0032 A75-12814
- LARABORE, G. E.**
Surface electronic properties and the search for new hydrogen oxidation catalysts 08 p0178 A75-44795
- LARSON, D. H.**
Study of industrial uses of energy relative to environmental effects [PB-237215/9] 06 p0084 A75-17853
- LARUE, J. C.**
Investigation of the technology and performance of lithium doped solar cells 06 p0052 A75-24219
- LASKIN, J. B.**
Electrolytic hydrogen generators 08 p0176 A75-44774
- LATHAN, T. S.**
Applications of plasma core reactors to terrestrial energy systems [AIAA PAPER 74-1074] 05 p0010 A75-11281
- LAU, K. H.**
Steady state free convection in an unconfined geothermal reservoir 05 p0009 A75-11069
- LAVE, L. B.**
Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment [PB-239582/0] 07 p0153 A75-26489
- LAVI, A.**
Solar sea power [PB-235469/4] 05 p0038 A75-14284
Solar sea power [PB-236997/3] 06 p0082 A75-17821
- LAVIGNA, T. A.**
The ATS-6 power system - An optimized design for maximum power source utilization 08 p0192 A75-46017
- LAWRENCE, L. R., JR.**
Combustion dynamics research for 'Project Independence' [AIAA PAPER 74-1069] 05 p0001 A75-10262
- LAWRENCE, R. A.**
Performance of heat pumps using cold-side energy storage and unconventional heat sources [ASME PAPER 74-WA/HT-17] 05 p0017 A75-16863
- LAUSON, E. O.**
Report on progress in achieving direct conversion of a major fraction of sonic flow kinetic power into electrical power by electrofluid dynamic /BFD/ processes 05 p0009 A75-10576
- LAYTON, J. P.**
Space power systems - Retrospect and prospect [IAF PAPER 74-082] 05 p0014 A75-13714
- LE CLAIRE, R.**
Evaluation of the overall fuel mass penalty of an aircraft system 07 p0121 A75-36720
- LEBEDOVA, V. V.**
Design study of the energy characteristics of thermionic electric power generating components and assemblies 06 p0064 A75-28893
- LECHTERBERG, R. J.**
Solvent stimulation tests in two California oilfields [PB-237849/5] 06 p0090 A75-18761
- LEE, C. F.**
Dynamic response of solar heat storage systems [ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867
- LEE, D. O.**
The Solar Community - Energy for residential heating, cooling, and electrical power 06 p0059 A75-27785
Axial temperature differential analysis of linear focused collectors for solar power [SLA-74-5078] 05 p0036 A75-14268
Sizing of focused solar collector fields with specified collector tube inlet temperature [SLA-74-5288] 06 p0094 A75-19832
- LEE, J. A.**
Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination [PB-240492] 07 p0162 A75-27612
- LEE, J. D.**
Interesting possibilities of fusion-fission [BNWL-SA-5069] 06 p0096 A75-20106
- LEEDY, R. L.**
Radioisotope space power generator [GA-A-12848] 05 p0038 A75-14832
- LEES, L.**
Time factors in slowing down the rate of growth of demand for primary energy in the United States 06 p0059 A75-27780
- LEGGETT, E. E.**
Industrial energy study of the Industrial chemicals group [PB-236322/4] 06 p0071 A75-16111
Data base for the industrial energy study of the industrial chemicals group [PB-237845/3] 06 p0087 A75-18732
- LEGOBE, R. S.**
The effect of Alaskan crude oil and selected hydrocarbon compounds on embryonic development of the Pacific oyster, *Crassostrea gigas* 06 p0090 A75-18764
- LEHRFELD, D.**
The rate limiting processes for the sorption of hydrogen in LaNi5 08 p0194 A75-46036
- LEILICH, R. H.**
Industrial energy studies of ground freight transportation, volume 1 [PB-236016/2] 06 p0069 A75-16099
Industrial energy studies of ground freight transportation. Volume 2: Appendices [PB-236017/0] 06 p0069 A75-16100
- LEE, P. H.**
Energy required to develop power in the United States 05 p0032 A75-13378
- LEHARD, M.**
Transportation energy conservation: A program plan of policy-oriented research [PB-240734/4] 08 p0200 A75-28528
- LEONARD, J. A.**
Solar total energy program [SAND-74-0208] 06 p0081 A75-17810
- LEONARD, R. J.**
Where the boilers are: A survey of electric utility boilers with potential capacity for burning solid waste as fuel [PB-239392/4] 07 p0143 A75-24135
- LEHNER, R. E.**
Sources and methods for methanol production 08 p0180 A75-44816
- LESHEVDOK, T. V.**
Remote sensing applied to mine subsidence - Experience in Pennsylvania and the Midwest 07 p0121 A75-36809
- LESSARD, R. D.**
Liquid hydrogen as a fuel for future commercial aircraft 08 p0178 A75-44792

LEVENTAL, G. B.

Some developments of industrial
magneto-hydrodynamic electric power plants
06 p0081 N75-17792

LEVITT, J.

Fuel as an agricultural crop
08 p0172 A75-42533

LEVI, G.

Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 3: Data set for Craney
Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121

Interdisciplinary study of atmospheric processes
and constituents of the mid-Atlantic coastal
region. Attachment 4: Data set for background
investigation of atmospheric constituents for
Mansemond River site
[NASA-CR-142821] 07 p0141 N75-24122

LEWIS, G. S., JR.

Combustion dynamics research for 'Project
Independence'
[AIAA PAPER 74-1069] 05 p0001 A75-10262

LEWIS, P. A.

Energy storage for utilities via hydrogen systems
05 p0005 A75-10537

Energy storage for utilities via hydrogen systems
[BNL-19266] 06 p0086 N75-18725

LIBOWITZ, G. G.

Metal hydrides for thermal energy storage
05 p0004 A75-10522

LICHTIN, N. B.

Photochemical conversion of solar energy
[PB-236266/3] 05 p0037 N75-14281

Photochemical conversion of solar energy
[PB-235474/4] 05 p0038 N75-14282

Photochemical conversion of solar energy
[PB-235503/0] 06 p0070 N75-16106

Photochemical conversion of solar energy
[PB-238533/4] 07 p0143 N75-24132

LIDORHENKO, M. S.

Prospects and scientific problems of the
utilization of methods of direct electric power
generation from chemical fuels /fuel cells/
05 p0012 A75-12911

LIEB, J.

Transportation energy conservation: A program
plan of policy-oriented research
[PB-240734/4] 08 p0200 N75-28528

LIEB, J. G.

A comparative analysis of the energy consumption
for several urban passenger ground
transportation systems
[PB-238041/8] 06 p0107 N75-21160

LIEBERMAN, A. R.

A 10% efficient economic RTG design
05 p0003 A75-10506

LIEBHAN, J. C.

Biological conversion of organic refuse to methane
[PB-235468/6] 05 p0041 N75-15183

LIEN, J. C.

An Al p-silicon MOS photovoltaic cell
08 p0173 A75-43459

LIEVANO, R. J.

Economic modeling and energy policy planning
06 p0079 N75-17210

LIMAYE, D. B.

An econometric analysis of fuel selection for
power generation
06 p0055 A75-24751

LINDAHL, D.

The prospects for gasoline availability: 1974
[GPO-34-969] 05 p0039 N75-15155

Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300

LINDEN, L. B.

The role for Federal R and D on alternative
automotive power systems
[PB-238771/0] 07 p0137 N75-23391

LINDQUIST, P. D.

MD energy conversion for high power electrical
needs
07 p0124 A75-37657

LINDSAY, J. D. G.

Methods of energy transfer from a magnetic energy
storage system using a transfer capacitor and a
superconducting switch
[LA-5631-MS] 05 p0032 N75-13164

LINDSAY, M. A.

A simulation model of the development of petroleum
refining capacity
[AD-A003723] 07 p0161 N75-27569

LINKHASKI, D. S.

Experience in the first step of the mastery of the
U-25 device
06 p0081 N75-17793

LINNEHAN, D. G.

Bureau of Mines research programs on recycling and
disposal of mineral, metal, and energy-based
wastes
[PB-227476/9] 05 p0042 N75-15203

LINVILLE, B.

Bureau of Mines energy program, 1973
[PB-234682/3] 05 p0040 N75-15172

LIOR, H.

Solar heat pump comfort heating systems
08 p0185 A75-45936

Interim standard for solar collectors, first draft
[PB-239757/8] 07 p0150 N75-25313

Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating. Solar collector performance
studies
[PB-239355/1] 07 p0150 N75-25320

Solar collector performance studies
[PB-239758/6] 07 p0156 N75-26520

LISIN, A. S.

Dynamic method for calculating the series
resistance of a semiconductor photoelectric
converter
06 p0057 A75-26713

Dynamic calculation of semiconductor
photoconverter series resistance
07 p0122 A75-37164

LISSAMAN, P. B. S.

Applied aerodynamics of wind power machines
[PB-238595/3] 07 p0133 N75-22669

LISTON, D. M., JR.

Various research tasks related to energy
information and data activities: Task 4
priorities analysis
[PB-240424/2] 07 p0151 N75-25329

LITTLE, R. L.

Various research tasks related to energy
information and data activities. Task 2
national energy indexing schemes:
Characterization of problem
[PB-240423/4] 07 p0152 N75-25774

LITMAN, H.

Electrochemical power sources
[AD-A001610] 06 p0094 N75-19836

LIU, S. G.

Silicon solar cells for highly concentrated sunlight
07 p0120 A75-36363

LIUBASHEVSKAYA, T. L.

Dependence of the basic parameters of
Al_xGa_{1-x}As-GaAs solar converters on
temperature and optical intensity
07 p0112 A75-32824

LIVELY, C. F., JR.

The Energy Systems Optimization Computer Program
/ESOP/ developed for Modular Integrated Utility
Systems /MIUS/ analysis
05 p0006 A75-10551

LLOYD, H. J.

Space power application of the all purpose
mini-Brayton rotating unit /mini-BRU/
08 p0193 A75-46019

LO, H. P.

Time factors in slowing down the rate of growth of
demand for primary energy in the United States
06 p0059 A75-27780

LOBUNETS, I. W.

Optimization of parameters of permeable
thermoelectric generators
07 p0110 A75-30487

LOCKERETZ, W.

The effect of recent energy price increases on
field crop production costs
[PB-238659/7] 06 p0107 N75-21155

LOEF, G. O. G.

Utilization of solar energy today
05 p0012 A75-12987

Parametric performance and cost models for solar
concentrators
07 p0109 A75-29476

PERSONAL AUTHOR INDEX

MACKLIS, S. L.

- LOEHRKE, R. I.
Measurements of the performance of an electrohydrodynamic heat pipe [AIAA PAPER 75-659] 07 p0114 A75-32917
- LOESCH, H. R.
Photovoltaic power generation; Proceedings of the International Conference, Hamburg, West Germany, September 25-27, 1974 06 p0051 A75-24213
- LOF, G. O. G.
Design and construction of a residential solar heating and cooling system 07 p0109 A75-29472
Design and construction of a residential solar heating and cooling system [PB-237042/7] 06 p0082 N75-17823
- LOFGREN, B. E.
Measuring ground movement in geothermal areas of Imperial Valley, California 06 p0099 N75-20842
- LOGOTHETTI, T. J.
The use of hydrogen in commercial aircraft - An assessment 05 p0006 A75-10542
- LOHRENZ, J.
Relationships between bidding and hydrocarbon production of the Federal Outer Continental Shelf (through 1970) [PB-238188/7] 07 p0127 N75-21788
- LOKHANSHKIN, M.
Assessment of the Rankine cycle for potential application to solar powered cooling of buildings [PB-238069/9] 06 p0089 N75-18755
- LOKHANSHKIN, M.
Assessment of Rankine cycle for potential application to solar-powered cooling of buildings [ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890
- LONDON, A. L.
Geothermal reservoir engineering research 06 p0101 N75-20853
- LONG, W. W.
The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology 06 p0079 N75-17203
- LONTAI, L.
MHD power generation (Viking Series) with hydrocarbon fuels, part 3 [AD-A004216] 07 p0155 N75-26502
- LORANS, D.
Development of a flexible, fold-out solar array 06 p0053 A75-24252
- LORCH, H. G.
Latent heat and sensible heat storage for solar heating systems [PB-236190/5] 06 p0077 N75-17005
- LORENSEN, L. E.
Materials screening program for the LLL geothermal project [UCRL-75353] 06 p0082 N75-17815
- LOESCH, H. G.
Thermal energy storage devices suitable for solar heating 05 p0007 A75-10553
Solar heat pump comfort heating systems 08 p0185 A75-45936
- LOTKEE, M.
Hydrogen for the electric utilities - Long range possibilities 05 p0005 A75-10536
The Hydrogen Economy - A utility perspective 05 p0014 A75-12998
Hydrogen economy: A utility perspective [BRL-19267] 06 p0103 N75-20870
- LOVELL, H. L.
The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 N75-25327
- LOWI, A.
Solar thermal absorption heat pump breakeven coefficient of performance [ASME PAPER 74-WA/ENER-2] 05 p0015 A75-16834
- LU, P. W. T.
Hydrogen production by water electrolysis - Methods for approaching ideal efficiencies 08 p0193 A75-46023
- LUCCI, A. D.
Application of rocket engine technology to energy 08 p0185 A75-45933
- LUCHINSKII, V. V.
Laboratory semiautomatic infrared device for determining the composition of petroleum products in sewage 07 p0125 A75-38648
- LUCKEL, W. J.
The FCG-1 fuel cell powerplant for electric utility use 05 p0013 A75-12992
- LUFT, W.
Radiation effects on high efficiency silicon-solar cells 06 p0051 A75-24197
- LUIKOV, A. V.
Progress in heat pipe and porous heat exchanger technology 06 p0045 A75-20686
- LUKE, I. P.
Evaluation of an ion exchange membrane fuel cell for space power [AD-786888] 05 p0037 N75-14274
- LUKES, T.
Research on the application of solar energy to the food drying industry [PB-238073/1] 06 p0105 N75-20888
- LUKSHA, E.
A novel negative-limited sealed nickel-cadmium cell 05 p0008 A75-10571
- LUNDBERG, A. W.
A comparison of methods for electric power generation from geothermal hot water deposits [ASME PAPER 74-WA/ENER-10] 05 p0016 A75-16841
- LUNDHOLM, J. G.
NASA thermionic converter research and technology program 08 p0188 A75-45956
- LUNDIN, C. E.
A detailed analysis of the hydriding characteristics of LaNi5 08 p0194 A75-46038
- LUTWACK, R.
Assessment of the technology required to develop photovoltaic power system for large scale national energy applications [NSF/RA/N-74-072] 06 p0080 N75-17785
- LYNCH, F. E.
Backfire control techniques for hydrogen-fueled internal combustion engines 08 p0178 A75-44789
- A detailed analysis of the hydriding characteristics of LaNi5 08 p0194 A75-46038
- LYON, R. W.
Recommended research program in geothermal chemistry [WASH-1344] 06 p0077 N75-16997
- LITTLE, J. K.
Development of the KIVA-I MHD open cycle generator 07 p0124 A75-37686
- LITTLE, R. J.
Three-dimensional subsurface delineation via a novel method for determining the subsurface electrical profile [UCRL-51685] 07 p0127 N75-21781

M

- MAASS, K.
Methanol/air acidic fuel cell system 05 p0008 A75-10566
- MACAVOY, P. W.
The economics of the natural gas shortage (1960-1980) [PB-242166/7] 08 p0214 N75-33932
- MACDIARMID, A. G.
Research and development of low cost processes for integrated solar arrays [PB-239760/2] 07 p0156 N75-26519
- MACHUEV, I. I.
Method of calibrating a solar power plant with a paraboloidal mirror 07 p0116 A75-34315
- MACKENZIE, C. H.
Electric power for space satellites [NASA-TN-X-66808] 07 p0137 N75-23678
- MACKLIS, S. L.
An integrated solar heated and cooled mobile home 08 p0184 A75-45927

- MACKOVCIAK, J. J. R.
Feasibility study of a satellite solar power station
[NASA-CR-2357] 07 p0138 N75-23683
- MACLENNAN, C.
Tidal power and its integration into the electric system
05 p0013 A75-12994
- MACRAKIS, M. C.
A study of energy systems command, control and communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927
- MADAEV, V. V.
A technique for calibrating photometric curves obtained in solar concentrator tests
08 p0180 A75-45060
- MADDALON, D. V.
Rating aircraft on energy
05 p0015 A75-14346
- MADOR, B. J.
Coal-gas combustion in industrial gas turbines
[AIAA PAPER 74-1114] 05 p0010 A75-11286
- MAEDA, M.
Production of hydrogen from water using nuclear energy. A review
[JAERI-M-5642] 06 p0093 N75-19824
- MAGEE, E. M.
Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process
[PB-237113/6] 06 p0095 N75-19879
Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COED process
[PB-240371/5] 07 p0162 N75-27626
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process
[PB-241141/1] 08 p0204 N75-29596
- MAGEE, R. S.
Hydrogen as a fuel
[AD-787484] 06 p0066 N75-15818
Hydrogen as a fuel
[AD-A006984] 07 p0132 N75-22477
- MAGEE, W.
Proceedings of 5th annual symposium: Energy Research and Development
[AD-A007799] 07 p0144 N75-24142
- MAGILL, J. W.
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text
[AD-A006804] 07 p0142 N75-24129
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary
[AD-A006803] 07 p0149 N75-25304
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices
[AD-A006805] 07 p0149 N75-25305
- MAGNUS, H. L.
Solar energy projects of the Federal Government
[PB-241620/4] 08 p0208 N75-31582
- MAGNUSON, K.
Manportable thermoelectric generator
[AD-A002042] 06 p0095 N75-19847
- MAIANI, L.
Problems in electric power production
[ISS-T-73/16] 07 p0128 N75-21793
- MAIER, G.
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Bansemond River site
[NASA-CR-142821] 07 p0141 N75-24122
- MAJUMDAR, D. P.
Aqueous homogeneous reactor for hydrogen production
08 p0175 A75-44761
- MAKHLIN, A. G.
Convergence and speed of calculations for thermoelectric heat pump
05 p0020 A75-17084
- MAKI, W. R.
Regional impacts of alternative energy allocation strategies
[PB-241125/4] 08 p0205 N75-30667
- MALES, R. H.
Energy crisis - Fact or fiction
05 p0011 A75-12115
- MALLORY, W. W.
Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources
[PB-239581/2] 07 p0153 N75-26488
- MANALIS, M. S.
Airborne windmills - Energy source for communication aerostats
[AIAA PAPER 75-923] 08 p0165 A75-38868
- MANDELKORN, J.
Advances in the theory and application of BSP cells
07 p0123 A75-37402
- MANESS, R. P.
A process for cleaning and removal of sulfur compounds from low Btu gases
[PB-236522/9] 06 p0065 N75-15768
- MANFRIN, M. P.
Solar energy conversion by water photodissociation
08 p0173 A75-43510
- MANGARELLA, P. A.
An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant
[PB-242569/2] 08 p0213 N75-33508
- MANHEIMER-TIMNAT, Y.
Thrust vector control by magnetic field
[IAP PAPER 75-027] 08 p0183 A75-45822
- MANISCALCO, J. A.
Advanced concepts in fusion-fission hybrid reactors
[UCRI-75835] 07 p0131 N75-22113
- MANW, D. B.
A survey of LNG technological needs in the USA: 1974 to beyond 2000
05 p0030 N75-12435
- MANNE, A. S.
Hydrogen - Mechanisms and strategies of market penetration
08 p0180 A75-44811
- MAR, H. Y. B.
Principles and applications of selective solar coatings
08 p0181 A75-45511
- MARBURY, P.
Floating vs flying - A propulsion energy comparison
06 p0056 A75-25987
- MARCH, P. A.
At-sea testing of a high seas oil recovery system
[AD-A006938] 07 p0136 N75-22953
- MARCHETTI, C.
The use of hydrogen as an energy carrier
05 p0015 A75-15795
Hydrogen - Mechanisms and strategies of market penetration
08 p0180 A75-44811
- MARCUS, B. D.
Ames Heat Pipe Experiment (AHPE) experiment description document
[NASA-CR-114413] 07 p0138 N75-23880
- MARIANO, R. S.
The study of priorities in the electrical energy allocation problem
[PB-239762/8] 07 p0156 N75-26516
- MARINERSCU, M.
High efficiency thermoelectric generator
05 p0014 A75-13067
- MARKHAM, M. A.
Utilization of tubular thermoelectric modules in solar generators
05 p0020 A75-17067
Determination of the temperature field in a tubular thermoelectric module
05 p0020 A75-17068
- MARKOVICH, F. J.
Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis
[PB-238879/1] 07 p0131 N75-22201
- MARSHALL, J.
Ocean thermal difference power plant turbine design
[PB-239371/8] 07 p0150 N75-25318

- MARSHALL, O. W.
Independent energy systems for better efficiency
05 p0006 A75-10549
- MARTIN, J. F.
The RHD power generation system with directly
fired coal
05 p0009 A75-10577
- MARTIN, J. H.
Profitability analysis of producing crude oil by
waterflooding using a simulation technique
[PB-237843/8] 06 p0088 N75-18738
- MARTIN, H. D.
Power from ocean waves
[ASME PAPER 74-WA/PWR-5] 05 p0018 A75-16879
- MARTINEZ, J. E.
Impact of future use of electric cars in the Los
Angeles region. Volume 3: Task reports on
impact and usage analysis
[PB-238879/1] 07 p0131 N75-22201
- MARTINO, E. J.
Development of lithium/sulfur cells for
application to electric automobiles
[CONF-740805-7] 06 p0094 N75-19829
- MASCI, A. C.
Air transportation energy consumption - Yesterday,
today, and tomorrow
[AIAA PAPER 75-319] 06 p0047 A75-22515
- MASCI, A. C.
Transportation vehicle energy intensities. A
joint DOT/NASA reference paper
[NASA-TM-X-62404] 05 p0035 N75-13690
- MASLAN, F.
Geothermal energy as a resource in a hydrogen
energy economy
08 p0174 A75-44755
- MASLAN, F.
Institutional and environmental problems in
geothermal resource development
06 p0100 N75-20843
- MASON, R. B.
Benefit-cost methodology study with example
application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571
- MASSART, G.
Utilization of wind energy
07 p0110 A75-30891
- MASSENGALE, E. W.
Oil for the free world in the 1970's
[AD-779352] 05 p0031 N75-12448
- MASTERS, R. B.
Cost competitiveness of a solar cell array power
source for ATS-6 educational TV terminal
[NASA-TM-X-71720] 07 p0140 N75-24110
- MATHIAS, K. E.
Preliminary results of geothermal desalting
operations at the East Mesa test site Imperial
Valley, California
06 p0101 N75-20850
- MATHIAS, S.
Technology and current practices for processing,
transferring and storing liquefied natural gas
[PB-241048/8] 08 p0202 N75-29271
- MATHUR, G. K.
Identification and characterization of the use of
mixed conventional and waste fuels
[PB-241821/8] 08 p0211 N75-32606
- MATHEWS, H. B.
Geothermal down well pumping system
06 p0101 N75-20854
- MATTOX, D. B.
Solar-energy materials preparation techniques
08 p0181 A75-45513
- MATUSEWICZ, A.
A direct voltage converter without transformer
[NASA-TT-F-16174] 07 p0133 N75-22584
- MAUTZ, C. E.
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832
- MAVLYUDOV, H. A.
Propulsion units for high speed ships
[JPRS-64897] 07 p0148 N75-25295
- MAY, S. C.
Advanced heat transfer methods for geothermal
power applications
08 p0185 A75-45934
- MAYER, R. H.
Comparative performance characteristics of
cylindrical parabolic and flat plate solar
energy collectors
[ASME PAPER 74-WA/ENER-3] 05 p0016 A75-16835
- MAYER, R. H.
Comparative performance characteristics of
cylindrical parabolic focusing and flat plate
solar energy collectors
[CONF-741104-3] 06 p0103 N75-20872
- MAYNARD, O. E.
The adaptation of free space power transmission
technology to the SSPS concept
[AIAA PAPER 75-642] 06 p0063 A75-28602
- MAYNARD, O. E.
Feasibility study of a satellite solar power station
[NASA-CR-2357] 07 p0138 N75-23683
- MCALVEY, R. F., III
Hydrogen as a fuel
[AD-787484] 06 p0066 N75-15818
- MCALVEY, R. F., III
Hydrogen as a fuel
[AD-A006984] 07 p0132 N75-22477
- MCALWAY, J. E.
Fuel-conservative engine technology
08 p0206 N75-31074
- MCBEE, W. D.
Geothermal down well pumping system
06 p0101 N75-20854
- MCBRAYER, R. A.
Demand for scientific and technical manpower in
energy-related industries: United States
1970-1985
[PB-240865] 08 p0201 N75-28964
- MCBRIDE, E.
Dynamic conversion of solar generated heat to
electricity
[NASA-CR-134724] 06 p0066 N75-16079
- MCCABRIA, J. L.
A high-speed superconducting generator
06 p0060 A75-27960
- MCCANN, R. B.
An assessment of the applicability of high voltage
AC circuit breakers to inductive energy storage
08 p0206 N75-31341
- MCCARTHY, H. E.
Shale from oil shale economically
08 p0168 A75-40182
- MCCLUER, H. K.
The hydrogen sulfide emissions abatement program
at the Geysers Geothermal Power Plant
06 p0102 N75-20859
- MCCULLOCH, W. H.
Soil burial of radioisotopic fuel capsules
06 p0046 A75-21274
- MCCULLOCH, W. H.
The Solar Community - Energy for residential
heating, cooling, and electrical power
06 p0059 A75-27785
- MCCULLOCH, W. H.
Design analysis of asymmetric solar receivers
[SAND-74-0124] 06 p0076 N75-16986
- MCCURDY, W. A.
Pressurized fluidized bed combustion
[PB-236498/2] 06 p0065 N75-15769
- MCDERMITT, J. H.
Solar energy concentrator system for crystal
growth and zone refining in space
[NASA-CR-120623] 06 p0086 N75-18719
- MCDONALD, C. F.
Recuperator development trends for future high
temperature gas turbines
[ASME PAPER 75-GT-50] 07 p0116 A75-34607
- MCDONALD, C. F.
Component design considerations for gas turbine
HTGR power plant
[ASME PAPER 75-GT-67] 07 p0116 A75-34620
- MCDONALD, P. E.
The identification of gamma-valerolactone in waste
from an oil-shale in situ retort
[PB-240098/4] 07 p0147 N75-24852
- MCDONALD, R. C.
Bio-conversion of water hyacinths into methane
gas, part 1
[NASA-TM-X-72725] 07 p0160 N75-27564
- MCDONALD, T. E.
Economic and system aspects of a superconducting
magnetic energy storage device and a dc
superconducting transmission line
[LA-UR-74-1145] 06 p0091 N75-19080
- MCFEE, R. H.
Power collection reduction by mirror surface
nonflatness and tracking error for a central
receiver solar power system
07 p0120 A75-36305
- MCGEE, R. P.
Solar energy program plan for heating and cooling
buildings
[WASH-1337-5-DRAFT] 06 p0077 N75-16993

BCGEOGH, H.
Lasers for fusion 08 p0166 A75-39333

BCGOWAN, J. G.
Solar augmented hose heating heat pump system 05 p0004 A75-10524
Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
Ocean thermal power and windpower systems - Natural solar energy conversion for near-term impact on world energy markets 06 p0060 A75-27790
Gulf stream based ocean thermal power plants [AIAA PAPER 75-643] 06 p0063 A75-28603
Wind and solar thermal combinations for space heating 08 p0192 A75-46010
Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant [PB-238571/4] 07 p0130 N75-21821
Variations in heat exchanger design for ocean thermal difference power plants [PB-238572/2] 07 p0143 N75-24134

MCINTIRE, W. L.
An engine project engineer's view of advanced secondary power systems [SAE PAPER 740884] 05 p0019 A75-16925

MCINTOSH, R.
The International Heat Pipe Experiment [AIAA PAPER 75-726] 07 p0113 A75-32870
Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket [AIAA PAPER 75-729] 07 p0113 A75-32872

MCKAY, R. A.
Helical rotary screw expander power system 06 p0101 N75-20856

MCKEE, H. B.
Heat pipe thermal control set point shift 07 p0115 A75-33271

MCKELVEY, V. E.
Solar energy in earth processes 06 p0061 A75-28437

MCKENNA, R. F.
Organic Rankine cycle silent power plant 1.5 kW, 28 volts dc [AD-A000900] 06 p0088 N75-18745

MCKENNA, R. P.
Demand for scientific and technical manpower in energy-related industries: United States 1970-1985 [PB-240865] 08 p0201 N75-28964

MCLELLAN, A., IV
Changes in the global energy balance [PB-238075/6] 06 p0106 N75-20936

MCHAIM, A. T.
Hydrogen production with a high-temperature gas-cooled reactor /HTGR/ 08 p0175 A75-44759

MCHICHAEL, F. C.
Solar sea power [PB-235469/4] 05 p0038 N75-14284
Solar sea power [PB-236997/3] 06 p0082 N75-17821

MCHILLEN, D. F.
Pollution-free electrochemical power generation from low grade coal [PB-236162/4] 06 p0070 N75-16109

MCHUNN, B. D.
Char oil energy development [PB-234018/0] 05 p0040 N75-15173

MCHICOL, D. L.
The problem of peak load pricing subject to rate of return constraint [PB-239765] 07 p0163 N75-27964

MCFHERSON, B.
Potential structural material problems in a hydrogen energy system [NASA-TN-X-71752] 07 p0154 N75-26500

MCQUADE, F. E.
The prospects of energy demand scheduling [PB-239763/6] 07 p0156 N75-26518

MCSPADDEE, W. R.
The Marysville, Montana Geothermal Project 06 p0100 N75-20849

MEADER, D.
MHD power generation (Viking Series) with hydrocarbon fuels, part 3 [AD-A004216] 07 p0155 N75-26502

MEADER, H. D.
Design and operation of a solar-powered turbocompressor air-conditioning and heating system 08 p0186 A75-45939

MEDIN, S. A.
Effect of inhomogeneity of conductivity on end effect in a sectional MHD generator 07 p0119 A75-36233

MECHAN, C. J.
Technology application at Rockwell International 06 p0078 N75-17189

MEINEL, A. B.
Optical interfaces in solar energy utilization Air-stable selective surfaces for solar energy collectors [PB-236196/2] 06 p0071 N75-16116
Solar photothermal power conversion 07 p0139 N75-24100

MEINEL, H. P.
Solar photothermal power conversion 07 p0139 N75-24100

MELENTYEV, L. A.
Prospects for magnetohydrodynamic electric power plants in power engineering 06 p0081 N75-17791

MELISS, H.
Other primary energy resources 06 p0050 A75-23512

MELTON, D. E.
Solar residential heating and cooling system development test program [NASA-TN-X-64924] 07 p0135 N75-22903

MENARD, C. J.
A novel negative-limited sealed nickel-cadmium cell 05 p0008 A75-10571

MENDERSHAUSEN, H.
Protecting the US petroleum market against future denials of imports [AD-A006643] 07 p0137 N75-23387

MERCER, J. W., JR.
Geothermal reservoir simulation 06 p0101 N75-20852

MERNOFF, B. J.
A study of energy systems command, control and communication for energy crisis management [PB-239290/0] 07 p0136 N75-22927

MERRIGAN, J. A.
Sunlight to electricity: Prospects for solar energy conversion by photovoltaics 08 p0170 A75-41608

MERRILL, R. C.
Char oil energy development [PB-234018/0] 05 p0040 N75-15173

MESSINGER, B.
Ocean thermal energy conversion system evaluation [AIAA PAPER 75-616] 06 p0064 A75-29115

MEULENBERG, A.
The COMSAT non-reflective silicon solar cell - A second generation improved cell 06 p0053 A75-24245
A comparison of the COMSAT violet and non-reflective cells 08 p0192 A75-46015

MEYER, A. P.
Development of advanced fuel cell system, phase 2 [NASA-CR-134721] 06 p0067 N75-16084
Development of advanced fuel cell system, phase 3 [NASA-CR-134818] 07 p0154 N75-26496

MEYER, R. T.
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525] 06 p0096 N75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526] 06 p0097 N75-20292

MICHAELS, R. J.
Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding [PB-237209/2] 06 p0083 N75-17826

MICHALKO, I.
Phosphoric acid fuel cell stack development 08 p0186 A75-45943

MIRLKE, J.
Energy policy and resource management [GPO-33-634] 07 p0149 N75-25300

- MINNIS, F. P.**
Pulsed nuclear magnetic resonance studies of oil
shales--estimation of potential oil yields
[PB-240023/2] 07 p0148 N75-25283
- MILAU, J. S.**
High efficiency power conversion cycles using
hydrogen compressed by absorption on metal
hydrides 08 p0194 A75-46034
- MILBS, H. H.**
Hydrogen production by water electrolysis -
Methods for approaching ideal efficiencies
08 p0193 A75-46023
- MILLER, C. G.**
Low to high temperature energy conversion system
[NASA-CASE-WPO-13510-1] 06 p0074 N75-16972
Solar pond
[NASA-CASE-WPO-13581-1] 07 p0160 N75-27560
Low cost solar energy collection system
[NASA-CASE-WPO-13579-1] 08 p0199 N75-28519
- MILLER, H. G.**
Study of potential for motor vehicle fuel economy
improvement. Fuel economy test procedure panel
report no. 6 08 p0210 N75-32470
[PB-241776/4]
Study of potential for motor vehicle fuel economy
improvement. Technology panel report no. 4
[PB-241774/9] 08 p0210 N75-32471
Study of potential for motor vehicle fuel economy
improvement. Safety implications panel report
no. 2 08 p0212 N75-33410
[PB-241772/3]
Study of potential for motor vehicle fuel economy
improvement. Truck and bus panel report no. 7
[PB-241777/2] 08 p0212 N75-33411
- MILLER, L. E.**
Nickel-hydrogen as an alternative to lead-acid and
nickel-cadmium systems in non-space applications
08 p0191 A75-45998
- MILLER, L. G.**
Idaho geothermal R and D project report for period
16 December 1973 - 15 March 1974
[ANCB-1155] 06 p0076 N75-16985
- MILLER, M.**
Assessment of Rankine cycle for potential
application to solar-powered cooling of buildings
[ASME PAPER 74-WA/SOL-7] 05 p0019 A75-16890
Evaluation of solar-assisted Rankine cycle concept
for the cooling of buildings 08 p0194 A75-46040
- MILLER, M. P.**
Energy efficiency of current intercity passenger
transportation modes
[AIAA PAPER 75-314] 06 p0047 A75-22513
- MILLER, R. D.**
Conversion of cellulose wastes to oil
[PB-240839/1] 07 p0161 N75-27572
- MILLS, R. G.**
Current expectations for fusion power from
toroidal machines 05 p0014 A75-12996
- MILOVANOV, A. F.**
Investigation of photoelectric converter operation
under conditions of strong illumination
07 p0119 A75-36015
Operation of photoconverters under conditions of
strong illumination 08 p0170 A75-41538
- MINANAH, D. J.**
Study on the effects of the energy crisis and 55
mph speed limit in Michigan
[PB-241843/2] 08 p0212 N75-33499
- MIBER, J. E.**
Animal waste conversion systems based on thermal
discharge
[PB-240113] 07 p0159 N75-27548
- MINGLE, J. O.**
An engineering assessment of the hydrogen economy
08 p0180 A75-44814
- MIRK, K. F.**
The Lawrence Berkeley Laboratory geothermal
program in northern Nevada 06 p0100 N75-20845
- MISKUFF, R. J.**
A modular heat source for curium-244 and
plutonium-238 05 p0002 A75-10497
- MITCHELL, C. E.**
Solar absorption air conditioning alternatives
08 p0167 A75-39410
- MITCHELL, K.**
II-VI photovoltaic heterojunctions for solar
energy conversion 05 p0012 A75-12734
- MITSUI, A.**
Photoproduction of hydrogen via microbial and
biochemical processes 08 p0171 A75-42279
The utilization of solar energy for hydrogen
production by cell-free systems of photosynthetic
organisms 08 p0176 A75-44770
- MOFFITT, R. D.**
Storing electrical energy on a large scale
08 p0165 A75-38864
- MOGGI, L.**
Solar energy conversion by water photodissociation
08 p0173 A75-43510
- MOIR, R. W.**
Review of direct energy conversion of ion beams:
Experimental results and reactor applications
[UCRL-75600] 05 p0028 N75-11466
DART: A simulation code for a direct energy
converter for fusion reactors 05 p0043 N75-15462
[UCRL-51557]
Interesting possibilities of fusion-fission
[BNWL-SA-5069] 06 p0096 N75-20106
Direct conversion of plasma energy to electricity
for mirror fusion reactors 07 p0129 N75-21800
[UCRL-76051]
- MOISE, J.**
Development and evaluation of a Stirling-Cycle
energy conversion system
[PB-239086/2] 07 p0136 N75-22918
- MOLONEY, P.**
Submarine tanker concepts and problems
[COM-75-10009/9] 07 p0132 N75-22264
- MOON, R. L.**
GaAs concentrator solar cell 06 p0058 A75-27520
- MOONEY, P. D.**
The role for Federal R and D on alternative
automotive power systems
[PB-238771/0] 07 p0137 N75-23391
- MOORE, G. L.**
Sizing of solar energy storage systems using local
weather records
[ASME PAPER 74-WA/HT-20] 05 p0017 A75-16865
- MOORE, G. W.**
An evaluation of discarded tires as a potential
source of fuel 05 p0012 A75-12416
An evaluation: The potential of discarded tires
as a source of fuel
[NASA-TM-X-58143] 05 p0038 N75-15153
- MOORE, R. H.**
A process for cleaning and removal of sulfur
compounds from low Btu gases
[PB-236522/9] 06 p0065 N75-15768
- MOOZ, W. E.**
A USAF energy projection model
[AD-A006928] 07 p0132 N75-22476
- MORASH, R. T.**
Independent energy systems for better efficiency
05 p0006 A75-10549
- MORGAN, P.**
A brief description of geological and geophysical
exploration of the Marysville geothermal area
06 p0099 N75-20839
- MORGAN, W. K. C.**
Mineral resources and the environment. Appendix
to section 3: Report of panel on the
implications of mineral production for health
and the environment
[PB-239582/0] 07 p0153 N75-26489
- MORSETHALER, G. W.**
Energy Delta: Supply vs. demand; Proceedings of
the Energy Symposium, San Francisco, Calif.,
February 25-27, 1974 06 p0059 A75-27778
- MOROZOV, G. N.**
Some developments of industrial
magnetohydrodynamic electric power plants
06 p0081 N75-17792

MOBREY, J. R.
Coal structure and reactivity
[TID-26637] 06 p0097 N75-20805

MOBRES, J.
National energy flow accounts
[PB-239275/1] 07 p0146 N75-24539

MORRIS, J. W., JR.
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys
[LBL-2764] 06 p0066 N75-15781

MORRIS, R. E.
Study of active cooling for supersonic transports
[NASA-CR-132573] 06 p0079 N75-17336

MORRISON, C. A.
A case study - Utilization of solar energy in residential dwellings
[ASME PAPER 74-WA/SOL-2] 05 p0018 A75-16885
Selection and evaluation of the University of Florida's solar powered absorption air conditioning system
[ASME PAPER 74-WA/SOL-6] 05 p0019 A75-16889
Heating buildings with solar energy
07 p0117 A75-34933
Solar characteristics of new absorptive coatings used on solar collectors
07 p0117 A75-34934
Methodology of research of flat-plate solar collector absorptive coatings
07 p0117 A75-34935
The University of Florida solar powered intermittent ammonia/water absorption air conditioner
07 p0118 A75-34936
Formulation of a data base for the analysis, evaluation and selection of a low temperature solar powered air conditioning system
[PB-238683/7] 07 p0136 N75-22928

MORROW, W. E., JR.
High-efficiency electrochemical plant
08 p0189 A75-45977

MORSE, F.
A non-polluting powerplant for large airships
[AIAA PAPER 75-927] 07 p0121 A75-37005

MORSE, F. H.
The national solar energy program
07 p0139 N75-24102

MOSES, M. A.
An approach to the power shortage problem: Optimal allocation of existing excess reserves through interregional transmission
[PB-238578/9] 07 p0144 N75-24151

BOSS, G.
Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2
[PB-240632/0] 07 p0159 N75-27556

MOULHAYRAT, MR.
Analysis of different systems concerning the energy distribution on board a satellite
[IAP PAPER 74-084] 05 p0014 A75-13716

MOUNT, R. L.
Progress in coal gasification
05 p0013 A75-12993

MOVSUNOV, E. A.
Experience in setting up solar-energy survey for Azerbaizhan
05 p0020 A75-17081

MOU, C. C.
Energy consumption by industries in support of national defense: An energy demand model
[AD-784964] 05 p0031 N75-12449
Direct and indirect energy demand models for DoD
[AD-A010968] 08 p0214 N75-33515

MOYERS, J. C.
Residential energy conservation
[TID-26534] 05 p0031 N75-12442

MUCHNIK, G. F.
Prospects and scientific problems of the utilization of methods of direct electric power generation from chemical fuels /fuel cells/
05 p0012 A75-12911

MUDGE, L. E.
Methanol from forestry, municipal, and agricultural organic residues
[BNWL-SA-5053] 06 p0085 N75-18702

MUEHLHAUSER, J. W.
The MED power generation system with directly fired coal
05 p0009 A75-10577

MUENZEL, W. D.
Heat pipe applications development in Europe
08 p0195 A75-46043

MUFFLER, L. J. P.
Current worldwide utilization and ultimate potential of geothermal energy systems
06 p0060 A75-27787

MUKHERJEE, M. K.
Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions
06 p0054 A75-24256
Solar cells for power generation on communication satellites
08 p0174 A75-44005

MURAMOTO, M.
Laser induced luminescence signatures of refined and virgin crude petroleum - Their composition and remote sensing implications
06 p0050 A75-23790

MURDOCK, J. W.
Various research tasks related to energy information and data activities: Task 4 priorities analysis
[PB-240424/2] 07 p0151 N75-25329

MURIE, R. A.
Corrosion and related problems in high-temperature cells
06 p0055 A75-24377

MURPHY, K. P.
Optimum properties of working fluids for solar powered heat pumps
08 p0185 A75-45937

MURRAY, H. S.
Control system design and simulation for solar heated structures
[LA-UR-74-1085] 06 p0082 N75-17813

MURRAY, R. G.
Hydrogen as an energy carrier
08 p0178 A75-44796

MUSCHICK, E.
The solution of information-deficiency problems of electroenergy technology
06 p0062 A75-28508

MUSTAFAYEV, A. S.
Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization
08 p0173 A75-43860

MUTIN, J.
French activity in electric propulsion
07 p0120 A75-36539

MYERS, W. N.
Mechanical thermal motor
[NASA-CASE-MPS-23062-1] 07 p0160 N75-27561

MYLES, K. M.
Development of high specific energy batteries for electric vehicles
[ANL-8058] 06 p0076 N75-16990

MYTTON, R. J.
Progress in the development of cadmium sulphide terrestrial solar batteries
06 p0052 A75-24224

N

NAGEL, A. L.
Future long-range transports - Prospects for improved fuel efficiency
[AIAA PAPER 75-316] 06 p0047 A75-22514
Future long-range transports: Prospects for improved fuel efficiency
[NASA-TM-X-72659] 06 p0079 N75-17339

NAHAS, J. J.
Modeling and computer simulation of a microwave-to-dc energy conversion element
07 p0120 A75-36500

NAIR, B. J.
Solar cells for power generation on communication satellites
08 p0174 A75-44005

NAJAKA, R. S.
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text
[AD-A006804] 07 p0142 N75-24129
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary
[AD-A006803] 07 p0149 N75-25304

- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices
[AD-A006805] 07 p0149 N75-25305
- NAKAMURA, T.**
Survey on power fluid for thermal power from low temperature and small temperature difference heat source 07 p0119 A75-36173
- NAPOLI, L. S.**
Silicon solar cells for highly concentrated sunlight 07 p0120 A75-36363
- NARSAVAGE, S. T.**
Porous matrix structures for alkaline electrolyte fuel cells 07 p0123 A75-37243
- NARUCKI, C. W.**
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- NATHAN, C. A.**
Overcoming two significant hurdles to space power generation transportation and assembly
[AIAA PAPER 75-641] 06 p0063 A75-28601
- NAUMANN, J. D.**
A regional energy information system for Minnesota: A preliminary design
[PB-241124/7] 08 p0205 N75-30944
Design considerations for a comprehensive regional energy information system
[PB-241123/9] 08 p0206 N75-30946
- NEALE, M. C.**
Energy resources and utilization 06 p0075 N75-16983
- NEDOSPASOV, A. V.**
Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator 06 p0045 A75-19959
Experience in the first step of the mastery of the U-25 device 06 p0081 N75-17793
- NEHRING, R.**
Protecting the US petroleum market against future denials of imports
[AD-A006643] 07 p0137 N75-23387
- NEILL, C.**
An econometric analysis of fuel selection for power generation 06 p0055 A75-24751
- NEITZEL, B. E.**
Study of the costs and benefits of composite materials in advanced turbofan engines
[NASA-CR-134696] 06 p0073 N75-16637
- NELSON, D. T.**
Terrestrial photovoltaic power systems with sunlight concentration
[PB-238582/1] 06 p0105 N75-20886
- NELSON, H. G.**
Potential structural material problems in a hydrogen energy system
[NASA-TM-X-71752] 07 p0154 N75-26500
- NELSON, P. A.**
High energy battery program at Argonne National Laboratory
[ANL-8064] 06 p0076 N75-16984
Development of high specific energy batteries for electric vehicles
[ANL-8058] 06 p0076 N75-16990
- NEPFF, E. P., JR.**
A large mechanical contracting corporation solar heats its own offices 08 p0184 A75-45924
- NEWBY, G. A.**
The ERDA thermionic program 08 p0187 A75-45955
- NEWGARD, P. H.**
Continued development of energy transmission and conversion systems
[PB-236181/4] 05 p0037 N75-14278
- NEWIRTH, R.**
Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination
[PB-240492] 07 p0162 N75-27612
- NGUYEN DUY, T.**
The effects of irradiation on high-efficiency silicon solar cells 06 p0051 A75-24199
- NGUYEN-DUY, T.**
CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- NICHOLS, D. A.**
Net radiation and other energy-related maps from remotely sensed imagery 07 p0121 A75-36811
- NICHOLS, D. E.**
Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants
[PB-241672/5] 08 p0211 N75-32602
- NIDEVER, R. L.**
Economic impact on the free world of the oil crisis, October 1973 - March 1974
[AD-A003136] 06 p0107 N75-21156
- NIEBERDING, W. C.**
Incorporating energy conservation techniques in the operation of existing LeRC R and D facilities
[NASA-TM-X-71813] 08 p0212 N75-33494
- NIEHOFF, R. T.**
Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem
[PB-240423/4] 07 p0152 N75-25774
- NIELSEN, C. E.**
Solar ponds for space heating 07 p0109 A75-29471
- NIESSEN, H. F.**
Nuclear district-heating and nuclear long-distance energy
[JUL-1077] 06 p0093 N75-19828
- NODA, F.**
Aluminum nitride and silicon nitride for high-temperature vehicular gas turbine engines 05 p0011 A75-11362
- NOEL, G. T.**
Research and development of low cost processes for integrated solar arrays
[PB-239760/2] 07 p0156 N75-26519
- NORTON, J.**
Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems
[PB-240177/6] 08 p0200 N75-28524
- NOTESTEIN, J. E.**
Operational experience - Solar heating a Boston school 08 p0184 A75-45923
Solar heating experiment on the Grover Cleveland School, Boston, Massachusetts
[PB-239516/8] 07 p0155 N75-26505
- NOTTI, J. E.**
Design and testing of an energy flywheel for an Integrated Power/Attitude Control System /IPACS/
[AIAA PAPER 75-1107] 08 p0171 A75-41669
- NOTTI, J. E., JR.**
Design and test of a flywheel energy storage unit for spacecraft application 08 p0193 A75-46028
- NOVIKOV, W.**
How spacecraft are fueled
[JPRS-63514] 05 p0027 N75-10983
- NUCCIOTTI, F.**
Meteorological factors and dispersion of pollutants in the atmosphere - A preliminary study about a large power plant 06 p0045 A75-21150
- NUCKOLLS, J.**
New approaches to CTR: General relativistic power plants
[UCRL-75443] 06 p0073 N75-16362
- NULLER, T. A.**
Dependence of the basic parameters of Al_xGa_{1-x}As-GaAs solar converters on temperature and optical intensity 07 p0112 A75-32824
- NUTTALL, L. J.**
Prospects for electrolytic hydrogen for chemical/industrial plants 08 p0168 A75-40179
Hydrogen generation by solid-polymer electrolyte water electrolysis 08 p0177 A75-44777

- Solid polymer electrolysis fuel cell status report
08 p0186 A75-45942
- OAKLEY, C. G.**
Use of solar energy in buildings in New York state
[PB-236974/2] 06 p0083 N75-17825
- OBRYEN, J. B.**
Electrostatic voltage generation from flowing water
05 p0009 A75-10580
- OCONOR, J. K.**
Solar One, two years experience
08 p0184 A75-45922
- ODAY, J.**
Study on the effects of the energy crisis and 55
mph speed limit in Michigan
[PB-241843/2] 08 p0212 N75-33499
- ODEN, B. A.**
Relationships between bidding and hydrocarbon
production of the Federal Outer Continental
Shelf (through 1970)
[PB-238188/7] 07 p0127 N75-21788
- OBENS, K. J.**
State of the art and prospects for electric vehicles
[BLL-OA-TRANS-1250-(6196.3)] 06 p0074 N75-16712
- OBSTERWIND, D.**
Other primary energy resources
06 p0050 A75-23512
- OGANOV, E. P.**
Effect of heat transfer from the lateral surfaces
of semiconductor thermocouples on the energy
characteristics of a thermoelectric generator
05 p0021 A75-18798
- OHARA, J. B.**
Demonstration plant, clean boiler fuels from coal.
Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127
- OHNISHI, Y.**
Theory of heat extraction from fractured hot dry
rock
06 p0057 A75-26544
- OHNO, S.**
Production of hydrogen from water using nuclear
energy: A review
[JAERI-M-5642] 06 p0093 N75-19824
- OHRENBARGER, J.**
Study on electrofluid dynamic power generation
[AD-A004762] 07 p0155 N75-26507
- OHYA, T.**
Water-splitting system synthesized by
photochemical and thermoelectric utilizations of
solar energy
08 p0190 A75-45994
- OLENEV, N. N.**
Improving the oil storage system of western Siberia
[AD-A002717] 06 p0092 N75-19705
- OLSEN, N. A.**
Hydrogen-future fuel-A bibliography (with emphasis
on cryogenic technology)
[CON-75-10289/7] 07 p0155 N75-26509
- OLLENDORF, S.**
The International Heat Pipe Experiment
[AIAA PAPER 75-726] 07 p0113 A75-32870
- OLSEN, H. L.**
Tropical ocean thermal power plants and potential
products
[AIAA PAPER 75-617] 06 p0064 A75-29116
- OLSEN, L. C.**
Advanced betavoltaic power sources
05 p0007 A75-10563
- OLSON, L. L.**
Environmental aspects of cadmium sulfide usage in
solar energy conversion. Part 1: Toxicological
and environmental health considerations, a
bibliography
[PB-238285/1] 06 p0105 N75-20884
- OHMILL, P.**
Interferometric tuning of a 15-atm CO₂ laser
06 p0058 A75-27518
- ONISCHAK, N.**
60 watt hydride-air fuel cell system
05 p0008 A75-10567
- OOK, R. L.**
Modeling of the CSU heating/cooling system
07 p0109 A75-29473
- OPJORDEN, R. W.**
Performance of advanced silicon solar cells in a
space environment
06 p0052 A75-24232
- OPPENHEIM, A. K.**
Combustion R&D - Key to our energy future
05 p0009 A75-10596
- OPSCHOOR, G.**
On the potentialities of polyphenylene oxide (PPO)
as a wet-insulation material for cargo tanks of
LNG-carriers
[REPT-194-M] 05 p0035 N75-14002
- ORTENBERG, E. S.**
The influence of the petrology of the Karagandin
coals on their methane contents
[BLL-RTS-9309] 07 p0158 N75-27511
- OSHIDA, I.**
Utilization of solar energy
[NASA-TT-F-16090] 05 p0033 N75-13382
- OSIPOV, V. M.**
Laboratory semiautomatic infrared device for
determining the composition of petroleum
products in sewage
07 p0125 A75-38648
- OSMEYER, W. E.**
A 10% efficient economic RTG design
05 p0003 A75-10506
- OSTROFF, H. S.**
F-15 secondary power systems
[SAE PAPER 740885] 06 p0048 A75-22948
- OVERBERRY, W. K., JR.**
Relationships of earth fracture systems to
productivity of a gas storage reservoir
[PB-237894/1] 06 p0089 N75-18759
- OWENS, S. L.**
Electrical power generation subsystem for Space
Shuttle Orbiter
05 p0002 A75-10477

P

- PAGE, J. K.**
Solar energy and architecture
07 p0112 A75-31698
- PALEOCRASSAS, S. M.**
Photolysis of water as a solar energy conversion
process - An assessment
08 p0176 A75-44766
- PALMER, H. B.**
Solar farms utilizing low-pressure closed-cycle
gas turbines
05 p0003 A75-10514
- PALMIERA, S.**
Meteorological factors and dispersion of
pollutants in the atmosphere - A preliminary
study about a large power plant
06 p0045 A75-21150
- PALZ, W.**
Solar cells - Present state and perspectives on
terrestrial applications
06 p0058 A75-27716
- PANGBORN, J. B.**
Nuclear energy requirements for hydrogen
production from water
05 p0005 A75-10533
Analysis of thermochemical water-splitting cycles
08 p0177 A75-44781
Utilization of hydrogen as an appliance fuel
08 p0178 A75-44794
- PANICKER, H. P. R.**
Solar cells for power generation on communication
satellites
08 p0174 A75-44005
- PAPE, R.**
Study of an electrofluidic generator
08 p0189 A75-45978
- PARFENOV, B. V.**
Concerning the use of a nitrogen-potassium gaseous
mixture for protection of HHD-generator
electrodes by suction
07 p0112 A75-31569
- PARK, R. L.**
Surface electronic properties and the search for
new hydrogen oxidation catalysts
08 p0178 A75-44795

- PARKER, E. H.**
The nature of the sunspot phenomenon. III - Energy consumption and energy transport. IV - The intrinsic instability of the magnetic configuration
06 p0064 A75-29137
- PARKER, E. B.**
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys [LEL-2764]
06 p0066 N75-15781
- PARKER, H. D.**
Remote sensing for Western coal and oil shale development planning and environmental analysis
07 p0118 A75-35458
- PARKER, J. H., JR.**
A high-speed superconducting generator
06 p0060 A75-27960
- PARNEV, L. K.**
Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- PARRISH, W. R.**
An economic study of electrical peaking alternatives
08 p0179 A75-44799
- Selected topics on hydrogen fuel [COM-75-10619/5]
08 p0207 N75-31575
- PARTAIN, L. D.**
Reliability of low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy
08 p0174 A75-44754
- PARVILLI, A.**
Further progress in the technology of silk screened CdS solar cells
06 p0052 A75-24225
- PASHKOV, S. A.**
Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- Experience in the first step of the mastery of the U-25 device
06 p0081 N75-17793
- PASSANI, J. P.**
Storage of energy in kinetic batteries for an earth resources satellite [IAP PAPER ST-75-09]
08 p0183 A75-45875
- PASTERNAK, A.**
Methyl alcohol production by in situ coal gasification [UCID-51600]
07 p0128 N75-21797
- PASTOR, G. R.**
Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments [PB-236305/9]
05 p0040 N75-15169
- PATE, R. A.**
A hot liquid energy storage system utilizing natural circulation [ASHE PAPER 74-WA/HT-16]
05 p0017 A75-16862
- Design charts for hot liquid energy storage systems utilizing forced circulation [AIAA PAPER 75-742]
07 p0113 A75-32851
- PATIL, P. G.**
Field performance and operation of a flat-glass solar heat collector
07 p0115 A75-33973
- PATTERSON, R. C.**
Low-BTU gasification of coal for electric power generation [PB-236972/6]
06 p0088 N75-18740
- PATTERSON, R. W.**
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525]
06 p0096 N75-20291
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526]
06 p0097 N75-20292
- PAUL, G. H.**
Interplanetary spacecraft design using solar electric propulsion [AIAA PAPER 74-1084]
05 p0010 A75-11283
- PAULLIN, R. L.**
Transportation vehicle energy intensities. A joint DOT/NASA reference paper [NASA-TM-X-62404]
05 p0035 N75-13690
- PAULSEN, P.**
Design and qualification of the CTS solar cell blanket
06 p0053 A75-24248
- PAYTON, C. L.**
Development of a thermal battery for emergency radio power under arctic conditions
05 p0007 A75-10560
- PEARSON, R. O.**
Phase 0 study for a geothermal superheated water proof of concept facility
06 p0102 N75-20858
- PEASE, R. W.**
Net radiation and other energy-related maps from remotely sensed imagery
07 p0121 A75-36811
- PENNER, S. S.**
Energy. Volume 1 - Demands, resources, impact, technology, and policy
06 p0045 A75-20066
- PENNINAH, W. D.**
Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem [PB-240423/4]
07 p0152 N75-25774
- PEOPLES, J. A.**
Analytical description of the modern steam automobile [NASA-TM-X-72199]
05 p0035 N75-14134
- PERRAUD, P.**
Production of hydrogen by the electrolysis of water
06 p0046 A75-22044
- PERRUSSEL, R. E.**
Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments [PB-236305/9]
05 p0040 N75-15169
- PERVIER, J. W.**
Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination [PB-240492]
07 p0162 N75-27612
- PERVUKHIN, M.**
Soviet energy potential [BLL-M-23413-(5828.4F)]
08 p0199 N75-28516
- PESCHON, J.**
Electric power systems analysis research [PB-239236/3]
07 p0143 N75-24139
- PETEFISH, D.**
A brief description of geological and geophysical exploration of the Marysville geothermal area
06 p0099 N75-20839
- PETERS, W. D.**
Solar augmented home heating heat pump system
05 p0004 A75-10524
- PETERSON, H. A.**
Wisconsin superconductive energy storage project, volume 1 [PB-238082/2]
06 p0105 N75-20887
- PETERSON, R. E.**
Thin film coatings in solar-thermal power systems
06 p0056 A75-25679
- Principles and applications of selective solar coatings
08 p0181 A75-45511
- PETERSON, S. R.**
Retrofitting existing housing for energy conservation: An economic analysis [COM-75-50049/6]
07 p0135 N75-22914
- PETROV, B. W.**
Fundamentals of automatic control of space nuclear power plants
06 p0048 A75-23229
- PETTY, S.**
Recent MHD generator testing at Avco Everett Research Laboratory, Inc [ASHE PAPER 74-WA/ENER-7]
05 p0016 A75-16839
- PETTYJOHN, W. A.**
Determine utility of ERTS-1 to detect and monitor area strip mining and reclamation [E75-10327]
07 p0158 N75-27515
- PETZEL, G.**
Evaluation of the suitability of Skylab data for the purpose of petroleum exploration [E75-10257]
07 p0147 N75-25237
- PFEFFER, F. H.**
Pollutional problems and research needs for an oil shale industry [PB-236608/6]
06 p0084 N75-17848

- PFEFFER, J. T.
Biological conversion of organic refuse to methane
[PB-235468/6] 05 p0041 N75-15183
- PHILLIPS, J. D.
Assessment of a single family residence solar heating system in a suburban development setting
[PB-240784/9] 08 p0203 N75-29552
Assessment of a single family residence solar heating system in a suburban development setting
[PB-240553/8] 08 p0203 N75-29570
- PHILLIPS, J. E.
CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- PHILLIPS, W. B.
The Florida Solar Energy Center 08 p0169 A75-40614
- PHILLIPS, W. F.
A hot liquid energy storage system utilizing natural circulation
[ASME PAPER 74-WA/HT-16] 05 p0017 A75-16862
Design charts for hot liquid energy storage systems utilizing forced circulation
[AIAA PAPER 75-742] 07 p0113 A75-32851
- PHINNEY, H. K.
Animal waste conversion systems based on thermal discharge
[PB-240113] 07 p0159 N75-27548
- PICHARD, G.
CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- PICKETT, D. F.
High energy density sintered plate type sealed nickel cadmium battery cells. I - The positive electrode/plaque relationships 05 p0008 A75-10569
High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes 05 p0008 A75-10570
- PICHAUX, S. T.
Hydrogen distribution profiling 08 p0179 A75-44805
- PIERCE, J. R.
Caltech seminar series on energy consumption in private transportation
[PB-235348/0] 05 p0040 N75-15179
- PIERSON, D. E.
Imperial Valley's Proposal to develop a guide for geothermal development within its county 06 p0100 N75-20844
- PIKARSKY, B.
Getting at the big facts in transportation 08 p0173 A75-42973
- PIKUL, R. P.
Program plan for environmental effects of energy
[PB-235115/3] 05 p0040 N75-15177
- PINDER, G. F.
Geothermal reservoir simulation 06 p0101 N75-20852
- PINDYCK, R. S.
The economics of the natural gas shortage (1960-1980)
[PB-242166/7] 08 p0214 N75-33932
- PIKREL, I. I.
Alternative fuels for aviation 06 p0075 N75-16980
- PISCHINGER, F.
Methanol as fuel for vehicle engines 06 p0050 A75-23506
- PISHIKOV, S. I.
Experience in the first step of the mastery of the U-25 device 06 p0081 N75-17793
Electronic model of the U-25 device 06 p0081 N75-17794
- PITCHER, E.
Nonportable thermoelectric generator
[AD-A002042] 06 p0095 N75-19847
- PITMAN, J. K.
Average oil yield tables for oil shale sequences in cores from the Uinta Basin, Utah, that average 15, 20, 25, 30, 35, and 40 gallons per ton
[PB-236068/3] 06 p0072 N75-16124
- PITTINATO, G. F.
Material considerations involved in solar energy conversion 06 p0047 A75-22522
- PLANTS, K. D.
Conceptual design and economics of an MHD pilot plant 08 p0189 A75-45974
- PLASS, H. J., JR.
How might the hydrogen economy affect our resources and environment 08 p0179 A75-44809
- POBEREZHSKII, L. P.
Possible development of acoustical instability in a system consisting of a combustion chamber and a subsonic MHD generator 06 p0045 A75-19959
- POHN, H. A.
The detection of geothermal areas from Skylab thermal data
[NASA-CR-143133] 07 p0158 N75-27540
- POLIZO, G. D.
Computation of water temperature at the mouth of a geothermal well 08 p0170 A75-41547
- POLLACK, B. L.
Energy from urban wastes 05 p0006 A75-10548
- POPE, D. P.
Research and development of low cost processes for integrated solar arrays
[PB-239760/2] 07 p0156 N75-26519
- POPE, E. J.
The fuel scene and its impact on the economics of airline operations 08 p0165 A75-39018
- POPKOV, V.
Steps into the future. Development of the power industry in the USSR
[BLL-M-23330-(5828.4P)] 06 p0085 N75-18714
- POPOVICI, T.
Scientific research seeks new sources of energy 06 p0107 N75-21216
- POPSKII, B. V.
Erecting gas storage facilities and oil centers
[AD-A006559] 07 p0134 N75-22783
- POPYRIN, I. S.
Investigation of characteristics of magnetohydrodynamic generators in industrial power plants
[AD-A008343] 07 p0149 N75-25307
- PORTER, J. T.
A search for thermochemical water-splitting cycles 08 p0177 A75-44782
- POST, R. F.
Fusion reactors as future energy sources 05 p0011 A75-11735
The outlook for fusion energy sources - Remaining technological hurdles 06 p0059 A75-27782
Outlook for fusion energy sources: Remaining technological hurdles 05 p0029 N75-11745
- POSTON, D. L.
Technology assessment of portable energy RDT and F
[NASA-CR-137655] 07 p0160 N75-27565
- POSTULA, P. D.
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832
- POTAPOV, V. H.
Testing of a photoelectric generator in a mountainous region of the Azerbaidzhan SSR 06 p0057 A75-26714
Photoelectric generator testing in the Azerbaidzhan SSR mountains 07 p0122 A75-37165
- POWE, R. E.
A wind energy conversion system based on the tracked-vehicle airfoil concept 05 p0004 A75-10518
- POWELL, J.
The technology and economics of hydrogen production from fusion reactors 08 p0176 A75-44767
Synopsis of studies on synthetic fuels production by fusion reactors
[BLL-19336] 06 p0106 N75-21104

- POWELL, J. C.**
Dynamic conversion of solar generated heat to electricity
[NASA-CR-134724] 06 p0066 N75-16079
Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies
[PB-238002/0] 06 p0087 N75-18733
- POWELL, J. E.**
High efficiency power conversion cycles using hydrogen compressed by absorption on metal hydrides 08 p0194 A75-46034
Applications of fusion power technology to the chemical industry
[BNL-18815] 05 p0029 N75-11730
Survey of applications of fusion power technology to the chemical and material processing industry
[BNL-18866] 05 p0031 N75-12443
Synthetic fuels from fusion reactors
[BNL-19351] 06 p0106 N75-21098
- POWERS, J. E.**
Evaluation of coal conversion processes to provide clean fuels, part 1
[PB-234202/0] 05 p0025 N75-10600
Evaluation of coal conversion processes to provide clean fuels, part 2
[PB-234203/8] 05 p0025 N75-10604
- PRAGER, R. C.**
Compatibility and reliability of heat pipe materials
[AIAA PAPER 75-660] 07 p0114 A75-32918
- PRAYDA, E. F.**
Snow and ice removal from pavements using stored earth energy
[PB-240623/9] 07 p0162 N75-27581
- PRELAT, A. E.**
Statistical estimation of wildcat well outcome probabilities by visual analysis of structure contour maps of Stafford County, Kansas
06 p0092 N75-19778
- PRIGNORE, D.**
Cooling with the sun's heat - Design considerations and test data for a Rankine Cycle prototype
08 p0167 A75-39409
- PRIGNORE, D. E.**
A prototype solar powered, Rankine Cycle system providing residential air conditioning and electricity
05 p0004 A75-10523
- PROKOPIY, J. C.**
Industrial energy studies of ground freight transportation, volume 1
[PB-236016/2] 06 p0069 N75-16099
Industrial energy studies of ground freight transportation. Volume 2: Appendices
[PB-236017/0] 06 p0069 N75-16100
- PSCHUNDER, W.**
Improvements in analysis and technology of silicon solar cells with increased efficiency
06 p0051 A75-24216
- PSHENICHNOV, E. E.**
Investigation of characteristics of magnetohydrodynamic generators in industrial power plants
[AD-A008343] 07 p0149 N75-25307
- PUGH, R. G.**
A generalised analysis of the performance of a variety of drive systems for high Reynolds number, transonic wind tunnels
[RAE-TR-73134] 06 p0073 N75-16572
- PUGLISI, V. J.**
High energy density sintered plate type sealed nickel cadmium battery cells. I - The positive electrode/plaque relationships
05 p0008 A75-10569
High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes
05 p0008 A75-10570
- FULMANOV, E. V.**
Testing of a photoelectric generator in a mountainous region of the Azerbaïdzhan SSR
06 p0057 A75-26714
Photoelectric generator testing in the Azerbaïdzhan SSR mountains
07 p0122 A75-37165
- PULSIFER, A. E.**
Coal processing by electrofluids
[PB-236588/0] 06 p0088 N75-18743
- PUSHINA, L. I.**
Empirical method of designing the current-voltage characteristics for the discharge mode of a thermionic converter
06 p0057 A75-26332
- PUTHOFF, R.**
Plans and status of the NASA-Lewis Research Center wind energy project
08 p0197 A75-47802
Plans and status of the NASA-Lewis Research Center wind energy project
[NASA-TR-X-71701] 07 p0128 N75-21795
- PUTHOFF, R. L.**
The 100 kW experimental wind turbine generator project
[NASA-TR-X-71758] 08 p0202 N75-29546
- PUTNAM, A.**
Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
[PB-237116/9] 06 p0088 N75-18739
- PYTELINSKI, J. T.**
Solar characteristics of new absorptive coatings used on solar collectors
07 p0117 A75-34934
Methodology of research of flat-plate solar collector absorptive coatings
07 p0117 A75-34935

Q

- QUADE, R. W.**
Hydrogen production with a high-temperature gas-cooled reactor /HTGR/
08 p0175 A75-44759

- QUADRINI, J.**
Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket
[AIAA PAPER 75-729] 07 p0113 A75-32872

- QUILLIN, D.**
A regional energy information system for Minnesota: A preliminary design
[PB-241124/7] 08 p0205 N75-30944

- QUIST, G. C.**
Environmental aspects of cadmium sulfide usage in solar energy conversion. Part 1: Toxicological and environmental health considerations, a bibliography
[PB-238285/1] 06 p0105 N75-20884

R

- RAAB, B.**
Nuclear heat source for cryogenic refrigerators in space
08 p0191 A75-46006

- SENSE 2: Space applications of nuclear power. Volume 1: Commercial communications satellite**
[AEC-SNS-3063-3-VOL-1] 06 p0065 N75-15742

- RABENHORST, D. W.**
Metals and composites in superflywheel energy storage systems
06 p0047 A75-22523

- The multirail superflywheel**
[AD-A001081] 06 p0085 N75-18594

- RABIN, R.**
Program plan for environmental effects of energy
[PB-235115/3] 05 p0040 N75-15177

- RABINOWITZ, H.**
The Electric Power Research Institute's role in applying superconductivity to future utility systems
06 p0056 A75-25827

- RABL, A.**
Solar ponds for space heating
07 p0109 A75-29471

- RADEBOLD, R.**
The introduction of the principles of biological energy supply in future technical systems
06 p0050 A75-23511

- RAETS, J. E.**
The selection and use of energy storage for solar thermal electric application
08 p0189 A75-45980

- BAIKOV, I. I.**
Design study of the energy characteristics of thermionic electric power generating components and assemblies
06 p0064 A75-28893
- BAKHANOV, A.**
Statistical relation between heat transfer from a closed area and meteorological parameters during the use of a solar refrigerating plant
08 p0169 A75-41072
- BALPH, E. I.**
Feasibility study of a satellite solar power station [NASA-CR-2357]
07 p0138 A75-23683
- BALPH, E. L.**
Development and space qualification of new high-efficiency silicon solar cells
06 p0052 A75-24218
Photovoltaic solar power systems
07 p0139 A75-24098
- BANAKUMAR, R.**
Solar energy conversion and storage systems for the future
05 p0013 A75-12988
Prospects for tapping solar energy on a large scale
05 p0015 A75-14014
Economic and technical aspects of wind generation systems
07 p0116 A75-34533
Wind energy utilization prospects
07 p0117 A75-34928
Continuous duty solar energy system concepts
08 p0190 A75-45993
Harnessing wind power in developing countries
08 p0191 A75-46009
- BANAKUMAR, R. G.**
Development of an electrical generator and electrolysis cell for a wind energy conversion system [PB-239272/8]
07 p0150 A75-25315
- BANEY, H. J., JR.**
Geothermal reservoir engineering research
06 p0101 A75-20853
- BANSEY, J. W.**
Thin film coatings in solar-thermal power systems
06 p0056 A75-25679
Solar-thermal electric power generation using a system of distributed parabolic trough collectors [AIChE PAPER 12]
08 p0196 A75-47511
Proceedings of the Solar Thermal Conversion Workshop [PE-239277/7]
07 p0145 A75-24157
Development of flat-plate solar collectors for the heating and cooling of buildings [NASA-CR-134804]
07 p0154 A75-26495
Research applied to solar thermal systems [PB-241089/2]
08 p0200 A75-28543
Research applied to solar thermal power systems [PB-241090/0]
08 p0201 A75-28544
- BANSEY, W.**
Rationale for setting priorities for new energy technology research and development [UCRL-51511]
05 p0024 A75-10594
- BANSEY, W. J.**
Thermochemical hydrogen production research at Lawrence Livermore Laboratory
08 p0177 A75-44780
- BANDALL, C. C.**
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525]
06 p0096 A75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526]
06 p0097 A75-20292
- BANKEN, W. A.**
Nuclear propulsion technology transfer to energy systems [AIAA PAPER 74-1072]
05 p0001 A75-10264
Conceptual design of a heat pipe methanator [LA-5596]
06 p0074 A75-16774
- BANKIN, C. F., JR.**
A 100 watt Stirling electric generator for solar or solid fuel heat sources
08 p0192 A75-46014
- BANNELS, J. E.**
Solar energy program plan for heating and cooling buildings [WASH-1337-5-DRAFT]
06 p0077 A75-16993
- BAPE, T.**
A brief description of geological and geophysical exploration of the Marysville geothermal area
06 p0099 A75-20839
- BASH, L. A.**
An engineering assessment of the hydrogen economy
08 p0180 A75-44814
- BASON, M. S.**
Thermionic topping of electric power plants
08 p0189 A75-45973
- BATAJCEAK, A. P.**
Terrestrial applications of FEP-encapsulated solar cell modules
06 p0054 A75-24258
- BATH, J.**
Solar generator and power systems for communication satellites
08 p0206 A75-31165
- BEADING, C. L.**
Fuel and energy data: United States by states and regions, 1972 [PB-236581/5]
06 p0077 A75-17004
- BEANS, J. D.**
Advances in space power generation [IAP PAPER 74-086]
05 p0015 A75-13718
- BEAY, D. A.**
The heat pipe - Its development, and its aerospace applications
05 p0015 A75-15054
- BEDDING, T. E.**
Technology survey of electrical power generation and distribution for MHD application [NASA-TN-X-58127]
08 p0207 A75-31573
- BEDING, J. T.**
Energy consumption: Paper, stone/clay/glass/concrete, and food industries [PB-241926/5]
08 p0211 A75-32607
Energy consumption: The primary metals and petroleum industries [PB-241990/1]
08 p0213 A75-33503
- BEDKIN, V. B.**
Fluctuations of electric power in MHD channels
07 p0110 A75-30949
- BEED, C. B.**
Fuels, minerals, and human survival
07 p0117 A75-34850
- BEED, T. B.**
Heat mirrors for solar-energy collection and radiation insulation
05 p0004 A75-10525
Sources and methods for methanol production
08 p0180 A75-44816
- BEIDER, R.**
Cryogenics safety in a hydrogen fuel society
06 p0061 A75-27973
- BEILLY, J. J.**
An engineering-scale energy storage reservoir of iron titanium hydride
08 p0177 A75-44784
Metal hydrides as hydrogen storage media [BNL-18887]
05 p0030 A75-12440
Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651]
05 p0030 A75-12441
Metal hydrides as a source of hydrogen fuel [BNL-14804-R]
06 p0104 A75-20876
- BEISS, E. H., JR.**
Milliwatt fuel cell system for sensors
05 p0008 A75-10565
- BEISTAD, G. E.**
Available energy conversion and utilization in the United States [ASME PAPER 74-WA/PWR-1]
08 p0166 A75-39349
- BEKSHAW, J. E.**
Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft [NASA-CR-2502]
06 p0073 A75-16557
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1 [NASA-CR-137525]
06 p0096 A75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2 [NASA-CR-137526]
06 p0097 A75-20292
- BEITSCH, H.**
Investigations and selection of components and materials for flexible solar generator
06 p0050 A75-24182

- REYNOLDS, H. H.
Corrosion studies of materials for auxiliary
equipment in MHD power plants 06 p0055 A75-24384
- REYNOLDS, T. W.
Fuel-conservative engine technology 08 p0206 N75-31074
- RIBE, P. L.
Fusion reactors as future energy sources 05 p0011 A75-11735
- RICHARDS, E. R.
The use of solar cells in the lighthouse service 06 p0054 A75-24255
- RICHARDSON, J. A.
Environmental impact of a suitable nuclear power
reactor used to provide a process heat system to
synthesize fuels 08 p0179 A75-44808
- RICHTER, R.
Solar collector thermal power system. Volume 1:
Preliminary technology systems study
[AD-A000940] 06 p0091 N75-19339
Solar collector thermal power system. Volume 2:
Development, fabrication, and testing of fifteen
foot heat pipes
[AD-A000941] 06 p0091 N75-19340
Solar collector thermal power system. Volume 3:
Basic study and experimental evaluation of
thermal train components
[AD-A000942] 06 p0091 N75-19341
- RIBBER, H.
US energy and fuel demand to 1985, a composite
projection by user within Petroleum
Administration for Defense (PAD) districts
[PB-239343/7] 07 p0151 N75-25322
- RIFE, J. H.
The role for Federal R and D on alternative
automotive power systems
[PB-238771/0] 07 p0137 N75-23391
- RICKERS, R. F.
A planning methodology for the analysis and design
of wind-power systems 05 p0004 A75-10517
- RILEY, R. K.
Future United States demand patterns and the use
of hydrogen 08 p0179 A75-44806
- RINGER, H. W.
Production of gaseous fuel by pyrolysis of
municipal solid waste
[NASA-CR-141791] 07 p0140 N75-24105
- RIPPER, S. W.
Demonstration plant, clean boiler fuels from coal.
Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127
- RITTERMAN, P. F.
High energy density sintered plate type sealed
nickel cadmium battery cells. I - The positive
electrode/plaque relationships 05 p0008 A75-10569
- RITTER, E. S.
Recent advances in components of space power systems
[IAP PAPER 74-083] 05 p0014 A75-13715
- ROBB, W. A.
Determination of carbonate minerals of Green River
formation oil shales, Piceance Creek Basin,
Colorado
[PB-240669/2] 07 p0159 N75-27554
- ROBERTS, A. A.
Helium survey, a possible technique for locating
geothermal reservoirs 07 p0118 A75-35438
- ROBERTS, A. S., JR.
Investigation of current university research
concerning energy conversion and conservation in
small single-family dwellings
[NASA-CR-143430] 08 p0207 N75-31570
- ROBERTS, C. C., JR.
Designing heat pipe heat sinks
[AIAA PAPER 75-724] 07 p0113 A75-32868
- ROBERTS, T. G.
An electron beam initiated fusion neutron generator
06 p0045 A75-19657
- ROBERTSON, D. L.
Industrial energy study of the Industrial
chemicals group
[PB-236322/4] 06 p0071 N75-16111
- Data base for the industrial energy study of the
industrial chemicals group
[PB-237845/3] 06 p0087 N75-18732
- ROBIN, H. A.
The action of EDF in the prevention of atmospheric
pollution
[BLL-CE-TRANS-6500-(9022.09)] 06 p0083 N75-17833
- ROBIETTE, S. L.
Benefit-cost methodology study with example
application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571
- ROBINSON, P. H.
Epitaxial silicon solar cell 06 p0056 A75-25086
- ROBINSON, D.
Energy and security: Implications for American
policy
[AD-785084] 05 p0032 N75-12857
- ROCHELLE, W. C.
The Energy Systems Optimization Computer Program
/ESOP/ developed for Modular Integrated Utility
Systems /MIUS/ analysis 05 p0006 A75-10551
- RODGERS, R. J.
Applications of plasma core reactors to
terrestrial energy systems
[ATAA PAPER 74-1074] 05 p0010 A75-11281
- ROEGERS, J. C.
Geothermal energy: A new application of rock
mechanics
[LA-UR-74-821] 06 p0068 N75-16089
- ROGACHEV, A. P.
Investigation of characteristics of
magneto-hydrodynamic generators in industrial
power plants
[AD-A008343] 07 p0149 N75-25307
- ROGERS, F. C.
Energy storage underground 05 p0013 A75-12989
- ROGERS, G. F. C.
The energy perspective 05 p0019 A75-17000
- ROGERS, J. D.
Magnetic Energy Transfer and Storage (METS)
program schedules for a Fusion Test Reactor (FTR)
[LA-5748-MS] 06 p0106 N75-21097
- ROGERS, R. H.
Multispectral data systems for energy related
problems 07 p0118 A75-35464
- Determine utility of ERTS-1 to detect and monitor
area strip mining and reclamation
[E75-10327] 07 p0158 N75-27515
- ROHRMAN, C. A.
Energy and fixed nitrogen from agricultural residues
[BNWL-SA-5070] 06 p0103 N75-20874
- ROHRMAN, C. A.
Methanol from forestry, municipal, and
agricultural organic residues
[BNWL-SA-5053] 06 p0085 N75-18702
- ROH, P. E.
A commentary on solar energy 07 p0116 A75-34532
- ROMANELLI, P. J.
Electrical generating equipment and electric
utility requirements for high-power wind
generator systems 08 p0193 A75-46025
- ROSA, R.
Recent MHD generator testing at Avco Everett
Research Laboratory, Inc
[ASME PAPER 74-WA/ENER-7] 05 p0016 A75-16839
- ROSA, R. J.
MHD power generation 08 p0166 A75-39197
- ROSS, P. H.
The nuclear electric economy 08 p0180 A75-44817
- ROSSBACH, R. J.
A potassium topping cycle for public utility power
plants
[AIAA PAPER 75-1235] 08 p0181 A75-45647
Potassium topping cycles for stationary power
[NASA-CR-2518] 07 p0135 N75-22906
Development of low emission porous plate combustor
for automotive gas turbine and Rankine cycle
engines
[PB-240776/5] 07 p0162 N75-27619

- ROTH, J.**
Workshop on Fundamental Research in Homogeneous catalysis as Related to US Energy Problems [PB-240177/6] 08 p0200 N75-28524
- ROTHFUS, R. R.**
Solar sea power [PB-235469/4] 05 p0038 N75-14284
Solar sea power [PB-236997/3] 06 p0082 N75-17821
- ROTHWART, A.**
CdS/Cu₂S solar cells, their potential and limitations 08 p0188 A75-45961
- ROTTY, R. H.**
Waste heat disposal from nuclear power plants [COM-75-10407/5] 07 p0158 N75-27324
- ROUKLOVE, P.**
Performance testing of thermoelectric generators at JPL 05 p0002 A75-10503
- ROWLEY, J. C.**
The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology 06 p0079 N75-17203
Rock melting technology and geothermal drilling 06 p0101 N75-20851
- ROY, M.**
On the future of jet propulsion in subsonic transport aviation 06 p0058 A75-27777
- ROZANOV, V. B.**
Laser thermonuclear fusion 07 p0112 A75-32617
- ROZHKOVA, N. M.**
Design study of the energy characteristics of thermionic electric power generating components and assemblies 06 p0064 A75-28893
- RUBI, V.**
Methane gas engines for commercial vehicles and busses 06 p0050 A75-23507
- RUBIN, B.**
Rationale for setting priorities for new energy technology research and development [UCRL-51511] 05 p0024 N75-10594
- RUBIN, E. J.**
Nickel-cadmium cells [NASA-CR-143715] 07 p0128 N75-21792
- RUCH, H. A.**
Heat pipe thermal recovery units 08 p0194 A75-46041
- RUDEY, E. A.**
The long term energy problem and aeronautics 08 p0202 N75-29012
- RUDINS, G.**
US and Soviet MHD technology: A Comparative overview [AD-A004614] 07 p0162 N75-27901
- RUDNICKI, M. I.**
Development and evaluation of a Stirling-Cycle energy conversion system [PB-239086/2] 07 p0136 N75-22918
- RUELLE, G.**
Main problems met in the study of cryogenic generators 06 p0061 A75-27962
- RUFEB, P.**
Electrodes for thermionic energy conversion 08 p0188 A75-45957
- RUINA, D.**
Industrial energy studies of ground freight transportation, volume 1 [PB-236016/2] 06 p0069 N75-16099
Industrial energy studies of ground freight transportation. Volume 2: Appendices [PB-236017/0] 06 p0069 N75-16100
- RUIN, M. L.**
Design and test of a flywheel energy storage unit for spacecraft application 08 p0193 A75-46028
- RUKNIED, BE.**
Investigations and selection of components and materials for flexible solar generator 06 p0050 A75-24182
- RUSETSKIY, A. A.**
Propulsion units for high speed ships [JPRS-64897] 07 p0148 N75-25295
- RUSNAK, J. J.**
The application of aerospace technology in the cryogenics field 06 p0048 A75-23239
- RUSSELL, J. L., JR.**
A search for thermochemical water-splitting cycles 08 p0177 A75-44782
- RUSSELL, O. R.**
Remote sensing applied to mine subsidence - Experience in Pennsylvania and the Midwest 07 p0121 A75-36809
- RUSSO, P. A.**
Operational testing of the high performance thermoelectric generator /HPG-02/ 05 p0003 A75-10505
- RUST, J. A.**
The UP6 Breeder - A solution to the problems of nuclear power 08 p0187 A75-45951
- RUTH, J.**
The modular solar energy satellite: Investigation on large solar cell surfaces in space for the purpose of earth power supply [ILR-17-1974] 05 p0036 N75-14271
- RYAN, J. W.**
The use of hydrogen in commercial aircraft - An assessment 05 p0006 A75-10542
A technology assessment of the hydrogen economy concept 08 p0172 A75-42286
A technology assessment of the hydrogen economy concept 08 p0194 A75-46037
- RYAEV, P. P.**
Experience in setting up solar-energy survey for Azerbaidzhan 05 p0020 A75-17081
- RYZHEK, K.**
Certain problems of fuel consumption in air transport 05 p0011 A75-11372

S

- SAASKI, E. W.**
Arterial gas occlusions in operating heat pipes [AIAA PAPER 75-657] 07 p0114 A75-32915
A flexible cryogenic heat pipe [AIAA PAPER 75-658] 07 p0114 A75-32916
- SAAFY, T. L.**
The study of priorities in the electrical energy allocation problem [PB-239762/8] 07 p0156 N75-26516
- SABINS, P. F., JR.**
Oil exploration needs for digital processing of imagery 05 p0001 A75-10437
- SACHS, P.**
Design and qualification of the CTS solar cell blanket 06 p0053 A75-24248
- SACKETT, L. L.**
Effect of attitude constraints on solar-electric geocentric transfers [AIAA PAPER 75-350] 06 p0055 A75-24957
- SADER, S. E.**
Urban waste energy resources [AIAA PAPER 75-632] 06 p0062 A75-28598
Fuel gas production from solid waste [PB-238068/1] 06 p0095 N75-19843
- SADOVNIKOV, I. M.**
Propulsion units for high speed ships [JPRS-64897] 07 p0148 N75-25295
- SAGER, P. H., JR.**
Thermal power conversion systems for fusion plants 08 p0187 A75-45953
- SABA, H.**
Some aspects of a solar battery system and its use for irrigation in remote sun-rich regions 06 p0054 A75-24256
Performance of a solar battery using quasi-cylindrical array of plane mirrors as a concentrator 07 p0109 A75-29478
- SABAGIAN, J.**
Waste automotive lubricating oil reuse as a fuel [PB-241357/3] 08 p0204 N75-30331

- SALIEVA, R. B.**
Some generalizations of sample water-supply calculations for solar-powered pumping plants 05 p0020 A75-17077
Complex utilization of a solar power plant 07 p0116 A75-34320
Principles of a composite study involving combined use of solar and wind energy 07 p0122 A75-37160
Generalizations of composite studies involving combined use of wind and solar energy 07 p0122 A75-37161
Comprehensive utilization of a solar installation 08 p0170 A75-41533
Estimates of the reliability of energy-supply systems employing solar energy 08 p0181 A75-45064
- SALMON, J. D.**
Social and environmental context of the hydrogen economy 08 p0179 A75-44807
- SALSANO, A.**
Power generation and efficiency in GaAs traveling-wave amplifiers 07 p0110 A75-30750
- SALTER, B. H.**
Solar residential electrification with high performance heat engines [AIAA PAPER 75-1239] 08 p0182 A75-45651
- SALTER, S.**
Characteristics of a rocking wave power device 06 p0062 A75-28450
- SALZANO, F. J.**
Energy storage for utilities via hydrogen systems 05 p0005 A75-10537
The Hydrogen Economy - A utility perspective 05 p0014 A75-12998
The technology and economics of hydrogen production from fusion reactors 08 p0176 A75-44767
On the role of hydrogen in electric energy storage 08 p0178 A75-44797
The economic incentive for introducing electric storage devices into the national energy system 08 p0184 A75-45929
High efficiency power conversion cycles using hydrogen compressed by absorption on metal hydrides 08 p0194 A75-46034
Energy storage for utilities via hydrogen systems [BNL-19266] 06 p0086 A75-18725
Hydrogen storage and production in utility systems [BNL-18920] 06 p0097 A75-20580
Hydrogen economy: A utility perspective [BNL-19267] 06 p0103 A75-20870
Hydrogen storage and production in utility systems [BNL-19249] 06 p0103 A75-20873
Synthetic fuels from fusion reactors [BNL-19351] 06 p0106 A75-21098
- SARABA, G. A.**
Solar energy: Sandia's photovoltaic research program [SLA-74-281] 05 p0034 A75-13392
- SANOILOV, E. M.**
Devices based on thermoelectrical phenomena [AD-783821] 05 p0026 A75-10836
- SARPSON, H. T.**
Solar cell and array standardization for Air Force spacecraft 05 p0002 A75-10486
- SANTOR, H. B.**
Glass recycling and reuse [PB-239674/5] 08 p0200 A75-28536
- SAN MARTIN, M. L.**
Performance of the thermal trap solar collector [ASME PAPER 74-WA/SOL-5] 05 p0019 A75-16888
Modeling of solar absorption air conditioning 07 p0117 A75-34932
- SANPIETRO, A.**
Proceedings of the Workshop on Bio-Solar Conversion [PB-236142/6] 06 p0069 A75-16096
- SARIYEV, V. M.**
Electronic model of the U-25 device 06 p0081 A75-17794
- SARKIS, L. A.**
A survey of LNG technological needs in the USA: 1974 to beyond 2000 05 p0030 A75-12435
- SARADIN, J.**
Fundamental research on the selection of new electrochemical generators of medium power 06 p0060 A75-27827
- SASSONE, P. G.**
Benefit-cost methodology study with example application of the use of wind generators [NASA-CR-134864] 08 p0207 A75-31571
- SATBR, B. L.**
The high intensity solar cell - Key to low cost photovoltaic power 07 p0123 A75-37400
The high intensity solar cell: Key to low cost photovoltaic power [NASA-TM-X-71718] 07 p0140 A75-24108
- SATO, S.**
Production of hydrogen from water using nuclear energy. A review [JAERI-M-5642] 06 p0093 A75-19824
- SAUNDERS, A. P.**
Conservation and better utilization of electric power by means of thermal energy storage and solar heating. Solar collector performance studies [PB-239355/1] 07 p0150 A75-25320
Solar collector performance studies [PB-239758/6] 07 p0156 A75-26520
- SAVADELIS, J.**
An analysis of constraints on increased coal production [PB-240613/0] 07 p0157 A75-26525
- SAVAGE, S. B.**
An analytical and experimental investigation of a laboratory solar pond model [ASME PAPER 74-WA/SOL-3] 05 p0019 A75-16886
Effect of diffusion on concentration profiles in a solar pond 08 p0167 A75-39412
- SAVINO, J.**
Plans and status of the NASA-Lewis Research Center wind energy project 08 p0197 A75-47802
Plans and status of the NASA-Lewis Research Center wind energy project [NASA-TM-X-71701] 07 p0128 A75-21795
- SAVINO, J. M.**
Wind power 07 p0111 A75-31273
- SAWYER, W. K.**
Relationships of earth fracture systems to productivity of a gas storage reservoir [PB-237894/1] 06 p0089 A75-18759
- SAITON, J. C.**
Industrial energy study of the Industrial chemicals group [PB-236322/4] 06 p0071 A75-16111
Data base for the industrial energy study of the industrial chemicals group [PB-237845/3] 06 p0087 A75-18732
- SAYED, M. M.**
Reliability of low cost Cu₂S/CdS solar cells for large scale conversion of solar to electrical energy 08 p0174 A75-44754
- SCALA, S. M.**
Considerations regarding a utilization of solar energy 06 p0050 A75-23510
- SCHAPPER, W. A.**
Benefit-cost methodology study with example application of the use of wind generators [NASA-CR-134864] 08 p0207 A75-31571
- SCHAPPBATH, M.**
Hydrogen as fuel for internal-combustion engines 06 p0050 A75-23508
- SCHANFEIN, M. J.**
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys [LBL-2764] 06 p0066 A75-15781
- SCHAPER, J.**
Hydrazine gas generation for pressure gas feed systems 08 p0166 A75-39134
- SCHECHTER, R. S.**
Basic research needs for tertiary oil recovery: Proceedings of a National Science Foundation Workshop [PB-236726/6] 06 p0066 A75-16072

- SCHEEL, H. W.
Latest developments of the circular solar array
06 p0053 A75-24246
- SCHERT, W. W.
Development of lithium/sulfur cells for
application to electric automobiles
[CONF-740805-7] 06 p0094 N75-19829
- SCHERTZ, W. W.
Development of high specific energy batteries for
electric vehicles
[ANL-8058] 06 p0076 N75-16990
- SCHIEFELBEIN, G. P.
A process for cleaning and removal of sulfur
compounds from low Btu gases
[PB-236522/9] 06 p0065 N75-15768
- SCHIFFRACHER, S. A.
Hydrogen-future fuel-A bibliography (with emphasis
on cryogenic technology)
[CON-75-10289/7] 07 p0155 N75-26509
- SCHILLING, H. D.
Coal refining
[ORNL-TR-2827] 06 p0086 N75-18724
- SCHINDEL, W. P., JR.
The Solar Community - Energy for residential
heating, cooling, and electrical power
06 p0059 A75-27785
Solar incidence factor and other geometric
considerations of solar energy collection
[SAND-74-26] 05 p0034 N75-13390
Atrial temperature differential analysis of linear
focused collectors for solar power
[SLA-74-5078] 05 p0036 N75-14268
Sizing of focused solar collector fields with
specified collector tube inlet temperature
[SLA-74-5288] 06 p0094 N75-19832
- SCHLEKKE, H. V.
Nuclear district-heating and nuclear long-distance
energy
[JUL-1077] 06 p0093 N75-19828
- SCHMALHOFER, G.
Investigation of the technology and performance of
lithium doped solar cells
06 p0052 A75-24219
- SCHMIDT, C. E.
Mass spectrometric analysis of product water from
coal gasification
[PB-240835/9] 07 p0158 N75-27120
- SCHMIDT, R. A.
Mechanical properties of oil shale from Anvil
Point under conditions of uniaxial compression
[SAND-74-0035] 06 p0092 N75-19390
- SCHMITT, J.
A regional energy information system for
Minnesota: A preliminary design
[PB-241124/7] 08 p0205 N75-30944
- SCHNEIDER, R. T.
Physics and potentials of fissioning plasmas for
space power and propulsion
[IAP PAPER 74-087] 05 p0015 A75-13719
- SCHWELL, J. B.
Papers and proceedings of two energy crisis seminars
[PB-239164/7] 07 p0156 N75-26513
- SCHOCK, A.
Light-weight radioisotope thermoelectric generator
design
05 p0003 A75-10508
Nuclear heat source for cryogenic refrigerators in
space
08 p0191 A75-46006
- SCHOEMANN, F. H.
Char oil energy development
[PB-234018/0] 05 p0040 N75-15173
- SCHORA, P. C., JR.
Progress in coal gasification
05 p0013 A75-12993
- SCHOTT, G. J.
Energy efficiency of current intercity passenger
transportation modes
[AIAA PAPER 75-314] 06 p0047 A75-22513
- SCHUBERT, H. E.
Application of technology from the Rover program
and related developments
[LA-5558] 05 p0028 N75-11468
- SCHUBERT, G. L.
Solar thermal absorption heat pump breakeven
coefficient of performance
[ASME PAPER 74-WA/ENER-2] 05 p0015 A75-16834
- SCHUBERT, F. H.
Hydrogen generation through static-feed water
electrolysis
08 p0177 A75-44776
- SCHUELER, D. G.
Solar energy: Sandia's photovoltaic research
program
[SLA-74-281] 05 p0034 N75-13392
- SCHUE, R. M.
Report on studies of space to earth microwave
power transmission systems
[IAP PAPER 75-005] 08 p0183 A75-45814
- SCHULER, D. G.
Integration of photovoltaic and solar thermal
energy conversion systems
[SAND-74-0093] 06 p0076 N75-16992
- SCHULLER, K. W.
Mechanical properties of oil shale from Anvil
Point under conditions of uniaxial compression
[SAND-74-0035] 06 p0092 N75-19390
- SCHULMAN, P.
The energy crises
08 p0179 A75-44810
- SCHULTEN, R.
Energy supply in a closed cycle
06 p0049 A75-23503
Nuclear water splitting and high temperature
reactors
08 p0175 A75-44757
- SCHULTZ, H. H.
Deployable Symphonie solar generator
[IAP PAPER 75-009] 08 p0183 A75-45819
- SCHUMANN, F. A.
Cost effective designing for the economic BTG
05 p0003 A75-10507
- SCHUMANN, L. P.
Aerodynamic design of a free power turbine for a
75 KW gas turbine automotive engine
[NASA-TM-X-17174] 07 p0140 N75-24106
- SCHWARTZ, A., JR.
Economic modeling and energy policy planning
06 p0079 N75-17210
- SCHWARTZ, P.
Advanced nuclear research
[GPO-41-253] 05 p0026 N75-10764
- SCHWARTZ, R. J.
Novel materials for power systems. Part 3:
Selective emitters for energy conversion
[AD-784449] 05 p0026 N75-10608
- SCHWARTZ, W. A.
Engineering and cost study of air pollution
control for the petrochemical industry, volume
3: Ethylene dichloride manufacture by
oxychlorination
[PB-240492] 07 p0162 N75-27612
- SCHWARZ, R. F.
Concentrated photovoltaic power generation systems
08 p0188 A75-45963
- SCHWENK, P. C.
Physics and potentials of fissioning plasmas for
space power and propulsion
[IAP PAPER 74-087] 05 p0015 A75-13719
Gaseous fuel nuclear reactor research
08 p0168 A75-40177
- SCHWINDT, H. J.
Utilisation of waste heat from inductive melting
installations
[BLL-OA-TRANS-949-(6196.3)] 07 p0153 N75-26492
- SCOTT-HONCK, J.
Development and space qualification of new
high-efficiency silicon solar cells
06 p0052 A75-24218
- SCOTTI, L. J.
Char oil energy development
[PB-234018/0] 05 p0040 N75-15173
- SCRUGGS, F. P., JR.
Coal in Alabama
[PB-236583/1] 06 p0088 N75-18736
Natural gas in Alabama
[PB-236582/3] 06 p0088 N75-18737
- SEAGER, D. K.
In situ oil shale: A cost sensitivity analysis
[SAND-74-0146] 06 p0087 N75-18727
- SEBO, S. A.
The utilization of ocean energy for electrical
energy generation
08 p0168 A75-40181

- SEIGER, H. F.
High energy density sintered plate type sealed nickel-cadmium battery cells. I - The positive electrode/plaque relationships 05 p0008 A75-10569
High energy density sintered plate type nickel-cadmium battery cells. II - Electrochemical impregnation methods to produce nickel oxide electrodes 05 p0008 A75-10570
- SELCUK, M. K.
Solar stills for agricultural purposes 07 p0115 A75-33972
- SELLE, J. E.
Advanced heat source concepts [MLH-2134] 05 p0024 N75-10591
- SRLUK, D.
Hot side heat exchanger for an ocean thermal difference power plant 05 p0004 A75-10527
Hot water hydraulics of the Gulf Stream sited OTGM [PB-242151/9] 08 p0213 N75-33502
- SRENOVICH, V. V.
Further development of scientific research in the field of geology and of the survey and exploration of petroleum and gas [JPRS-63414] 05 p0027 N75-11410
- SREBN, H. V.
Determining potential solar power sites in western hemisphere ocean and land areas based upon satellite observations of cloud cover 07 p0118 A75-35461
- SEBAPIN, B. O.
Thick semiconductor films for photothermal solar energy conversion 08 p0165 A75-38956
- Chemical vapor deposition research for fabrication of solar energy converters [PB-235481/9] 05 p0041 N75-15185
Research applied to solar-thermal power systems: Chemical vapor deposition research for fabrication of solar energy converters [PB-234565/0] 05 p0041 N75-15186
Chemical vapor deposition research for fabrication of solar energy converters [PB-236189/7] 06 p0072 N75-16119
Chemical vapor deposition research for fabrication of solar energy converters [PB-238947/6] 07 p0143 N75-24137
Symposium on the Material Science Aspects of Thin Film Systems for Solar Energy Conversion [PB-239270/2] 07 p0144 N75-24150
- SEVIAN, W.
Synthetic fuels from fusion reactors [BNL-19351] 06 p0106 N75-21098
- SEVIAN, W. A.
The technology and economics of hydrogen production from fusion reactors 08 p0176 A75-44767
- SHALAR, A.
Electrical energy allocations at Navy and Marine Corps bases [AD-A009821] 08 p0211 N75-32598
- SHANKLIN, R. V.
Development of the KIVA-I MHD open cycle generator 07 p0124 A75-37686
- SHARAFI, A. SH.
A nearly perfect solar energy concentrator made up of tapered mirror facets with constant transverse curvature 08 p0180 A75-45062
- SHARER, J. C.
Analysis of thermochemical water-splitting cycles 08 p0177 A75-44781
Utilization of hydrogen as an appliance fuel 08 p0178 A75-44794
- SHARIPOVA, H.
Determination of some thermophysical characteristics of a solar-type pebble accumulator 07 p0116 A75-34317
Determination of some thermophysical properties of pebble-type solar heat accumulators 08 p0170 A75-41530
- SHARKEY, A. G., JR.
Mass spectrometric analysis of product water from coal gasification [PB-240835/9] 07 p0158 N75-27120
- SHARKO, J. R.
An econometric analysis of fuel selection for power generation 06 p0055 A75-24751
- SHARMA, K. J.
Path to self-sufficiency directions and constraints [PB-239099] 07 p0142 N75-24128
- SHATAS, R. A.
An electron beam initiated fusion neutron generator 06 p0045 A75-19657
- SHATZ, R. R.
Energy and security: Implications for American policy [AD-785084] 05 p0032 N75-12857
- SHAW, H.
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: Lurgi process [PB-237694/5] 06 p0096 N75-19880
- SHAW, R.
Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities [AD-A003590] 08 p0202 N75-29550
- SHAW, T. L.
Optimizing pumped storage with tidal power in an estuary [ASME PAPER 74-WA/PWR-7] 05 p0018 A75-16881
- SHAY, J. L.
Efficient CuInSe₂/CdS solar cells 07 p0119 A75-36274
- SHCHEGOLEV, G. M.
Thermal diagrams of thermoelectrical devices [AD-787420] 07 p0135 N75-22911
- SHEA, W. F.
Lighter than air - A look at the past, a look at the possibilities 06 p0056 A75-25995
- SHEEHAN, T. V.
Coal combustion and desulfurization in a rotating fluidized bed reactor [BNL-19308] 07 p0129 N75-21799
- SHERBLEY, D. W.
Trace elements by instrumental neutron activation analysis for pollution monitoring 08 p0166 A75-39335
- SHEINBAUM, I.
Direct contact heat exchangers in geothermal power production [ASME PAPER 75-HT-52] 08 p0196 A75-47525
- SHELKOV, E. M.
Problems of direct conversion of thermal and nuclear energy to electric energy 07 p0120 A75-36415
- SHELKOV, Y. M.
Some developments of industrial magnetohydrodynamic electric power plants 06 p0081 N75-17792
Experience in the first step of the mastery of the U-25 device 06 p0081 N75-17793
Electronic model of the U-25 device 06 p0081 N75-17794
- SHELTON, H.
Study on electrofluid dynamic power generation [AD-A004762] 07 p0155 N75-26507
- SHELTON, J.
Underground storage of heat in solar heating systems 07 p0115 A75-33975
- SHEW, C. H.
Study on parameter variations for solar powered lithium bromide absorption cooling 08 p0186 A75-45938
- SHEPHERD, B. P.
Energy consumption: Paper, stone/clay/glass/concrete, and food industries [PB-241926/5] 08 p0211 N75-32607
Energy consumption: The primary metals and petroleum industries [PB-241990/1] 08 p0213 N75-33503
- SHERPSHELOVICH, H.
Thrust vector control by magnetic field [IAF PAPER 75-027] 08 p0183 A75-45822
- SHERMAN, A.
Cryogenic heat pipe experiment - Flight performance onboard a sounding rocket [AIAA PAPER 75-729] 07 p0113 A75-32872

- SHERMAN, J. W.
Acoustic array methods for instrumentation of in situ coal gasification [UCID-16591] 06 p0104 N75-20875
- SHERHAZIAN, IA. T.
A technique for calibrating photometric curves obtained in solar concentrator tests 08 p0180 A75-45060
- SHERREN, D. C.
Process environment effects on heat pipes for fluid-bed gasification of coal [LA-UR-74-984] 05 p0029 N75-12252
- SHEYNDLIN, A. Y.
Prospects for magnetohydrodynamic electric power plants in power engineering 06 p0081 N75-17791
Experience in the first step of the mastery of the U-25 device 06 p0081 N75-17793
- SHIELDS, V.
Application of fuel cells with heat recovery for integrated utility systems 08 p0187 A75-45949
- SHINADA, K.
Electric power generation system directory from laser power [NASA-CASE-NPO-13308-1] 08 p0204 N75-30524
- SHIPLEY, J. P.
Control system design and simulation for solar heated structures [LA-UR-74-1085] 06 p0082 N75-17813
- SHIPPEN, W. B.
Tropical ocean thermal power plants and potential products [AIAA PAPER 75-617] 06 p0064 A75-29116
- SHIRAI, T.
Application of thermodynamic and material- and energy-balance calculations to gasification processes 06 p0055 A75-24785
- SHISHKOV, Y. V.
Some developments of industrial magnetohydrodynamic electric power plants 06 p0081 N75-17792
- SHOLES, J. E.
Preliminary results of the large experimental wind turbine phase of the national wind energy program 08 p0196 A75-47798
Preliminary results of the large experimental wind turbine phase of the national wind energy program [NASA-TM-X-71796] 08 p0210 N75-32594
- SHOLES, T.
Preliminary results of the large experimental wind turbine phase of the national wind energy program [NASA-TM-X-71796] 08 p0210 N75-32594
- SHORT, M. H.
Exploration for fossil and nuclear fuels from orbital altitudes [NASA-TM-X-70781] 05 p0027 N75-11413
- SHPILRAYN, E. E.
Electronic model of the U-25 device 06 p0081 N75-17794
- SHUKER, P. S.
Sulfur-based lithium-organic electrolyte secondary batteries [AD-A003309] 06 p0104 N75-20882
- SHUMIATSKII, B. IA.
Investigation of the optimal MHD-generator characteristics for combinational open-cycle MHD power generators 07 p0119 A75-36260
- SHUNYATSKII, B. Y.
Some developments of industrial magnetohydrodynamic electric power plants 06 p0081 N75-17792
Experience in the first step of the mastery of the U-25 device 06 p0081 N75-17793
- SHVALEVA, O. L.
Solar heating and cooling of buildings using heat pumps /Brief survey/ 07 p0116 A75-34321
Use of solar heat pumps for heating and air conditioning - A brief survey 08 p0170 A75-41534
- SIDOROV, V. S.
Experience in the first step of the mastery of the U-25 device 06 p0081 N75-17793
- SIEGAL, B. S.
The detection of geothermal areas from Skylab thermal data [NASA-CR-143133] 07 p0158 N75-27540
- SILIN, L. L.
Temperature sensor for photoelectric energy converters 06 p0057 A75-26712
Photoelectric energy converter temperature sensor 07 p0122 A75-37163
- SILVER, A. B.
Energy Delta: Supply vs. demand; Proceedings of the Energy Symposium, San Francisco, Calif., February 25-27, 1974 06 p0059 A75-27778
- SILVESTRI, G. J., JR.
Conference proceedings, Steam Power Plant Workshop [PB-239514/3] 07 p0144 N75-24148
- SIMANOVSKII, L. B.
Utilization of tubular thermoelectric modules in solar generators 05 p0020 A75-17067
Determination of the temperature field in a tubular thermoelectric module 05 p0020 A75-17068
- SIMON, P.
Standardized solar simulator tests of flat plate solar collectors. 1: Soltex collector with two transparent covers [NASA-TM-X-71738] 07 p0141 N75-24118
Solar collector performance evaluation with the NASA-Lewis solar simulator-results for an all-glass-evacuated-tubular selectively-coated collector with a diffuse reflector [NASA-TM-X-71695] 08 p0207 N75-31568
- SIMON, P. P.
Status of the NASA-Lewis flat-plate collector tests with a solar simulator 06 p0058 A75-27533
Outdoor flat-plate collector performance prediction from solar simulator test data [AIAA PAPER 75-741] 07 p0113 A75-32862
Outdoor flat-plate collector performance prediction from solar simulator test data [NASA-TM-X-71707] 07 p0140 N75-24111
- SIMONINI, G.
Meteorological factors and dispersion of pollutants in the atmosphere - A preliminary study about a large power plant 06 p0045 A75-21150
- SIMPSON, J. D.
Financial incentives and pollution control: A case study [PB-241479/5] 08 p0208 N75-31610
- SIMS, A. V.
Field surveillance and enforcement guide for petroleum refineries [PB-236669/8] 06 p0090 N75-18786
- SINGH, J. J.
Synthetic fuels for ground transportation with special emphasis on hydrogen [NASA-TM-X-72652] 06 p0103 N75-20868
- SINIYAVSKII, V. V.
Design study of the energy characteristics of theraionic electric power generating components and assemblies 06 p0064 A75-28893
- SIRIGNANO, W. A.
Summary report of workshop on Energy Related Basic Combustion Research [PB-236714/2] 06 p0079 N75-17456
- SIROCKY, P.
The 100 kw experimental wind turbine generator project [NASA-TM-X-71758] 08 p0202 N75-29546
- SITNOV, V. I.
Influence of the geometrical development of the cathode surface on the specific power of a thermionic converter with surface ionization 08 p0173 A75-43860
- SITTEL, K.
Considerations regarding a utilization of solar energy 06 p0050 A75-23510

- SJOVOLD, A. B.**
Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections
[PB-238878/3] 07 p0131 N75-22200
- SKARUPA, T. E.**
Solar energy and energy conservation in a state-assisted housing for the elderly project
[AIAA PAPER 75-611] 06 p0062 A75-28591
- SMALL, T. E.**
Engine development program for the APL remotely piloted vehicle
[AD-787507] 06 p0065 N75-15658
- SHERROFF, B. J.**
Energy and security: Implications for American policy
[AD-785084] 05 p0032 N75-12857
- SHEPANA, P. O.**
Storage of summertime waste heat from electric generating plants for use in wintertime
[AIAA PAPER 75-743] 07 p0113 A75-32852
- SHIROVA, A. W.**
Generation of electric power at high reliability levels using a group of solar power plants in an energy system
07 p0122 A75-37159
- SMITH, C. L.**
Conceptual design of reduced energy transports
[AIAA PAPER 75-303] 06 p0047 A75-22508
- SMITH, E. B.**
Coal-gas combustion in industrial gas turbines
[AIAA PAPER 74-1114] 05 p0010 A75-11286
- SMITH, G. A.**
Dynamic conversion of solar generated heat to electricity
[NASA-CR-134724] 06 p0066 N75-16079
- SMITH, J. W.**
Determination of carbonate minerals of Green River formation oil shales, Piceance Creek Basin, Colorado
[PB-240669/2] 07 p0159 N75-27554
- SMITH, M. C.**
Wind power system optimization
08 p0193 A75-46026
- Prospect for geothermal power
[LA-UR-74-1111] 06 p0086 N75-18723
- Progress of the LASL dry hot rock geothermal energy project
06 p0100 N75-20848
- SMITH, P. R.**
Numerical modeling of flat plate solar collectors
[AIAA PAPER 75-739] 07 p0113 A75-32861
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- SMITH, R. T.**
Generation schemes for wind power plants
08 p0169 A75-40688
- Electrical generation by wind power
08 p0193 A75-46024
- SMITH, T. W.**
The household energy game
[COM-75-10304/4] 07 p0161 N75-27578
- SMITHSON, G. B., JR.**
Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
[PB-237116/9] 06 p0088 N75-18739
- SHOLLECK, H. A.**
Application of fast sparse-matrix techniques and an energy estimation model for large transportation networks
08 p0201 N75-28967
- SHULYAN, M. B.**
A technology assessment of the hydrogen economy concept
08 p0172 A75-42286
- A technology assessment of the hydrogen economy concept
08 p0194 A75-46037
- SHOW, D. B.**
Hydrogen for the subsonic transport
08 p0178 A75-44791
- SOATOV, F.**
Study of the influence of container design and the thermal inertness of solar water heaters on their efficiency
07 p0119 A75-36018
- Investigation of the effect of boiler design and finite thermal response of solar water heaters on efficiency
08 p0170 A75-41541
- SOCLOF, S. I.**
Effect of impurity doping concentration on solar cell output
07 p0124 A75-37404
- SOKIRKO, Y. D.**
Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- SOKOLOVA, I. B.**
Calculation of the radiant energy field for a biparaboloidal radiation furnace with a carbon arc
08 p0170 A75-41540
- SOKOLSKII, A. G.**
Investigation of characteristics of magnetohydrodynamic generators in industrial power plants
[AD-A008343] 07 p0149 N75-25307
- SOKOLSKI, S.**
Mode shift strategies in intercity transportation and their effect on energy consumption
[AIAA PAPER 75-315] 06 p0055 A75-25013
- SOLODIANNIKOV, I. A.**
Determination of the surface shapes of film-type solar energy concentrators with seams
07 p0119 A75-36017
- SOMMER, A. H.**
Electrodes for thermionic energy conversion
08 p0188 A75-45957
- SORENSHINE, D.**
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
- Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Hansemond River site
[NASA-CR-142821] 07 p0141 N75-24122
- SONJU, O. K.**
MHD power generation (Viking Series) with hydrocarbon fuels, part 3
[AD-A004216] 07 p0155 N75-26502
- SOO, S. L.**
Study of an electrofluidic generator
08 p0189 A75-45978
- SOOT, P. H.**
New dimensions in water heating in the Northwest - A study of solar energy utilization
08 p0191 A75-45995
- SORENSEN, B.**
Energy and Resources - A plan is outlined according to which solar and wind energy would supply Denmark's needs by the year 2050
07 p0124 A75-37846
- SORENSEN, K. E.**
Tidal power and its integration into the electric system
05 p0013 A75-12994
- SPACKMAN, W.**
The relation of coal characteristics to coal liquefaction behavior
[PB-239261/1] 07 p0151 N75-25327
- SPAFFORD, R. E.**
A brief description of geological and geophysical exploration of the Marysville geothermal area
06 p0099 N75-20839
- SPANHAGEL, G.**
Energy and the environment in Baden-Wuerttemberg
[KFK-1966-UP] 05 p0030 N75-12439
- SPARROW, E. H.**
Solar-thermal electric power generation using a system of distributed parabolic trough collectors
[AICHE PAPER 12] 08 p0196 A75-47511
- Proceedings of the Solar Thermal Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- Research applied to solar thermal systems
[PB-241089/2] 08 p0200 N75-28543

- Research applied to solar thermal power systems
[PB-241090/0] 08 p0201 N75-28544
- SPEIDEL, T. O. P.
Topping cycle applications of thermionic conversion
08 p0188 A75-45972
- SPENCER, D. F.
Roles for solar thermal conversion systems in our
energy economy 06 p0059 A75-27784
- SPENCER, J. D.
Bureau of Mines energy program, 1973
[PB-234682/3] 05 p0040 N75-15172
- SPEBA, D. A.
Structural analysis of wind turbine rotors for
NSF-NASA Mod-0 wind power system
[NASA-TM-X-3198] 06 p0080 N75-17712
- SPIEWAK, I.
Study of the application of HTGR to a petroleum
refinery petrochemical complex
[CONP-741144-1] 07 p0142 N75-24126
- SPOND, D. E.
Low thermal flux glass-fiber/metal vessels for LH2
storage systems 08 p0177 A75-44783
- SPRANKLE, R. S.
Helical rotary screw expander power system
06 p0101 N75-20856
- SPRATT, J. P.
Concentrated photovoltaic power generation systems
08 p0188 A75-45963
- SPRAUL, J. R.
Technology assessment of portable energy RDT and
P, phase 1
[NASA-CR-137654] 07 p0134 N75-22901
Technology assessment of portable energy RDT and
P, phase 1
[NASA-CR-137653] 07 p0134 N75-22902
- SPRENGEL, U.
DFVLR activities in the area of energy research
07 p0118 A75-35096
- SPRINGER, T. E.
Control system design and simulation for solar
heated structures
[LA-UR-74-1085] 06 p0082 N75-17813
- SRIWIVASAN, S.
Hydrogen production by water electrolysis -
Methods for approaching ideal efficiencies
08 p0193 A75-46023
- STALLINGS, R. D.
The Energy Systems Optimization Computer Program
/ESOP/ developed for Modular Integrated Utility
Systems /MIUS/ analysis 05 p0006 A75-10551
- STAMPER, J. T.
'Time is energy' /Henson and Stringfellow Memorial
Lecture/ 07 p0112 A75-32324
- STANGBY, P. C.
A review of the status of MHD power generation
technology including suggestions for a Canadian
MHD research program
[UTIAS-39] 05 p0035 N75-13641
- STEADMAN, P.
Energy, environment and building 07 p0111 A75-31448
- STERGER, E. J.
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832
- STEELE, J. L.
A brief description of geological and geophysical
exploration of the Marysville geothermal area
06 p0099 N75-20839
- STEFFGEN, P. W.
Conversion of cellulosic wastes to oil
[PB-240839/1] 07 p0161 N75-27572
- STEHFEST, H.
Energy and the environment in Baden-Wuerttemberg
[FKF-1966-DF] 05 p0030 N75-12439
- STEIN, C.
Research design construction and evaluation of a
low energy utilization school, research phase 1
[PB-242217/8] 08 p0213 N75-33504
- STEIN, R. G.
Research design construction and evaluation of a
low energy utilization school, research phase 1
[PB-242217/8] 08 p0213 N75-33504
- STEINBERG, H.
The economics of the production of liquid fuel and
fertilizer by the fixation of atmospheric carbon
and nitrogen using nuclear power 08 p0191 A75-46001
- Applications of fusion power technology to the
chemical industry [BNL-18815] 05 p0029 N75-11730
- Survey of applications of fusion power technology
to the chemical and material processing industry
[BNL-18866] 05 p0031 N75-12443
- Coal combustion and desulfurization in a rotating
fluidized bed reactor [BNL-19308] 07 p0129 N75-21799
- STEINHAGEN, C. A.
Study of the costs and benefits of composite
materials in advanced turbofan engines
[NASA-CR-134696] 06 p0073 N75-16637
- STEINLE, H.
High temperature air preheaters for open cycle MHD
energy conversion systems [AICHE PAPER 16] 08 p0196 A75-47512
- STEINLE, H. F.
Progress in development of auxiliary MHD power
plant components at Avco Everett Research
Laboratory, Inc [ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
- STEPHENS, D. R.
Revised cost estimate for the LLL in situ coal
gasification concept [UCRL-51578] 05 p0039 N75-15166
- Fracture-induced permeability: Present situation
and prospects for coal [UCID-16593] 06 p0094 N75-19830
- STEPHENS, J. B.
Solar pond [NASA-CASE-NPO-13581-1] 07 p0160 N75-27560
- Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] 08 p0199 N75-28519
- STEPHENS, M. H.
Vulnerability of natural gas systems
[AD-A007583] 07 p0144 N75-24143
- STEPNIEWSKI, W. Z.
Documenting helicopter operations from an energy
standpoint [NASA-CR-132578] 06 p0084 N75-18220
- STERN, J. A.
Advanced subsonic transports - A challenge for the
1990's [AIAA PAPER 75-304] 06 p0049 A75-23251
- STERZER, F.
The conversion efficiency of ideal Shockley p-n
junction photovoltaic converters in concentrated
sunlight 07 p0120 A75-36362
- STETTLER, J. D.
An electron beam initiated fusion neutron generator
06 p0045 A75-19657
- STENENBERG, R. K.
Development of high specific energy batteries for
electric vehicles [ANL-8058] 06 p0076 N75-16990
- STEVENS, T. H.
Atlantic outer continental shelf energy resources:
An economic analysis [COM-75-10330/9] 07 p0152 N75-26484
- STEWART, W. G.
Stationary concentrating reflector cum tracking
absorber solar energy collector - Optical design
characteristics 07 p0120 A75-36307
- STEWART, D. H.
The Marysville, Montana Geothermal Project
06 p0100 N75-20849
- STICKLER, D. B.
Progress in development of auxiliary MHD power
plant components at Avco Everett Research
Laboratory, Inc [ASME PAPER 74-WA/ENER-6] 05 p0016 A75-16838
- STICKLEY, R. A.
A central receiver solar power plant in a hybrid
mode of operation [AIAA PAPER 75-624] 06 p0062 A75-28596
- Solar Power Array for the Concentration of Energy
(SPACE) [PB-236247/3] 06 p0071 N75-16114

- STIEL, L. I.
Optimum properties of working fluids for solar powered heat pumps
08 p0185 A75-45937
- STIRN, B. J.
A 15% efficient antireflection-coated metal-oxide-semiconductor solar cell
07 p0119 A75-36275
- STOEBNER, A. W.
Space and energy - Some legal problems
08 p0183 A75-45885
- STOLL, R.
Thermoelectric generators
06 p0058 A75-27718
- STOLLER, H. H.
In situ oil shale conversion and recovery [SLA-74-0162]
06 p0093 A75-19825
- STONE, A. W.
Legal economic, and energy considerations in the use of underground space [PB-236755/5]
06 p0080 A75-17749
- STONE, J. C.
Economic modeling and energy policy planning
06 p0079 A75-17210
- STONE, R. T.
Leasing of federal geothermal resources
06 p0099 A75-20841
- STOTLER, C. L.
Study of the costs and benefits of composite materials in advanced turbofan engines [NASA-CR-134696]
06 p0073 A75-16637
- STOUT, G. E.
Proceedings of the Workshop on Research Needs Related to Water for Energy [PB-241346/6]
08 p0208 A75-31581
- STRACK, W. C.
Preliminary study of advanced turboprops for low energy consumption [NASA-TM-X-71740]
07 p0146 A75-24739
Fuel-conservative engine technology
08 p0206 A75-31074
- STRAUSS, A. H.
Solar sea power plants /SSPP/
08 p0191 A75-45996
Solar Sea Power Plants (SSPP): A critical review and survey [NASA-TM-X-70783]
05 p0028 A75-11459
- STREBKOL, D. S.
Full-scale testing of high-voltage photocells of photovoltaic type at elevated light flux levels
08 p0210 A75-32590
- STREBKOV, D. S.
Full-scale tests of 'photovoltaic' high-voltage photocells at high light flux levels
07 p0122 A75-37162
- STREITER, S.
Financial incentives and pollution control: A case study [PB-241479/5]
08 p0208 A75-31610
- STRICKLAND, G.
An engineering-scale energy storage reservoir of iron titanium hydride
08 p0177 A75-44784
Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651]
05 p0030 A75-12441
- STRINBECK, D. C.
Process environment effects on heat pipes for fluid-bed gasification of coal [LA-UR-74-984]
05 p0029 A75-12252
- STROH, E.
Project conserve, a pilot project in homeowner energy conservation [PB-240407/7]
07 p0161 A75-27577
- STRONG, A. L.
Electric power rights: One approach to rationing [PB-238537/5]
07 p0143 A75-24138
- STROON, P.
Nonportable thermoelectric generator [AD-A002042]
06 p0095 A75-19847
- STULOV, T. T.
Erecting gas storage facilities and oil centers [AD-A006559]
07 p0134 A75-22783
- STYBKOVICH, H. A.
Interaction between the fuel-energy complex and the environment
07 p0110 A75-29800
- SUAREZ, E.
The University of Florida solar powered intermittent ammonia/water absorption air conditioner
07 p0118 A75-34936
- SURELAV, H. H.
Snow and ice removal from pavements using stored earth energy [PB-240623/9]
07 p0162 A75-27581
- SUBROTO, S. H.
Preliminary results of geothermal desalting operations at the East Mesa test site Imperial Valley, California
06 p0101 A75-20850
- SULKES, H. J.
Nickel-zinc batteries for hybrid vehicle operation [PB-239710/7]
07 p0156 A75-26514
- SUMNERFIELD, H.
Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding [PB-237209/2]
06 p0083 A75-17826
- SUNNERS, C. H.
Ultimate energy, the ultimate fuel, and the hydrogen link in the electrical energy system
08 p0180 A75-44815
- SUN, K. H.
Thermal performance characteristics of heat pipes
06 p0046 A75-21465
- SUNSHINE, D. B.
Space and energy conservation housing prototype unit development [NASA-CR-143201]
07 p0160 A75-27567
- SURPREMANT, E.
Waste automotive lubricating oil reuse as a fuel [PB-241357/3]
08 p0204 A75-30331
- SUTER, K. H.
The Environmental protection agency industrial technology transfer program
06 p0078 A75-17193
- SWALLOM, D. W.
MHD energy conversion systems [AIAA PAPER 74-1071]
05 p0001 A75-10263
MHD energy conversion for high power electrical needs
07 p0124 A75-37657
- SWANBERG, C. A.
Heat flow and geothermal potential of the East Mesa KGRA, Imperial Valley, California
06 p0099 A75-20838
- SWANNACK, C. E.
Magnetic Energy Transfer and Storage (METS) program schedules for a Fusion Test Reactor (FTR) [LA-5748-MS]
06 p0106 A75-21097
- SWEET, H. S.
Design of short haul aircraft for fuel conservation [SAE PAPER 750587]
08 p0169 A75-40502
Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft [NASA-CR-2502]
06 p0073 A75-16557
- SWENSON, B. W.
Legal economic, and energy considerations in the use of underground space [PB-236755/5]
06 p0080 A75-17749
- SWET, C. J.
Thermochemical water cracking using solar heat
08 p0175 A75-44765
- SWIFT-HOOK, D. T.
Characteristics of a rocking wave power device
06 p0062 A75-28450
Can hydrogen transmission replace electricity
08 p0165 A75-38863
The potential of natural energy sources
08 p0165 A75-38865
Will hydrogen transmission replace electricity
08 p0172 A75-42281
- SWISHER, J. H.
Survey of hydrogen compatibility problems in energy storage and energy transmission applications [SAND-74-8219]
06 p0087 A75-18726
Potential structural material problems in a hydrogen energy system [NASA-TM-X-71752]
07 p0154 A75-26500

- SWITZER, G. W.
Low Btu gasification high temperature-low temperature H₂S removal comparison effect on overall thermal efficiency in a combined cycle power plant
[PB-235780/4] 06 p0072 N75-16125
- SYRETT, B. C.
Materials requirements for advanced energy systems: New fuels. Volume 3: Materials research needs in advanced energy systems using new fuels
[AD-A004550] 07 p0158 N75-27168
- SYRETT, J. J.
Can hydrogen transmission replace electricity
08 p0165 A75-38863
Will hydrogen transmission replace electricity
08 p0172 A75-42281
- T**
- TABET, E.
Problems in electric power production
[ISS-T-73/16] 07 p0128 N75-21793
- TAGAWA, H.
Production of hydrogen from water using nuclear energy. A review
[JAERI-M-5642] 06 p0093 N75-19824
- TAKETANI, H.
Material considerations involved in solar energy conversion
06 p0047 A75-22522
- TAM, S. S.
Characterization of sulfur recovery from refinery fuel gas
[PB-239777/6] 07 p0151 N75-25326
- TAMAS, S.
Insufficient utilization of scientific advances
07 p0137 N75-23365
- TANG, Y. S.
Clinch River Breeder Reactor: A combined power and fuel source
[CONF-740609-4] 05 p0038 N75-14593
- TANI, T.
Solar power generating systems as sources of non-polluting energy (power generation in space and power generation on the ground)
[NASA-TT-P-16091] 05 p0033 N75-13383
Solar energy
[NASA-TT-P-16092] 05 p0038 N75-15149
- TARHIZHEVSKII, B. V.
Generation of electric power at high reliability levels using a group of solar power plants in an energy system
07 p0122 A75-37159
- TARUD, F. J.
Heating buildings with solar energy
07 p0117 A75-34933
- TASCHEK, W. G.
Metal hydride fuel cell power source
05 p0008 A75-10564
- TATE, T. H.
Advanced nuclear research
[GPO-41-253] 05 p0026 N75-10764
- TATON, J. W.
Parametric study for a pyrolytic system for production of fuels from agricultural and forestry wastes
08 p0187 A75-45950
- TAYLOR, C. E.
Cryogenic engineering and fusion power
08 p0173 A75-43979
- TAYLOR, J. H.
Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2
[PB-240632/0] 07 p0159 N75-27556
- TEAGUE, O. E.
Conservation and efficient use of energy
[H-REPT-93-1634] 05 p0036 N75-14265
- TEDDOW, C. S., JR.
Corrosion problems in energy conversion and generation; Proceedings of the Symposium, New York, N.Y., October 15-17, 1974
06 p0054 A75-24376
- TREPLE, R. V.
Demonstration plant, clean boiler fuels from coal. Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127
- TEK, M. R.
Evaluation of coal conversion processes to provide clean fuels, part 1
[PB-234202/0] 05 p0025 N75-10600
Evaluation of coal conversion processes to provide clean fuels, part 2
[PB-234203/8] 05 p0025 N75-10604
- TELEGIN, G. P.
Experience in the first step of the mastery of the U-25 device
06 p0081 N75-17793
- TELKES, M.
Thermal energy storage
08 p0185 A75-45932
- TELLER, E.
Energy: A plan for action
07 p0110 A75-30375
- TEMPELMAYER, K. E.
The MHD power generation system with directly fired coal
05 p0009 A75-10577
MHD electrical power generation from fossil fuels
[AIAA PAPER 75-1236] 08 p0182 A75-45648
- TENO, J.
MHD power generation (Viking Series) with hydrocarbon fuels, part 3
[AD-A004216] 07 p0155 N75-26502
- TERRILL, W. R.
Solar heating and cooling of Army buildings
08 p0184 A75-45926
- TERRY, P. L.
The EPA-Van - A clean energy system for the home
08 p0186 A75-45946
- TESTER, J. W.
Comparative performance characteristics of cylindrical parabolic and flat plate solar energy collectors
[ASME PAPER 74-WA/ENER-3] 05 p0016 A75-16835
Comparative performance characteristics of cylindrical parabolic focusing and flat plate solar energy collectors
[CONF-741104-3] 06 p0103 N75-20872
- THACHUK, A. R.
MER: Ultimate recovery vs rate. A reservoir simulation study. Volume 1
[PB-239767/7] 07 p0157 N75-26526
MER: Ultimate recovery vs rate. A reservoir simulation study. Volume 2: Appendices
[PB-239768/5] 07 p0157 N75-26527
- THALLER, L. H.
Electrically rechargeable redox flow cells
05 p0008 A75-10573
- THOM, K.
Physics and potentials of fissioning plasmas for space power and propulsion
[IAF PAPER 74-087] 05 p0015 A75-13719
Gaseous fuel nuclear reactor research
08 p0168 A75-40177
- THOMAS, H.-J.
Thermal power plants
06 p0064 A75-28962
- THOMAS, R.
Plans and status of the NASA-Lewis Research Center wind energy project
08 p0197 A75-47802
Plans and status of the NASA-Lewis Research Center wind energy project
[NASA-TM-X-71701] 07 p0128 N75-21795
- THOMAS, R. E.
The collaborative study of EPA methods, 5, 6, and 7 in fossil fuel-fired steam generators
[PB-237695/2] 06 p0091 N75-18788
- THOMAS, R. L.
Preliminary results of the large experimental wind turbine phase of the national wind energy program
08 p0196 A75-47798
Preliminary results of the large experimental wind turbine phase of the national wind energy program
[NASA-TM-X-71796] 08 p0210 N75-32594
- THOMAS, W. A.
Proceedings of a Workshop on Solar Energy and the Law
[PB-241051/2] 08 p0201 N75-28551
- THOMASSEN, K. I.
Magnetic Energy Transfer and Storage (NETS) program schedules for a Fusion Test Reactor (PTR)
[LA-5748-MS] 06 p0106 N75-21097

- THOMASSON, H. R.**
Energy supply and demand challenges and some possible solutions
06 p0059 A75-27779
- THOMPSON, R. E.**
Application of nuclear rocket technology to light weight nuclear propulsion and commercial nuclear process heat systems
[AIAA PAPER 75-1261] 08 p0182 A75-45661
- THOMPSON, R. G.**
Economic modeling and energy policy planning
06 p0079 N75-17210
- THOM, E. C.**
MHD energy conversion for high power electrical needs
07 p0124 A75-37657
- THUNBERG, S.**
Solar total energy program
[SAND-74-0208] 06 p0081 N75-17810
- TIBBETTS, J. G.**
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- TIERHMAN, L.**
Novel materials for power systems. Part 3: Selective emitters for energy conversion
[AD-784449] 05 p0026 N75-10608
- TIERHMAN, J. B.**
A heat pump powered by natural thermal gradients
05 p0006 A75-10550
- TIER, C. L.**
Thermal performance characteristics of heat pipes
06 p0046 A75-21465
- TILTON, J. E.**
US energy R and D policy: The role of economics
[RFP-WORKING-PAPER-EN-4] 06 p0080 N75-17783
- TINMERHAUS, K. D.**
Cryogenic Engineering Conference, Georgia Institute of Technology, Atlanta, Ga., August 8-10, 1973, Proceedings
08 p0173 A75-43976
- TINGEY, G. L.**
Coal structure and reactivity
[TID-26637] 06 p0097 N75-20805
- TITTERINGTON, W. A.**
Hydrogen generation by solid-polymer electrolyte water electrolysis
08 p0177 A75-44777
- TOBIN, D. J.**
Progress in coal gasification
05 p0013 A75-12993
- TOBIN, J. E.**
Consideration of ultra-high temperature nuclear heat sources for MHD conversion systems
[AIAA PAPER 75-1258] 08 p0182 A75-45659
- TODD, J. S.**
Solar 10 kW turboalternator silent power program
[AD-A006549] 08 p0203 N75-29555
- TOILLIEV, K.**
Theoretical determination of the temperature in a solar water heater /steady state/
07 p0112 A75-31513
Theoretical research on the operation of a solar water heater and comparison with experimental data
07 p0112 A75-31515
- TOLSTIKOV, E.**
Exploration of Antarctica: Past and present
[BLL-M-23343-(5828.4P)] 06 p0080 N75-17722
- TONLISON, S. V.**
Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants
[PB-241672/5] 08 p0211 N75-32602
- TONG, R. C.**
Thermodynamic considerations of 'solid state engines' based on thermoelastic martensitic transformations and the shape memory effect
06 p0045 A75-19631
- TOUCHAIS, H.**
Solar production of electrical energy
07 p0112 A75-31588
- TOUCHARD, W. A., JR.**
A large mechanical contracting corporation solar heats its own offices
08 p0184 A75-45924
- TOWNES, H. W.**
A wind energy conversion system based on the tracked-vehicle airfoil concept
05 p0004 A75-10518
- TOWNSEND, S. J.**
An MHD energy storage system comprising a heavy-water producing electrolysis plant and a H₂/O₂/CSOH MHD generator/steam turbine combination to provide a means of transferring nuclear reactor energy from the base-load regime into the intermediate-load and peaking regimes
08 p0179 A75-44800
- TRACY, T.**
The design of a solar cavity steam generator for electrical power generation
08 p0190 A75-45982
- TRAN, V. V.**
Solar stills for agricultural purposes
07 p0115 A75-33972
- TRAUER, D. B.**
Nuclear reactor process heat capabilities, potential, and economics
[CONF-741032-1] 07 p0131 N75-22112
- TRAILER, R. W.**
Petroleum degradation in low temperature marine and estuarine environments
[AD-A007588] 07 p0146 N75-24191
- TREADWELL, G. W.**
Design analysis of asymmetric solar receivers
[SAND-74-0124] 06 p0076 N75-16986
- TRETEL, R.**
The economics of nuclear power
06 p0047 A75-22734
- TRELA, W. J.**
Electrochemical heat engines for direct electric power generation and energy storage
[AIAA PAPER 75-1237] 08 p0182 A75-45649
- TRILLING, C. A.**
Coal gasification by Atomics International's Rockgas process
[ASME PAPER 74-WA/PWR-11] 05 p0018 A75-16883
- TRIMBLE, L. C.**
Ocean thermal energy conversion system evaluation
[AIAA PAPER 75-616] 06 p0064 A75-29115
- TRIMMER, D. S.**
Application of heat pipes to solar collectors
08 p0195 A75-46045
- TRIPP, R.**
60 watt hydride-air fuel cell system
05 p0008 A75-10567
- TROITSKIY, A. A.**
Scientific research in power engineering
[JPRS-65422] 08 p0205 N75-30648
- TRUKHOV, V. S.**
Design of a tubular heat collector for a solar power installation with a parabolocylindric concentrator
05 p0020 A75-17069
Prospects for using dynamic thermocompression converter in solar power plants
05 p0020 A75-17076
- TRUSCELLO, V.**
Performance testing of thermoelectric generators at JPL
05 p0002 A75-10503
- TRUSCELLO, V. C.**
Two-watt radioisotope power generators for underwater applications
05 p0007 A75-10556
- TUDOR, J. J.**
Design study for a coal-fueled closed cycle gas turbine system for MIUS applications
08 p0187 A75-45948
- TUNNAN, B. G.**
Where the boilers are: A survey of electric utility boilers with potential capacity for burning solid waste as fuel
[PB-239392/4] 07 p0143 N75-24135
- TURBYFILL, R. O.**
Technical and economic evaluation of solar heating and cooling of buildings
08 p0184 A75-45921
- TURCHAN, H. J.**
Nickel-cadmium cells
[NASA-CR-143715] 07 p0128 N75-21792
- TURNER, C.**
Report and recommendations of the Solar Energy Data Workshop
[PB-238066/3] 06 p0089 N75-18757

- TURSUNBAEV, I. A.**
Prospects for using dynamic thermo-compression converter in solar power plants 05 p0020 A75-17076
- TVERIANOVICH, E. V.**
A technique for calibrating photometric curves obtained in solar concentrator tests 08 p0180 A75-45060
- TWOEBLY, P. D.**
Investment possibility of financial institutions in solar heating [PB-239756/0] 07 p0155 N75-26511
- TYNER, W. E.**
Atlantic outer continental shelf energy resources: An economic analysis [COM-75-10330/9] 07 p0152 N75-26484
- U**
- UEDA, K.**
Superconducting synchronous machine 06 p0061 A75-27967
- UEDA, E.**
Production of hydrogen from water using nuclear energy. A review [JAERI-M-5642] 06 p0093 N75-19824
- UHL, A. E.**
Fuel energy systems - Conversion and transport efficiencies 05 p0007 A75-10554
- URBACHER, J. C.**
Energy from urban wastes 05 p0006 A75-10548
- ULLMAN**
Elimination of duty on methanol imported for certain uses [H-REPT-93-998] 05 p0026 N75-10857
- UMAROV, G. IA.**
Design of a tubular heat collector for a solar power installation with a parabolocylindric concentrator 05 p0020 A75-17069
Prospects for using dynamic thermo-compression converter in solar power plants 05 p0020 A75-17076
Determination of some thermophysical characteristics of a solar-type pebble accumulator 07 p0116 A75-34317
Fabricating paraboloidal high-temperature solar concentrators from mollified sectors 07 p0122 A75-37166
Determination of some thermophysical properties of pebble-type solar heat accumulators 08 p0170 A75-41530
Calculation of the radiant energy field for a biparaboloidal radiation furnace with a carbon arc 08 p0170 A75-41540
A nearly perfect solar energy concentrator made up of tapered mirror facets with constant transverse curvature 08 p0180 A75-45062
- UMAROV, G. Y.**
Solar energy [NASA-TT-P-16155] 06 p0081 N75-17787
- URQUIDI, B.**
Cycle study of a mercury-colloidal electrofluid dynamic power generator [AD-A004814] 07 p0159 N75-27559
- USHANOV, H.**
Fabricating paraboloidal high-temperature solar concentrators from mollified sectors 07 p0122 A75-37166
- V**
- VAKIL, H.**
Closed loop chemical systems for energy transmission, conversion and storage 05 p0005 A75-10538
- VAN DOMELEN, B. H.**
A review of thermal battery technology 05 p0007 A75-10557
- VAN VORST, W. D.**
Automotive hydrogen engines, and onboard storage methods 08 p0172 A75-42284
Engine performance with gasoline and hydrogen - A comparative study 08 p0177 A75-44787
- VANCE, P. R.**
A systems approach to innovative solutions to the energy problem [PB-242189/9] 08 p0213 N75-33505
- VANDOMELEN, B. H.**
Review of thermal battery technology [SLA-74-5381] 06 p0076 N75-16989
- VANSTON, J. H., JR.**
Technology assessment of portable energy RDT and P [NASA-CR-137655] 07 p0160 N75-27565
- VANT-HULL, L. L.**
A tower-top point focus solar energy collector 08 p0174 A75-44753
Solar thermal power systems based on optical transmission [PB-237005/4] 06 p0088 N75-18742
- VARGO, D. J.**
Wind energy developments in the 20th century 05 p0020 A75-17503
Wind energy developments in the 20th century [NASA-TM-X-71634] 05 p0033 N75-13380
- VARTANIAN, A. V.**
A technique for calibrating photometric curves obtained in solar concentrator tests 08 p0180 A75-45060
- VASILCHENKO, V.**
II-VI photovoltaic heterojunctions for solar energy conversion 05 p0012 A75-12734
- VASILEV, A. M.**
Investigation of photoelectric converter operation under conditions of strong illumination 07 p0119 A75-36015
Operation of photoconverters under conditions of strong illumination 08 p0170 A75-41538
- VASILEV, L. L.**
Controlled heat pipes 05 p0012 A75-12912
- VASILIEV, L. L.**
Progress in heat pipe and porous heat exchanger technology 06 p0045 A75-20686
- VATAVUK, W.**
Compilation of air pollutant emission factors, second edition, supplement no. 3 [PB-235736/6] 06 p0073 N75-16152
- VEDEL, J.**
CdS-Cu₂S cells - An outlook for terrestrial applications 06 p0052 A75-24223
- VELIKHOV, B.**
Man-made sun. Thermonuclear engineering developments [BLL-M-23333-(5828.4F)] 06 p0091 N75-19014
- VENUTI, G.**
Problems in electric power production [ISS-T-73/16] 07 p0128 N75-21793
- VERGER, B.**
Hydrazine as a fuel for a fuel cell 08 p0166 A75-39132
- VERGHES, J.**
Theoretical study of the energy output of two magnetohydrodynamic generators 07 p0125 A75-38568
- VERMALLE, J.-C.**
Deployable Symphonie solar generator [IAF PAPER 75-009] 08 p0183 A75-45819
- VERMEULEN, H.**
The economics of using wind power for electricity supply in the Netherlands and for water supply on Curacao [NASA-TT-P-15982] 05 p0024 N75-10587
- VERNON, R. W.**
Solar collector performance evaluated outdoors at NASA-Lewis Research Center 06 p0058 A75-27531
Summary of NASA-Lewis Research Center solar heating and cooling and wind energy programs 07 p0123 A75-37240
Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator 08 p0197 A75-47804
Solar collector performance evaluated outdoors at NASA-Lewis Research Center [NASA-TM-X-71689] 07 p0128 N75-21794

- Summary of NASA Lewis Research Center solar heating and cooling and wind energy programs [NASA-TM-X-71745] 07 p0154 N75-26497
- Initial comparisons of solar collector performance data obtained cut-of doors and with a solar simulator [NASA-TM-X-71626] 08 p0211 N75-32595
- VERBON, S. R.**
Temperature effects in Schottky-barrier silicon solar cells 07 p0115 A75-34175
Design considerations in Schottky solar cells 08 p0188 A75-45962
- VEZIROGLU, T. N.**
Remote sensing applied to energy-related problems; Proceedings of the Symposium-Course, Miami, Fla., December 2-4, 1974 07 p0118 A75-35451
Hydrogen energy fundamentals; Proceedings of the Symposium-Course, Miami Beach, Fla., March 3-5, 1975 08 p0171 A75-42276
Hydrogen energy; Proceedings of the Hydrogen Economy Miami Energy Conference, Miami Beach, Fla., March 18-20, 1974. Parts A & B 08 p0174 A75-44751
- VICKTOR, H.**
Air conditioning of office buildings with all-electric supply. Part 1: Technical conception [OA-TRANS-938-PT-1] 06 p0074 N75-16970
- VINE, R. W.**
Porous matrix structures for alkaline electrolyte fuel cells 07 p0123 A75-37243
- VINOGRADOVA, E. B.**
Dependence of the basic parameters of Al_x/Ga_{1-x}/As-GaAs solar converters on temperature and optical intensity 07 p0112 A75-32824
- VISSERS, D. R.**
Development of high specific energy batteries for electric vehicles [ANL-8058] 06 p0076 N75-16990
- VLADIMIROV, I. P.**
Prospects for utilization of underwater houses and chambers in development of marine oil deposits 05 p0029 N75-11606
- VOJDANI, S.**
Further progress in the technology of silk screened CdS solar cells 06 p0052 A75-24225
- VOOK, P. L.**
Hydrogen distribution profiling 08 p0179 A75-44805
Integration of photovoltaic and solar thermal energy conversion systems [SAND-74-0093] 06 p0076 N75-16992
- VOROFNIKOV, V. I.**
Determination of the surface shapes of film-type solar energy concentrators with seams 07 p0119 A75-36017
- VOSS, A.**
Other primary energy resources 06 p0050 A75-23512
Using systems methods for analysing integrated energy supply, summary [BLL-CE-TRANS-6473-(9022.09)] 07 p0153 N75-26491
- VOTH, R. O.**
Selected topics on hydrogen fuel [COM-75-10619/5] 08 p0207 N75-31575
- W**
- WADE, E.**
Solar cell and array standardization for Air Force spacecraft 05 p0002 A75-10486
- WADE, G. L.**
Use of low grade solid fuels in gas turbines [ASHE PAPER 74-WA/EWER-5] 05 p0016 A75-16837
- WADE, W. R.**
Basic research needs for tertiary oil recovery: Proceedings of a National Science Foundation Workshop [PB-236726/6] 06 p0066 N75-16072
- WAGNER, S.**
Efficient CuInSe₂/CdS solar cells 07 p0119 A75-36274
- WAIBEL, A. P.**
A brief description of geological and geophysical exploration of the Marysville geothermal area 06 p0099 N75-20839
- WAIDE, C. H.**
Metal hydrides as hydrogen storage media [BNL-18887] 05 p0030 N75-12440
- WAITZMAN, D. A.**
Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants [PB-241672/5] 08 p0211 N75-32602
- WALKDEN, M. W.**
Optimisation of solar cell shielding for geostationary missions 06 p0051 A75-24203
- WALKER, D. H.**
Fuel gas production from solid waste [PB-238068/1] 06 p0095 N75-19843
- WALKER, P. L., JR.**
The relation of coal characteristics to coal liquefaction behavior [PB-239261/1] 07 p0151 N75-25327
- WALTON, J. D.**
Solar power system and component research program [PB-236159/0] 05 p0037 N75-14280
Solar power system and component research program [PB-239185/2] 07 p0136 N75-22930
- WALTON, W. C.**
Digest of energy facts for water resources studies in Minnesota [PB-239961/6] 07 p0156 N75-26515
- WANIEK, R. W.**
Chemical to electromagnetic energy conversion techniques [AD-783901] 05 p0026 N75-10609
- WARD, D. S.**
Utilization of solar energy today 05 p0012 A75-12987
Design and construction of a residential solar heating and cooling system 07 p0109 A75-29472
- WARNOCK, D. R.**
Multimegawatt fuel cell power system 07 p0124 A75-37656
- WARREN, R. W.**
Solar selective surfaces made of semiconducting powders [ASHE PAPER 74-WA/HT-13] 05 p0017 A75-16857
- WARSHAY, M.**
Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-3192] 05 p0039 N75-15161
Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-71805] 08 p0210 N75-32593
- WATERS, M. E.**
Conceptual design of reduced energy transports [ATAA PAPER 75-303] 06 p0047 A75-22508
Design of short haul aircraft for fuel conservation [SAB PAPER 750587] 08 p0169 A75-40502
- WATSON, T.**
Non-hazardous primary lithium-organic electrolyte battery BA-5590 ()/U [AD-A003312] 07 p0129 N75-21804
- WAYMAN, C. H.**
Thermodynamic considerations of 'solid state engines' based on thermoelastic martensitic transformations and the shape memory effect 06 p0045 A75-19631
- WEAVER, R. D.**
Pollution-free electrochemical power generation from low grade coal [PB-236162/4] 06 p0070 N75-16109
- WEAVER, T.**
New approaches to CTR: General relativistic power plants [UCRL-75443] 06 p0073 N75-16362
- WEBSTER, D. S.**
High energy battery program at Argonne National Laboratory [ANL-8064] 06 p0076 N75-16984
Development of high specific energy batteries for electric vehicles [ANL-8058] 06 p0076 N75-16990
- WEHLAGE, E. F.**
The role of heat transfer in solving geothermal energy problems to accelerate its effective application [ASHE PAPER 75-HT-57] 08 p0196 A75-47527

- WEHNER, G. K.
 Proceedings of the Solar Thermal Conversion Workshop
 [PB-239277/7] 07 p0145 N75-24157
 Research applied to solar thermal systems
 [PB-241089/2] 08 p0200 N75-28543
 Research applied to solar thermal power systems
 [PB-241090/0] 08 p0201 N75-28544
- WEHRL, R. D.
 A review of thermal battery technology
 05 p0007 A75-10557
 Review of thermal battery technology
 [SLA-74-5381] 06 p0076 N75-16989
- WEIL, K. H.
 Hydrogen as a fuel
 [AD-A006984] 07 p0132 N75-22477
- WEINBERG, F. J.
 Combustion R&D - Key to our energy future
 05 p0009 A75-10596
- WEINSCHROTT, D. J.
 Electricity conservation measures in the
 commercial sector: The Los Angeles experience
 [R-1592-PEA] 05 p0034 N75-13388
- WEINSTEIN, A.
 Cooling by solar heat
 [AIAA PAPER 75-609] 06 p0062 A75-28590
- WEISBERGER, L. W.
 The use of hydrogen in commercial aircraft - An
 assessment
 05 p0006 A75-10542
- WELDON, D. M.
 Methods of energy transfer from a magnetic energy
 storage system using a transfer capacitor and a
 superconducting switch
 [LA-5631-MS] 05 p0032 N75-13164
 Magnetic Energy Transfer and Storage (NETS)
 program schedules for a Fusion Test Reactor (PTR)
 [LA-5748-MS] 06 p0106 N75-21097
- WELLER, S. W.
 Proceedings of the Workshop on Needs for
 Fundamental Research in Catalysis as Related to
 the Energy Problem
 [PB-236683/9] 06 p0078 N75-17006
- WELLMAN, P.
 An economic analysis of oil shale operations
 featuring gas combustion retorting
 [PB-237851/1] 06 p0093 N75-19813
- WELLS, J.
 A high-speed superconducting generator
 06 p0060 A75-27960
- WELLS, W. G.
 Advanced nuclear research
 [GPO-41-253] 05 p0026 N75-10764
- WENTINK, T., JR.
 Wind power potential of Alaska. Part 1: Surface
 wind data from specific coastal sites
 [PB-238507/8] 06 p0105 N75-20885
- WENTORP, R. H., JR.
 Closed loop chemical systems for energy
 transmission, conversion and storage
 05 p0005 A75-10538
- WENZEL, A. B.
 A practical model law for chemical explosive
 fracture of oil shale
 06 p0078 N75-17023
- WERNER, L. B.
 Geothermal research and development program of the
 US Atomic Energy Commission
 06 p0098 N75-20834
- WERNER, R. W.
 Interesting possibilities of fusion-fission
 [BNWL-SA-5069] 06 p0096 N75-20106
- WERTH, G.
 Rationale for setting priorities for new energy
 technology research and development
 [UCRL-51511] 05 p0024 N75-10594
- WERTWIJN, R.
 Thermokinetics of a flat solar collector of
 constant heat capacity
 08 p0171 A75-41768
- WESLING, G. C.
 A potassium topping cycle for public utility power
 plants
 [AIAA PAPER 75-1235] 08 p0181 A75-45647
- WEST, A. J.
 Survey of hydrogen compatibility problems in
 energy storage and energy transmission
 applications
 [SAND-74-8219] 06 p0087 N75-18726
- WEST, C. D.
 The Harwell thermo-mechanical generator
 05 p0009 A75-10579
- WESTWOOD, I. J.
 Optimising pumped storage with tidal power in an
 estuary
 [ASME PAPER 74-WA/PWR-7] 05 p0018 A75-16881
- WETMORE, W. C.
 Fuel outlook dictating technical transport research
 05 p0011 A75-11427
- WEYGANDT, C. B.
 The study of priorities in the electrical energy
 allocation problem
 [PB-239762/8] 07 p0156 N75-26516
- WHEATON, W. L.
 The Mitre solar energy demonstration system
 06 p0055 A75-24676
- WHERLOCK, T. D.
 Coal processing by electrofluids
 [PB-236588/0] 06 p0088 N75-18743
- WHISMAN, M. L.
 Waste lubricating oil research. A comparison of
 bench-test properties of re-refined and virgin
 lubricating oils
 [PB-239124/2] 06 p0097 N75-20746
- WHITBY, R. H.
 The fuel scene and its impact on the economics of
 airline operations
 08 p0165 A75-39018
- WHITNEY, W. T.
 Interferometric tuning of a 15-atm CO2 laser
 06 p0058 A75-27518
- WILBUR, P. J.
 Solar absorption air conditioning alternatives
 08 p0167 A75-39410
- WILCOX, H. A.
 The oceanic biomass energy plantation
 [AIAA PAPER 75-635] 06 p0063 A75-28599
- WILLIAMS, D. A.
 A heat pump powered by natural thermal gradients
 05 p0006 A75-10550
- WILLIAMS, J. M.
 Environmental aspects of fusion reactors
 08 p0170 A75-41434
- WILLIAMS, J. R.
 Solar energy: Technology and applications
 05 p0012 A75-12425
 Solar heating and cooling
 07 p0111 A75-31269
 Geosynchronous satellite solar power
 07 p0111 A75-31272
 Development of a 540-sq-ft prototype faceted fixed
 mirror solar concentrator
 08 p0186 A75-45940
 The UF6 Breeder - A solution to the problems of
 nuclear power
 08 p0187 A75-45951
 Comparison and evaluation of nuclear power plant
 options for geosynchronous power stations
 08 p0193 A75-46027
- WILLIAMS, L. J.
 Conceptual design of reduced energy transports
 [AIAA PAPER 75-303] 06 p0047 A75-22508
 Air transportation energy consumption - Yesterday,
 today, and tomorrow
 [AIAA PAPER 75-319] 06 p0047 A75-22515
- WILLIAMS, L. O.
 Electrolysis of sea water
 08 p0176 A75-44775
- WILLIAMSON, K. D., JR.
 Cryogenics safety in a hydrogen fuel society
 06 p0061 A75-27973
- WILSON, C. L.
 Multispectral data systems for energy related
 problems
 07 p0118 A75-35464
- WILSON, D. R.
 Development of a theoretical method for predicting
 the performance of hydrogen-oxygen HED generators
 05 p0009 A75-10578
- WILSON, R. E.
 Applied aerodynamics of wind power machines
 [PB-238595/3] 07 p0133 N75-22669
- WILSON, R. F.
 Collection and concentration of solar energy using
 Fresnel type lenses
 [NASA-CR-142194] 06 p0080 N75-17784

- WIFF, C. B.**
Dynamic simulation for performance analysis of solar heated and cooled buildings [ASHE PAPER 74-WA/SOL-8] 05 p0019 A75-16891
SINSHAC - A simulation program for solar heating and cooling of buildings 06 p0061 A75-28093
New dimensions in water heating in the Northwest - A study of solar energy utilization 08 p0191 A75-45995
- WINTER, S.**
Rationale for setting priorities for new energy technology research and development [UCRL-51511] 05 p0024 N75-10594
- WINTER, S. D.**
US energy flow charts for 1950, 1960, 1970, 1980, 1985, and 1990 [UCRL-51487] 05 p0024 N75-10593
- WITZNER, D.**
Energy and the environment in Baden-Wuerttemberg [KFK-1966-UF] 05 p0030 N75-12439
- WISE, D. L.**
Urban waste energy resources [AIAA PAPER 75-632] 06 p0062 A75-28598
Fuel gas production from solid waste [PB-238068/1] 06 p0095 N75-19843
- WISE, J. F.**
Solar cell and array standardization for Air Force spacecraft 05 p0002 A75-10486
- WISWALL, R. H.**
Iron titanium hydride as a source of hydrogen fuel for stationary and automotive applications [BNL-18651] 05 p0030 N75-12441
- WISWALL, R. H., JR.**
An engineering-scale energy storage reservoir of iron titanium hydride 08 p0177 A75-44784
Metal hydrides as hydrogen storage media [BNL-18887] 05 p0030 N75-12440
Metal hydrides as a source of hydrogen fuel [BNL-14804-R] 06 p0104 N75-20876
- WITHERSPOON, P. A.**
Theory of heat extraction from fractured hot dry rock 06 p0057 A75-26544
- WITWER, J. G.**
Social and environmental context of the hydrogen economy 08 p0179 A75-44807
- WOLF, D. A.**
Application of heat pipes to solar collectors 08 p0195 A75-46045
Snow and ice removal from pavements using stored earth energy [PB-240623/9] 07 p0162 N75-27581
- WOLF, R.**
Methods for low cost manufacture of silicon solar arrays [ASHE PAPER 74-WA/ENER-4] 05 p0016 A75-16836
Historic development of photovoltaic power generation 06 p0051 A75-24215
Process development for low cost integrated solar arrays 06 p0054 A75-24259
Photovoltaic power 07 p0111 A75-31271
Outlook for Si photovoltaic devices for terrestrial solar-energy utilization 08 p0181 A75-45509
Research and development of low cost processes for integrated solar arrays [PB-239760/2] 07 p0156 N75-26519
- WOLF, S.**
Hydrogen sponge heat pump 08 p0194 A75-46035
- WOLLENBERG, H. A.**
The Lawrence Berkeley Laboratory geothermal program in northern Nevada 06 p0100 N75-20845
- WOLVERTON, B. C.**
Bio-conversion of water hyacinths into methane gas, part 1 [NASA-TM-X-72725] 07 p0160 N75-27564
- WOOD, J. E. B.**
The Shell natural gas airship, and other L.T.A. activities by Aerospace Developments [AIAA PAPER 75-932] 07 p0121 A75-37008
- WOOD, L.**
New approaches to CTR: General relativistic power plants [UCRL-75443] 06 p0073 N75-16362
- WOOD, L. L.**
Advanced concepts in fusion-fission hybrid reactors [UCRL-75835] 07 p0131 N75-22113
- WOODALL, J. M.**
A new concept for solar energy thermal conversion 07 p0110 A75-30368
- WOODBURY, J. R.**
Continued development of energy transmission and conversion systems [PB-236181/4] 05 p0037 N75-14278
- WOODCOCK, G. R.**
Economics analyses of solar energy utilization 05 p0004 A75-10520
Derivation of a total satellite energy system [AIAA PAPER 75-640] 06 p0064 A75-29118
Ground based solar energy technology advances 08 p0190 A75-45984
Orbital solar energy technology advances 08 p0192 A75-46018
- WOODCOCK, W.**
Design and qualification of the CTS solar cell blanket 06 p0053 A75-24248
- WOODDALL, J. M.**
Technique for producing 'good' GaAs solar cells using poor-quality substrates 08 p0195 A75-46721
- WOODS, J. W.**
Acoustic array methods for instrumentation of in situ coal gasification [UCID-16591] 06 p0104 N75-20875
- WOUTERS, L. F.**
Shallow solar pond energy conversion system: An analysis of a conceptual 10-MWe plant [UCRL-51533-REV-1] 05 p0028 N75-11467
- WRIGHT, C. E.**
Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments [PB-236305/9] 05 p0040 N75-15169
- WRIGHT, J. J.**
Natural environment design criteria for the Solar Electric Propulsion Stage (SEPS) [NASA-TM-X-64929] 07 p0138 N75-23682
- WRIGHT, J. K.**
Can hydrogen transmission replace electricity 08 p0165 A75-38863
Storing electrical energy on a large scale 08 p0165 A75-38864
The potential of natural energy sources 08 p0165 A75-38865
Will hydrogen transmission replace electricity 08 p0172 A75-42281
- WRIGHT, J. P.**
A flexible cryogenic heat pipe [AIAA PAPER 75-658] 07 p0114 A75-32916
- WRIGHT, L. O.**
Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-3192] 05 p0039 N75-15161
Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-71805] 08 p0210 N75-32593
- WRIGHT, R. R.**
Legal, economic, and energy considerations in the use of underground space [PB-236755/5] 06 p0080 N75-17749
- WU, C. C.**
Solar sea power [PB-236997/3] 06 p0082 N75-17821
- WU, Y. C. L.**
The MHD power generation system with directly fired coal 05 p0009 A75-10577
- WULFINGHOFF, D.**
Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities [AD-A003590] 08 p0202 N75-29550

Y

- YAPFEE, H. L.
Lasers investigated for space propulsion
06 p0061 A75-28439
- YABAGUCHI, H.
Superconductive d.c. generator
06 p0061 A75-27961
Water-splitting system synthesized by
photochemical and thermoelectric utilizations of
solar energy
08 p0190 A75-45994
- YAHANOTO, H.
Superconductive d.c. generator
06 p0061 A75-27961
- YANG, W.-J.
Dynamic response of solar heat storage systems
[ASME PAPER 74-WA/HT-22] 05 p0018 A75-16867
- YARYMOVICH, M. I.
Energy-related research and development in the
United States Air Force
06 p0075 N75-16979
- YASUI, R. K.
Status of JPL solar powered experiments for
terrestrial applications
05 p0005 A75-10530
- YASUNO, T.
Production of hydrogen from water using nuclear
energy. A review
[JAERI-M-5642] 06 p0093 N75-19824
- YATER, J. C.
Power conversion of energy fluctuations
05 p0011 A75-11497
- YEATS, F. W.
Efficient thermo-mechanical generation of
electricity from the heat of radioisotopes
08 p0192 A75-46013
- YEH, H.
Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating
[PB-239395/7] 07 p0157 N75-26521
Conservation and better utilization of electric
power by means of thermal energy storage and
solar heating, executive summary
[PB-239394/0] 07 p0157 N75-26522
- YEH, Y. C. H.
A 15% efficient antireflection-coated
metal-oxide-semiconductor solar cell
07 p0119 A75-36275
- YEH, J. T.
Tornado-type wind energy system
08 p0192 A75-46012
- YERSHOV, A. A.
Solar energy
[NASA-TT-P-16155] 06 p0081 N75-17787
- YIP, F. C.
A design parameter for assessing wicking
capabilities of heat pipes
[AIAA PAPER 74-1266] 05 p0010 A75-11107
- YOKOTA, H. J.
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys
[LBL-2764] 06 p0066 N75-15781
- YORK, C. I.
Solar energy program plan for heating and cooling
buildings
[WASH-1337-5-DRAFT] 06 p0077 N75-16993
- YOUNG, H. W.
Legal economic, and energy considerations in the
use of underground space
[PB-236755/5] 06 p0080 N75-17749
- YOUNG, L. E.
SEPS solar array design and technology evaluation
08 p0192 A75-46016
- YOUNG, H.
Solar energy - The physics of the greenhouse effect
07 p0120 A75-36306
- YOUNG, H. B.
Determination of carbonate minerals of Green River
formation oil shales, Piceance Creek Basin,
Colorado
[PB-240669/2] 07 p0159 N75-27554
- YOUNG, W. C.
Wisconsin superconductive energy storage project,
volume 1
[PB-238082/2] 06 p0105 N75-20887
- YOUNG, W. E.
Consideration of ultra-high temperature nuclear
heat sources for MHD conversion systems
[AIAA PAPER 75-1258] 08 p0182 A75-45659
- YU, H.-C.
Cooling a light industrial building in Puerto Rico
using solar energy
[AIAA PAPER 75-612] 08 p0170 A75-41178
- YU, W.-S.
High efficiency power conversion cycles using
hydrogen compressed by absorption on metal
hydrides
08 p0194 A75-46034
- YUNORI, I. R.
Seaward extension of urban systems: The
feasibility of offshore coal-fired electrical
power generation
[CON-75-10592/4] 08 p0208 N75-31579
- YUROVSKII, A. Z.
Sulfur in coals
[TT-70-57216] 07 p0155 N75-26503

Z

- ZACKAY, V. F.
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys
[LBL-2764] 06 p0066 N75-15781
- ZAHAVI, J.
Economic-environmental power dispatch
07 p0128 N75-21791
- ZAKHIDOV, B. A.
Study of energy distribution in the field of
concentration of a solar power plant with a
hyperboloid counterreflector
05 p0010 A75-11195
Energy distribution in the concentration field of
a solar installation with a hyperboloidal
counter-reflector
06 p0049 A75-23407
Solar heating and cooling of buildings using heat
pumps /Brief survey/
07 p0116 A75-34321
Energy distribution in the concentration field of
a two-mirror device with a paraboloidal back
reflector
07 p0122 A75-37157
Use of solar heat pumps for heating and air
conditioning - A brief survey
08 p0170 A75-41534
Calculation of the radiant energy field for a
biparaboloidal radiation furnace with a carbon arc
08 p0170 A75-41540
- ZARE, R.
Workshop in Gas-Phase Molecular Interactions and
the Nation's Energy Problem
[PB-236712/6] 06 p0086 N75-18718
- ZATELEPIN, V. B.
Effect of inhomogeneity of conductivity on end
effect in a sectional MHD generator
07 p0119 A75-36233
- ZAVRACKY, P. H.
Transparent heat-mirror films of TiO₂/Ag/TiO₂ for
solar energy collection and radiation insulation
05 p0015 A75-16378
- ZELBY, L. W.
Hydrogen as energy storage element
08 p0176 A75-44772
- ZEBER, C.
Site limitations on Solar Sea Power Plants
[AIAA PAPER 75-618] 06 p0062 A75-28594
Foam solar sea power plant
07 p0124 A75-37850
Solar sea power
[PB-235469/4] 05 p0038 N75-14284
Solar sea power
[PB-236997/3] 06 p0082 N75-17821
- ZERHOOT, F. S.
Interfuel substitution in the consumption of
energy in the United States. Part 1:
Residential and commercial sector
[PB-234536/1] 05 p0040 N75-15178
- ZHUK, V. I.
Method of calibrating a solar power plant with a
paraboloidal mirror
07 p0116 A75-34315
- ZIEGLER, J. P.
A new concept for solar energy thermal conversion
07 p0110 A75-30368

PERSONAL AUTHOR INDEX

ZYGIELBAUM, P. S.

ZIMMER, R. P.
 Benefit-cost methodology study with example
 application of the use of wind generators
 [NASA-CR-134864] 08 p0207 N75-31571

ZIMMERMAN, H. B.
 The economics of coal-based synthetic gas
 08 p0168 A75-39925

ZIMMERMAN, W. F.
 A potassium topping cycle for public utility power
 plants
 [AIAA PAPER 75-1235] 08 p0181 A75-45647

ZOSCHAK, R. J.
 A central receiver solar power plant in a hybrid
 mode of operation
 [AIAA PAPER 75-624] 06 p0062 A75-28596

ZUBALY, B.
 Fuel conservation in ship operations
 [CON-75-10466/1] 08 p0202 N75-29270

ZWINGLE, H. L.
 Technological feasibility of alternative energy
 sources
 [AD-A005549] 08 p0199 N75-28522

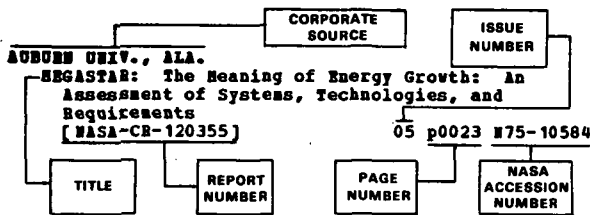
ZYGIELBAUM, P. S.
 Potential for large-scale energy storage in
 electric utility systems
 [ASME PAPER 74-WA/ENER-9] 05 p0016 A75-16840

CORPORATE SOURCE INDEX

ENERGY / A Continuing Bibliography (Issue 8)

FEBRUARY 1976

Typical Corporate Source Index Listing



The title of the document is used to provide a brief description of the subject matter. The issue, page number and NASA or AIAA accession number are included in each entry to assist the user in locating the abstract in the abstract section of an individual supplement of *Energy*. If applicable, a report number is also included as an aid in identifying the document.

A

- ADVANCED KINETICS, INC., COSTA MESA, CALIF.**
Chemical to electromagnetic energy conversion techniques
[AD-783901] 05 p0026 N75-10609
- ADVISORY GROUP FOR AEROSPACE RESEARCH AND DEVELOPMENT, PARIS (FRANCE).**
The 1974 AGARD Annual Meeting: The energy problem: Impacts on military research and development
06 p0075 N75-16977
- ABG-TELEFUNKEN, BACHNANG (WEST GERMANY).**
Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space
08 p0199 N75-28517
- ABG-TELEFUNKEN, HAMBURG (WEST GERMANY).**
Solar generator and power systems for communication satellites
08 p0206 N75-31165
- AEROJET LIQUID ROCKET CO., SACRAMENTO, CALIF.**
Development and evaluation of a Stirling-Cycle energy conversion system
[PB-239086/2] 07 p0136 N75-22918
- AEROJET NUCLEAR CO., IDAHO FALLS, IDAHO.**
Idaho geothermal R and D project report for period 16 December 1973 - 15 March 1974
[ANCR-1155] 06 p0076 N75-16985
- AIR FORCE AERO PROPULSION LAB., WRIGHT-PATTERSON AFB, OHIO.**
Evaluation of an ion exchange membrane fuel cell for space power
[AD-786888] 05 p0037 N75-14274
The role of computers in future propulsion controls
07 p0137 N75-23582
- AIR FORCE DEPT., WASHINGTON, D.C.**
Energy-related research and development in the United States Air Force
06 p0075 N75-16979
- AIR FORCE INST. OF TECH., WRIGHT-PATTERSON AFB, OHIO.**
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 2: Main report text
[AD-A006804] 07 p0142 N75-24129
An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 1: Executive summary
[AD-A006803] 07 p0149 N75-25304
- An interdisciplinary engineering approach to a facility design study with emphasis on energy conservation. Volume 3: Appendices
[AD-A006805] 07 p0149 N75-25305
- AIR FORCE SYSTEMS COMMAND, WRIGHT-PATTERSON AFB, OHIO.**
Development of solar engineering in the USSR
[AD-784708] 05 p0025 N75-10597
Energy characteristics of coaxial plasma source
[AD-787419] 06 p0073 N75-16368
Erecting gas storage facilities and oil centers
[AD-A006559] 07 p0134 N75-22783
Thermal diagrams of thermoelectrical devices
[AD-787420] 07 p0135 N75-22911
Evaluation of the energy perfection of the different forms of transport
[AD-A006562] 07 p0137 N75-23392
- AIR PRODUCTS AND CHEMICALS, INC., MARCUS HOOK, PA.**
Engineering and cost study of air pollution control for the petrochemical industry, volume 3: Ethylene dichloride manufacture by oxychlorination
[PB-240492] 07 p0162 N75-27612
- ALABAMA ENERGY MANAGEMENT BOARD, MONTGOMERY.**
Petroleum in Alabama
[PB-237353/8] 06 p0085 N75-18442
Coal in Alabama
[PB-236583/1] 06 p0088 N75-18736
Natural gas in Alabama
[PB-236582/3] 06 p0088 N75-18737
- ALASKA UNIV., COLLEGE.**
Wind power potential of Alaska. Part 1: Surface wind data from specific coastal sites
[PB-238507/8] 06 p0105 N75-20885
- ALLIED CHEMICAL CORP., IDAHO FALLS, IDAHO.**
Possibilities for lithium borohydride recycle
[ICP-1054] 06 p0074 N75-16651
- AMERICAN BAR FOUNDATION, CHICAGO, ILL.**
Proceedings of a Workshop on Solar Energy and the Law
[PB-241051/2] 08 p0201 N75-28551
- AMERICAN CYANAMID CO., STAMFORD, CONN.**
Research on cadmium stannate selective optical films for solar energy applications
[PB-236208/5] 06 p0071 N75-16117
- AMERICAN GAS ASSOCIATION, INC., ARLINGTON, VA.**
A survey of LNG technological needs in the USA: 1974 to beyond 2000
05 p0030 N75-12435
- AMERICAN PUBLIC TRANSIT ASSOCIATION, WASHINGTON, D.C.**
Papers and proceedings of two energy crisis seminars
[PB-239164/7] 07 p0156 N75-26513
- AMERICAN TRANSIT ASSOCIATION, WASHINGTON, D.C.**
Papers and proceedings of two energy crisis seminars
[PB-239164/7] 07 p0156 N75-26513
- APPLIED PHYSICS LAB., JOHNS HOPKINS UNIV., SILVER SPRING, MD.**
Engine development program for the APL remotely piloted vehicle
[AD-787507] 06 p0065 N75-15658
The multirun superflywheel
[AD-A001081] 06 p0085 N75-18594
- APPLIED URBANETICS, INC., WASHINGTON, D.C.**
Project conserve, a pilot project in homeowner energy conservation
[PB-240407/7] 07 p0161 N75-27577
- ARGONNE NATIONAL LAB., ILL.**
Reduction of atmospheric pollution by the application of fluidized-bed combustion
[PB-235840/6] 06 p0072 N75-16151
High energy battery program at Argonne National Laboratory
[ANL-8064] 06 p0076 N75-16984

ARIZONA STATE FUEL AND ENERGY

CORPORATE SOURCE INDEX

- Development of high specific energy batteries for electric vehicles
[ANL-8058] 06 p0076 N75-16990
- Status and outlook for energy conversion via fuel cells
[CONF-740462-1] 06 p0087 N75-18729
- Development of lithium/sulfur cells for application to electric automobiles
[CONF-740805-7] 06 p0094 N75-19829
- Environmental regulations and energy for home heating
[PB-240699/9] 08 p0203 N75-29587
- ARIZONA STATE FUEL AND ENERGY OFFICE, PHOENIX.
Putting the sun to work: A history and directory of currently available solar energy applications
[PB-238189/5] 07 p0129 N75-21810
- ARIZONA STATE UNIV., TEMPE.
An intercell heat pipe for fuel cell and battery cooling
[AD-782888] 05 p0027 N75-11226
- Terrestrial photovoltaic power systems with sunlight concentration
[PB-236180/6] 06 p0072 N75-16120
- Terrestrial photovoltaic power systems with sunlight concentration
[PB-238582/1] 06 p0105 N75-20886
- Terrestrial photovoltaic power systems with sunlight concentration
[PB-238506/0] 07 p0143 N75-24136
- ARIZONA UNIV., TUCSON.
Chemical vapor deposition research for fabrication of solar energy converters
[PB-235481/9] 05 p0041 N75-15185
- Research applied to solar-thermal power systems: Chemical vapor deposition research for fabrication of solar energy converters
[PB-234565/0] 05 p0041 N75-15186
- Chemical vapor deposition research for fabrication of solar energy converters
[PB-236189/7] 06 p0072 N75-16119
- Regional economics: A subset of simulation of the effects of coal-fired power development in the four corners region
06 p0107 N75-21153
- Solar photothermal power conversion
07 p0139 N75-24100
- Chemical vapor deposition research for fabrication of solar energy converters
[PB-238947/6] 07 p0143 N75-24137
- Symposium on the Material Science Aspects of Thin Film Systems for Solar Energy Conversion
[PB-239270/2] 07 p0144 N75-24150
- The impact of energy development on water resources in arid lands. Literature review and annotated bibliography
[PB-240008/3] 07 p0157 N75-26550
- ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LAB., CLEVELAND, OHIO.
A compressor designed for the energy research and development agency automotive gas turbine program
[NASA-TN-X-71719] 07 p0141 N75-24116
- ARMY CHEMICAL CENTER, EDGEWOOD, MD.
Proceedings of 5th annual symposium: Energy Research and Development
[AD-A007799] 07 p0144 N75-24142
- ARMY COLD REGIONS RESEARCH AND ENGINEERING LAB., HANOVER, N.H.
Management of power plant waste heat in cold regions
[AD-A003217] 06 p0104 N75-20881
- ARMY ELECTRONICS COMMAND, FORT MONMOUTH, N.J.
Cylindrical erbium oxide radiator structures for thermophotovoltaic generators
[AD-A001525] 07 p0129 N75-21806
- ARMY ELECTRONICS TECHNOLOGY AND DEVICES LAB., FORT MONMOUTH, N.J.
Nickel-zinc batteries for hybrid vehicle operation
[PB-239710/7] 07 p0156 N75-26514
- ARMY FOREIGN SCIENCE AND TECHNOLOGY CENTER, CHARLOTTESVILLE, VA.
Standardized wind electric power unit
[AD-783764] 05 p0025 N75-10598
- Devices based on thermoelectrical phenomena
[AD-783821] 05 p0026 N75-10836
- Geothermal power station
[AD-785948] 05 p0037 N75-14275
- Wind and solar power engineering
[AD-786844] 05 p0039 N75-15168
- Thermodynamic analysis and parameter optimization of a solar thermoelectric power unit with radiation heat dissipation
[AD-A000211] 06 p0082 N75-17819
- The MHD generator: A step toward the energy supply of tomorrow
[AD-A000087] 06 p0089 N75-18749
- The generator of the future
[AD-A001515] 06 p0089 N75-18754
- Improving the oil storage system of western Siberia
[AD-A002717] 06 p0092 N75-19705
- Results of work on thermoemission conversion
[AD-A002655] 07 p0131 N75-22114
- Investigation of characteristics of magnetohydrodynamic generators in industrial power plants
[AD-A008343] 07 p0149 N75-25307
- ARMY WAR COLL., CARLISLE BARRACKS, PA.
Oil for the free world in the 1970's
[AD-779352] 05 p0031 N75-12448
- Economic impact on the free world of the oil crisis, October 1973 - March 1974
[AD-A003136] 06 p0107 N75-21156
- Materials and the new dimensions of conflict, revised version
[AD-A004263] 07 p0154 N75-26499
- Technological feasibility of alternative energy sources
[AD-A005549] 08 p0199 N75-28522
- oil and US policy
[AD-A006473] 08 p0203 N75-29558
- ATOMIC ENERGY BOARD, PRETORIA (SOUTH AFRICA).
Brief examination of the status of nuclear power in the republic, using 1974 costs
[PEL-237E] 07 p0135 N75-22909
- ATOMIC ENERGY COMMISSION, OAK RIDGE, TENN.
Solar energy: A bibliography
[TID-3351] 06 p0103 N75-20871
- ATOMIC ENERGY COMMISSION, WASHINGTON, D.C.
Coal processing: Gasification, liquefaction, desulfurization: A bibliography, 1930 - 1974
[TID-3349] 05 p0023 N75-10578
- Energy transportation, distribution, and storage
[WASH-1281-4] 05 p0024 N75-10595
- DCTR power supply and energy storage review meeting
[WASH-1310] 05 p0031 N75-12445
- Nuclear power growth, 1974 - 2000
[WASH-1139-74] 05 p0031 N75-12723
- Fusion power by magnetic confinement
[WASH-1290] 05 p0031 N75-12797
- Status and objective of Tokamak systems for fusion research
[WASH-1295] 05 p0035 N75-13644
- Solar energy program plan for heating and cooling buildings
[WASH-1337-5-DRAFT] 06 p0077 N75-16993
- Geothermal research and development program of the US Atomic Energy Commission
06 p0098 N75-20834
- Energy R/D Data Workshop
[PB-237493/2] 07 p0130 N75-21811
- ATOMIC ENERGY OF CANADA LTD., CHALK RIVER (ONTARIO).
Review of the prospects for laser induced thermonuclear fusion
[AECL-4840] 06 p0106 N75-21099
- AUBURN UNIV., ALA.
MEGASTAR: The Meaning of Energy Growth: An Assessment of Systems, Technologies, and Requirements
[NASA-CR-120355] 05 p0023 N75-10584
- MEGASTAR: The meaning of growth. An assessment of systems, technologies, and requirements
[NASA-CR-120338] 05 p0033 N75-13381
- Solvent refined coal studies
[PB-238532/6] 07 p0134 N75-22897
- AUSTRALIAN INST. OF NUCLEAR SCIENCE AND ENGINEERING, LUCAS HEIGHTS.
Ainse Engineering Conference
[CONF-740814-ABSTS] 07 p0129 N75-21801
- AVCO-EVERETT RESEARCH LAB., EVERETT, MASS.
MHD power generation (Viking Series) with hydrocarbon fuels, part 3
[AD-A004216] 07 p0155 N75-26502

B

- B & K ENGINEERING, INC., TOWSON, MD.**
ERTS-C (Landsat 3) cryogenic heat pipe experiment definition
[NASA-CR-143797] 07 p0138 N75-23882
- BARBER-COLMAN CO., IRVINE, CALIF.**
Production of gaseous fuel by pyrolysis of municipal solid waste
[NASA-CR-141791] 07 p0140 N75-24105
- BATTELLE COLUMBUS LABS., OHIO.**
Design installation and operation of a 25 ton-a-day coal gasification process development unit for the agglomerating burner-gasification
[PB-237625/9] 06 p0087 N75-18734
Study of potential problems and optimum opportunities in retrofitting industrial processes to low and intermediate energy gas from coal
[PB-237116/9] 06 p0088 N75-18739
Energy R/D Data Workshop
[PB-237493/2] 07 p0130 N75-21811
A review of the Project Independence report submitted to Office of Energy Research and Development, National Science Foundation, 10 January 1975
[PB-238791/8] 07 p0131 N75-21823
Characterization of sulfur recovery from refinery fuel gas
[PB-239777/6] 07 p0151 N75-25326
Various research tasks related to energy information and data activities: Task 4 priorities analysis
[PB-240424/2] 07 p0151 N75-25329
Various research tasks related to energy information and data activities. Task 2 national energy indexing schemes: Characterization of problem
[PB-240423/4] 07 p0152 N75-25774
Assessment of the potential of clean fuels and energy technology
[PB-239970/7] 07 p0162 N75-27583
- BATTELLE MEMORIAL INST., RICHLAND, WASH.**
A process for cleaning and removal of sulfur compounds from low Btu gases
[PB-236522/9] 06 p0065 N75-15768
- BATTELLE-NORTHWEST, RICHLAND, WASH.**
Methanol from forestry, municipal, and agricultural organic residues
[BNWL-SA-5053] 06 p0085 N75-18702
Coal structure and reactivity
[TID-26637] 06 p0097 N75-20805
The Marysville, Montana Geothermal Project
06 p0100 N75-20849
Energy and fixed nitrogen from agricultural residues
[BNWL-SA-5070] 06 p0103 N75-20874
- BATTELLE PACIFIC NORTHWEST LABS., RICHLAND, WASH.**
Interesting possibilities of fusion-fission
[BNWL-SA-5069] 06 p0096 N75-20106
Assessment of uranium and thorium resources in the United States and the effect of policy alternatives
[PB-238658/9] 07 p0143 N75-24133
Strontium fluoride research in heat source and compatibility tests
[BNWL-1845-2] 07 p0152 N75-25695
Strontium heat source development programs
[BNWL-1845-4] 07 p0152 N75-25696
- BECHTEL CORP., SAN FRANCISCO, CALIF.**
Electric power generation using geothermal brine resources for a proof of concept facility
06 p0101 N75-20857
Path to self-sufficiency directions and constraints
[PB-239099] 07 p0142 N75-24128
Path to self-sufficiency directions and constraints, appendices
[PB-239100/1] 07 p0145 N75-24155
- BENDIX CORP., ANN ARBOR, MICH.**
Determine utility of ERTS-1 to detect and monitor area strip mining and reclamation
[E75-10327] 07 p0158 N75-27515
- BERKSHIRE COUNTY REGIONAL PLANNING COMMISSION, PITTSFIELD, MASS.**
Evaluation of power facilities; A reviewer's handbook
[PB-239221/5] 07 p0146 N75-24198
- BYCHKOV (MILTON R.), IRVINE, CALIF.**
Process and environmental technology for producing SNG and liquid fuels
[PB-242774/8] 08 p0212 N75-33491
- BLACK AND VEATCH CONSULTING ENGINEERS, KANSAS CITY, MO.**
Dynamic conversion of solar generated heat to electricity
[NASA-CR-134724] 06 p0066 N75-16079
Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies
[PB-238002/0] 06 p0087 N75-18733
- BOEING AEROSPACE CO., SEATTLE, WASH.**
Future space transportation systems systems analysis study, phase 1 technical report
[NASA-CR-141856] 07 p0147 N75-24802
- BOEING COMMERCIAL AIRPLANE CO., SEATTLE, WASH.**
Fuel conservation possibilities for terminal area compatible aircraft
[NASA-CR-132608] 06 p0091 N75-19224
- BOEING VERTOL CO., PHILADELPHIA, PA.**
Documenting helicopter operations from an energy standpoint
[NASA-CR-132578] 06 p0084 N75-18220
- BOWNER AND MOORE ASSOCIATES, INC., HOUSTON, TEX.**
Economic system analysis of coal preconversion technology
[PB-239383/3] 07 p0151 N75-25325
- B CORP. SOURCE FOR BT249037DELETED**
- B The impact of energy shortages on the iron and steel industries**
[PB-238749/6] 07 p0145 N75-24158
- BOOZ-ALLEN AND HAMILTON, INC., BETHESDA, MD.**
Alternative strategies for optimizing energy supply, distribution, and consumption systems on Naval bases. Volume 3: Assessment of total energy system applications at Naval facilities
[AD-A003590] 08 p0202 N75-29550
- BOSTON COLL., CHESTNUT HILL, MASS.**
Columnar silicon film solar cells for terrestrial applications
[PB-238534/2] 07 p0135 N75-22916
- BOSTON UNIV., MASS.**
Photochemical conversion of solar energy
[PB-236266/3] 05 p0037 N75-14281
Photochemical conversion of solar energy
[PB-235474/4] 05 p0038 N75-14282
Photochemical conversion of solar energy
[PB-235503/0] 06 p0070 N75-16106
Photochemical conversion of solar energy
[PB-238533/4] 07 p0143 N75-24132
- BRITISH LIBRARY LENDING DIV., BOSTON SPA (ENGLAND).**
State of the art and prospects for electric vehicles
[BLL-OA-TRANS-1250-(6196.3)] 06 p0074 N75-16712
Lead accumulator batteries in telecommunications
[BLL-TRANS-2943-(9022.81)] 06 p0074 N75-16967
Energy from the earth's depths
[BLL-M-23516-(5828.4F)] 06 p0074 N75-16968
Dry oil
[BLL-M-23508-(5828.4F)] 06 p0074 N75-16969
Utilizing fuel more efficiently in reheating and heat treatment furnaces
[BLL-M-21957-(5828.4F)] 06 p0080 N75-17467
Exploration of Antarctica: Past and present
[BLL-M-23343-(5828.4F)] 06 p0080 N75-17722
The action of EDF in the prevention of atmospheric pollution
[BLL-CE-TRANS-6500-(9022.09)] 06 p0083 N75-17833
Steps into the future. Development of the power industry in the USSR
[BLL-M-23330-(5828.4F)] 06 p0085 N75-18714
Man-made sun. Thermonuclear engineering developments
[BLL-M-23333-(5828.4F)] 06 p0091 N75-19014
Using systems methods for analysing integrated energy supply, summary
[BLL-CE-TRANS-6473-(9022.09)] 07 p0153 N75-26491
Utilisation of waste heat from inductive melting installations
[BLL-OA-TRANS-949-(6196.3)] 07 p0153 N75-26492

- Solids emission from power station furnaces
[BLL-CE-TRANS-6524-(9022.09)] 07 p0157 N75-26528
- The influence of the petrology of the Karagandin
coals on their methane contents
[BLL-RTS-9309] 07 p0158 N75-27511
- Soviet energy potential
[BLL-M-23413-(5828.4F)] 08 p0199 N75-28516
- BRITISH STEEL CORP., SHEPPFIELD (ENGLAND).**
The gasification of coal: A bibliography
[PB-234294/7] 05 p0034 N75-13400
- Coal petrography and petrology. A bibliography
1964 - 1973
[PB-236351/3] 06 p0072 N75-16123
- BROOKHAVEN NATIONAL LAB., UPTON, N.Y.**
Applications of fusion power technology to the
chemical industry
[BNL-18815] 05 p0029 N75-11730
- Metal hydrides as hydrogen storage media
[BNL-18887] 05 p0030 N75-12440
- Iron titanium hydride as a source of hydrogen
fuel for stationary and automotive applications
[BNL-18651] 05 p0030 N75-12441
- Survey of applications of fusion power
technology to the chemical and material
processing industry
[BNL-18866] 05 p0031 N75-12443
- Energy storage for utilities via hydrogen systems
[BNL-19266] 06 p0086 N75-18725
- Energy systems analysis and technology
assessment program
[BNL-18984] 06 p0094 N75-19831
- Hydrogen storage and production in utility systems
[BNL-18920] 06 p0097 N75-20580
- Hydrogen economy: A utility perspective
[BNL-19267] 06 p0103 N75-20870
- Hydrogen storage and production in utility systems
[BNL-19249] 06 p0103 N75-20873
- Metal hydrides as a source of hydrogen fuel
[BNL-14804-R] 06 p0104 N75-20876
- Synthetic fuels from fusion reactors
[BNL-19351] 06 p0106 N75-21098
- Synopsis of studies on synthetic fuels
production by fusion reactors
[BNL-19336] 06 p0106 N75-21104
- Coal combustion and desulfurization in a
rotating fluidized bed reactor
[BNL-19308] 07 p0129 N75-21799
- BUREAU OF MINES, ANCHORAGE, ALASKA.**
Natural gas fields, Cook Inlet Basin, Alaska
[PB-235767/1] 06 p0066 N75-16071
- BUREAU OF MINES, BARTLESVILLE, OKLA.**
Waste lubricating oil research. A comparison of
bench-test properties of re-refined and virgin
lubricating oils
[PB-238124/2] 06 p0097 N75-20746
- BUREAU OF MINES, DALLAS, TEX.**
Profitability analysis of producing crude oil by
waterflooding using a simulation technique
[PB-237843/8] 06 p0088 N75-18738
- BUREAU OF MINES, GRAND FORKS, N.DAK.**
Technology and use of lignite
[PB-238666/2] 07 p0142 N75-24131
- BUREAU OF MINES, LARAMIE, WYO.**
Preliminary evaluation of underground coal
gasification at Hanna, Wyoming
[BM-TPR-82] 05 p0025 N75-10599
- Retorting indexes for oil-shale pyrolyses from
ethylene-ethane ratios of product gases
[PB-234050/3] 05 p0034 N75-13399
- The identification of gamma-valerolactone in
waste from an oil-shale in situ retort
[PB-240098/4] 07 p0147 N75-24852
- Pulsed nuclear magnetic resonance studies of oil
shales--estimation of potential oil yields
[PB-240023/2] 07 p0148 N75-25283
- Shale retorting in a 150-ton batch-type pilot
plant
[PB-240263/4] 07 p0151 N75-25328
- Determination of carbonate minerals of Green
River formation oil shales, Piceance Creek
Basin, Colorado
[PB-240669/2] 07 p0159 N75-27554
- Producing SHG by hydrogasifying in situ crude
shale oil
[PB-240841/7] 08 p0201 N75-28548
- BUREAU OF MINES, MORGANTOWN, W.VA.**
Bureau of Mines energy program, 1973
[PB-234682/3] 05 p0040 N75-15172
- Relationships of earth fracture systems to
productivity of a gas storage reservoir
[PB-237894/1] 06 p0089 N75-18759
- An economic analysis of oil shale operations
featuring gas combustion retorting
[PB-237851/1] 06 p0093 N75-19813
- BUREAU OF MINES, PITTSBURGH, PA.**
Degasification of the Mary Lee coalbed near Oak
Grove, Jefferson County, Alabama, by vertical
borehole in advance of mining
[BM-RI-7968] 05 p0028 N75-11462
- The reserve base of bituminous coal and
anthracite for underground mining in the
Eastern United States
[PB-237815/6] 06 p0085 N75-18713
- Methane in the Pittsburgh coalbed, Washington
County, Pennsylvania
[PB-237848/7] 06 p0089 N75-18760
- Low-temperature evolution of hydrocarbon gases
from coal
[PB-238322/2] 07 p0139 N75-24074
- The mine map repository: A source of mine map
data
[PB-240136/2] 07 p0148 N75-25288
- Methane emission from U.S. Coal mines in 1973, a
survey
[PB-240154/5] 07 p0152 N75-25354
- Mass spectrometric analysis of product water
from coal gasification
[PB-240835/9] 07 p0158 N75-27120
- Conversion of cellulosic wastes to oil
[PB-240839/1] 07 p0161 N75-27572
- In situ combustion of coal for energy
[PB-241892/9] 08 p0211 N75-32603
- BUREAU OF MINES, SAN FRANCISCO, CALIF.**
Solvent stimulation tests in two California
oilfields
[PB-237849/5] 06 p0090 N75-18761
- BUREAU OF MINES, TWIN CITIES, MINN.**
Extracting minerals from geothermal brines: A
literature study
[PB-240681/7] 08 p0202 N75-29545
- BUREAU OF MINES, WASHINGTON, D.C.**
Bureau of Mines research 1973. Summary of
significant results in mining, metallurgy, and
energy
[PB-234733/4] 05 p0040 N75-15171
- Bureau of Mines research programs on recycling
and disposal of mineral, metal, and
energy-based wastes
[PB-227476/9] 05 p0042 N75-15203
- Fuel and energy data: United States by states
and regions, 1972
[PB-236581/5] 06 p0077 N75-17004
- The 1973 fuel and electrical energy requirements
of selected mineral industries activities
07 p0134 N75-22899
- Chemistry of organic sulfur compounds contained
in petroleum and petroleum products, Volume 7
[TT-70-57759] 07 p0138 N75-23691
- Sulfur in coals
[TT-70-57216] 07 p0155 N75-26503
- A summary of significant results in mining
metallurgy and energy, Bureau of Mines
Research 1974
[PB-241084/2] 08 p0199 N75-28514
- BUREAU OF NATURAL GAS, WASHINGTON, D.C.**
Offshore investigation: Producing shut-in
leases, January 1974, phase 1
05 p0027 N75-11457
- Offshore investigation: Producing shut-in
leases as of January 1974, phase 2
05 p0027 N75-11458
- BUREAU OF RECLAMATION, BOULDER CITY, NEV.**
Overview of Reclamation's geothermal program in
Imperial Valley, California
06 p0098 N75-20835
- Heat flow and geothermal potential of the East
Mesa KGRA, Imperial Valley, California
06 p0099 N75-20838
- BUREAU OF RECLAMATION, HOLTVILLE, CALIF.**
Preliminary results of geothermal desalting
operations at the East Mesa test site Imperial
Valley, California
06 p0101 N75-20850

C

- CALIFORNIA INST. OF TECH., PASADENA.**
Caltech seminar series on energy consumption in private transportation [PB-235348/0] 05 p0040 N75-15179
- Caltech seminar series on energy consumption in private transportation: Administrative summary [PB-235349/8] 05 p0041 N75-15184
- Workshop Proceedings on Solar Cooling for buildings, held in conjunction with the Semiannual Meeting of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) [PB-239419/5] 07 p0144 N75-24145
- CALIFORNIA POLYTECHNIC STATE UNIV., SAN LUIS OBISPO.**
Research on the application of solar energy to the food drying industry [PB-238073/1] 06 p0105 N75-20888
- CALIFORNIA STATE DIV. OF MASS TRANSPORTATION, SACRAMENTO.**
Energy use of public transit systems [PB-241351/6] 08 p0209 N75-31962
- CALIFORNIA STATE OFFICE OF SCIENCE AND TECHNOLOGY, SACRAMENTO.**
California energy workshop: Developing a plan of action to meet the energy crisis in California [PB-237045/0] 06 p0082 N75-17822
- CALIFORNIA UNIV., BERKELEY. LAWRENCE BERKELEY LAB.**
Cryogenic properties of Fe-Mn and Fe-Mn-Cr alloys [LBL-2764] 06 p0066 N75-15781
- Comparison of computer programs used for modeling solar heating and air conditioning systems for buildings [LBL-3066] 06 p0079 N75-17279
- The Lawrence Berkeley Laboratory geothermal program in northern Nevada 06 p0100 N75-20845
- CALIFORNIA UNIV., LIVERMORE. LAWRENCE LIVERMORE LAB.**
US energy flow charts for 1950, 1960, 1970, 1980, 1985, and 1990 [UCRL-51487] 05 p0024 N75-10593
- Rationale for setting priorities for new energy technology research and development [UCRL-51511] 05 p0024 N75-10594
- Review of direct energy conversion of ion beams: Experimental results and reactor applications [UCRL-75600] 05 p0028 N75-11466
- Shallow solar pond energy conversion system: An analysis of a conceptual 10-Mwe plant [UCRL-51533-BEV-1] 05 p0028 N75-11467
- Outlook for fusion energy sources: Remaining technological hurdles [UCRL-75418] 05 p0029 N75-11745
- Revised cost estimate for the LLL in situ coal gasification concept [UCRL-51578] 05 p0039 N75-15166
- DART: A simulation code for a direct energy converter for fusion reactors** [UCRL-51557] 05 p0043 N75-15462
- AEC in situ oil shale program** [UCID-16520] 06 p0068 N75-16090
- New approaches to CTR: General relativistic power plants** [UCRL-75443] 06 p0073 N75-16362
- Materials screening program for the LLL geothermal project** [UCRL-75353] 06 p0082 N75-17815
- LLL-SOHIO solar process heat project** [UCID-16630-74-1] 06 p0093 N75-19827
- Fracture-induced permeability: Present situation and prospects for coal** [UCRL-16593] 06 p0094 N75-19830
- Environmental aspects of methanol as vehicular fuel: Health and environmental effects** [UCRL-76076] 06 p0095 N75-19867
- Methodical approach to temperature and pressure measurements for in situ energy-recovery processes** [UCID-16631] 06 p0097 N75-20693
- The total flow concept for geothermal energy conversion** 06 p0100 N75-20846
- Acoustic array methods for instrumentation of in situ coal gasification** [UCID-16591] 06 p0104 N75-20875
- Liquid plugging in in situ coal gasification processes [UCRL-51686] 07 p0127 N75-21480
- Three-dimensional subsurface delineation via a novel method for determining the subsurface electrical profile [UCRL-51685] 07 p0127 N75-21781
- Methyl alcohol production by in situ coal gasification [UCID-51600] 07 p0128 N75-21797
- Direct conversion of plasma energy to electricity for mirror fusion reactors [UCRL-76051] 07 p0129 N75-21800
- Advanced concepts in fusion-fission hybrid reactors [UCRL-75835] 07 p0131 N75-22113
- CALIFORNIA UNIV., LIVERMORE. LAWRENCE RADIATION LAB.**
Use of methanol in transportation [UCID-16528] 06 p0077 N75-16996
- CALIFORNIA UNIV., RIVERSIDE.**
Geophysical, geochemical, and geological investigations of the Dunes geothermal system, Imperial Valley, California [IGPP-UCR-74-31] 06 p0098 N75-20836
- CARNEGIE-MELLON UNIV., PITTSBURGH, PA.**
Solar sea power [PB-235469/4] 05 p0038 N75-14284
- Solar sea power [PB-236997/3] 06 p0082 N75-17821
- CENTER FOR NAVAL ANALYSES, ARLINGTON, VA.**
The economic impact of an interruption in United States petroleum imports: 1975 - 2000 [AD-A010914] 08 p0214 N75-33931
- CHAMBER OF COMMERCE, HOUSTON, TEX.**
Proceedings of the first 1974 Technology Transfer Conference [NASA-CR-142119] 06 p0078 N75-17188
- CHEVRON INTERNATIONAL OIL CO., INC., SAN FRANCISCO, CALIF.**
Cooperative efforts by industry and government to develop geothermal resources 06 p0102 N75-20861
- CHICAGO UNIV., ILL.**
Environmental regulations and energy for home heating [PB-240699/9] 08 p0203 N75-29587
- CITY OF BURBANK, CALIF.**
A city invests in its future 06 p0102 N75-20862
- COLORADO SCHOOL OF MINES, GOLDEN.**
The Colorado School of Mines Nevada geothermal study 06 p0099 N75-20837
- COLORADO SPRINGS DEPT. OF PUBLIC UTILITIES, COLO.**
Assessment of a single family residence solar heating system in a suburban development setting [PB-240784/9] 08 p0203 N75-29552
- Assessment of a single family residence solar heating system in a suburban development setting [PB-240553/8] 08 p0203 N75-29570
- COLORADO STATE UNIV., FORT COLLINS.**
Primary data on economic activity and water use in prototype oil shale development areas of Colorado: An initial inquiry [PB-236039/4] 05 p0037 N75-14277
- Solar thermal electric power systems [PB-235475/1] 05 p0038 N75-14283
- Solar thermal electric power systems [PB-236368/7] 06 p0071 N75-16118
- Design and construction of a residential solar heating and cooling system [PB-237042/7] 06 p0082 N75-17823
- COLUMBIA UNIV., NEW YORK.**
Workshop in Gas-Phase Molecular Interactions and the Nation's Energy Problem [PB-236712/6] 06 p0086 N75-18718
- COMBUSTION ENGINEERING, INC., WINDSOR, CONN.**
Low-BTU gasification of coal for electric power generation [PB-236972/6] 06 p0088 N75-18740
- COMBUSTION POWER CO., INC., MENLO PARK, CALIF.**
Energy conversion from coal utilizing CPU-400 technology [PB-235817/4] 06 p0068 N75-16093
- Energy conversion from coal utilizing CPU-400 technology [PB-237028/6] 06 p0083 N75-17828

COMITATO NAZIONALE PER L'ENERGIA NUCLEARE, ROME (ITALY).
Beneficial uses of waste heat [RT/PROT-(74)10] 06 p0068 N75-16091

COMMERCE DEPT., WASHINGTON, D.C.
Commerce today, volume 5, number 10 [COM-74-50944/10] 07 p0152 N75-25775

COMMERCE TECHNICAL ADVISORY BOARD, WASHINGTON, D.C.
Review of Project Independence Blueprint: Panel subcommittee reports on FEA-interagency task forces [COM-75-10500/7] 08 p0203 N75-29553

COMMITTEE OF CONFERENCE (U. S. CONGRESS).
Energy Reorganization Act of 1974 [S-REPT-93-1252] 07 p0142 N75-24123
Special Energy Research and Development Appropriation Act, 1975 [PUB-LAW-93-322] 08 p0209 N75-31957

COMMITTEE ON APPROPRIATIONS (U. S. HOUSE).
Public works for water and power development and Atomic Energy Commission Appropriation Bill, 1975. Part 6: Tennessee Valley Authority [GPO-32-403] 05 p0026 N75-10859

COMMITTEE ON BANKING AND CURRENCY (U. S. HOUSE).
The economics of energy and natural resource pricing [GPO-48-071] 07 p0141 N75-24115

COMMITTEE ON COMMERCE (U. S. SENATE).
Limit lead in gasoline [GPO-29-660] 05 p0023 N75-10259
Development of oil and gas on the Continental Shelf [GPO-31-891] 06 p0075 N75-16973
Oil and gas development and coastal zone management [GPO-37-347] 08 p0206 N75-31556
Outer continental shelf oil and gas leasing off southern California: Analysis of issues [GPO-41-659] 08 p0209 N75-31958
Outer continental shelf oil and gas development and the coastal zone [GPO-39-356] 08 p0209 N75-31959
Science and Technology Applications Act of 1974 [GPO-41-407] 08 p0209 N75-31961
Study of potential for motor vehicle fuel economy improvement. Fuel economy test procedure panel report no. 6 [PB-241776/4] 08 p0210 N75-32470
Study of potential for motor vehicle fuel economy improvement. Technology panel report no. 4 [PB-241774/9] 08 p0210 N75-32471

COMMITTEE ON FINANCE (U. S. SENATE).
World oil developments and US oil import policies [GPO-22-893] 07 p0148 N75-25294

COMMITTEE ON FOREIGN RELATIONS (U. S. SENATE).
Energy and foreign policy [GPO-22-562] 07 p0142 N75-24125

COMMITTEE ON GOVERNMENT OPERATIONS (U. S. SENATE).
Energy Reorganization Act of 1974 [S-REPT-93-980] 07 p0142 N75-24124
Current energy shortages oversight series: Oil brokers, part 7 [GPO-32-607] 07 p0161 N75-27576
To establish an Energy Research and Development Administration and a Nuclear Energy Commission [GPO-28-963] 08 p0209 N75-31960

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS (U. S. HOUSE).
Oil shale development, part 2 [GPO-30-368] 05 p0027 N75-11455
Providing for a national fuels and energy conservation policy, establishing an office of energy conservation in the Department of the Interior, and for other purposes [H-REPT-93-1546] 08 p0208 N75-31953

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS (U. S. SENATE).
Economic impact of the oil shale industry in western Colorado [GPO-28-608] 05 p0024 N75-10588
National Crude Oil Refinery Development Act, part 2 [GPO-35-578] 05 p0027 N75-10860
The National Coal Conversion Act and the National Crude Oil Refinery Development Act [GPO-28-964] 05 p0027 N75-10861
The prospects for gasoline availability: 1974 [GPO-34-969] 05 p0039 N75-15155

Oversight: Mandatory petroleum allocation programs, part 1 [GPO-30-060] 05 p0039 N75-15158
Oversight: Mandatory petroleum allocation programs, part 2 [GPO-31-519] 05 p0039 N75-15159
Prototype oil shale leasing program [GPO-28-686] 05 p0039 N75-15160
An assessment and analysis of the energy emergency [GPO-25-382] 06 p0066 N75-16076
Market performance and competition in the petroleum industry, part 1 [GPO-28-503] 06 p0066 N75-16077
Oversight: Mandatory petroleum allocation programs [GPO-31-027] 06 p0081 N75-17806

COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE (U. S. HOUSE).
Independent truckers and the energy crisis [GPO-31-412] 05 p0023 N75-10581
Study of potential for motor vehicle fuel economy improvement. Fuel economy test procedure panel report no. 6 [PB-241776/4] 08 p0210 N75-32470
Study of potential for motor vehicle fuel economy improvement. Technology panel report no. 4 [PB-241774/9] 08 p0210 N75-32471

COMMITTEE ON LABOR AND PUBLIC WELFARE (U. S. SENATE).
Effects of energy crisis on education, 1974 [GPO-27-765] 05 p0026 N75-10850
Effects of the energy crisis on employment dislocation, 1974 [GPO-35-761] 08 p0208 N75-31918

COMMITTEE ON PUBLIC WORKS (U. S. SENATE).
Fuel availability and allocation in the United States [GPO-31-711] 06 p0067 N75-16081
Transportation and the new energy policies: Truck sizes and weights, part 2 [GPO-29-802] 06 p0073 N75-16410
The need for a national materials policy, part 1 [GPO-39-885] 08 p0209 N75-31954
The need for a national materials policy, part 2 [GPO-40-687] 08 p0209 N75-31955
The need for a national materials policy, part 3 [GPO-40-687] 08 p0209 N75-31956

COMMITTEE ON SCIENCE AND ASTRONAUTICS (U. S. HOUSE).
Research, development, and the energy crisis [GPO-27-032] 05 p0023 N75-10580
Advanced nuclear research [GPO-41-253] 05 p0026 N75-10764
Bioconversion [GPO-37-403] 05 p0028 N75-11463
Solar sea thermal energy [GPO-37-476] 05 p0030 N75-12430
Energy and environmental standards [GPO-37-171] 05 p0030 N75-12431
Solar photovoltaic energy [GPO-39-576] 05 p0032 N75-13379
Wind energy [GPO-37-390] 05 p0033 N75-13387
Conservation and efficient use of energy [H-REPT-93-1634] 05 p0036 N75-14265
Energy from US and Canadian tar sands: Technical, environmental, economic, legislative, and policy aspects [GPO-43-005] 06 p0067 N75-16083
Synthetic Liquid Fuel Research and Development Act of 1974 [GPO-44-818] 06 p0103 N75-20867
Solar Energy Research, Development, and Demonstration Act of 1974 [GPO-39-827] 07 p0149 N75-25299
Energy policy and resource management [GPO-33-634] 07 p0149 N75-25300
Energy legislation [GPO-33-571] 07 p0149 N75-25301
Solar Energy Research, Development, and Demonstration Act of 1974 [GPO-39-827] 08 p0207 N75-31567

COMMITTEE ON SCIENCE AND TECHNOLOGY (U. S. HOUSE).
Solar Heating and Cooling Demonstration Act of 1974: Oversight hearings [GPO-55-414] 08 p0212 N75-33495

COMMITTEE ON WAYS AND MEANS (U. S. SENATE).
Elimination of duty on methanol imported for certain uses [H-REPT-93-998] 05 p0026 N75-10857

CORPORATE SOURCE INDEX

ENVIRONMENTAL PROTECTION AGENCY, ANN ARBOR, MICH.

- COMPTROLLER GENERAL OF THE UNITED STATES, WASHINGTON, D.C.**
Progress and problems in developing nuclear and other experimental techniques for recovering natural gas in the Rocky Mountain area [B-164105] 06 p0075 N75-16975
- CONNECTICUT UNIV., STORRS.**
Electric power generation utilizing a heat pipe turbine-generator 07 p0139 N75-24096
- CONTINENTAL OIL CO., HOUSTON, TEX.**
Project Rio Blanco data report: Production testing (RB-E-01), November 1973 and January - February 1974 [HVO-148] 06 p0094 N75-19833
- CORNELL UNIV., ITHACA, N.Y.**
Atlantic outer continental shelf energy resources: An economic analysis [COM-75-10330/9] 07 p0152 N75-26484
- COUNCIL ON ENVIRONMENTAL QUALITY, WASHINGTON, D.C.**
Energy and the environment: Electric power 05 p0030 N75-12438
- OCS oil and gas: An environmental assessment, volume 3 06 p0083 N75-17836
- OCS oil and gas: An environmental assessment, Volume 1 06 p0083 N75-17837
- OCS oil and gas: An environmental assessment, Volume 2 06 p0084 N75-17838
- OCS oil and gas: An environmental assessment, volume 4 06 p0084 N75-17839
- OCS oil and gas: An environmental assessment, volume 5 06 p0084 N75-17840
- CUERAN ASSOCIATES, INC., NORTHAMPTON, MASS.**
Evaluation of power facilities; A reviewer's handbook [PB-239221/5] 07 p0146 N75-24198
- D**
- DATA RESOURCES, INC., LEXINGTON, MASS.**
A study of the demand for gasoline [PB-235254/0] 06 p0070 N75-16105
- DEFENSE DOCUMENTATION CENTER, ALEXANDRIA, VA.**
Energy conversion [AD-A009600] 08 p0208 N75-31580
- DELAWARE UNIV., NEWARK.**
Direct solar energy conversion for large scale terrestrial use [PB-236193/9] 06 p0071 N75-16115
- Environmental aspects of cadmium sulfide usage in solar energy conversion. Part 1: Toxicological and environmental health considerations, a bibliography [PB-238285/1] 06 p0105 N75-20884
- Direct solar energy conversion for large scale terrestrial use [PB-241007/4] 08 p0201 N75-28545
- DENVER RESEARCH INST., COLO.**
Applications of aerospace technology in the electric power industry 06 p0079 N75-17197
- DEVELOPMENT PLANNING AND RESEARCH ASSOCIATES, INC., MANHATTAN, KANS.**
Industrial energy study of selected food industries [PB-237316/5] 06 p0083 N75-17827
- DORNIER-SYSTEM G.M.B.H., FRIEDRICHSHAFEN (WEST GERMANY).**
Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space 08 p0199 N75-28517
- DOM CHEMICAL CO., FREEPORT, TEX.**
Energy consumption: Paper, stone/clay/glass/concrete, and food industries [PB-241926/5] 08 p0211 N75-32607
- Energy consumption: The primary metals and petroleum industries [PB-241990/1] 08 p0213 N75-33503
- DREXEL UNIV., PHILADELPHIA, PA.**
Utilization analysis of energy systems [PB-239291/8] 07 p0144 N75-24144
- DUKE UNIV., DURHAM, N.C.**
Design of energy storage reactors for dc-to-dc converters [NASA-CR-143327] 08 p0204 N75-30438
- DYNATECH R/D CO., CAMBRIDGE, MASS.**
Fuel gas production from solid waste [PB-238068/1] 06 p0095 N75-19843
- DYNATHERM CORP., COCKEYSVILLE, MD.**
Snow and ice removal from pavements using stored earth energy [PB-240623/9] 07 p0162 N75-27581
- Research applied to solar thermal systems [PB-241089/2] 08 p0200 N75-28543
- Research applied to solar thermal power systems [PB-241090/0] 08 p0201 N75-28544
- E**
- EASON OIL CO., OKLAHOMA CITY, OKLA.**
Evaluation of the suitability of Skylab data for the purpose of petroleum exploration [E75-10257] 07 p0147 N75-25237
- EIC, INC., NEWTON, MASS.**
Sulfur-based lithium-organic electrolyte secondary batteries [AD-A003309] 06 p0104 N75-20882
- ELECTRIC POWER RESEARCH INST., PALO ALTO, CALIF.**
Conference proceedings: Power Generation-Clean Fuels Today [PB-237661/4] 06 p0087 N75-18735
- Conference proceedings, Steam Power Plant Workshop [PB-239514/3] 07 p0144 N75-24148
- Uranium resources to meet long term uranium requirements [PB-239515/0] 08 p0199 N75-28508
- Evaluation of fixed bed, low BTU coal gasification systems for retrofitting power plants [PB-241672/5] 08 p0211 N75-32602
- ELECTRICITY COUNCIL, LONDON (ENGLAND).**
Air conditioning of office buildings with all-electric supply. Part 1: Technical conception [OA-TRANS-938-PT-1] 06 p0074 N75-16970
- Heat pumps in large buildings [OA-TRANS-939] 06 p0078 N75-17184
- ELECTROTECHNICAL LAB., TOKYO (JAPAN).**
Studies on improvement of the characteristics of MHD power generating channel [REPT-749] 07 p0148 N75-25293
- ENERGY AND ENVIRONMENTAL ANALYSIS, INC., ARLINGTON, VA.**
Projected regional energy availability in 1985 [AD-A008938] 08 p0205 N75-30659
- ENERGY RESEARCH CORP., BETHEL, CONN.**
Electrolyte for hydrocarbon air fuel cells [AD-A007220] 07 p0136 N75-22917
- ENERGY RESOURCES CONSERVATION BOARD, CALGARY (ALBERTA).**
Conservation in Alberta, 1973 07 p0158 N75-27532
- ENVIRONMENTAL PROTECTION AGENCY, ADA, OKLA.**
Pollutional problems and research needs for an oil shale industry [PB-236608/6] 06 p0084 N75-17848
- ENVIRONMENTAL PROTECTION AGENCY, ANN ARBOR, MICH.**
Technological improvements to automobile fuel consumption. Volume 1: Executive summary [PB-238677/9] 07 p0132 N75-22478
- Technological improvements to automobile fuel consumption. Volume 2A: Sections 1 through 23 [PB-238678/7] 07 p0132 N75-22479
- Technological improvements to automobile fuel consumption. Volume 2B: Sections 24 and 25 and appendixes A through I [PB-238679/5] 07 p0132 N75-22480
- A study of technological improvements in automotive fuel consumption. Volume 1: Executive summary [PB-238693/6] 07 p0132 N75-22481
- A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion [PB-238694/4] 07 p0132 N75-22482
- A study of technological improvements in automobile fuel consumption. Volume 3A: Appendixes 1 - 111 [PB-238695/1] 07 p0133 N75-22483

- A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7
[PB-238696/9] 07 p0133 N75-22484
- ENVIRONMENTAL PROTECTION AGENCY, CORVALLIS, OREG.
The bioenvironmental impact of air pollution from fossil-fuel power plants
[PB-237720/8] 06 p0090 N75-18782
- ENVIRONMENTAL PROTECTION AGENCY, RESEARCH TRIANGLE PARK, N.C.
Compilation of air pollutant emission factors, second edition, supplement no. 3
[PB-235736/6] 06 p0073 N75-16152
Inspection and maintenance of light-duty gasoline powered motor vehicles: A guide for implementation
[PB-236587/2] 06 p0090 N75-18784
Background information for standards of performance: Coal preparation plants. Volume 2: Summary and test data
[PB-237696/0] 06 p0091 N75-18797
Report to Congress on control of sulfur oxides
[PB-241021/5] 08 p0204 N75-29597
- ENVIRONMENTAL PROTECTION AGENCY, WASHINGTON, D.C.
The Environmental protection agency industrial technology transfer program
06 p0078 N75-17193
Study of potential for motor vehicle fuel economy improvement. Fuel economy test procedure panel report no. 6
[PB-241776/4] 08 p0210 N75-32470
Study of potential for motor vehicle fuel economy improvement. Technology panel report no. 4
[PB-241774/9] 08 p0210 N75-32471
- ESSO RESEARCH AND ENGINEERING CO., LINDEN, N.J.
Photochemical conversion of solar energy
[PB-235474/4] 05 p0038 N75-14282
Evaluation of pollution control in fossil fuel conversion processes. Gasification, section 1: Synthane process
[PB-237113/6] 06 p0095 N75-19879
- ESSO RESEARCH CENTER, ABINGDON (ENGLAND).
Chemically active fluid-bed process for sulphur removal during gasification of heavy fuel oil, phase 2
[PB-240632/0] 07 p0159 N75-27556
- EUROPEAN SPACE AGENCY, PARIS (FRANCE).
Reflector-absorber systems for solar thermionic converters
[ESRO-TT-123] 06 p0104 N75-20878
Problems of the future and potentialities of system engineering
[ESRO-TT-110] 06 p0107 N75-21218
On the application of hydrogen as a fuel for automotive vehicles
[ESRO-TT-132] 07 p0135 N75-22910
- EXXON RESEARCH AND ENGINEERING CO., LINDEN, N.J.
Feasibility study of alternative fuels for automotive transportation. Volume 1: Executive summary
[PB-235581/6] 05 p0041 N75-15187
Feasibility study of alternative fuels for automotive transportation. Volume 2: Technical section
[PB-235582/4] 05 p0041 N75-15188
Feasibility study of alternative fuels and automotive transportation. Volume 3: Appendices
[PB-235583/2] 05 p0041 N75-15189
Effects of changing the proportions of automotive distillate and gasoline produced by petroleum refining
[PB-236900/7] 06 p0085 N75-18443
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: Lurgi process
[PB-237694/5] 06 p0096 N75-19880
Evaluation of pollution control in fossil fuel conversion processes. Liquefaction, section 1: COED process
[PB-240371/5] 07 p0162 N75-27626
Evaluation of pollution control in fossil fuel conversion processes: Gasification. Section 1: CO2 acceptor process
[PB-241141/1] 08 p0204 N75-29596
- Evaluation of pollution control in fossil fuel conversion processes. Liquefaction: Section 2. SRC process
[PB-241792/1] 08 p0212 N75-32627
- F**
- FAIRCHILD SPACE AND ELECTRONICS CO., GERMANTOWN, MD.
SENSE 2: Space applications of nuclear power. Volume 1: Commercial communications satellite
[AEC-SNS-3063-3-VOL-1] 06 p0065 N75-15742
- FEDERAL ENERGY ADMINISTRATION, WASHINGTON, D.C.
Project Independence
05 p0029 N75-12428
Industrial energy study of the hydraulic cement industry
[PB-237142/5] 06 p0087 N75-18730
Report to congress on petrochemicals
[PB-238064/0] 06 p0097 N75-20478
Retrofitting existing housing for energy conservation: An economic analysis
[COM-75-50049/6] 07 p0135 N75-22914
Five year program planning document for end use energy conservation, research, development, and demonstration
[PB-240406/9] 07 p0152 N75-25331
Solar energy projects of the Federal Government
[PB-241620/4] 08 p0208 N75-31582
- FEDERAL POWER COMMISSION, WASHINGTON, D.C.
Offshore investigation: Producidble shut-in leases as of January 1974 (second phase)
[PB-234490/1] 05 p0040 N75-15174
Total energy supply and demand, volume 1, chapter 6
06 p0067 N75-16082
A realistic view of US natural gas supply
[PB-238964/1] 07 p0134 N75-22898
Measure for reducing energy consumption for homeowners and renters
[PB-240472/1] 08 p0201 N75-28546
Natural Gas Act, 1 March 1974
08 p0204 N75-30646
- FEDERAL TRADE COMMISSION, WASHINGTON, D.C.
Oversight: Mandatory petroleum allocation programs
[GPO-31-027] 06 p0081 N75-17806
- FLORIDA UNIV., GAINESVILLE.
Energy required to develop power in the United States
05 p0032 N75-13378
Formulation of a data base for the analysis, evaluation and selection of a low temperature solar powered air conditioning system
[PB-238683/7] 07 p0136 N75-22928
- FLUOR UTAB, SAN MATEO, CALIF.
Economic system analysis of coal preconversion technology
[PB-239383/3] 07 p0151 N75-25325
- PMC CORP., PRINCETON, N.J.
Char oil energy development
[PB-233263/3] 05 p0025 N75-10603
Char oil energy development
[PB-234018/0] 05 p0040 N75-15173
- FOSTER ASSOCIATES, INC., WASHINGTON, D.C.
Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 1: Market analysis
[PB-236631/8] 06 p0071 N75-16113
Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 2: Current and projected demand, supply and price of energy in the United States
[PB-236632/6] 06 p0078 N75-17007
Prospective regional markets for coal conversion plant products projected to 1980 and 1985. Volume 3: Current and projected demand, supply and price of energy in the United States, schedules
[PB-236633/4] 06 p0078 N75-17008
- FOSTER WHEELER CORP., LIVINGSTON, N.J.
Solar Power Array for the Concentration of Energy (SPACE)
[PB-236247/3] 06 p0071 N75-16114
Summary of results of solar power arrays for the concentration of energy study
[PB-238003/8] 06 p0089 N75-18756

G

GCA CORP., BEDFORD, MASS.
Waste automotive lubricating oil reuse as a fuel
[PB-241357/3] 08 p0204 N75-30331

GENERAL ELECTRIC CO., CINCINNATI, OHIO.
Study of the costs and benefits of composite materials in advanced turbofan engines
[NASA-CR-134696] 06 p0073 N75-16637
Potassium topping cycles for stationary power
[NASA-CR-2518] 07 p0135 N75-22906
Development of low emission porous plate combustor for automotive gas turbine and Rankine cycle engines
[PB-240776/5] 07 p0162 N75-27619

GENERAL ELECTRIC CO., PHILADELPHIA, PA.
Solar heating and cooling of buildings, phase 0: Feasibility and planning study. Volume 3, book 1, appendix A, task 1: Development of requirements. Appendix B, task 2: Systems definition
[PB-235433/0] 05 p0042 N75-15191
Solar heating and cooling of buildings. Phase 0: Feasibility and planning study. Volume 1:
[PB-235431/4] 06 p0069 N75-16101
Solar heating and cooling of buildings. Phase 0: Feasibility and planning study. Volume 2: Technical report
[PB-235432/2] 06 p0069 N75-16102
Solar heating and cooling of buildings. Phase 0. Feasibility and planning study. Volume 3, book 2, appendix c, task 3: Assessment of capture potential. Appendix d, task 4: Social and environmental study
[PB-235434/8] 06 p0070 N75-16108
Multi-hundred watt radioisotope thermoelectric generator program, part 1
[GESP-7107-PT-1] 06 p0092 N75-19354
Multi-hundred watt radioisotope thermoelectric generator program, part 2
[GESP-7107-PT-2] 06 p0092 N75-19355
Evaluation of a fossil fuel fired ceramic regenerative heat exchanger
[PB-236346/3] 06 p0092 N75-19599
Solar heating and cooling of buildings study conducted for department of the Army. Volume 1: Executive summary and implementation plans
[AD-A002576] 06 p0104 N75-20879
Solar heating and cooling of buildings study conducted for Department of the Army. Volume 2: Technical report
[AD-A002563] 06 p0104 N75-20880
Solar heating experiment on the Grover Cleveland School, Boston, Massachusetts
[PB-239516/8] 07 p0155 N75-26505

GENERAL ELECTRIC CO., SCHENECTADY, N.Y.
Long term power system dynamics. Volume 1: Summary and technical report
[PB-240799/7] 07 p0161 N75-27573
Long term power system dynamics. Volume 2: Long-term power system dynamics simulation program
[PB-240800/3] 07 p0161 N75-27574

GENERAL RESEARCH CORP., SANTA BARBARA, CALIF.
Impact of future use of electric cars in the Los Angeles region. Volume 1: Executive summary and technical report
[PB-238877/5] 07 p0131 N75-22199
Impact of future use of electric cars in the Los Angeles region. Volume 2: Task reports on electric car characterization and baseline projections
[PB-238878/3] 07 p0131 N75-22200
Impact of future use of electric cars in the Los Angeles region. Volume 3: Task reports on impact and usage analysis
[PB-238879/1] 07 p0131 N75-22201

GEOLOGICAL SURVEY, DENVER, COLO.
Average oil yield tables for oil shale sequences in cores from the Uinta Basin, Utah, that average 15, 20, 25, 30, 35, and 40 gallons per ton
[PB-236068/3] 06 p0072 N75-16124

GEOLOGICAL SURVEY, MENLO PARK, CALIF.
Leasing of federal geothermal resources
06 p0099 N75-20841

GEOLOGICAL SURVEY, RESTON, VA.
Geothermal reservoir simulation
06 p0101 N75-20852
Relationships between bidding and hydrocarbon production of the Federal Outer Continental Shelf (through 1970)
[PB-238188/7] 07 p0127 N75-21788

GEOLOGICAL SURVEY, SACRAMENTO, CALIF.
Measuring ground movement in geothermal areas of Imperial Valley, California
06 p0099 N75-20842

GEORGIA INST. OF TECH., ATLANTA.
Solar heating and cooling experiment for a school in Atlanta
[PB-240611/4] 07 p0155 N75-26510
Benefit-cost methodology study with example application of the use of wind generators
[NASA-CR-134864] 08 p0207 N75-31571

GILBERT ASSOCIATES, INC., READING, PA.
Low Btu gasification high temperature-low temperature H₂S removal comparison effect on overall thermal efficiency in a combined cycle power plant
[PB-235780/4] 06 p0072 N75-16125

GORDIAN ASSOCIATES, INC., NEW YORK.
Where the boilers are: A survey of electric utility boilers with potential capacity for burning solid waste as fuel
[PB-239392/4] 07 p0143 N75-24135

GRUMMAN AEROSPACE CORP., BETHPAGE, N.Y.
Heat pipe manufacturing study
[NASA-CR-139140] 05 p0023 N75-10347
Deployable heat pipe radiator
[NASA-CR-143863] 07 p0147 N75-25088

GULF GENERAL ATOMIC, SAN DIEGO, CALIF.
Application study of a nuclear coal solution gasification process for Oklahoma coal, volume 1
[PB-236156/6] 05 p0037 N75-14279
Radioisotope space power generator
[GA-A-12848] 05 p0038 N75-14832

GUYOL (NATHANIEL B.), SAN RAFAEL, CALIF.
The approaching energy crisis: A call for action
05 p0030 N75-12432

H

HAMILTON STANDARD DIV., UNITED AIRCRAFT CORP., WINDSOR LOCKS, CONN.
Pyrolysis system evaluation study
[NASA-CR-141664] 06 p0086 N75-18722

HANPTON INST., VA.
Space and energy conservation housing prototype unit development
[NASA-CR-143201] 07 p0160 N75-27567

HANDELSMINISTERIET, COPENHAGEN (DENMARK).
Coordinated extension of power plants in the 1980's. A statement submitted to the Ministry of Commerce, Shipping, and Industry by the Energy Committee of the Power Plants
[NP-20023] 06 p0067 N75-16088

HAWAII UNIV., HONOLULU.
Hawaii geothermal project
06 p0099 N75-20840
An evaluation of oceanographic and socioeconomic aspects of a nearshore ocean thermal energy conversion pilot plant in subtropical Hawaiian waters
[PB-242167/5] 08 p0213 N75-33509

HELIO ASSOCIATES, INC., TUCSON, ARIZ.
Air-stable selective surfaces for solar energy collectors
[PB-236196/2] 06 p0071 N75-16116

HERBERT H. LEHMANN COLL., BRONX, N.Y.
The energy crisis and decision making in the family
[PB-238783/5] 06 p0106 N75-21028

HITMAN ASSOCIATES, INC., COLUMBIA, MD.
Fuel and energy consumption in the coal industries
[PB-237151/6] 06 p0088 N75-18744
Assessment of the Rankine cycle for potential application to solar powered cooling of buildings
[PB-238069/9] 06 p0089 N75-18755
Environmental impacts, efficiency, and cost of energy supply and end use, volume 2
[PB-239159] 07 p0149 N75-25306

HOLT (BEN) CO., PASADENA, CALIF.

Field surveillance and enforcement guide for petroleum refineries
[PB-236669/8] 06 p0090 N75-18786

Investment and operating costs of binary cycle geothermal power plants
06 p0101 N75-20855

HONEYWELL, INC., MINNEAPOLIS, MINN.

Dynamic conversion of solar generated heat to electricity
[NASA-CR-134724] 06 p0066 N75-16079

Solar thermal conversion program. Central receiver POCE project, subsystem specifications studies
[PB-238002/0] 06 p0087 N75-18733

Development of flat-plate solar collectors for the heating and cooling of buildings
[NASA-CR-134804] 07 p0154 N75-26495

Design and test report for transportable solar laboratory program
[PB-240609/8] 07 p0156 N75-26512

Research applied to solar thermal systems
[PB-241089/2] 08 p0200 N75-28543

Research applied to solar thermal power systems
[PB-241090/0] 08 p0201 N75-28544

HOUSTON UNIV., TEX.

Energy recovery from solid waste
06 p0079 N75-17200

Economic modeling and energy policy planning
06 p0079 N75-17210

The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors
[PB-236412/3] 06 p0083 N75-17830

Solar thermal power systems based on optical transmission
[PB-237005/4] 06 p0088 N75-18742

Energy recovery from solid waste. Volume 1: Summary report
[NASA-CR-2525] 06 p0098 N75-20830

The evaluation of surface geometry modification to improve the directional selectivity of solar energy collectors
[PB-238509/4] 07 p0130 N75-21822

Energy recovery from solid waste. Volume 2: Technical report
[NASA-CR-2526] 07 p0148 N75-25292

HUDSON INST., INC., CROTON-ON-HUDSON, N.Y.

Energy and security: Implications for American policy
[AD-785084] 05 p0032 N75-12857

A study of energy systems command, control and communication for energy crisis management
[PB-239290/0] 07 p0136 N75-22927

ILLINOIS UNIV., CHICAGO.

Proceedings of the 2nd Annual Illinois Energy Conference
[PB-240548/8] 07 p0161 N75-27575

ILLINOIS UNIV., URBANA.

Biological conversion of organic refuse to methane
[PB-235468/6] 05 p0041 N75-15183

Energy use in the commercial and industrial sectors of the US economy, 1963
[PB-235487/6] 06 p0070 N75-16104

The oxidation of ethylene in automotive engine exhaust gas; an experimental investigation
07 p0138 N75-23719

US energy and fuel demand to 1985, a composite projection by user within Petroleum Administration for Defense (PAD) districts
[PB-239343/7] 07 p0151 N75-25322

Energy intensity of barge and rail freight hauling
[PB-240012/5] 08 p0202 N75-29269

Proceedings of the Workshop on Research Needs Related to Water for Energy
[PB-241346/6] 08 p0208 N75-31581

IMPERIAL COUNTY DEPT. OF PUBLIC WORKS, EL CENTRO, CALIF.

Imperial valley's proposal to develop a guide for geothermal development within its county
06 p0100 N75-20844

INDIAN NATIONAL SCIENTIFIC DOCUMENTATION CENTER, NEW DELHI.

Chemistry of organic sulfur compounds contained in petroleum and petroleum products, Volume 7
[TT-70-57759] 07 p0138 N75-23691

INDIANA UNIV., BLOOMINGTON.

Proceedings of the Workshop on Bio-Solar Conversion
[PB-236142/6] 06 p0069 N75-16096

INDUSTRIAL RESEARCH INST., INC., NEW YORK.

Institutional and legal constraints to cooperative energy research and development
[PB-240929/0] 08 p0200 N75-28530

INSTITUT FRANCO-ALLEMAND DE RECHERCHES, ST. LOUIS (FRANCE).

Progress of ISL research on energy conversion in ferroelectric ceramics of the type Pb(Zr_xLi_{1-x})O₃
[ISL-29/74] 08 p0208 N75-31910

INSTITUTE FOR DEFENSE ANALYSES, ARLINGTON, VA.

Intermediate-term energy programs to protect against crude-petroleum import interruptions: Feasible alternatives, program costs, and operational methods of funding
[PB-237209/2] 06 p0083 N75-17826

INSTITUTE FOR RAPID TRANSIT, WASHINGTON, D.C.

Papers and proceedings of two energy crisis seminars
[PB-239164/7] 07 p0156 N75-26513

INSTITUTE OF GAS TECHNOLOGY, CHICAGO, ILL.

Study of industrial uses of energy relative to environmental effects
[PB-237215/9] 06 p0084 N75-17853

Hydrogen production from coal

[NASA-CR-142816] 07 p0141 N75-24113

INTERAGENCY WORKING GROUP ON HEALTH AND ENVIRONMENTAL EFFECTS OF ENERGY USE, WASHINGTON, D.C.

Report of the Interagency Working Group on health and environmental effects of energy use
[PB-237937/8] 06 p0084 N75-17858

INTERNATIONAL RESEARCH AND TECHNOLOGY CORP., ARLINGTON, VA.

Data base for the industrial energy study of the industrial chemicals group
[PB-237845/3] 06 p0087 N75-18732

INTERNATIONAL RESEARCH AND TECHNOLOGY CORP., WASHINGTON, D.C.

Industrial energy study of the Industrial chemicals group
[PB-236322/4] 06 p0071 N75-16111

INTER-SOCIETY LIAISON COMMITTEE ON THE ENVIRONMENT.

Proceedings of the New York State Assembly/AISLE Conference on Energy and the Environment, Volume 1
[PB-237936/0] 06 p0091 N75-18801

INTERTECHNOLOGY CORP., WARRENTON, VA.

The energy plantation
07 p0139 N75-24103

Solar energy school heating augmentation experiment. Design, construction and construction and initial operation
[PB-239397/3] 07 p0150 N75-25314

IOWA STATE UNIV. OF SCIENCE AND TECHNOLOGY, AMES.

Coal processing by electrofluids
[PB-236588/0] 06 p0088 N75-18743

ISTITUTO SUPERIORE DI SANITA, ROME (ITALY).

Problems in electric power production
[ISS-T-73/16] 07 p0128 N75-21793

JAPAN ATOMIC ENERGY RESEARCH INST., TOKYO.

Production of hydrogen from water using nuclear energy. A review
[JAERI-M-5642] 06 p0093 N75-19824

JET PROPULSION LAB., CALIF. INST. OF TECH., PASADENA.

Power processor design considerations for a solar electric propulsion spacecraft
[NASA-CR-140842] 05 p0029 N75-12064

Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 1: Working group and panel reports
[NASA-CR-138209] 06 p0069 N75-16097

Workshop proceedings: Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers
[NASA-CR-138193] 06 p0069 N75-16098

Photovoltaic conversion of solar energy for Terrestrial Applications. Volume 1: Working group and panel reports
[PB-236163/2] 06 p0072 N75-16121

Photovoltaic conversion of solar energy for terrestrial applications. Volume 2: Invited papers
[PB-236164/0] 06 p0072 N75-16122

- Low to high temperature energy conversion system
[NASA-CASE-NPO-13510-1] 06 p0074 N75-16972
- Assessment of the technology required to develop photovoltaic power systems for large scale national energy applications
[NSF/RA/N-74-072] 06 p0080 N75-17785
- Proceedings of the Conference on Research for the Development of Geothermal Energy Resources
[NASA-CR-142556] 06 p0098 N75-20831
- Helical rotary screw expander power system
06 p0101 N75-20856
- Solar powered pump
[NASA-CASE-NPO-13567-1] 07 p0133 N75-22746
- Stirling cycle engine and refrigeration systems
[NASA-CASE-NPO-13613-1] 07 p0133 N75-22747
- The detection of geothermal areas from Skylab thermal data
[NASA-CR-143133] 07 p0158 N75-27540
- Solar pond
[NASA-CASE-NPO-13581-1] 07 p0160 N75-27560
- Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] 08 p0199 N75-28519
- Electric power generation system directory from laser power
[NASA-CASE-NPO-13308-1] 08 p0204 N75-30524
- JOINT COMMITTEE ON ATOMIC ENERGY (U. S. CONGRESS).**
Development, growth, and state of the nuclear industry
[GPO-33-873] 05 p0038 N75-15150
- Solar energy research and development
[GPO-40-684] 07 p0139 N75-24104
- JOINT ECONOMIC COMMITTEE (U. S. CONGRESS).**
Energy imports and the US balance of payments
[GPO-28-965] 07 p0141 N75-24114
- Energy statistics
[GPO-37-143] 08 p0210 N75-32587
- JOINT PUBLICATIONS RESEARCH SERVICE, ARLINGTON, VA.**
How spacecraft are fueled
[JPRS-63514] 05 p0027 N75-10983
- Further development of scientific research in the field of geology and of the survey and exploration of petroleum and gas
[JPRS-63414] 05 p0027 N75-11410
- Prospects for utilization of underwater houses and chambers in development of marine oil deposits
05 p0029 N75-11606
- First Joint Soviet-American Colloquium on the Problems of MHD Energy Conversion
[JPRS-63794] 06 p0081 N75-17790
- Prospects for magnetohydrodynamic electric power plants in power engineering
06 p0081 N75-17791
- Some developments of industrial magnetohydrodynamic electric power plants
06 p0081 N75-17792
- Experience in the first step of the mastery of the U-25 device
06 p0081 N75-17793
- Electronic model of the U-25 device
06 p0081 N75-17794
- Scientific research seeks new sources of energy
06 p0107 N75-21216
- Insufficient utilization of scientific advances
07 p0137 N75-23365
- Propulsion units for high speed ships
[JPRS-64897] 07 p0148 N75-25295
- Scientific research in power engineering
[JPRS-65422] 08 p0205 N75-30648
- K**
- KANNER (LEO) ASSOCIATES, REDWOOD CITY, CALIF.**
The economics of using wind power for electricity supply in the Netherlands and for water supply on Curacao
[NASA-TT-F-15982] 05 p0024 N75-10587
- Utilization of solar energy
[NASA-TT-F-16090] 05 p0033 N75-13382
- Solar power generating systems as sources of non-polluting energy (power generation in space and power generation on the ground)
[NASA-TT-F-16091] 05 p0033 N75-13383
- Wind power projects of the French electrical authority
[NASA-TT-F-16057] 05 p0033 N75-13384
- Exploiting wind power for the production of electricity
[NASA-TT-F-16058] 05 p0033 N75-13385
- Report of the Wind Power Committee
[NASA-TT-F-16062] 05 p0039 N75-15154
- Wind power machines
[NASA-TT-F-16195] 06 p0080 N75-17786
- Solar energy
[NASA-TT-F-16155] 06 p0081 N75-17787
- Wind motors: Theory, construction, assembly and use in drawing water and generating electricity
[NASA-TT-F-16201] 06 p0093 N75-19821
- The USA: The scientific and technical revolution and trends in foreign policy
[NASA-TT-F-16102] 06 p0096 N75-20160
- Wind power installations. Present condition and possible lines of development
[NASA-TT-F-16204] 07 p0128 N75-21796
- A direct voltage converter without transformer
[NASA-TT-F-16174] 07 p0133 N75-22584
- Wind engines and wind installations
[NASA-TT-F-16170] 07 p0135 N75-22904
- Carbon isotopes in oil-gas geology
[NASA-TT-F-682] 07 p0160 N75-27563
- KELL, ALTERNAN, RUNSTEIN, AND THOMAS, PORTLAND, OREG.**
Power shortage contingency program for the Pacific Northwest. Legislative, regulatory and institutional aspects
[PB-241323/5] 08 p0211 N75-32601
- KELLOGG (H. W.) CO., HOUSTON, TEX.**
A SASOL type process for gasoline, methanol, SNG, and low-Btu gas from coal
[PB-237670/5] 06 p0095 N75-19838
- Changes in the global energy balance
[PB-238075/6] 06 p0106 N75-20936
- Identification and characterization of the use of mixed conventional and waste fuels
[PB-241821/8] 08 p0211 N75-32606
- KENTRON HAWAII LTD., HOUSTON, TEX.**
Procedure for preparation for shipment of natural gas storage vessel
[NASA-CR-141455] 05 p0036 N75-14135
- KENTUCKY UNIV., LEXINGTON.**
Synthetic oil from coal
[PB-234460/4] 05 p0040 N75-15176
- KERNFORSCHUNGSANLAGE, JUELICH (WEST GERMANY).**
Technological and commercial possibilities which result by using a high temperature reactor for the future supply of mineral oil in the FRG
[JUL-1017-RG] 05 p0029 N75-11470
- Nuclear district-heating and nuclear long-distance energy
[JUL-1077] 06 p0093 N75-19828
- KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY).**
Energy and the environment in Baden-Wuerttemberg
[RPK-1966-UP] 05 p0030 N75-12439
- L**
- LIBRARY OF CONGRESS, WASHINGTON, D.C.**
The prospects for gasoline availability: 1974
[GPO-34-969] 05 p0039 N75-15155
- Energy from US and Canadian tar sands: Technical, environmental, economic, legislative, and policy aspects
[GPO-43-005] 06 p0067 N75-16083
- Development of oil and gas on the Continental Shelf
[GPO-31-891] 06 p0075 N75-16973
- Energy policy and resource management
[GPO-33-634] 07 p0149 N75-25300
- LITTLE (ARTHUR D.), INC., CAMBRIDGE, MASS.**
Impact of motor gasoline lead additive regulations on petroleum refineries and energy resources, 1974-1980, phase 1
[PB-234185/7] 05 p0025 N75-10601
- Dependence of the United States on essential imported materials, year 2000; volume 1
[AD-A000842] 06 p0096 N75-20157
- Dependence of the United States on essential imported materials, year 2000. Volume 2: Appendices
[AD-A000843] 06 p0096 N75-20158
- A study of technological improvements in automotive fuel consumption. Volume 1: Executive summary
[PB-238693/6] 07 p0132 N75-22481
- A study of technological improvements in automobile fuel consumption. Volume 2: Comprehensive discussion
[PB-238694/4] 07 p0132 N75-22482

- A study of technological improvements in automobile fuel consumption. Volume 3A: Appendixes 1 - 111
[PB-238695/1] 07 p0133 N75-22483
- A study of technological improvements in automobile fuel consumption. Volume 3B: Appendixes 4 - 7
[PB-238696/9] 07 p0133 N75-22484
- Feasibility study of a satellite solar power station
[NASA-CR-2357] 07 p0138 N75-23683
- Space satellite power system
[NASA-CR-142799] 07 p0139 N75-24099
- Feasibility study of solar energy utilization in modular integrated utility systems
[NASA-CR-141929] 08 p0199 N75-28518
- An overview of alternative energy sources for LDCs
[PB-239465/8] 08 p0200 N75-28529
- The benefits/costs of tertiary oil recovery
[PB-240463/0] 08 p0201 N75-28552
- Technology and current practices for processing, transferring and storing liquefied natural gas
[PB-241048/8] 08 p0202 N75-29271
- Economic impact of shortages on the fertilizer industry
[PB-240418/4] 08 p0204 N75-29953
- LLOYD CORP., LOS ANGELES, CALIF.
Combining total energy and energy industrial center concepts to increase utilization efficiency of geothermal energy
06 p0102 N75-20860
- LOCKHEED AIRCRAFT CORP., BURBANK, CALIF.
Evaluation of advanced lift concepts and potential fuel conservation for short-haul aircraft
[NASA-CR-2502] 06 p0073 N75-16557
- LOCKHEED AIRCRAFT CORP., SUNNYVALE, CALIF.
Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 1
[NASA-CR-137525] 06 p0096 N75-20291
- Evaluation of advanced lift concepts and fuel conservative short-haul aircraft, volume 2
[NASA-CR-137526] 06 p0097 N75-20292
- LOCKHEED MISSILES AND SPACE CO., HUNTSVILLE, ALA.
Solar energy concentrator system for crystal growth and zone refining in space
[NASA-CR-120623] 06 p0086 N75-18719
- LOCKHEED MISSILES AND SPACE CO., PALO ALTO, CALIF.
Full-scale testing of high-voltage photocells of photovolt type at elevated light flux levels
08 p0210 N75-32590
- LOCKHEED MISSILES AND SPACE CO., SUNNYVALE, CALIF.
Test report SEPS solar array root section model
[NASA-CR-120606] 06 p0067 N75-16085
- LOCKHEED-CALIFORNIA CO., BURBANK.
Study of active cooling for supersonic transports
[NASA-CR-132573] 06 p0079 N75-17336
- LOS ALAMOS SCIENTIFIC LAB., N.MEX.
Application of technology from the Rover program and related developments
[LA-5558] 05 p0028 N75-11468
- Process environment effects on heat pipes for fluid-bed gasification of coal
[LA-UR-74-984] 05 p0029 N75-12252
- Energy storage for the electric power industry
[LA-UR-74-918] 05 p0031 N75-12447
- Superconducting magnetic energy storage
[LA-UR-74-737] 05 p0032 N75-12814
- Methods of energy transfer from a magnetic energy storage system using a transfer capacitor and a superconducting switch
[LA-5631-MS] 05 p0032 N75-13164
- Geothermal energy: A new application of rock mechanics
[LA-UR-74-821] 06 p0068 N75-16089
- Conceptual design of a heat pipe methanator
[LA-5596] 06 p0074 N75-16774
- The initiatives of the Los Alamos Scientific Laboratory in the transfer of a new excavation technology
06 p0079 N75-17203
- Control system design and simulation for solar heated structures
[LA-UR-74-1085] 06 p0082 N75-17813
- Energy and cryoengineering
[LA-UR-74-741] 06 p0082 N75-17814
- Prospect for geothermal power
[LA-UR-74-1111] 06 p0086 N75-18723
- Economic and system aspects of a superconducting magnetic energy storage device and a dc superconducting transmission line
[LA-UR-74-1145] 06 p0091 N75-19080
- Progress of the LASL dry hot rock geothermal energy project
06 p0100 N75-20848
- Rock melting technology and geothermal drilling
06 p0101 N75-20851
- Magnetic Energy Transfer and Storage (NETS) program schedules for a Fusion Test Reactor (PTR)
[LA-5748-MS] 06 p0106 N75-21097
- Fundamental aspects of systems for the thermochemical production of hydrogen from water
[LA-UR-74-1459] 07 p0127 N75-21391
- M**
- MALLORY BATTERY CO., TARRYTOWN, N.Y.
Non-hazardous primary lithium-organic electrolyte battery BA-5590 ()/U
[AD-A003312] 07 p0129 N75-21804
- MARTIN MARIETTA CORP., DENVER, COLO.
Solar power system and component research program
[PB-236159/0] 05 p0037 N75-14280
- Solar thermal subsystem specification study
[PB-238005/3] 06 p0083 N75-17829
- Solar power system and component research program
[PB-238642/3] 07 p0135 N75-22915
- Solar power system and component research program
[PB-239185/2] 07 p0136 N75-22930
- MARYLAND UNIV., COLLEGE PARK.
Heat Pipe Symposium/Workshop
[PB-236008/9] 05 p0035 N75-14094
- Proceedings of the Solar Heating and Cooling for Buildings Workshop. Part 2: Panel sessions, March 23
[PB-235483/5] 06 p0069 N75-16095
- The national solar energy program
07 p0139 N75-24102
- Proceedings of the Solar Thermal Conversion Workshop
[PB-239277/7] 07 p0145 N75-24157
- MASSACHUSETTS INST. OF TECH., CAMBRIDGE.
Interfuel substitution in the consumption of energy in the United States. Part 1: Residential and commercial sector
[PB-234536/1] 05 p0040 N75-15178
- MIT fusion technology program
[COO-2431-1] 06 p0106 N75-21101
- The role for Federal R and D on alternative automotive power systems
[PB-238771/0] 07 p0137 N75-23391
- Energy system modeling-interfuel competition
[PB-239292/6] 07 p0143 N75-24140
- Energy conservation: A case study for a large manufacturing plant
[PB-239302/3] 07 p0151 N75-25323
- Cycle study of a mercury-colloidal electrofluid dynamic power generator
[AD-A004814] 07 p0159 N75-27559
- The OCS (Outer Continental Shelf) petroleum pie
[COM-75-10599/9] 08 p0206 N75-31562
- Project Independence report: A review of US energy needs up to 1985
[PB-242142/8] 08 p0213 N75-33506
- The future of the US nuclear energy industry
[PB-242164/2] 08 p0214 N75-33511
- The economics of the natural gas shortage (1960-1980)
[PB-242166/7] 08 p0214 N75-33932
- MASSACHUSETTS UNIV., AMHERST.
Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process
[PB-236422/2] 06 p0077 N75-17003
- Feasibility study of a 100 megawatt open cycle ocean thermal difference power plant
[PB-238571/4] 07 p0130 N75-21821
- Oceanic and atmospheric energy sources
07 p0139 N75-24101
- Variations in heat exchanger design for ocean thermal difference power plants
[PB-238572/2] 07 p0143 N75-24134
- A preliminary technology assessment of ocean thermal gradient energy generation
[PB-238646/4] 07 p0144 N75-24147

- Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process
[PB-239374/2] 07 p0150 N75-25317
- Ocean thermal difference power plant turbine design
[PB-239371/8] 07 p0150 N75-25318
- Heat exchangers for sea solar power plants
[PB-239369/2] 07 p0150 N75-25319
- Hot water hydraulics of the Gulf Stream sited OTGM
[PB-242151/9] 08 p0213 N75-33502
- An analysis of the fluid motion into the condenser intake of a 400 MW(e) ocean thermal difference power plant
[PB-242569/2] 08 p0213 N75-33508
- MATHEMATICS AND COMPUTATION LAB., MCLEAN, VA.**
The HCL-Thrurow model supplement
[PB-241113/0] 08 p0204 N75-29952
- MCDONNELL-DOUGLAS AERONAUTICS CO., HUNTINGTON BEACH, CALIF.**
Solar thermal power systems based on optical transmission
[PB-237005/4] 06 p0088 N75-18742
- MCDOWELL-WELLMAN ENGINEERING CO., CLEVELAND, OHIO.**
Large diameter 300 PSI gasifier. Preliminary engineering report. Volume 1: Description
[PB-238360/2] 06 p0105 N75-20889
- MERCHANT MARINE ACADEMY, KINGS POINT, N.Y.**
Submarine tanker concepts and problems
[COM-75-10009/9] 07 p0132 N75-22264
- Application of superconducting electrical machinery to the propulsion systems of commercial vessels
[COM-75-10137] 07 p0147 N75-25200
- MICHIGAN OFFICE OF HIGHWAY SAFETY PLANNING, LANSING.**
Study on the effects of the energy crisis and 55 mph speed limit in Michigan
[PB-241843/2] 08 p0212 N75-33499
- MICHIGAN STATE UNIV., EAST LANSING.**
Energy utilization by households and technology assessment as a way to increase its effectiveness
06 p0097 N75-20829
- MICHIGAN UNIV., ANN ARBOR.**
Evaluation of coal conversion processes to provide clean fuels, part 1
[PB-234202/0] 05 p0025 N75-10600
- Evaluation of coal conversion processes to provide clean fuels, part 2
[PB-234203/8] 05 p0025 N75-10604
- Study on the effects of the energy crisis and 55 mph speed limit in Michigan
[PB-241843/2] 08 p0212 N75-33499
- MINISTRY OF DEFENCE, PARIS (FRANCE).**
Energy problems in a global context
06 p0075 N75-16978
- MINNESOTA MINING AND MFG. CO., ST. PAUL.**
Nonportable thermoelectric generator
[AD-A002042] 06 p0095 N75-19847
- MINNESOTA UNIV., MINNEAPOLIS.**
Solar Power Array for the Concentration of Energy (SPACE)
[PB-236247/3] 06 p0071 N75-16114
- Summary of results of solar power arrays for the concentration of energy study
[PB-238003/8] 06 p0089 N75-18756
- Digest of energy facts for water resources studies in Minnesota
[PB-239961/6] 07 p0156 N75-26515
- Research applied to solar thermal systems
[PB-241089/2] 08 p0200 N75-28543
- Research applied to solar thermal power systems
[PB-241090/0] 08 p0201 N75-28544
- Regional impacts of alternative energy allocation strategies
[PB-241125/4] 08 p0205 N75-30667
- A regional energy information system for Minnesota: A preliminary design
[PB-241124/7] 08 p0205 N75-30944
- Master plan for REIS implementation
[PB-241126/2] 08 p0205 N75-30945
- Design considerations for a comprehensive regional energy information system
[PB-241123/9] 08 p0206 N75-30946
- MINNESOTA UNIV., ST. PAUL.**
Use of thermally enriched water for growing field crops in Minnesota
[PB-240112] 07 p0159 N75-27549
- MISSOURI UNIV., ROLLA.**
Solar kine: Answer to the agricultural energy challenge of our time
06 p0086 N75-18721
- Evaluation of thermal methods for recovery of viscous oils in Missouri and Kansas
[PB-237831/3] 06 p0090 N75-18762
- MITRE CORP., BEDFORD, MASS.**
Residential energy consumption and small scale options of energy systems for space heating
[PB-239941/8] 07 p0154 N75-26501
- A systems approach to innovative solutions to the energy problem
[PB-242189/9] 08 p0213 N75-33505
- MITRE CORP., MCLEAN, VA.**
Program plan for environmental effects of energy
[PB-235115/3] 05 p0040 N75-15177
- A comparative analysis of the energy consumption for several urban passenger ground transportation systems
[PB-238041/8] 06 p0107 N75-21160
- National energy flow accounts
[PB-239275/1] 07 p0146 N75-24539
- An analysis of constraints on increased coal production
[PB-240613/0] 07 p0157 N75-26525
- Transportation energy conservation: A program plan of policy-oriented research
[PB-240734/4] 08 p0200 N75-28528
- MITRE CORP., WASHINGTON, D.C.**
Japanese/United States Symposium on Solar Energy systems. Volume 1: Summary of proceedings
[MTR-6284-VOL-1] 05 p0036 N75-14264
- MONSANTO RESEARCH CORP., DAYTON, OHIO.**
Effect of gas turbine efficiency and fuel cost on cost of producing electric power
[PB-234159/2] 05 p0034 N75-13397
- Efficiencies in power generation
[PB-234160/0] 05 p0034 N75-13398
- MOUND LAB., MIAMISBURG, OHIO.**
Advanced heat source concepts
[MLB-2134] 05 p0024 N75-10591

N

- NATIONAL ACADEMY OF ENGINEERING, WASHINGTON, D.C.**
Evaluation of coal-gasification technology.
Part 1: Pipeline-W quality gas
[PB-234036/2] 05 p0034 N75-13396
- Evaluation of coal-gasification technology.
Part 2: Low and intermediate BTU fuel gases
[PB-234042/0] 05 p0036 N75-14273
- NATIONAL ACADEMY OF SCIENCES - NATIONAL RESEARCH COUNCIL, WASHINGTON, D.C.**
Evaluating integrated utility systems
[PB-238765/2] 07 p0136 N75-22925
- Mineral resources and the environment
[PB-239579/6] 07 p0153 N75-26486
- Mineral resources and the environment. Appendix to section 1: Report of panel on materials conservation through technology
[PB-239580/4] 07 p0153 N75-26487
- Mineral resources and the environment. Appendix to section 2: Report of panel on estimation of mineral reserves and resources
[PB-239581/2] 07 p0153 N75-26488
- Mineral resources and the environment. Appendix to section 3: Report of panel on the implications of mineral production for health and the environment
[PB-239582/0] 07 p0153 N75-26489
- Mineral resources and the environment. Appendix to section 4: Report of panel on demand for fuel and mineral resources
[PB-239583/8] 07 p0153 N75-26490
- National materials policy
[PB-240941/5] 08 p0199 N75-28503
- Materials technology in the near-term energy program
[PB-240942/3] 08 p0205 N75-30665
- Solar heating/cooling of buildings: Current building community projects
[PB-241117/1] 08 p0205 N75-30668
- Seminar on Industrial Energy Conservation and Seminar on Solar Space Heating and Cooling
[PB-241462/1] 08 p0212 N75-33498

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. AMES RESEARCH CENTER, MOFFETT FIELD, CALIF.
 Transportation vehicle energy intensities. A joint DOT/NASA reference paper [NASA-TM-X-62404] 05 p0035 875-13690
 United States transportation fuel economics (1975 - 1995) [NASA-TM-X-3197] 06 p0107 875-21154

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. GODDARD SPACE FLIGHT CENTER, GREENBELT, MD.
 Exploration for fossil and nuclear fuels from orbital altitudes [NASA-TM-X-70781] 05 p0027 875-11413
 Solar Sea Power Plants (SSPP): A critical review and survey [NASA-TM-X-70783] 05 p0028 875-11459
 Remote platform power conserving system [NASA-CASE-GSC-11182-1] 05 p0032 875-13007
 Electric power for space satellites [NASA-TM-X-66808] 07 p0137 875-23678

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. LYNDON B. JOHNSON SPACE CENTER, HOUSTON, TEX.
 An evaluation: The potential of discarded tires as a source of fuel [NASA-TM-X-58143] 05 p0038 875-15153
 Technology survey of electrical power generation and distribution for MIUS application [NASA-TM-X-58127] 08 p0207 875-31573

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. LANGLEY RESEARCH CENTER, LANGLEY STATION, VA.
 Future long-range transports: Prospects for improved fuel efficiency [NASA-TM-X-72659] 06 p0079 875-17339
 Synthetic fuels for ground transportation with special emphasis on hydrogen [NASA-TM-X-72652] 06 p0103 875-20868
 Energy: An annotated bibliography [NASA-TM-X-66766] 07 p0159 875-27557
 Energy: An annotated bibliography [NASA-TM-X-72433] 07 p0159 875-27558

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. LEWIS RESEARCH CENTER, CLEVELAND, OHIO.
 Wind energy developments in the 20th century [NASA-TM-X-71634] 05 p0033 875-13380
 Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-3192] 05 p0039 875-15161
 Structural analysis of wind turbine rotors for MSP-NASA Mod-0 wind power system [NASA-TM-X-3198] 06 p0080 875-17712
 Preliminary study of advanced turbofans for low energy consumption [NASA-TM-X-71663] 06 p0084 875-18241
 Solar collector performance evaluated outdoors at NASA-Lewis Research Center [NASA-TM-X-71689] 07 p0128 875-21794
 Plans and status of the NASA-Lewis Research Center wind energy project [NASA-TM-X-71701] 07 p0128 875-21795
 DOT/NASA comparative assessment of Brayton engines for guideway vehicles and busses. Volume 2: Analysis and results [NASA-SP-354-VOL-2] 07 p0133 875-22745
 Summary of high efficiency silicon solar cell meeting held at NASA-Lewis [NASA-TM-X-71729] 07 p0138 875-23681
 Aerodynamic design of a free power turbine for a 75 KW gas turbine automotive engine [NASA-TM-X-71714] 07 p0140 875-24106
 The high intensity solar cell: Key to low cost photovoltaic power [NASA-TM-X-71718] 07 p0140 875-24108
 The effect of sunshine testing on terrestrial solar cell system components [NASA-TM-X-71722] 07 p0140 875-24109
 Cost competitiveness of a solar cell array power source for ATS-6 educational TV terminal [NASA-TM-X-71720] 07 p0140 875-24110
 Outdoor flat-plate collector performance prediction from solar simulator test data [NASA-TM-X-71707] 07 p0140 875-24111
 A compressor designed for the energy research and development agency automotive gas turbine program [NASA-TM-X-71719] 07 p0141 875-24116
 Standardized solar simulator tests of flat plate solar collectors. 1: Soltex collector with two transparent covers [NASA-TM-X-71738] 07 p0141 875-24118

V-grooved silicon solar cells [NASA-TM-X-71715] 07 p0141 875-24119
 Preliminary study of advanced turboprops for low energy consumption [NASA-TM-X-71740] 07 p0146 875-24739
 Turbine design and application, volume 3 [NASA-SP-290-VOL-3] 07 p0147 875-24741
 Summary of NASA Lewis Research Center solar heating and cooling and wind energy programs [NASA-TM-X-71745] 07 p0154 875-26497
 Potential structural material problems in a hydrogen energy system [NASA-TM-X-71752] 07 p0154 875-26500
 The long term energy problem and aeronautics 08 p0202 875-29012
 The 100 kW experimental wind turbine generator project [NASA-TM-X-71758] 08 p0202 875-29546
 Liquid-metal binary cycles for stationary power [NASA-TM-D-7955] 08 p0205 875-30649
 Fuel-conservative engine technology 08 p0206 875-31074

Solar collector performance evaluation with the NASA-Lewis solar simulator-results for an all-glass-evacuated-tubular selectively-coated collector with a diffuse reflector [NASA-TM-X-71695] 08 p0207 875-31568
 The NASA-Lewis/ERDA solar heating and cooling technology program [NASA-TM-X-71800] 08 p0210 875-32592
 Cost and size estimates for an electrochemical bulk energy storage concept [NASA-TM-X-71805] 08 p0210 875-32593
 Preliminary results of the large experimental wind turbine phase of the national wind energy program [NASA-TM-X-71796] 08 p0210 875-32594
 Initial comparisons of solar collector performance data obtained out-of doors and with a solar simulator [NASA-TM-X-71626] 08 p0211 875-32595
 Incorporating energy conservation techniques in the operation of existing LeRC R and D facilities [NASA-TM-X-71813] 08 p0212 875-33494

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. MARSHALL SPACE FLIGHT CENTER, HUNTSVILLE, ALA.
 Solar energy absorber [NASA-CASE-MFS-22743-1] 05 p0024 875-10585
 Solar energy trap [NASA-CASE-MFS-22744-1] 05 p0024 875-10586
 Analytical description of the modern steam automobile [NASA-TM-X-72199] 05 p0035 875-14134
 Photovoltaic cell array [NASA-CASE-MFS-22458-1] 07 p0134 875-22900
 Solar residential heating and cooling system development test program [NASA-TM-X-64924] 07 p0135 875-22903
 Natural environment design criteria for the Solar Electric Propulsion Stage (SEPS) [NASA-TM-X-64929] 07 p0138 875-23682
 The development of a solar residential heating and cooling system [NASA-CR-142728] 07 p0140 875-24107
 Mechanical thermal motor [NASA-CASE-MFS-23062-1] 07 p0160 875-27561
 Fluid manifold design for a solar energy storage tank [NASA-TM-X-64940] 07 p0160 875-27562
 Solar energy power system [NASA-CASE-MFS-21628-2] 08 p0202 875-29548

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. NATIONAL SPACE TECHNOLOGY LABS., BAY SAINT LOUIS, MISS.
 Bio-conversion of water hyacinths into methane gas, part 1 [NASA-TM-X-72725] 07 p0160 875-27564

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. PASADENA OFFICE, CALIF.
 Low to high temperature energy conversion system [NASA-CASE-NPO-13510-1] 06 p0074 875-16972
 Solar powered pump [NASA-CASE-NPO-13567-1] 07 p0133 875-22746
 Stirling cycle engine and refrigeration systems [NASA-CASE-NPO-13613-1] 07 p0133 875-22747
 Solar pond [NASA-CASE-NPO-13581-1] 07 p0160 875-27560

CORPORATE SOURCE INDEX

NAVAL AIR SYSTEMS COMMAND,

- Low cost solar energy collection system
[NASA-CASE-NPO-13579-1] 08 p0199 N75-28519
- Electric power generation system directory from laser power
[NASA-CASE-NPO-13308-1] 08 p0204 N75-30524
- NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, WASHINGTON, D.C.**
- Our prodigal sun
[NASA-EP-118] 05 p0032 N75-12885
- Transfer of space technology to industry
06 p0078 N75-17195
- Nuclear system that burns its own wastes shows promise
[NASA-NEWS-RELEASE-75-44] 06 p0085 N75-18716
- Research and technology operating plan summary: Fiscal year 1975 research and technology program
[NASA-TM-X-70410] 06 p0096 N75-20155
- NATIONAL AEROSPACE LAB., AMSTERDAM (NETHERLANDS).**
- Impact of future fuels on military aero-engines
06 p0075 N75-16981
- NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.**
- Hydrogen future fuel: A literature survey issued quarterly, issue no. 6
05 p0027 N75-11110
- Hydrogen-future fuel-A bibliography (with emphasis on cryogenic technology)
[COM-75-10289/7] 07 p0155 N75-26509
- Selected topics on hydrogen fuel
[COM-75-10619/5] 08 p0207 N75-31575
- NATIONAL BUREAU OF STANDARDS, WASHINGTON, D.C.**
- Energy R/D Data Workshop
[PB-237493/2] 07 p0130 N75-21811
- Retrofiting existing housing for energy conservation: An economic analysis
[COM-75-50049/6] 07 p0135 N75-22914
- Marine pollution monitoring (petroleum): Proceedings of a Symposium and Workshop held at the National Bureau of Standards
[COM-75-50071/0] 07 p0146 N75-24183
- Method of testing for rating solar collectors based on thermal performance
[COM-75-10276/4] 07 p0150 N75-25321
- Dimensions/NBS, volume 59, number 2, February 1975
[COM-75-50141/02] 07 p0151 N75-25330
- National Bureau of Standards annual report: Fiscal year 1974
[COM-75-10465/3] 08 p0206 N75-30948
- The NBS computerized carpool matching system: User's guide
[COM-75-10691/4] 08 p0214 N75-33749
- NATIONAL CENTER FOR ENERGY MANAGEMENT AND POWER, PHILADELPHIA, PA.**
- Latent heat and sensible heat storage for solar heating systems
[PB-236190/5] 06 p0077 N75-17005
- Technology for the conversion of solar energy to fuel gas
[PB-238103/6] 06 p0104 N75-20883
- Technology for the conversion of solar energy to fuel gas
[PB-238545/8] 07 p0136 N75-22919
- Electric power rights: One approach to rationing
[PB-238537/5] 07 p0143 N75-24138
- An approach to the power shortage problem: Optimal allocation of existing excess reserves through interregional transmission
[PB-238578/9] 07 p0144 N75-24151
- The residential user and the electrical load factor
[PB-238535/9] 07 p0145 N75-24152
- Interim standard for solar collectors, first draft
[PB-239757/8] 07 p0150 N75-25313
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating. Solar collector performance studies
[PB-239355/1] 07 p0150 N75-25320
- Preliminary investigation into regulatory powers and policies on electric utility peak load pricing
[PB-239761/0] 07 p0151 N75-25324
- Research on solar cell arrays and electric energy
[PB-239338/7] 07 p0155 N75-26504
- Investment possibility of financial institutions in solar heating
[PB-239756/0] 07 p0155 N75-26511
- The study of priorities in the electrical energy allocation problem
[PB-239762/8] 07 p0156 N75-26516
- An analysis of the potential for shifting electric power demand within daily load requirement
[PB-239764/4] 07 p0156 N75-26517
- The prospects of energy demand scheduling
[PB-239763/6] 07 p0156 N75-26518
- Research and development of low cost processes for integrated solar arrays
[PB-239760/2] 07 p0156 N75-26519
- Solar collector performance studies
[PB-239758/6] 07 p0156 N75-26520
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating
[PB-239395/7] 07 p0157 N75-26521
- Conservation and better utilization of electric power by means of thermal energy storage and solar heating, executive summary
[PB-239394/0] 07 p0157 N75-26522
- Energy rationing and energy conservation: Foundations for a social policy
[PB-239766] 07 p0162 N75-27579
- The problem of peak load pricing subject to rate of return constraint
[PB-239765] 07 p0163 N75-27964
- Integrated solar powered climate conditioning systems
[PB-239759/4] 08 p0200 N75-28527
- NATIONAL COMMUNICATIONS SYSTEM, ARLINGTON, VA.**
- Legal economic, and energy considerations in the use of underground space
[PB-236755/5] 06 p0080 N75-17749
- NATIONAL ENVIRONMENTAL RESEARCH CENTER, LAS VEGAS, NEV.**
- Radiological surveillance program for the project Gasbuggy production test, 15 May - 6 November 1973
[NERC-LV-539-30] 06 p0073 N75-16337
- NATIONAL GAS TURBINE ESTABLISHMENT, PYESTOCK (ENGLAND).**
- Energy resources and utilization
06 p0075 N75-16983
- NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, SILVER SPRING, MD.**
- Report and recommendations of the Solar Energy Data Workshop
[PB-238066/5] 06 p0089 N75-18757
- Waste heat disposal from nuclear power plants
[COM-75-10407/5] 07 p0158 N75-27324
- NATIONAL PLANNING ASSOCIATION, WASHINGTON, D.C.**
- Demand for scientific and technical manpower in energy-related industries: United States 1970-1985
[PB-240865] 08 p0201 N75-28964
- NATIONAL RESEARCH DEVELOPMENT CORP., LONDON (ENGLAND).**
- Pressurized fluidized bed combustion
[PB-236498/2] 06 p0065 N75-15769
- Pressurized fluidized bed combustion
[PB-235591/5] 06 p0065 N75-15772
- NATIONAL SCIENCE FOUNDATION, WASHINGTON, D.C.**
- The National Geothermal Energy Research Program
06 p0098 N75-20832
- The NSF/RANN FY 1975 program for geothermal resources research and technology
06 p0098 N75-20833
- Proceedings of the Conference on Energy Conservation in Commercial, Residential and Industrial Buildings
[PB-240306/1] 08 p0200 N75-28539
- NATIONAL TRANSPORTATION CENTER, PITTSBURGH, PA.**
- Project Clean Air 1972, LNG conversion of GH-71 series diesel engine
[PB-236585/6] 06 p0090 N75-18783
- NATO COMMITTEE ON THE CHALLENGES OF MODERN SOCIETY, BRUSSELS (BELGIUM).**
- Air pollution: Conference on Low Pollution Power Systems Development
[PB-240564/5] 07 p0162 N75-27618
- NAVAL ACADEMY, ANNAPOLIS, MD.**
- Converting cellulosic waste to fuel: A literature review
[AD-A009400] 08 p0211 N75-32596
- NAVAL AIR SYSTEMS COMMAND, WASHINGTON, D.C.**
- Energy conversion. 1: Non-propulsive aspects
[AD-A000077] 06 p0079 N75-17454

- NAVAL CIVIL ENGINEERING LAB., PORT HUENEME, CALIF.
Heat transfer design and proof tests of a radioisotope thermoelectric generator
[AD-A002218] 06 p0092 N75-19608
- NAVAL INTELLIGENCE SUPPORT CENTER, WASHINGTON, D.C.
Thermodynamics of liquid metal MHD converters
[AD-A007415] 07 p0144 N75-24141
A short handbook on fuels
[AD-A004358] 07 p0158 N75-27170
- NAVAL POSTGRADUATE SCHOOL, MONTEREY, CALIF.
Electrical energy allocations at Navy and Marine Corps bases
[AD-A009821] 08 p0211 N75-32598
- NEDEERLANDS SCHEEPS-STUDIECENTRUM TNO, DELFT.
On the potentialities of polyphenylene oxide (PPO) as a wet-insulation material for cargo tanks of LNG-carriers
[REPT-194-M] 05 p0035 N75-14002
- NEW SOUTH WALES UNIV., KENSINGTON (AUSTRALIA).
Comparison of the environmental aspects of nuclear and fossil fueled power stations
[CONF-740555-1] 06 p0077 N75-16995
- NEW YORK STATE ASSEMBLY SCIENTIFIC STAFF, ALBANY.
Economic and energy conservation relationship relevant to state of New York building design and contract awards
[PB-237006/2] 06 p0082 N75-17824
Use of solar energy in buildings in New York state
[PB-236974/2] 06 p0083 N75-17825
Proceedings of the New York State Assembly/AISLE Conference on Energy and the Environment, Volume 1
[PB-237936/0] 06 p0091 N75-18801
- NEW YORK STATE ATOMIC AND SPACE DEVELOPMENT AUTHORITY, N.Y.
Study of an integrated power, water and wastewater utility complex
[PB-239408/8] 07 p0157 N75-26523
- NORTH CAROLINA STATE DEPT. OF ADMINISTRATION, RALEIGH.
A state energy management plan for North Carolina, phase 1: A quantitative description of the current situation and analysis of the determinants and consequences of future energy use
[PB-238197/8] 07 p0130 N75-21819
- NORTHERN STATES POWER CO., MINNEAPOLIS, MINN.
Solar Power Array for the Concentration of Energy (SPACE)
[PB-236247/3] 06 p0071 N75-16114
Summary of results of solar power arrays for the concentration of energy study
[PB-238003/8] 06 p0089 N75-18756
- NUCLEAR REGULATORY COMMISSION, WASHINGTON, D.C.
Nuclear energy center site survey: Scope of work
[PB-240453/1] 07 p0152 N75-25348
Environmental statement related to the proposed Callaway Plant units 1 and 2. Union Electric Company docket nos. STN 50-483 and STN 50-486
[PB-240193/3] 07 p0152 N75-25349
- OAK RIDGE NATIONAL LAB., TENN.
Total energy use for commercial aviation in the US
[ORNL-NSF-EP-68] 05 p0023 N75-10039
NSF-Rann energy abstracts: A monthly abstract journal of energy research
[ORNL-EIS-74-52-VOL-2-NO-1] 05 p0024 N75-10592
NSF-RANN energy abstracts. A monthly abstract journal of energy research, volume 2, no. 4
[ORNL-EIS-74-52-VOL-2-4] 05 p0029 N75-11469
Residential energy conservation
[TID-26534] 05 p0031 N75-12442
NSF-RANN energy abstracts
[ORNL-EIS-74-52-VOL-2-5] 06 p0068 N75-16092
Recommended research program in geothermal chemistry
[WASH-1344] 06 p0077 N75-16997
Coal refining
[ORNL-TR-2827] 06 p0086 N75-18724
Survey of gas and oil burners for use with NSF/RANN-ORNL potassium boiler
[ORNL-NSF-EP-45] 06 p0087 N75-18728
Operational, maintenance, and environmental problems associated with a fossil fuel-fired potassium steam binary vapor cycle
[ORNL-NSF-EP-30] 06 p0090 N75-18769
- Comparative performance characteristics of cylindrical parabolic focusing and flat plate solar energy collectors
[CONF-741104-3] 06 p0103 N75-20872
Nuclear reactor process heat capabilities, potential, and economics
[CONF-741032-1] 07 p0131 N75-22112
Study of the application of HTGR to a petroleum refinery petrochemical complex
[CONF-741144-1] 07 p0142 N75-24126
NSF-RANN energy abstracts. A monthly abstract journal of energy research
[ORNL-EIS-74-52-VOL-2-NO-6] 07 p0146 N75-24532
OCEAN SYSTEMS, INC., RESTON, VA.
At-sea testing of a high seas oil recovery system
[AD-A006938] 07 p0136 N75-22953
OCEANIC FOUNDATION, WAIMANALO, HAWAII.
Seaward extension of urban systems: The feasibility of offshore coal-fired electrical power generation
[CONF-75-10592/4] 08 p0208 N75-31579
OFFICE OF OIL AND GAS, WASHINGTON, D.C.
Vulnerability of natural gas systems
[AD-A007583] 07 p0144 N75-24143
OFFICE OF THE CHIEF OF ENGINEERS (ARMI), WASHINGTON, D.C.
Army installation energy requirements in CONUS
[AD-A008951] 08 p0205 N75-30660
OKLAHOMA INDUSTRIAL DEVELOPMENT AND PARK PLANNING, OKLAHOMA CITY.
Application study of a nuclear coal solution gasification process for Oklahoma coal, volume 1
[PB-236156/6] 05 p0037 N75-14279
OKLAHOMA STATE UNIV., STILLWATER.
Development of an electrical generator and electrolysis cell for a wind energy conversion system
[PB-239272/8] 07 p0150 N75-25315
OKLAHOMA UNIV., NORMAN.
Oil displacement by different surfactant and polymer waterflood systems
07 p0134 N75-22858
OLD DOMINION UNIV. RESEARCH FOUNDATION, NORFOLK, VA.
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 3: Data set for Craney Island oil refinery installation experiment
[NASA-CR-142823] 07 p0141 N75-24121
Interdisciplinary study of atmospheric processes and constituents of the mid-Atlantic coastal region. Attachment 4: Data set for background investigation of atmospheric constituents for Mansemond River site
[NASA-CR-142821] 07 p0141 N75-24122
OLD DOMINION UNIV., NORFOLK, VA.
Investigation of current university research concerning energy conversion and conservation in small single-family dwellings
[NASA-CR-143430] 08 p0207 N75-31570
OREGON STATE UNIV., CORVALLIS.
Applied aerodynamics of wind power machines
[PB-238595/3] 07 p0133 N75-22669
Animal waste conversion systems based on thermal discharge
[PB-240113] 07 p0159 N75-27548
OSLO LYSVERKER (NORWAY).
Oslo's future power supply
[NP-20121] 06 p0067 N75-16087
- P**
- PACIFIC GAS AND ELECTRIC CO., SAN RAMON, CALIF.
The hydrogen sulfide emissions abatement program at the Geysers Geothermal Power Plant
06 p0102 N75-20859
PARSONS (RALPH M.) CO., PASADENA, CALIF.
Technical evaluation services, clean liquid and/or solid fuels from coal
[PB-237216/7] 07 p0129 N75-21803
Demonstration plant, clean boiler fuels from coal. Volume 3: Preliminary design/economics analysis
[PB-238529/2] 07 p0142 N75-24127
PEAT, MARWICK, MITCHELL AND CO., WASHINGTON, D.C.
Industrial energy studies of ground freight transportation, volume 1
[PB-236016/2] 06 p0069 N75-16099

- Industrial energy studies of ground freight transportation. Volume 2: Appendices
[PB-236017/0] 06 p0069 N75-16100
- PENNSYLVANIA STATE UNIV., UNIVERSITY PARK.
Dependence of coal liquefaction behavior on coal characteristics
[PB-238522/7] 07 p0130 N75-21812
- The relation of coal characteristics to coal liquefaction behavior
[PB-239261/1] 07 p0151 N75-25327
- Fuel use in the US electrical utility industry, 1971 - 1990
07 p0154 N75-26493
- An agro-power-waste water complex for land disposal of waste heat and waste water
[PB-239675/2] 07 p0161 N75-27570
- Financial incentives and pollution control: A case study
[PB-241479/5] 08 p0208 N75-31610
- PENNSYLVANIA UNIV., PHILADELPHIA.
Economic-environmental power dispatch
07 p0128 N75-21791
- PINKEL (I. IRVING), FAIRVIEW PARK, OHIO.
Alternative fuels for aviation
06 p0075 N75-16980
- PITTSBURG AND MIDWAY COAL MINING CO., KANSAS CITY, MO.
Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 2: Laboratory studies. Part 1: Autoclave experiments
[PB-236305/9] 05 p0040 N75-15169
- Development of a process for producing an ashless low sulfur fuel from coal. Volume 4. Product studies. Part 2. Annotated bibliography on mineral fiber production from coal minerals
[PB-237763/8] 06 p0095 N75-19839
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 3 Products from coal minerals
[PB-237764/6] 06 p0095 N75-19840
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 4. Sulfur removal from coal minerals
[PB-237765/3] 06 p0095 N75-19841
- Development of a process for producing an ashless, low-sulfur fuel from coal. Volume 4. Product studies. Part 5. Developmental and rate studies in processing of coal minerals
[PB-237766/1] 06 p0095 N75-19842
- PITTSBURGH UNIV., PA.
Development of a soluble reactants and products secondary battery
07 p0127 N75-21790
- POLISH ACADEMY OF SCIENCES, WARSAW.
Conversion of electrical energy into laser radiation energy in high pressure mixtures of molecular gases
07 p0133 N75-22722
- POLITECNICO DI TORINO (ITALY).
Contribution to the improvement of the regulating process of ignition controlled engines
[PUBL-165] 08 p0206 N75-31285
- POPE, EVANS, AND ROBBINS, INC., ALEXANDRIA, VA.
Development of coal fired fluidized-bed boilers
[PB-235899/2] 06 p0065 N75-15668
- Development of coal fired fluidized-bed boilers
[PB-235898/4] 06 p0065 N75-15669
- PRATT AND WHITNEY AIRCRAFT, SOUTH WINDSOR, CONN.
Development of advanced fuel cell system, phase 2
[NASA-CR-134721] 06 p0067 N75-16084
- Development of advanced fuel cell system, phase 3
[NASA-CR-134818] 07 p0154 N75-26496
- PRINCETON UNIV., N.J.
Utilization of plasma exhaust energy for fuel production
[COO-3028-7] 05 p0028 N75-11465
- Summary report of workshop on Energy Related Basic Combustion Research
[PB-236714/2] 06 p0079 N75-17456
- Stratigraphy, sedimentology and oil and gas geology of the Lower Cretaceous in central Alberta
07 p0137 N75-22961
- PURDUE UNIV., LAFAYETTE, IND.
Novel materials for power systems. Part 3: Selective emitters for energy conversion
[AD-784449] 05 p0026 N75-10608
- Q**
- QUEEN (DOUGLAS M.), INC., NEW CANAAN, CONN.
Industrial energy study of the hydraulic cement industry
[PB-237142/5] 06 p0087 N75-18730
- R**
- RADIATION, INC., MELBOURNE, FLA.
Remote platform power conserving system
[NASA-CASE-GSC-11182-1] 05 p0032 N75-13007
- RAND CORP., SANTA MONICA, CALIF.
Energy consumption by industries in support of national defense: An energy demand model
[AD-784964] 05 p0031 N75-12449
- Electricity conservation measures in the commercial sector: The Los Angeles experience
[R-1592-PEA] 05 p0034 N75-13388
- A USAP energy projection model
[AD-A006928] 07 p0132 N75-22476
- Protecting the US petroleum market against future denials of imports
[AD-A006643] 07 p0137 N75-23387
- US and Soviet MHD technology: A Comparative overview
[AD-A004614] 07 p0162 N75-27901
- Direct and indirect energy demand models for DoD
[AD-A010968] 08 p0214 N75-33515
- RENSSELAER POLYTECHNIC INST., TROY, N.Y.
Electrochemical power sources
[AD-A001610] 06 p0094 N75-19836
- RESEARCH TRIANGLE INST., DURHAM, N.C.
A state energy management plan for North Carolina, phase 1: A quantitative description of the current situation and analysis of the determinants and consequences of future energy use
[PB-238197/8] 07 p0130 N75-21819
- Symposium proceedings: Environmental Aspects of Fuel Conversion Technology
[PB-238304/0] 07 p0145 N75-24179
- RESOURCES FOR THE FUTURE, INC., WASHINGTON, D.C.
US energy R and D policy: The role of economics
[RFP-WORKING-PAPER-EN-4] 06 p0080 N75-17783
- REYNOLDS, SMITH AND HILLS, JACKSONVILLE, FLA.
Energy conservation study of Veterans Administration hospitals. Stage 1: Base line survey
[PB-241095/9] 08 p0203 N75-29559
- Energy conservation study of Veterans Administration hospitals. Stage 2: Operational study
[PB-241096/7] 08 p0203 N75-29560
- Energy conservation study of Veterans Administration hospitals. Stage 3: Hospital energy control system
[PB-241097/5] 08 p0203 N75-29561
- Energy conservation study of Veterans Administration hospitals. Stage 4: Basic detail data for stage 1, 2, and 3
[PB-241098/3] 08 p0203 N75-29562
- RHODE ISLAND UNIV., KINGSTON.
Petroleum degradation in low temperature marine and estuarine environments
[AD-A007588] 07 p0146 N75-24191
- RICE UNIV., HOUSTON, TEX.
Proceedings of the Workshop on Needs for Fundamental Research in Catalysis as Related to the Energy Problem
[PB-236683/9] 06 p0078 N75-17006
- ROCKWELL INTERNATIONAL CORP., DOWNNEY, CALIF.
Solar electric propulsion system thermal analysis
[NASA-CR-120770] 07 p0147 N75-24842
- ROCKWELL INTERNATIONAL CORP., EL SEGUNDO, CALIF.
Technology application at Rockwell International
06 p0078 N75-17189
- ROYAL AIRCRAFT ESTABLISHMENT, FARNBOROUGH (ENGLAND).
A generalised analysis of the performance of a variety of drive systems for high Reynolds number, transonic wind tunnels
[RAE-TR-73134] 06 p0073 N75-16572

RUTGERS UNIV., NEW BRUNSWICK, N.J.

Benthal decomposition of adsorbed octadecane
06 p0106 N75-20891

S

SAN DIEGO GAS AND ELECTRIC CO., CALIF.

San Diego Gas and Electric Company Imperial
Valley geothermal activities
06 p0100 N75-20847
Utility company views of geothermal development
06 p0102 N75-20864

SANDIA LABS., ALBUQUERQUE, N.MEX.

Solar incidence factor and other geometric
considerations of solar energy collection
[SAND-74-26] 05 p0034 N75-13390
Solar energy: Sandia's photovoltaic research
program
[SLA-74-281] 05 p0034 N75-13392
Axial temperature differential analysis of
linear focused collectors for solar power
[SLA-74-5078] 05 p0036 N75-14268
Sensible heat storage in liquids
[SLL-73-0263] 06 p0074 N75-16773
Design analysis of asymmetric solar receivers
[SAND-74-0124] 06 p0076 N75-16986
Development and performance of a miniature,
high-voltage thermal battery
[SLA-74-5363] 06 p0076 N75-16988
Review of thermal battery technology
[SLA-74-5381] 06 p0076 N75-16989
Pellet type thermal battery
[SAND-74-0007] 06 p0076 N75-16991
Integration of photovoltaic and solar thermal
energy conversion systems
[SAND-74-0093] 06 p0076 N75-16992
Sixty minute thermal battery: A feasibility study
[SLA-73-5888] 06 p0077 N75-16994
A practical model law for chemical explosive
fracture of oil shale
06 p0078 N75-17023

Solar total energy program
[SAND-74-0208] 06 p0081 N75-17810
In situ oil shale: A cost sensitivity analysis
[SAND-74-0146] 06 p0087 N75-18727
Mechanical properties of oil shale from Anvil
Point under conditions of uniaxial compression
[SAND-74-0035] 06 p0092 N75-19390
In situ oil shale conversion and recovery
[SLA-74-0162] 06 p0093 N75-19825
Sizing of focused solar collector fields with
specified collector tube inlet temperature
[SLA-74-5288] 06 p0094 N75-19832
Fuel cells: Direct conversion of
electrochemical energy into electricity
[SAND-74-0125] 06 p0103 N75-20869
Flywheel energy systems
[SAND-74-0113] 07 p0129 N75-21802

SANDIA LABS., LIVERMORE, CALIF.

Prospects for solar energy utilization
[SAND-74-8604] 05 p0034 N75-13389
Survey of hydrogen compatibility problems in
energy storage and energy transmission
applications
[SAND-74-8219] 06 p0087 N75-18726

SCIENCE COMMUNICATION, INC., MCLEAN, VA.

Intra industry capability to substitute fuels
[PB-237605/1] 06 p0093 N75-19814

SCIENTIFIC SOFTWARE CORP., ENGLEWOOD, COLO.

NER: Ultimate recovery vs rate. A reservoir
simulation study. Volume 1
[PB-239767/7] 07 p0157 N75-26526

NER: Ultimate recovery vs rate. A reservoir
simulation study. Volume 2: Appendices
[PB-239768/5] 07 p0157 N75-26527

SCIENTIFIC TRANSLATION SERVICE, SANTA BARBARA, CALIF.

A system utilizing solar energy
[NASA-TT-F-16089] 05 p0033 N75-13386

Mission and organization of the DFVLR: Two
years of integrated society of German
aeronautical and space flight research
[NASA-TT-F-16086] 05 p0035 N75-13882

Solar energy
[NASA-TT-F-16092] 05 p0038 N75-15149

Hydrocarbon power fuel from the gasoline boiling
range
[NASA-TT-F-16399] 07 p0147 N75-24957

SELECT COMMITTEE ON SMALL BUSINESS (U. S. HOUSE).

Energy data requirements of the Federal
Government. Part 4: Propane and crude oil;
conflicts of interest
[GPO-41-639] 08 p0207 N75-31566

SHELDON CO., NORTHFIELD, MINN.

Solar Power Array for the Concentration of
Energy (SPACE)
[PB-236247/3] 06 p0071 N75-16114
Summary of results of solar power arrays for the
concentration of energy study
[PB-238003/8] 06 p0089 N75-18756

SOBOTKA AND CO., INC., NEW YORK.

Industrial energy study of the petroleum
refining industry
[PB-238671/2] 07 p0130 N75-21818

SOLAR, SAN DIEGO, CALIF.

Solar 10 kW turboalternator silent power program
[AD-A006549] 08 p0203 N75-29555

SOUTHERN METHODIST UNIV., DALLAS, TEX.

A brief description of geological and
geophysical exploration of the Marysville
geothermal area
06 p0099 N75-20839

SOUTHWEST RESEARCH INST., SAN ANTONIO, TEX.

A practical model law for chemical explosive
fracture of oil shale
06 p0078 N75-17023

The collaborative study of EPA methods, 5, 6,
and 7 in fossil fuel-fired steam generators
[PB-237695/2] 06 p0091 N75-18788

Technological improvements to automobile fuel
consumption. Volume 1: Executive summary
[PB-238677/9] 07 p0132 N75-22478

Technological improvements to automobile fuel
consumption. Volume 2A: Sections 1 through 23
[PB-238678/7] 07 p0132 N75-22479

Technological improvements to automobile fuel
consumption. Volume 2B: Sections 24 and 25
and appendixes A through I
[PB-238679/5] 07 p0132 N75-22480

SPECTROLAB, INC., SYLMAR, CALIF.

Terrestrial photovoltaic power systems with
sunlight concentration
[PB-236180/6] 06 p0072 N75-16120

Photovoltaic solar power systems
07 p0139 N75-24098

SPERRY RAND CORP., HUNTSVILLE, ALA.

Photovoltaic cell array
[NASA-CASE-MFS-22458-1] 07 p0134 N75-22900

SPERRY RAND RESEARCH CENTER, SUDBURY, MASS.

Geothermal down well pumping system
06 p0101 N75-20854

STANFORD RESEARCH INST., MENLO PARK, CALIF.

Effective utilization of solar energy to produce
clean fuel
[PB-233956/2] 05 p0026 N75-10605

Continued development of energy transmission and
conversion systems
[PB-236181/4] 05 p0037 N75-14278

Pollution-free electrochemical power generation
from low grade coal
[PB-236162/4] 06 p0070 N75-16109

The potential for developing Alaskan coals for
clean export fuels, phase 1
[PB-238539/1] 07 p0127 N75-21786

Meeting California's energy requirements, 1975 -
2000
07 p0149 N75-25297

Materials requirements for advanced energy
systems: New fuels. Volume 3: Materials
research needs in advanced energy systems
using new fuels
[AD-A004550] 07 p0158 N75-27168

Plausibility of a restricted energy use scenario
[COM-75-10749/0] 08 p0213 N75-33507

STANFORD UNIV., CALIF.

Statistical estimation of wildcat well outcome
probabilities by visual analysis of structure
contour maps of Stafford County, Kansas
06 p0092 N75-19778

Geothermal reservoir engineering research
06 p0101 N75-20853

Stimulation and reservoir engineering of
geothermal resources
[PB-239718/0] 07 p0153 N75-26485

Workshop on Fundamental Research in Homogeneous
catalysis as Related to US Energy Problems
[PB-240177/6] 08 p0200 N75-28524

- STEIN (RICHARD G.) AND ASSOCIATES, NEW YORK.**
Research design construction and evaluation of a low energy utilization school, research phase 1 [PB-242217/8] 08 p0213 N75-33504
- STEVENS INST. OF TECH., HOBOKEN, N.J.**
Hydrogen as a fuel [AD-787484] 06 p0066 N75-15818
Hydrogen as a fuel [AD-A006984] 07 p0132 N75-22477
- STONE AND WEBSTER ENGINEERING CORP., BOSTON, MASS.**
Application study of a nuclear coal solution gasification process for Oklahoma coal, volume 1 [PB-236156/6] 05 p0037 N75-14279
- SUN OIL CO., MARCUS HOOK, PA.**
Preparation of gas turbine engine fuel from synthetic crude oil derived from coal [AD-A007923] 07 p0147 N75-24966
- SUNDSTRAND AVIATION-ROCKFORD, ILL.**
Organic Rankine cycle silent power plant 1.5 kW, 28 volts dc [AD-A000900] 06 p0088 N75-18745
- SYRACUSE UNIV., N.Y.**
Economic and energy conservation relationship relevant to state of New York building design and contract awards [PB-237006/2] 06 p0082 N75-17824
Use of solar energy in buildings in New York state [PB-236974/2] 06 p0083 N75-17825
Glass-Si heterojunction solar cells [PB-239282/7] 07 p0145 N75-24156
- SYSTEMS CONTROL, INC., PALO ALTO, CALIF.**
Electric power systems analysis research [PB-239236/3] 07 p0143 N75-24139
- T**
- TARIFF COMMISSION, WASHINGTON, D.C.**
World oil developments and US oil import policies [GPO-22-893] 07 p0148 N75-25294
- TECHNICAL RESEARCH CENTRE OF FINLAND, HELSINKI.**
Technology and community development materials processing, and electrical and nuclear technology 05 p0031 N75-12695
- TECHNISCHE HOCHSCHULE, DARMSTADT (WEST GERMANY).**
Impact on aerodynamic design 06 p0075 N75-16982
- TECHNISCHE UNIV., BERLIN (WEST GERMANY).**
The modular solar energy satellite:
Investigation on large solar cell surfaces in space for the purpose of earth power supply [ILR-17-1974] 05 p0036 N75-14271
Analysis of technological development problems posed by use of orbital systems for energy conversion and transfer in and from space 08 p0199 N75-28517
- TELEDYNE ISOTOPES, TIMONIUM, MD.**
Economic radioisotope thermoelectric generator program: Program plan [IESD-3112-3] 05 p0034 N75-13393
Economic radioisotope thermoelectric generator study program [IESD-3112-1] 05 p0036 N75-14269
Economic radioisotope thermoelectric generator study program: Appendices. [IESD-3112-2] 05 p0036 N75-14270
- TENNESSEE UNIV. SPACE INST., TULLAHOMA.**
MHD energy conversion [AD-785419] 05 p0032 N75-12807
- TEXAS A&M UNIV., COLLEGE STATION.**
Production of oil from fractured reservoirs by water displacement 07 p0127 N75-21716
- TEXAS INSTRUMENTS, INC., DALLAS.**
Development of low cost thin film polycrystalline silicon solar cells for terrestrial applications [PB-238505/2] 06 p0105 N75-20890
- TEXAS SOUTHERN UNIV., HOUSTON.**
Collection and concentration of solar energy using Fresnel type lenses [NASA-CR-142194] 06 p0080 N75-17784
- TEXAS UNIV., ARLINGTON.**
Application of fast sparse-matrix techniques and an energy estimation model for large transportation networks 08 p0201 N75-28967
- TEXAS UNIV., AUSTIN.**
Basic research needs for tertiary oil recovery: Proceedings of a National Science Foundation Workshop [PB-236726/6] 06 p0066 N75-16072
Technology assessment of portable energy RDT and P [NASA-CR-137655] 07 p0160 N75-27565
An assessment of the applicability of high voltage AC circuit breakers to inductive energy storage 08 p0206 N75-31341
- TEXTRON ELECTRONICS, INC., SYLMAR, CALIF.**
Terrestrial photovoltaic power systems with sunlight concentration [PB-238582/1] 06 p0105 N75-20886
- TEXTRON, INC., SYLMAR, CALIF.**
Terrestrial photovoltaic power systems with sunlight concentration [PB-238506/0] 07 p0143 N75-24136
- THE FUTURES GROUP, GLASTONBURY, CONN.**
Institutional and environmental problems in geothermal resource development 06 p0100 N75-20843
- THERMO ELECTRON CORP., WALTHAM, MASS.**
Solar energy for process steam generation [PB-238109/3] 07 p0145 N75-24154
- TORONTO UNIV. (ONTARIO).**
A review of the status of MHD power generation technology including suggestions for a Canadian MHD research program [UTIAS-39] 05 p0035 N75-13641
- TRANSPORTATION SYSTEMS CENTER, CAMBRIDGE, MASS.**
Energy statistics. A supplement to the summary of National Transportation statistics [PB-236767/8] 07 p0130 N75-21817
Study of potential for motor vehicle fuel economy improvement. Fuel economy test procedure panel report no. 6 [PB-241776/4] 08 p0210 N75-32470
Study of potential for motor vehicle fuel economy improvement. Technology panel report no. 4 [PB-241774/9] 08 p0210 N75-32471
Study of potential for motor vehicle fuel economy improvement. Safety implications panel report no. 2 [PB-241772/3] 08 p0212 N75-33410
Study of potential for motor vehicle fuel economy improvement. Truck and bus panel report no. 7 [PB-241777/2] 08 p0212 N75-33411
- TRW SYSTEMS GROUP, REDONDO BEACH, CALIF.**
Solar heating and cooling of buildings, phase 0. Volume 2: Final report [PB-235423/1] 05 p0042 N75-15190
Solar heating and cooling of buildings, phase 0. Volume 3: Appendices [PB-235424/9] 06 p0070 N75-16103
Solar heating and cooling of buildings, phase 0. Volume 1: Executive summary [PB-235422/3] 06 p0070 N75-16107
Phase 0 study for a geothermal superheated water proof of concept facility 06 p0102 N75-20858
- Ames Heat Pipe Experiment (AHPE) experiment**
description document [NASA-CR-114413] 07 p0138 N75-23880
Study on electrofluid dynamic power generation [AD-A004762] 07 p0155 N75-26507
- TRW SYSTEMS, REDONDO BEACH, CALIF.**
Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137654] 07 p0134 N75-22901
Technology assessment of portable energy RDT and P, phase 1 [NASA-CR-137653] 07 p0134 N75-22902
- TYCO LABS., INC., WALTHAM, MASS.**
Nickel-cadmium cells [NASA-CR-143715] 07 p0128 N75-21792
- U**
- UNION CARBIDE CORP., TONAWANDA, N.Y.**
Survey study of the efficiency and economics of hydrogen liquefaction [NASA-CR-132631] 07 p0133 N75-22486
- UNION OIL CO. OF CALIFORNIA, SANTA ROSA.**
Geothermal steam condensate reinjection 06 p0102 N75-20863

UNITED AIR LINES, INC., SAN FRANCISCO, CALIF.

Fuel conservation capability and effort by commercial air carriers
[NASA-CR-137624] 05 p0039 N75-15157

UNITED AIRCRAFT CORP., EAST HARTFORD, CONN.

Feasibility demonstration of a solar powered turbocompressor air conditioning and heating system
[PB-238570/6] 07 p0130 N75-21816

Study of fuel cell powerplant with heat recovery
[NASA-CR-141854] 07 p0148 N75-25296

Technical and economic feasibility of the ocean thermal differences process as a solar-driven energy process
[PB-239374/2] 07 p0150 N75-25317

URBAN MASS TRANSPORTATION ADMINISTRATION, WASHINGTON, D.C.

Papers and proceedings of two energy crisis seminars
[PB-239164/7] 07 p0156 N75-26513

UTAH UNIV., SALT LAKE CITY.

Refractory materials for coal-fueled MHD power generation
[PB-239607/5] 07 p0157 N75-26524

V

VERSAR, INC., SPRINGFIELD, VA.

Industrial energy study of the drug manufacturing industries for the Federal Energy Administration/US Department of Commerce
[PB-238994/8] 07 p0142 N75-24130

VIRGINIA POLYTECHNIC INST. AND STATE UNIV., BLACKSBURG.

Design optimization in underground coal systems
[PB-239075/5] 07 p0145 N75-24153

VOORHEES (ALAN H.) AND ASSOCIATES, INC., MCLEAN, VA.

Guidelines to reduce energy consumption through transportation actions
[PB-235983/4] 06 p0068 N75-16094

W

WASHINGTON UNIV., SEATTLE.

The effect of Alaskan crude oil and selected hydrocarbon compounds on embryonic development of the Pacific oyster, *Crassostrea gigas*
06 p0090 N75-18764

WASHINGTON UNIV., ST. LOUIS, MO.

The effect of recent energy price increases on field crop production costs
[PB-238659/7] 06 p0107 N75-21155

WEBB INST. OF NAVAL ARCHITECTURE, GLEN COVE, N.Y.

Fuel conservation in ship operations
[CON-75-10466/1] 08 p0202 N75-29270

WEST VIRGINIA UNIV., MORGANTOWN.

The design and development of an interactive energy model
[PB-236144/2] 06 p0070 N75-16110

WESTERN FOREST PRODUCTS LAB., VANCOUVER (BRITISH COLUMBIA).

Energy plantations: Should we grow trees for power plant fuel
[PB-238417/0] 07 p0130 N75-21815

WESTERN GEAR CORP., LYWOOD, CALIF.

Energy plantations: Should we grow trees for power plant fuel?
[VP-X-129] 05 p0030 N75-12436

WESTINGHOUSE ELECTRIC CORP., BALTIMORE, MD.

Solar heating and cooling of buildings. Phase 0: Final report, volume 1
[PB-235427/2] 05 p0042 N75-15192

Solar heating and cooling of buildings. Phase 0: Final report. Volume 2: Appendices A-E
[PB-235428/0] 05 p0042 N75-15193

Solar heating and cooling of buildings. Phase 0: Final report. Volume 3: Appendices O-Y
[PB-235429/8] 05 p0042 N75-15194

Solar heating and cooling of buildings. Phase 0: Final report. Executive summary
[PB-235426/4] 05 p0042 N75-15195

Solar heating and cooling experiment for a school in Atlanta
[PB-240611/4] 07 p0155 N75-26510

WESTINGHOUSE ELECTRIC CORP., BOULDER, COLO.

Solar thermal electric power systems
[PB-235475/1] 05 p0038 N75-14283

Solar thermal electric power systems
[PB-236368/7] 06 p0071 N75-16118

WESTINGHOUSE ELECTRIC CORP., LEBSTER, PA.

Advanced coal gasification system for electric power generation
[PB-236971/8] 06 p0089 N75-18747

WESTINGHOUSE ELECTRIC CORP., MADISON, PA.

Clinch River Breeder Reactor: A combined power and fuel source
[CONP-740609-4] 05 p0038 N75-14593

WESTINGHOUSE ELECTRIC CORP., PITTSBURGH, PA.

Clean power generation from coal
[PB-234188/1] 05 p0035 N75-13401

WISCONSIN UNIV., MADISON.

Wisconsin superconductive energy storage project, volume 1
[PB-238082/2] 06 p0105 N75-20887

Modeling of solar heating and air conditioning
[PB-239189/4] 07 p0136 N75-22926

A simulation model of the development of petroleum refining capacity
[AD-A003723] 07 p0161 N75-27569

The household energy game
[CON-75-10304/4] 07 p0161 N75-27578

Increased fuel economy in transportation systems by use of energy management. Volume 1: General results and discussion
[PB-240220/4] 07 p0163 N75-27970

Glass recycling and reuse
[PB-239674/5] 08 p0200 N75-28536

WOODS HOLE OCEANOGRAPHIC INSTITUTION, MASS.

Energy exchange at the surface of the western North Atlantic Ocean
[AD-A007296] 07 p0146 N75-24285

WYOMING UNIV., LARAMIE.

The direct production of hydrocarbons from coal-steam systems
[PB-239356/9] 07 p0138 N75-23740

X

XEROX ELECTRO-OPTICAL SYSTEMS, PASADENA, CALIF.

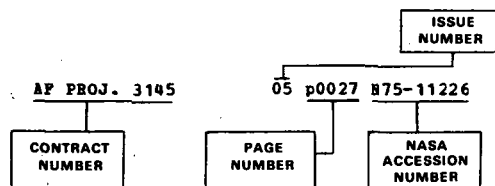
Solar collector thermal power system. Volume 1: Preliminary technology systems study
[AD-A000940] 06 p0091 N75-19339

Solar collector thermal power system. Volume 2: Development, fabrication, and testing of fifteen foot heat pipes
[AD-A000941] 06 p0091 N75-19340

Solar collector thermal power system. Volume 3: Basic study and experimental evaluation of thermal train components
[AD-A000942] 06 p0091 N75-19341

CONTRACT NUMBER INDEX

Typical Contract Number Index Listing



Listings in this index are arranged alphanumerically by contract number. Under each contract number, the accession numbers denoting documents that have been produced as a result of the research done under that contract are arranged in ascending order with the IAA accession numbers appearing first. The accession number denotes the number by which the citation is identified in either the IAA or STAR section. Preceding the accession number are the issue and page number in the particular supplement in which the citation may be found.

AF PROJ. 3145
 05 p0027 N75-11226
 05 p0037 N75-14274
 06 p0091 N75-19339
 06 p0091 N75-19340
 06 p0091 N75-19341
 07 p0155 N75-26502
 AF PROJ. 4506
 05 p0026 N75-10609
 AF PROJ. 6813
 05 p0032 N75-12807
 AF PROJ. 7116
 07 p0155 N75-26507
 07 p0159 N75-27559
 AF PROJ. 9752
 05 p0032 N75-12807
 AF PROJECT 3012-14
 05 p0018 A75-16869
 AID/CSD-2584
 08 p0212 N75-33498
 AID/TA/C-1089
 08 p0200 N75-28529
 ARPA ORDER 189-1
 05 p0031 N75-12449
 07 p0162 N75-27901
 ARPA ORDER 2338
 05 p0026 N75-10608
 ARPA ORDER 2484
 07 p0158 N75-27168
 ARPA ORDER 2615
 06 p0066 N75-15818
 07 p0132 N75-22477
 AT (03-4)-959
 05 p0002 A75-10503
 AT (04-3)-943
 05 p0038 N75-14832
 AT (10-1)-1375
 06 p0074 N75-16651
 06 p0076 N75-16985
 AT (11-1)-2431
 06 p0106 N75-21101
 AT (11-1)-3056
 08 p0188 A75-45957
 08 p0188 A75-45972
 AT (11-1)-3073
 05 p0014 A75-12996
 07 p0124 A75-37836
 AT (26-1)-539
 06 p0073 N75-16337
 AT (29-1)-789
 05 p0034 N75-13389
 05 p0034 N75-13390
 05 p0034 N75-13392
 06 p0074 N75-16773
 06 p0076 N75-16986

06 p0076 N75-16991
 06 p0076 N75-16992
 06 p0081 N75-17810
 06 p0087 N75-18726
 06 p0087 N75-18727
 06 p0092 N75-19390
 06 p0093 N75-19825
 06 p0103 N75-20869
 07 p0129 N75-21802
 AT (29-2)-2831
 06 p0092 N75-19354
 06 p0092 N75-19355
 AT (29-2)-2960
 05 p0003 A75-10505
 AT (33-1)-1-GEN-53
 05 p0024 N75-10591
 AT (45-1)-1830
 07 p0152 N75-25695
 AT (49-15)-3063
 05 p0003 A75-10508
 06 p0065 N75-15742
 BMPT-RV11-V59/73(2)-70-20
 06 p0051 A75-24216
 C-5-35546
 08 p0213 N75-33507
 CNES-71-279
 06 p0053 A75-24252
 DA PROJ. 157-62704-AH-94
 07 p0129 N75-21806
 DA PROJ. 157-62705-AH-94
 06 p0095 N75-19847
 DA PROJ. 170-611023-A-34A
 07 p0136 N75-22917
 DA PROJ. 171-61102-A-34A
 06 p0104 N75-20882
 DA PROJ. 176-62705-A-053
 06 p0094 N75-19836
 DA PROJ. 4A0-62103-A-896
 06 p0104 N75-20881
 DA PROJ. 4A1-62121-A-896
 06 p0104 N75-20881
 DA PROJ. 4A7-62719-A-886
 08 p0205 N75-30659
 DA-31-124-ARO(D)-462
 07 p0161 N75-27569
 DAAB07-69-C-0063
 06 p0094 N75-19836
 DAAB07-72-C-0317
 05 p0008 A75-10567
 DAAB07-73-C-0138
 06 p0095 N75-19847
 DAAB07-73-C-0227
 05 p0008 A75-10565
 DAAB07-73-C-0282
 07 p0129 N75-21804

DAAB07-74-C-0072
 06 p0104 N75-20882
 DAAR02-71-C-0311
 08 p0203 N75-29555
 DAAR02-72-C-0472
 06 p0088 N75-18745
 DAAR02-73-C-0084
 07 p0136 N75-22917
 DAAR02-74-C-0367
 08 p0186 A75-45943
 DAAR02-75-C-0080
 08 p0205 N75-30659
 DAHC15-73-C-0181
 05 p0031 N75-12449
 07 p0132 N75-22476
 07 p0137 N75-23387
 07 p0162 N75-27901
 DAHC15-73-C-0246
 05 p0032 N75-12857
 DAHC15-73-C-0313
 07 p0158 N75-27168
 DAHC15-73-G-11
 05 p0026 N75-10608
 DI-BM-IC-8647
 06 p0077 N75-17004
 DI-BM-JO-155010
 08 p0201 N75-28552
 DI-BM-SO-133081
 08 p0199 N75-28503
 DI-14-01-001-1670
 06 p0069 N75-16099
 06 p0069 N75-16100
 DI-14-01-001-1676
 07 p0161 N75-27577
 DI-14-01-0001-390
 07 p0130 N75-21812
 DI-14-01-0001-478
 06 p0065 N75-15668
 06 p0065 N75-15669
 DI-14-01-0001-479
 06 p0088 N75-18743
 DI-14-01-0001-496
 05 p0040 N75-15169
 06 p0095 N75-19839
 06 p0095 N75-19840
 06 p0095 N75-19841
 06 p0095 N75-19842
 DI-14-01-0001-498
 05 p0025 N75-10603
 DI-14-01-0001-1196
 07 p0138 N75-23740
 DI-14-01-0001-1652
 06 p0083 N75-17827
 DI-14-01-0001-1654
 06 p0071 N75-16111
 06 p0087 N75-18732
 DI-14-01-0001-1656
 07 p0130 N75-21818
 DI-14-01-0001-1657
 07 p0145 N75-24158
 DI-14-01-0001-1659
 06 p0088 N75-18744
 DI-14-01-0001-1665
 06 p0087 N75-18730
 DI-14-01-0001-1937
 07 p0157 N75-26525
 DI-14-01-0001-2051
 06 p0083 N75-17826
 DI-14-01-0001-4006
 05 p0037 N75-14277
 DI-14-08-0001-13238
 07 p0157 N75-26526
 07 p0157 N75-26527
 DI-14-31-0001-4258
 07 p0157 N75-26550
 DI-14-31-0001-4271
 08 p0208 N75-31581
 DI-14-32-001-1511
 06 p0065 N75-15772
 DI-14-32-0001-1212
 05 p0040 N75-15173

DI-14-32-0001-1213
 05 p0009 A75-10577
 DI-14-32-0001-1216
 05 p0034 N75-13396
 05 p0036 N75-14273
 DI-14-32-0001-1219
 05 p0037 N75-14279
 DI-14-32-0001-1223
 05 p0035 N75-13401
 DI-14-32-0001-1231
 07 p0145 N75-24153
 DI-14-32-0001-1234
 07 p0129 N75-21803
 07 p0142 N75-24127
 DI-14-32-0001-1236
 06 p0072 N75-16125
 DI-14-32-0001-1509
 06 p0071 N75-16113
 06 p0078 N75-17007
 06 p0078 N75-17008
 DI-14-32-0001-1511
 06 p0065 N75-15769
 DI-14-32-0001-1512
 06 p0088 N75-18740
 DI-14-32-0001-1513
 06 p0087 N75-18734
 DI-14-32-0001-1514
 06 p0089 N75-18747
 DI-14-32-0001-1516
 07 p0127 N75-21786
 DI-14-32-0001-1519
 06 p0065 N75-15768
 DI-14-32-0001-1520
 07 p0151 N75-25325
 DI-14-32-0001-1524
 06 p0105 N75-20889
 DI-14-32-0001-1533
 06 p0092 N75-19599
 DI-14-32-0001-1536
 06 p0068 N75-16093
 06 p0083 N75-17828
 DI-14-32-0001-1543
 06 p0072 N75-16151
 DOC-4-35596
 08 p0200 N75-28530
 DOT-CG-32781-A
 07 p0136 N75-22953
 DOT-FH-11-7413
 07 p0162 N75-27581
 DOT-OS-30112
 07 p0163 N75-27970
 DOT-OS-30119
 05 p0040 N75-15179
 05 p0041 N75-15184
 DOT-OS-40171
 08 p0202 N75-29271
 DOT-OST-627
 07 p0133 N75-22484
 DOT-TSC-627
 07 p0132 N75-22481
 07 p0132 N75-22482
 07 p0133 N75-22483
 DOT-TSC-628
 07 p0132 N75-22478
 07 p0132 N75-22479
 07 p0132 N75-22480
 EPA-02-0629
 08 p0212 N75-32627
 EPA-68-01-0461
 07 p0162 N75-27619
 EPA-68-01-1132
 07 p0143 N75-24135
 EPA-68-01-1859
 08 p0204 N75-30331
 EPA-68-01-2103
 07 p0131 N75-22199
 07 p0131 N75-22200
 07 p0131 N75-22201
 EPA-68-01-2112
 05 p0041 N75-15187
 05 p0041 N75-15188
 05 p0041 N75-15189

CONTRACT NUMBER INDEX

06 p0085 H75-18443
 EPA-68-01-2114
 07 p0162 H75-27583
 EPA-68-01-2250
 08 p0208 H75-31610
 EPA-68-02-0255
 07 p0162 H75-27612
 EPA-68-02-0300
 07 p0159 H75-27556
 EPA-68-02-0611
 07 p0151 H75-25326
 EPA-68-02-0623
 06 p0091 H75-18788
 EPA-68-02-0629
 06 p0095 H75-19879
 06 p0096 H75-19880
 08 p0204 H75-29596
 EPA-68-02-0643
 06 p0084 H75-17853
 EPA-68-02-0645
 06 p0090 H75-18786
 EPA-68-02-1099
 05 p0010 A75-11286
 EPA-68-02-1308
 06 p0095 H75-19838
 06 p0106 H75-20936
 08 p0211 H75-32606
 EPA-68-02-1320
 05 p0034 H75-13397
 05 p0034 H75-13398
 EPA-68-02-1323
 06 p0088 H75-18739
 EPA-68-02-1325
 07 p0145 H75-24179
 EPA-68-02-1329
 08 p0211 H75-32607
 08 p0213 H75-33503
 EPA-68-02-1332
 05 p0025 H75-10601
 EPA-68-02-1485
 08 p0187 H75-45950
 EPA-68-03-2136
 08 p0212 H75-33491
 EQC-308
 07 p0149 H75-25306
 EQC-322
 06 p0070 H75-16105
 ESTEC-2198/74-AK
 07 p0114 A75-32913
 FEA-C-03-50034-00
 06 p0093 H75-19814
 FEA-C-04-50065-00
 08 p0200 H75-28528
 FEA-C-50068-00
 08 p0204 H75-29953
 FEA-14-01-0001-1715
 05 p0034 H75-13388
 FTD PROJ. T74-04-03
 06 p0073 H75-16368
 07 p0135 H75-22911
 F30602-72-C-0401
 05 p0026 H75-10609
 F30602-72-C-0418
 05 p0018 H75-16869
 05 p0027 H75-11226
 F33615-69-C-114
 07 p0159 H75-27559
 F33615-71-C-1456
 07 p0155 H75-26502
 F33615-71-C-1591
 06 p0060 H75-27960
 F33615-72-C-1092
 06 p0091 H75-19339
 06 p0091 H75-19340
 06 p0091 H75-19341
 F33615-72-C-1258
 07 p0159 H75-27559
 F33615-72-C-1371
 07 p0124 A75-37656
 F33615-73-C-3003
 08 p0194 H75-46036
 F33615-73-C-4085
 07 p0155 H75-26507
 P44620-69-C-0031
 05 p0032 H75-12807
 P44620-74-C-0020
 08 p0194 H75-46038
 G0133100
 06 p0090 H75-18762
 HUD-H-1875
 07 p0136 H75-22925

HA-2-4214
 08 p0202 H75-29270
 HASW-2481
 05 p0024 H75-10587
 05 p0033 H75-13382
 05 p0033 H75-13383
 05 p0033 H75-13384
 05 p0033 H75-13385
 05 p0039 H75-15154
 06 p0080 H75-17786
 06 p0081 H75-17787
 06 p0093 H75-19821
 06 p0096 H75-20160
 07 p0128 H75-21796
 07 p0133 H75-22584
 07 p0135 H75-22904
 07 p0160 H75-27563
 HASW-2483
 05 p0033 H75-13386
 05 p0035 H75-13882
 05 p0038 H75-15149
 07 p0147 H75-24957
 HAS1-12018
 08 p0171 A75-41698
 06 p0091 H75-19224
 HAS1-13008
 08 p0171 A75-41669
 08 p0193 A75-46028
 HAS1-13142
 06 p0084 H75-18220
 HAS1-13226
 06 p0079 H75-17336
 HAS1-13291
 05 p0010 A75-11281
 HAS1-13395
 07 p0133 H75-22486
 HAS1-13620
 07 p0141 H75-24113
 HAS2-5503
 07 p0138 H75-23880
 HAS2-6473
 06 p0055 A75-25013
 HAS2-6995
 06 p0073 H75-16557
 06 p0096 H75-20291
 06 p0097 H75-20292
 HAS2-7208
 05 p0039 H75-15157
 HAS2-7596
 07 p0114 A75-32915
 HAS2-8310
 07 p0114 A75-32919
 HAS2-8444
 07 p0160 H75-27565
 HAS2-8445
 07 p0134 H75-22901
 07 p0134 H75-22902
 HAS3-15339
 07 p0123 A75-37243
 06 p0067 H75-16084
 07 p0154 H75-26496
 HAS3-16804
 07 p0138 H75-23683
 HAS3-17354
 07 p0135 H75-22906
 HAS3-17360
 07 p0124 A75-37404
 HAS3-17775
 06 p0073 H75-16637
 HAS3-17827
 08 p0207 H75-31571
 HAS3-17835
 08 p0183 A75-45814
 HAS3-17862
 07 p0154 H75-26495
 HAS3-18014
 05 p0021 A75-17504
 06 p0066 H75-16079
 HAS3-18517
 08 p0193 A75-46019
 HAS3-18886
 06 p0055 A75-24957
 HAS3-19403
 08 p0193 A75-46025
 HAS5-20968
 07 p0138 H75-23882
 HAS5-21762
 07 p0158 H75-27515
 HAS5-23102
 07 p0128 H75-21792

HAS5-23156
 05 p0023 H75-10347
 HAS7-100
 05 p0002 A75-10481
 05 p0002 A75-10503
 05 p0005 A75-10530
 05 p0007 A75-10556
 05 p0008 A75-10571
 05 p0008 A75-10574
 05 p0010 A75-11283
 05 p0010 A75-11284
 07 p0119 A75-36275
 05 p0029 H75-12064
 06 p0069 H75-16097
 06 p0074 H75-16972
 06 p0080 H75-17785
 06 p0098 H75-20831
 07 p0133 H75-22786
 07 p0133 H75-22747
 07 p0158 H75-27540
 07 p0160 H75-27560
 08 p0199 H75-28519
 HAS8-27793
 07 p0114 A75-32914
 HAS8-29905
 07 p0147 H75-25088
 HAS8-30268
 06 p0086 H75-18719
 HAS8-30315
 08 p0192 A75-46016
 06 p0067 H75-16085
 HAS8-30542
 07 p0147 H75-24842
 HAS9-13297
 07 p0147 H75-25237
 HAS9-13413
 05 p0036 H75-14135
 HAS9-14220
 07 p0148 H75-25296
 HAS9-14305
 07 p0140 H75-24105
 HAS9-14306
 06 p0086 H75-18722
 HAS9-14323
 07 p0147 H75-24802
 HAS9-14524
 08 p0199 H75-28518
 NATO-508
 07 p0115 A75-33972
 NGL-14-001-001
 06 p0064 A75-29137
 NGL-34-001-001
 08 p0204 H75-30438
 NGL-47-003-067
 07 p0141 H75-24121
 07 p0141 H75-24122
 NGR-11-002-181
 08 p0193 A75-46027
 NGR-18-001-086
 05 p0005 A75-10532
 08 p0177 A75-44778
 NGT-01-003-004
 05 p0033 H75-13381
 NGT-01-003-044
 05 p0023 H75-10584
 NGT-44-005-114
 07 p0109 A75-29477
 08 p0176 A75-44771
 06 p0098 H75-20830
 07 p0148 H75-25292
 NOAA-NG-43-72
 08 p0206 H75-31562
 NOAA-04-3-158-29
 08 p0208 H75-31579
 NOAA-15-81188
 07 p0152 H75-26484
 HR PROJ. 083-004
 07 p0146 H75-24285
 HR PROJ. 133-076
 07 p0146 H75-24191
 HR PROJ. 462-082
 06 p0096 H75-20157
 06 p0096 H75-20158
 HSF AER-72-03489
 08 p0188 A75-45961
 HSF AER-72-03579
 07 p0143 H75-24132
 HSF AER-73-07863A02
 07 p0124 A75-37850
 HSF AER-74-07570
 06 p0062 A75-28595

08 p0190 A75-45982
 07 p0136 H75-22930
 HSF AER74-17521-A01
 08 p0213 H75-33509
 HSF AG-352
 08 p0203 H75-29587
 HSF AG-398
 05 p0023 H75-10039
 05 p0029 H75-11469
 HSF AG-485
 06 p0069 H75-16097
 06 p0069 H75-16098
 06 p0072 H75-16121
 06 p0072 H75-16122
 06 p0080 H75-17785
 HSF AG-493
 07 p0150 H75-25321
 HSF AG-495
 06 p0089 H75-18757
 HSF AG-502
 07 p0144 H75-24145
 HSF AG-545
 06 p0098 H75-20831
 HSF ATA-73-07742-A02
 06 p0080 H75-17783
 HSF C-84
 05 p0042 H75-15195
 HSF C-310
 06 p0080 H75-17749
 08 p0199 H75-28503
 08 p0205 H75-30665
 08 p0205 H75-30668
 HSF C-466
 07 p0138 H75-23691
 07 p0155 H75-26503
 HSF C-756
 07 p0143 H75-24139
 HSF C-827
 06 p0062 A75-28598
 06 p0095 H75-19843
 HSF C-836
 08 p0174 A75-44755
 06 p0100 H75-20843
 HSF C-853
 05 p0042 H75-15190
 06 p0070 H75-16103
 06 p0070 H75-16107
 HSF C-854
 05 p0019 A75-16891
 05 p0042 H75-15192
 05 p0042 H75-15193
 05 p0042 H75-15194
 HSF C-855
 08 p0184 A75-45921
 05 p0042 H75-15191
 06 p0070 H75-16108
 HSF C-858
 05 p0019 A75-16890
 08 p0194 A75-46040
 06 p0089 H75-18755
 HSF C-867
 07 p0142 H75-24128
 07 p0145 H75-24155
 HSF C-868
 07 p0150 H75-25314
 HSF C-869
 07 p0155 H75-26505
 HSF C-903
 07 p0130 H75-21816
 HSF C-908
 07 p0155 H75-26510
 HSF C-914
 07 p0131 H75-21823
 07 p0143 H75-24133
 HSF C-957
 08 p0181 A75-45511
 HSF CG-00007
 07 p0154 H75-26501
 HSF DI-39519
 08 p0213 H75-33505
 HSF EH-44166
 07 p0137 H75-23391
 HSF GF-41575
 06 p0049 A75-23291
 HSF GI-2729
 06 p0104 H75-20883
 HSF GI-04389
 06 p0107 H75-21155
 HSF GI-14024
 07 p0146 H75-24539

CONTRACT NUMBER INDEX

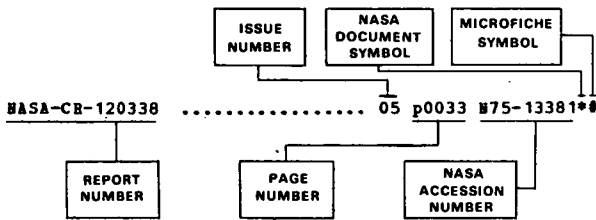
NSP GI-27976	07 p0112 A75-32097	NSP GI-44066	87-1/1-V-67/74-P2-BB-74
05 p0007 A75-10553	05 p0038 N75-14283	05 p0036 N75-14264	08 p0199 N75-28517
06 p0077 N75-17005	06 p0071 N75-16118	NSP GI-44210	SMSO-3
07 p0136 N75-22919	NSP GI-38103	08 p0203 N75-29552	05 p0034 N75-13393
07 p0150 N75-25320	05 p0037 N75-14281	08 p0203 N75-29570	05 p0036 N75-14269
07 p0156 N75-26520	05 p0038 N75-14282	NSP GK-38697	05 p0036 N75-14270
07 p0157 N75-26521	06 p0070 N75-16107	05 p0035 N75-14094	SRI PROJ. ECC-2355
07 p0157 N75-26522	NSP GI-38319	NSP GN-42243	07 p0149 N75-25297
NSP GI-29729	05 p0009 A75-11069	07 p0130 N75-21811	SRI PROJ. FYU-2580
05 p0016 A75-16836	NSP GI-38701	07 p0151 N75-25329	07 p0158 N75-27168
05 p0017 A75-16842	07 p0134 N75-22897	07 p0152 N75-25774	SWRI PROJ. 02-4003
06 p0054 A75-24259	NSP GI-38723	NSP GP-37166	06 p0078 N75-17023
08 p0185 A75-45936	05 p0026 N75-10605	06 p0056 A75-25831	TNRC PROJECT MAG-247
07 p0143 N75-24138	NSP GI-38974	NSP GP-43738	07 p0115 A75-33972
07 p0144 N75-24151	07 p0151 N75-25327	06 p0086 N75-18718	V-594P-454
07 p0145 N75-24152	NSP GI-38981	NSP GP-44105	08 p0203 N75-29559
07 p0150 N75-25313	08 p0165 A75-38958	06 p0079 N75-17456	08 p0203 N75-29560
07 p0155 N75-26504	06 p0105 N75-20890	NSP GP-44165	08 p0203 N75-29561
07 p0155 N75-26511	NSP GI-39114	06 p0066 N75-16072	08 p0203 N75-29562
07 p0156 N75-26516	06 p0062 A75-28594	NSP GP-44178	W-31-109-ENG-38
07 p0156 N75-26517	07 p0124 A75-37850	06 p0078 N75-17006	06 p0076 N75-16984
07 p0156 N75-26518	05 p0038 N75-14284	NSP GB-32464	06 p0076 N75-16990
07 p0156 N75-26519	06 p0082 N75-17821	NSP GT-2021 N75-28964	W-7405-ENG-26
07 p0162 N75-27579	NSP GI-39150	NSP GT-32162	05 p0023 N75-10039
07 p0163 N75-27964	06 p0055 A75-24750	06 p0082 N75-17824	05 p0024 N75-10592
08 p0200 N75-28527	07 p0143 N75-24140	06 p0083 N75-17825	05 p0029 N75-11469
NSP GI-29731	NSP GI-39151	NSP GT-44112	06 p0068 N75-16092
08 p0200 N75-28536	05 p0040 N75-15178	07 p0161 N75-27575	06 p0087 N75-18728
NSP GI-32488	NSP GI-39191	NSP GT-11543	06 p0090 N75-18769
06 p0069 N75-16095	05 p0041 N75-15183	06 p0106 N75-21028	07 p0146 N75-24532
07 p0145 N75-24157	NSP GI-39241	NSP GZ-2932	W-7405-ENG-36
NSP GI-32724	06 p0082 N75-17822	08 p0193 A75-46024	05 p0028 N75-11468
06 p0070 N75-16110	NSP GI-39323	NSP ISR-72-05606-A02	05 p0032 N75-12814
NSP GI-32989A2	07 p0136 N75-22928	06 p0082 N75-17824	05 p0032 N75-13164
08 p0203 N75-29587	NSP GI-39415	06 p0083 N75-17825	06 p0074 N75-16774
NSP GI-34027	05 p0004 A75-10518	NSP MFS-04210	06 p0082 N75-17813
06 p0070 N75-16109	NSP GI-39456	08 p0200 N75-28524	06 p0086 N75-18723
NSP GI-34029	08 p0174 A75-44753	NSP PTP-74-01555	06 p0106 N75-21097
06 p0048 A75-23018	06 p0088 N75-18742	07 p0156 N75-26512	07 p0127 N75-21391
07 p0109 A75-29474	NSP GI-39457	NSP SIA-73-07871-A02	W-7405-ENG-48
07 p0109 A75-29480	05 p0013 A75-12988	08 p0214 N75-33511	05 p0024 N75-10593
NSP GI-34871	07 p0116 A75-34533	NSP SSH-73-07142	05 p0024 N75-10594
08 p0200 N75-28543	07 p0117 A75-34928	06 p0080 N75-17749	05 p0028 N75-11467
08 p0201 N75-28544	08 p0185 A75-45931	NSP 29726	05 p0039 N75-15166
NSP GI-34872	08 p0190 A75-45993	06 p0059 A75-27780	05 p0043 N75-15462
06 p0071 N75-16115	NSP GI-39539	NSP APR74-21034	06 p0066 N75-15781
06 p0105 N75-20884	06 p0071 N75-16117	NSP APR74-21034	06 p0068 N75-16090
08 p0201 N75-28545	NSP GI-39547	NSG-1162	06 p0077 N75-16996
NSP GI-34925	07 p0150 N75-25315	07 p0160 N75-27567	06 p0079 N75-17279
07 p0153 N75-26485	NSP GI-39612	NSG-1168	06 p0093 N75-19827
NSP GI-34936	08 p0213 N75-33504	08 p0187 A75-45951	06 p0094 N75-19830
08 p0214 N75-33932	NSP GI-40253	NSG-1172	06 p0097 N75-20693
NSP GI-34975	06 p0069 N75-16096	08 p0207 N75-31570	06 p0104 N75-20875
07 p0135 N75-22916	NSP GI-40457	NSG-7067	07 p0127 N75-21480
NSP GI-34979	07 p0109 A75-29473	08 p0187 A75-45951	07 p0127 N75-21781
06 p0077 N75-17003	06 p0082 N75-17823	NSG-9009	07 p0128 N75-21797
07 p0130 N75-21821	07 p0136 N75-22926	06 p0080 N75-17784	386-01-00-00-72
07 p0143 N75-24134	NSP GI-41003	W01-HT-2907	08 p0207 N75-31573
07 p0144 N75-24147	07 p0113 A75-32860	05 p0037 N75-14278	506-23
07 p0150 N75-25317	08 p0196 A75-47526	N00014-67-A-0202-0046	05 p0039 N75-15161
07 p0150 N75-25318	06 p0083 N75-17830	08 p0193 A75-46022	770-18
07 p0150 N75-25319	07 p0130 N75-21822	06 p0066 N75-15818	08 p0205 N75-30649
08 p0213 N75-33502	NSP GI-41019	07 p0132 N75-22477	778-00
08 p0213 N75-33508	06 p0071 N75-16114	N00014-68-A-0091	06 p0080 N75-17712
NSP GI-34983	06 p0089 N75-18756	08 p0214 N75-33931	791-40-08-06
07 p0157 N75-26524	NSP GI-41305	N00014-68-A-0215-0013	06 p0103 N75-20868
NSP GI-34991	06 p0059 A75-27786	07 p0146 N75-24191	791-40-24-1
05 p0017 A75-16842	05 p0037 N75-14280	N00014-70-C-0133	06 p0107 N75-21154
06 p0104 N75-20883	06 p0083 N75-17829	06 p0056 A75-25831	791-40-2301
07 p0136 N75-22919	07 p0135 N75-22915	N00014-74-C-0253	05 p0035 N75-13690
NSP GI-35100	NSP GI-41306	06 p0096 N75-20157	982-42-01-00-72
07 p0161 N75-27570	08 p0167 A75-39407	06 p0096 N75-20158	05 p0038 N75-15153
NSP GI-35179	NSP GI-41840	N00014-74-C-0262	
08 p0202 N75-29269	07 p0133 N75-22669	07 p0146 N75-24285	
NSP GI-35179X	NSP GI-41894	N00014-74-C-0568	
06 p0070 N75-16104	06 p0072 N75-16120	07 p0147 N75-24966	
NSP GI-35821	06 p0105 N75-20886	N00014-75-C-0220	
07 p0151 N75-25322	07 p0143 N75-24136	07 p0132 N75-22477	
NSP GI-36371	NSP GI-41895	N00017-72-C-4401	
05 p0041 N75-15186	07 p0123 A75-37331	06 p0064 A75-29116	
NSP GI-36598	06 p0071 N75-16116	06 p0065 N75-15658	
07 p0144 N75-24144	NSP GI-42944	06 p0085 N75-18594	
NSP GI-36731	06 p0105 N75-20888	N00019-72-C-0340	
05 p0041 N75-15185	NSP GI-43098	07 p0114 A75-32919	
06 p0072 N75-16119	06 p0105 N75-20885	N62399-73-C-0029	
07 p0143 N75-24137	NSP GI-43795	08 p0202 N75-29550	
NSP GI-36731X	07 p0144 N75-24150	PHS-73-2930	
08 p0165 A75-38956	NSP GI-43866	07 p0136 N75-22918	
NSP GI-37815	06 p0099 N75-20837	PROJ. NSP/RANN	
05 p0018 A75-16884	NSP GI-43936	05 p0040 N75-15176	
07 p0109 A75-29476	08 p0186 A75-45940		

REPORT/ACCESSION INDEX

ENERGY / A Continuing Bibliography (Issue 8)

FEBRUARY 1976

Typical Report/Accession Number Index Listing



Listings in this index are arranged alphanumerically by report number. The issue and page number indicate the actual Supplement and page where the citation may be located. The accession number denotes the number by which the citation is identified. An asterisk (*) indicates that the item is a NASA report. A pound sign (#) indicates that the item is available on microfiche. A plus sign (+) indicates a document that cannot be microfiched but for which one-to-one facsimile is available.

A-1645	08	p0207	N75-31571**	#
A-5878	06	p0107	N75-21154**	#
AD-A000077	06	p0079	N75-17454	#
AD-A000087	06	p0089	N75-18749	#
AD-A000211	06	p0082	N75-17819	#
AD-A000842	06	p0096	N75-20157	#
AD-A000843	06	p0096	N75-20158	#
AD-A000900	06	p0088	N75-18745	#
AD-A000940	06	p0091	N75-19339	#
AD-A000941	06	p0091	N75-19340	#
AD-A000942	06	p0091	N75-19341	#
AD-A001081	06	p0085	N75-18594	#
AD-A001515	06	p0089	N75-18754	#
AD-A001525	07	p0129	N75-21806	#
AD-A001610	06	p0094	N75-19836	#
AD-A002042	06	p0095	N75-19847	#
AD-A002218	06	p0092	N75-19608	#
AD-A002563	06	p0104	N75-20880	#
AD-A002576	06	p0104	N75-20879	#
AD-A002655	07	p0131	N75-22114	#
AD-A002717	06	p0092	N75-19705	#
AD-A003136	06	p0107	N75-21156	#
AD-A003217	06	p0104	N75-20881	#
AD-A003309	06	p0104	N75-20882	#
AD-A003312	07	p0129	N75-21804	#
AD-A003590	08	p0202	N75-29550	#
AD-A003723	07	p0161	N75-27569	#
AD-A004216	07	p0155	N75-26502	#
AD-A004263	07	p0154	N75-26499	#
AD-A004358	07	p0158	N75-27170	#
AD-A004550	07	p0158	N75-27168	#
AD-A004614	07	p0162	N75-27901	#
AD-A004762	07	p0155	N75-26507	#
AD-A004814	07	p0159	N75-27559	#
AD-A005549	08	p0199	N75-28522	#
AD-A006473	08	p0203	N75-29558	#
AD-A006549	08	p0203	N75-29555	#
AD-A006559	07	p0134	N75-22783	#
AD-A006562	07	p0137	N75-23392	#
AD-A006643	07	p0137	N75-23387	#
AD-A006803	07	p0149	N75-25304	#
AD-A006804	07	p0142	N75-24129	#
AD-A006805	07	p0149	N75-25305	#
AD-A006928	07	p0132	N75-22476	#
AD-A006938	07	p0136	N75-22953	#
AD-A006984	07	p0132	N75-22477	#
AD-A007220	07	p0136	N75-22917	#
AD-A007296	07	p0146	N75-24285	#
AD-A007415	07	p0144	N75-24141	#
AD-A007583	07	p0144	N75-24143	#
AD-A007588	07	p0146	N75-24191	#

AD-A007799	07	p0144	N75-24142	#
AD-A007923	07	p0147	N75-24966	#
AD-A008343	07	p0149	N75-25307	#
AD-A008938	08	p0205	N75-30659	#
AD-A008951	08	p0205	N75-30660	#
AD-A009400	08	p0211	N75-32596	#
AD-A009600	08	p0208	N75-31580	#
AD-A009821	08	p0211	N75-32598	#
AD-A010914	08	p0214	N75-33931	#
AD-A010968	08	p0214	N75-33515	#
AD-779352	05	p0031	N75-12448	#
AD-782888	05	p0027	N75-11226	#
AD-783764	05	p0025	N75-10598	#
AD-783821	05	p0026	N75-10836	#
AD-783901	05	p0026	N75-10609	#
AD-784449	05	p0026	N75-10608	#
AD-784708	05	p0025	N75-10597	#
AD-784964	05	p0031	N75-12449	#
AD-785084	05	p0032	N75-12857	#
AD-785419	05	p0032	N75-12807	#
AD-785948	05	p0037	N75-14275	#
AD-786844	05	p0039	N75-15168	#
AD-786888	05	p0037	N75-14274	#
AD-787419	06	p0073	N75-16368	#
AD-787420	07	p0135	N75-22911	#
AD-787484	06	p0066	N75-15818	#
AD-787507	06	p0065	N75-15658	#
ADL-C-74830	07	p0138	N75-23683**	#
ADL-C-76732-VOL-1	06	p0096	N75-20157	#
ADL-C-76732-VOL-2	06	p0096	N75-20158	#
ADL-C-76971	08	p0202	N75-29271	#
ADL-C-77105	08	p0200	N75-28529	#
ADL-C-77382	08	p0204	N75-29953	#
ADL-C-77591	08	p0201	N75-28552	#
ADL-78036	08	p0199	N75-28518**	#
AE-RES-74-17	07	p0152	N75-26484	#
AEC-SNS-3063-3-VOL-1	06	p0065	N75-15742	#
AECL-4840	06	p0106	N75-21099	#
AFAPL-TR-74-5	05	p0027	N75-11226	#
AFAPL-TR-74-27	05	p0037	N75-14274	#
AFAPL-TR-74-47-PT-3	07	p0155	N75-26502	#
AFAPL-TR-74-89-1	06	p0091	N75-19339	#
AFAPL-TR-74-89-2	06	p0091	N75-19340	#
AFAPL-TR-74-89-3	06	p0091	N75-19341	#
AFOSR-74-1503TR	05	p0032	N75-12807	#
AIAA PAPER 74-1066	05	p0001	A75-10259	#
AIAA PAPER 74-1069	05	p0001	A75-10262	#
AIAA PAPER 74-1071	05	p0001	A75-10263	#
AIAA PAPER 74-1072	05	p0001	A75-10264	#
AIAA PAPER 74-1074	05	p0010	A75-11281**	#
AIAA PAPER 74-1084	05	p0010	A75-11283**	#
AIAA PAPER 74-1085	05	p0010	A75-11284**	#
AIAA PAPER 74-1114	05	p0010	A75-11286	#
AIAA PAPER 74-1266	05	p0010	A75-11107	#
AIAA PAPER 75-30	05	p0021	A75-18269	#
AIAA PAPER 75-264	06	p0055	A75-25005	#
AIAA PAPER 75-303	06	p0047	A75-22508**	#
AIAA PAPER 75-304	06	p0049	A75-23251	#
AIAA PAPER 75-314	06	p0047	A75-22513	#
AIAA PAPER 75-315	06	p0055	A75-25013**	#
AIAA PAPER 75-316	06	p0047	A75-22514**	#
AIAA PAPER 75-319	06	p0047	A75-22515**	#
AIAA PAPER 75-350	06	p0055	A75-24957**	#
AIAA PAPER 75-609	06	p0062	A75-28590	#
AIAA PAPER 75-611	06	p0062	A75-28591	#
AIAA PAPER 75-612	08	p0170	A75-41178	#

REPORT/ACCESSION NUMBER INDEX

AIAA PAPER 75-615	06	p0062	A75-28593 #	ASME PAPER 74-WA/HT-14	05	p0017	A75-16861 #
AIAA PAPER 75-616	06	p0064	A75-29115 #	ASME PAPER 74-WA/HT-16	05	p0017	A75-16862 #
AIAA PAPER 75-617	06	p0064	A75-29116 #	ASME PAPER 74-WA/HT-17	05	p0017	A75-16863 #
AIAA PAPER 75-618	06	p0062	A75-28594 #	ASME PAPER 74-WA/HT-18	05	p0017	A75-16864 #
AIAA PAPER 75-619	06	p0064	A75-29117 #	ASME PAPER 74-WA/HT-20	05	p0017	A75-16865 #
AIAA PAPER 75-623	06	p0062	A75-28595 #	ASME PAPER 74-WA/HT-22	05	p0018	A75-16867 #
AIAA PAPER 75-624	06	p0062	A75-28596 #	ASME PAPER 74-WA/HT-61	05	p0018	A75-16869 #
AIAA PAPER 75-628	06	p0062	A75-28597**	ASME PAPER 74-WA/PWR-1	08	p0166	A75-39349 #
AIAA PAPER 75-632	06	p0062	A75-28598 #	ASME PAPER 74-WA/PWR-5	05	p0018	A75-16879 #
AIAA PAPER 75-635	06	p0063	A75-28599 #	ASME PAPER 74-WA/PWR-6	05	p0018	A75-16880 #
AIAA PAPER 75-637	06	p0063	A75-28600 #	ASME PAPER 74-WA/PWR-7	05	p0018	A75-16881 #
AIAA PAPER 75-640	06	p0064	A75-29118 #	ASME PAPER 74-WA/PWR-10	05	p0018	A75-16882 #
AIAA PAPER 75-641	06	p0063	A75-28601**	ASME PAPER 74-WA/PWR-11	05	p0018	A75-16883 #
AIAA PAPER 75-642	06	p0063	A75-28602 #	ASME PAPER 74-WA/SOL-1	05	p0018	A75-16884 #
AIAA PAPER 75-643	06	p0063	A75-28603 #	ASME PAPER 74-WA/SOL-2	05	p0018	A75-16885 #
AIAA PAPER 75-649	06	p0063	A75-28604 #	ASME PAPER 74-WA/SOL-3	05	p0019	A75-16886 #
AIAA PAPER 75-655	07	p0114	A75-32913 #	ASME PAPER 74-WA/SOL-5	05	p0019	A75-16888 #
AIAA PAPER 75-656	07	p0114	A75-32914**	ASME PAPER 74-WA/SOL-6	05	p0019	A75-16889 #
AIAA PAPER 75-657	07	p0114	A75-32915**	ASME PAPER 74-WA/SOL-7	05	p0019	A75-16890 #
AIAA PAPER 75-658	07	p0114	A75-32916**	ASME PAPER 74-WA/SOL-8	05	p0019	A75-16891 #
AIAA PAPER 75-659	07	p0114	A75-32917**	ASME PAPER 75-GT-50	07	p0116	A75-34607 #
AIAA PAPER 75-660	07	p0114	A75-32918**	ASME PAPER 75-GT-67	07	p0116	A75-34620 #
AIAA PAPER 75-661	07	p0114	A75-32919**	ASME PAPER 75-HT-PPF	08	p0173	A75-43881 #
AIAA PAPER 75-724	07	p0113	A75-32868 #	ASME PAPER 75-HT-52	08	p0196	A75-47525 #
AIAA PAPER 75-726	07	p0113	A75-32870**	ASME PAPER 75-HT-54	08	p0196	A75-47526 #
AIAA PAPER 75-729	07	p0113	A75-32872**	ASME PAPER 75-HT-57	08	p0196	A75-47527 #
AIAA PAPER 75-738	07	p0113	A75-32860 #				
AIAA PAPER 75-739	07	p0113	A75-32861 #	ATA-EC-75-1	07	p0156	N75-26513 #
AIAA PAPER 75-740	07	p0115	A75-33758 #				
AIAA PAPER 75-741	07	p0113	A75-32862**	B-164105	06	p0075	N75-16975 #
AIAA PAPER 75-742	07	p0113	A75-32851 #				
AIAA PAPER 75-743	07	p0113	A75-32852 #	BECHTEL-10900-74-43-I	07	p0142	N75-24128 #
AIAA PAPER 75-923	08	p0165	A75-38868 #	BECHTEL-10900-74-43-I-APP	07	p0145	N75-24155 #
AIAA PAPER 75-927	07	p0121	A75-37005 #				
AIAA PAPER 75-932	07	p0121	A75-37008 #	BIB-74-01	07	p0159	N75-27557**
AIAA PAPER 75-1036	08	p0171	A75-41698**	BIB-74-01-APP-1	07	p0159	N75-27558**
AIAA PAPER 75-1107	08	p0171	A75-41669**				
AIAA PAPER 75-1235	08	p0181	A75-45647 #	BK005-1009	07	p0138	N75-23882**
AIAA PAPER 75-1236	08	p0182	A75-45648 #				
AIAA PAPER 75-1237	08	p0182	A75-45649 #	BLL-CE-TRANS-6473-(9022.09)	07	p0153	N75-26491
AIAA PAPER 75-1239	08	p0182	A75-45651 #	BLL-CE-TRANS-6500-(9022.09)	06	p0083	N75-17833
AIAA PAPER 75-1246	08	p0182	A75-45656**	BLL-CE-TRANS-6524-(9022.09)	07	p0157	N75-26528
AIAA PAPER 75-1258	08	p0182	A75-45659 #				
AIAA PAPER 75-1261	08	p0182	A75-45661 #	BLL-M-21957-(5828.4F)	06	p0080	N75-17467
AIAA PAPER 75-1263	08	p0182	A75-45663 #	BLL-M-23330-(5828.4F)	06	p0085	N75-18714
				BLL-M-23333-(5828.4F)	06	p0091	N75-19014
AICHE PAPER 12	08	p0196	A75-47511 #	BLL-M-23343-(5828.4F)	06	p0080	N75-17722
AICHE PAPER 16	08	p0196	A75-47512 #	BLL-M-23413-(5828.4F)	08	p0199	N75-28516
				BLL-M-23508-(5828.4F)	06	p0074	N75-16969
ALA-EMB-X996-149R-01	06	p0088	N75-18736 #	BLL-M-23516-(5828.4F)	06	p0074	N75-16968
ALA-EMB-X996-149R-03	06	p0088	N75-18737 #				
ALA-EMB-X996-149R-04	06	p0085	N75-18442 #	BLL-OA-TRANS-949-(6196.3)	07	p0153	N75-26492
				BLL-OA-TRANS-1250-(6196.3)	06	p0074	N75-16712
ALRC-9280-74-11-10	07	p0136	N75-22918 #				
				BLL-RTS-9309	07	p0158	N75-27511
AMS-1177	06	p0079	N75-17456 #				
				BLL-TRANS-2943-(9022.81)	06	p0074	N75-16967
ANCR-1155	06	p0076	N75-16985 #				
				BH-IC-8595	05	p0042	N75-15203 #
ANL-8058	06	p0076	N75-16990 #	BH-IC-8638	08	p0202	N75-29545 #
ANL-8064	06	p0076	N75-16984 #	BH-IC-8647	06	p0077	N75-17004 #
				BH-IC-8650	07	p0142	N75-24131 #
ANL/ES-CEN-P062	06	p0072	N75-16151 #	BH-IC-8651	05	p0040	N75-15172 #
				BH-IC-8652	06	p0088	N75-18738 #
AP-42-SUPPL-3	06	p0073	N75-16152 #	BH-IC-8655	06	p0085	N75-18713 #
				BH-IC-8657	07	p0148	N75-25288 #
APL-TG-1249	06	p0065	N75-15658 #	BH-IC-8659	07	p0152	N75-25354 #
APL/JHU-TG-1240	06	p0085	N75-18594 #	BH-OPR-4-75	08	p0201	N75-28552 #
				BH-OPR-35-74	06	p0066	N75-16071 #
APTIC-75097	08	p0204	N75-29597 #	BH-OPR-60-74	06	p0090	N75-18762 #
AR-1	06	p0103	N75-20873 #	BH-RI-7918	07	p0147	N75-24852 #
AR-2	07	p0146	N75-24191 #	BH-RI-7921	05	p0034	N75-13399 #
				BH-RI-7952	06	p0089	N75-18759 #
ARL-74-0119	07	p0155	N75-26507 #	BH-RI-7965	07	p0139	N75-24074 #
ARL-74-0127	07	p0159	N75-27559 #	BH-RI-7968	05	p0028	N75-11462 #
				BH-RI-7969	06	p0089	N75-18760 #
ASME PAPER 74-WA/ENER-2	05	p0015	A75-16834 #	BH-RI-7973	06	p0097	N75-20746 #
ASME PAPER 74-WA/ENER-3	05	p0016	A75-16835 #	BH-RI-7978	06	p0090	N75-18761 #
ASME PAPER 74-WA/ENER-4	05	p0016	A75-16836 #	BH-RI-7984	07	p0148	N75-25283 #
ASME PAPER 74-WA/ENER-5	05	p0016	A75-16837 #	BH-RI-7995	07	p0151	N75-25328 #
ASME PAPER 74-WA/ENER-6	05	p0016	A75-16838 #	BH-RI-8008	07	p0159	N75-27554 #
ASME PAPER 74-WA/ENER-7	05	p0016	A75-16839 #	BH-RI-8011	08	p0201	N75-28548 #
ASME PAPER 74-WA/ENER-9	05	p0016	A75-16840 #	BH-RI-8013	07	p0161	N75-27572 #
ASME PAPER 74-WA/ENER-10	05	p0016	A75-16841 #				
ASME PAPER 74-WA/ENER-11	05	p0017	A75-16842 #	BH-SP-1-74	05	p0040	N75-15171 #
ASME PAPER 74-WA/HT-12	05	p0017	A75-16860 #	BH-SP-1-75	08	p0199	N75-28514 #
ASME PAPER 74-WA/HT-13	05	p0017	A75-16857 #				

REPORT/ACCESSION NUMBER INDEX

BH-TPR-81	06	p0093	N75-19813	CONF-740805-3	05	p0036	N75-14268
BH-TPR-82	05	p0025	N75-10599	CONF-740805-4	06	p0076	N75-16989
BH-TPR-84	08	p0211	N75-32603	CONF-740805-5	06	p0076	N75-16988
BH-TPR-86	07	p0158	N75-27120	CONF-740805-7	06	p0094	N75-19829
BHL-14804-B	06	p0104	N75-20876	CONF-740805-8	06	p0086	N75-18725
BHL-18651	05	p0030	N75-12441	CONF-740811-1	06	p0079	N75-17279
BHL-18815	05	p0029	N75-11730	CONF-740811-4	06	p0082	N75-17813
BHL-18866	05	p0031	N75-12443	CONF-740814-ABSTS	07	p0129	N75-21801
BHL-18887	05	p0030	N75-12440	CONF-740908-1	06	p0077	N75-16994
BHL-18920	06	p0097	N75-20580	CONF-740909-2	06	p0068	N75-16089
BHL-18984	06	p0094	N75-19831	CONF-741032-1	07	p0131	N75-22112
BHL-19249	06	p0103	N75-20873	CONF-741032-2	07	p0127	N75-21391
BHL-19266	06	p0086	N75-18725	CONF-741086-6	07	p0131	N75-22113
BHL-19267	06	p0103	N75-20870	CONF-741104-2	06	p0094	N75-19832
BHL-19308	07	p0129	N75-21799	CONF-741104-3	06	p0103	N75-20872
BHL-19336	06	p0106	N75-21104	CONF-741105-2	06	p0096	N75-20106
BHL-19351	06	p0106	N75-21098	CONF-741130-1	06	p0091	N75-19080
BHW-211B01284	06	p0065	N75-15768	CONF-741144-1	07	p0142	N75-24126
BHWL-SA-5053	06	p0085	N75-18702	CONF-7210122-1	06	p0068	N75-16091
BHWL-SA-5069	06	p0096	N75-20106	CONTRIB-25	07	p0161	N75-27578
BHWL-SA-5070	06	p0103	N75-20874	COO-2431-1	06	p0106	N75-21101
BHWL-1845-2	07	p0152	N75-25695	COO-3028-7	05	p0028	N75-11465
BHWL-1845-4	07	p0152	N75-25696	CR-53-INT-6	05	p0040	N75-15169
BR39686	06	p0073	N75-16572	CRREL-257	06	p0104	N75-20881
BSR-4179	07	p0158	N75-27515*	CSSP-3705-8	08	p0213	N75-33507
C-227	07	p0128	N75-21792**	CTAB-75-2	08	p0200	N75-28530
C-405-3	06	p0104	N75-20882	DDC-TAS-75-6	08	p0208	N75-31580
CBNS-AB-1	06	p0107	N75-21155	DHPR-75-13	07	p0147	N75-25088**
CEL-CR-75.003-VOL-3	08	p0202	N75-29550	DLR-FB-74-23	06	p0104	N75-20878
CEL-TN-1359	06	p0092	N75-19608	DLR-HITT-73-22	07	p0135	N75-22910
CEM-10R	05	p0023	N75-10347**	DLR-HITT-74-13	06	p0107	N75-21218
CERL-TR-E-65-VOL-1	06	p0104	N75-20879	DNT-002	08	p0209	N75-31962
CERL-TR-E-65-VOL-2	06	p0104	N75-20880	DOC-74SD4219-VOL-1	06	p0069	N75-16101
COM-74-50944/10	07	p0152	N75-25775	DOC-74SD4219-VOL-2	06	p0069	N75-16102
COM-75-10009/9	07	p0132	N75-22264	DOC-74SD4219-VOL-3-BK-1	05	p0042	N75-15191
COM-75-10137	07	p0147	N75-25200	DOC-74SD4219-VOL-3-BK-2-APP-C	06	p0070	N75-16108
COM-75-10276/4	07	p0150	N75-25321	DOC-74SD4226-VOL-1	06	p0104	N75-20879
COM-75-10289/7	07	p0155	N75-26509	DOC-74SD4226-VOL-2	06	p0104	N75-20880
COM-75-10304/4	07	p0161	N75-27578	DOT-TSC-OST-74-12	07	p0130	N75-21817
COM-75-10330/9	07	p0152	N75-26484	DOT-TSC-OST-74-39-1	07	p0132	N75-22478
COM-75-10407/5	07	p0158	N75-27324	DOT-TSC-OST-74-39-2B	07	p0132	N75-22480
COM-75-10465/3	08	p0206	N75-30948	DOT-TSC-OST-74-39-2BA	07	p0132	N75-22479
COM-75-10466/1	08	p0202	N75-29270	DOT-TSC-OST-74-40-1	07	p0132	N75-22481
COM-75-10500/7	08	p0203	N75-29553	DOT-TSC-OST-74-40-2	07	p0132	N75-22482
COM-75-10592/4	08	p0208	N75-31579	DOT-TSC-OST-74-40-2A	07	p0133	N75-22483
COM-75-10599/9	08	p0206	N75-31562	DOT-TSC-OST-74-40-3B	07	p0133	N75-22484
COM-75-10619/5	08	p0207	N75-31575	DOT-TSC-OST-75-11	08	p0212	N75-33410
COM-75-10691/4	08	p0214	N75-33749	DOT-TSC-OST-75-13	08	p0210	N75-32471
COM-75-10749/0	08	p0213	N75-33507	DOT-TSC-OST-75-15	08	p0210	N75-32470
COM-75-50049/6	07	p0135	N75-22914	DOT-TSC-OST-75-16	08	p0212	N75-33411
COM-75-50071/0	07	p0146	N75-24183	DOT-TST-74-13-1	05	p0035	N75-13690**
COM-75-50141/02	07	p0151	N75-25330	DOT-TST-75-2	07	p0163	N75-27970
CONF-700911-4	06	p0104	N75-20876	DOT-TST-75-6	05	p0041	N75-15184
CONF-740213-6	05	p0029	N75-11745	DOT-TST-75-7	05	p0040	N75-15179
CONF-740222-2	06	p0082	N75-17815	DTN-74-4	07	p0162	N75-27581
CONF-740316-6	06	p0073	N75-16362	D6-22421	06	p0091	N75-19224**
CONF-740335	05	p0031	N75-12445	D180-18768-1	07	p0147	N75-24802**
CONF-740402-23	05	p0028	N75-11466	D210-10901-1	06	p0084	N75-18220**
CONF-740407-4	05	p0030	N75-12441	E-8023	08	p0205	N75-30649**
CONF-740462-1	06	p0087	N75-18729	E-8133	06	p0080	N75-17712**
CONF-740509-7	05	p0032	N75-12814	E-8138	05	p0039	N75-15161**
CONF-740509-8	06	p0082	N75-17814	E-8138	08	p0210	N75-32593**
CONF-740543-1	05	p0030	N75-12440	E-8172	05	p0033	N75-13380**
CONF-740549-1	06	p0066	N75-15781	E-8241	06	p0084	N75-18241**
CONF-740555-1	06	p0077	N75-16995	E-8289	08	p0207	N75-31568**
CONF-740609-2	05	p0029	N75-11730	E-8309	07	p0128	N75-21795**
CONF-740669-4	05	p0038	N75-14593	E-8320	07	p0140	N75-24111**
CONF-740639-1	05	p0034	N75-13389	E-8327	07	p0140	N75-24110**
CONF-740641-1	05	p0031	N75-12447	E-8335	07	p0140	N75-24106**
CONF-740709-2	06	p0086	N75-18723	E-8336	07	p0141	N75-24119**
CONF-740727-2	06	p0085	N75-18702	E-8338	07	p0140	N75-24108**
CONF-740727-3	06	p0095	N75-19867	E-8353	07	p0138	N75-23681**
CONF-740732	06	p0103	N75-20874				
CONF-740805-1	05	p0029	N75-12252				

REPORT/ACCESSION NUMBER INDEX

GPO-39-827	08	p0207	N75-31567	#	JPRS-65422	08	p0205	N75-30648	#
GPO-39-885	08	p0209	N75-31954	#	JSC-08661	08	p0207	N75-31573**	
GPO-40-684	07	p0139	N75-24104	#	JSC-09233	05	p0036	N75-14135**	
GPO-40-687	08	p0209	N75-31955	#	JSC-09243	05	p0038	N75-15153**	
GPO-40-687	08	p0209	N75-31956	#					
GPO-41-253	05	p0026	N75-10764	#					
GPO-41-407	08	p0209	N75-31961	#	JUL-10177-RG	05	p0029	N75-11470	#
GPO-41-639	08	p0207	N75-31566	#	JUL-10177	06	p0093	N75-19828	#
GPO-41-659	08	p0209	N75-31958	#					
GPO-43-005	06	p0067	N75-16083	#	KPK-1966-UF	05	p0030	N75-12439	#
GPO-44-818	06	p0103	N75-20867	#					
GPO-48-071	07	p0141	N75-24115	#	LA-UR-74-737	05	p0032	N75-12814	#
GPO-55-414	08	p0212	N75-33495	#	LA-UR-74-741	06	p0082	N75-17814	#
GPO-99-081	05	p0026	N75-10857	#	LA-UR-74-821	06	p0068	N75-16089	#
					LA-UR-74-918	05	p0031	N75-12447	#
GRU.8DJ.75	08	p0212	N75-32627	#	LA-UR-74-984	05	p0029	N75-12252	#
					LA-UR-74-1085	06	p0082	N75-17813	#
GRU-4DJ-74	06	p0095	N75-19879	#	LA-UR-74-1111	06	p0086	N75-18723	#
GRU-5DJ-74	06	p0096	N75-19880	#	LA-UR-74-1145	06	p0091	N75-19080	#
GRU-7DJ-75	07	p0162	N75-27626	#	LA-UR-74-1459	07	p0127	N75-21391	#
GSA/OP/MCL-TR-96	08	p0204	N75-29952	#	LA-5558	05	p0028	N75-11468	#
H-REPT-93-998	05	p0026	N75-10857	#	LA-5596	06	p0074	N75-16774	#
H-REPT-93-1546	08	p0208	N75-31953	#	LA-5631-MS	05	p0032	N75-13164	#
H-REPT-93-1634	05	p0036	N75-14265	#	LA-5748-MS	06	p0106	N75-21097	#
HI-1884/2-RR	05	p0032	N75-12857	#	LBL-2764	06	p0066	N75-15781	#
HI-2132-RR	07	p0136	N75-22927	#	LBL-3066	06	p0079	N75-17279	#
HIT-575	06	p0088	N75-18744	#	LC-25-26527	07	p0151	N75-25330	#
HIT-581	06	p0089	N75-18755	#	LC-75-600002	07	p0155	N75-26509	#
HIT-593-VOL-2	07	p0149	N75-25306	#	LC-79-185105	07	p0147	N75-24741**	
HONEYWELL-2852-40057	07	p0154	N75-26495**		LMSC-D384268	06	p0067	N75-16085**	
HONEYWELL-2852-41432-FR	06	p0087	N75-18733	#	LMSC-HREC-TR-D390666	06	p0086	N75-18719**	
HONEYWELL-41433	07	p0156	N75-26512	#					
IAP PAPER ST-75-09	08	p0183	A75-45875	#	M-TU-74-7	05	p0035	N75-14134**	
IAP PAPER 74-082	05	p0014	A75-13714	#	M-TU-75-3	07	p0140	N75-24107**	
IAP PAPER 74-083	05	p0014	A75-13715	#	MCR-74-141 (1)	07	p0135	N75-22915	#
IAP PAPER 74-084	05	p0014	A75-13716	#	MCR-74-185	05	p0037	N75-14280	#
IAP PAPER 74-086	05	p0015	A75-13718	#	MCR-75-9	07	p0136	N75-22930	#
IAP PAPER 74-087	05	p0015	A75-13719**		ME-RT-74011	06	p0066	N75-15818	#
IAP PAPER 75-003	08	p0183	A75-45903	#	ME-TR-75001	07	p0132	N75-22477	#
IAP PAPER 75-005	08	p0183	A75-45814*						
IAP PAPER 75-006	08	p0183	A75-45829	#	MEA/REIS-7502	08	p0205	N75-30944	#
IAP PAPER 75-009	08	p0183	A75-45819	#	MEA/REIS/WP-7401	08	p0206	N75-30946	#
IAP PAPER 75-027	08	p0183	A75-45822	#	MEA/REIS/WP-7408	08	p0205	N75-30945	#
					MEA/RIAE-74/8	08	p0205	N75-30667	#
ICEC-5	05	p0032	N75-12814	#	MIRN-74-10-REV	07	p0154	N75-26499	#
ICP-1054	06	p0074	N75-16651	#	MIRN-74-11-REV	08	p0203	N75-29558	#
IES-17	08	p0200	N75-28536	#	MIT-EL-74-002	05	p0040	N75-15178	#
IESD-3112-1	05	p0036	N75-14269	#	MIT-EL-74-010	07	p0151	N75-25323	#
IESD-3112-2	05	p0036	N75-14270	#	MIT-EL-74-011	08	p0214	N75-33932	#
IESD-3112-3	05	p0034	N75-13393	#	MIT-EL-74-013	07	p0137	N75-23391	#
IGPF-UCR-74-31	06	p0098	N75-20836*		MIT-EL-75-006	08	p0214	N75-33511	#
ILR-17-1974	05	p0036	N75-14271	#	MIT-EL-75-009	08	p0213	N75-33506	#
IR-6	05	p0040	N75-15169	#	MITSG-75-10	08	p0206	N75-31562	#
IRT-342-R	06	p0071	N75-16111	#	MLH-2134	05	p0024	N75-10591	#
IRT-352-R	06	p0087	N75-18732	#	MPR-32-44	06	p0065	N75-15669	#
ISBN-0-309-02247-9	08	p0199	N75-28503	#	MPR-45-54	06	p0065	N75-15668	#
ISBN-0-309-02322	08	p0205	N75-30665	#	MPR-62	06	p0072	N75-16151	#
ISBN-0-309-02343-2	07	p0153	N75-26486	#	MR-19	05	p0025	N75-10603	#
ISBN-0869605186	07	p0135	N75-22909	#	MR-20	05	p0025	N75-10603	#
ISL-29/74	08	p0208	N75-31910	#	MR-21	05	p0025	N75-10603	#
ISS-T-73/16	07	p0128	N75-21793	#	MR-22	05	p0025	N75-10603	#
ITC-090974	07	p0150	N75-25314	#	MR-23	05	p0025	N75-10603	#
					MR-24	05	p0025	N75-10603	#
JAERI-H-5642	06	p0093	N75-19824	#	MR-25	05	p0025	N75-10603	#
JPL-TM-33-705	05	p0029	N75-12064**		MR-26	05	p0025	N75-10603	#
JPL-TM-33-728	07	p0158	N75-27540**		MR-27	05	p0025	N75-10603	#
					MR-28	05	p0025	N75-10603	#
JPRS-63414	05	p0027	N75-11410	#	MR-29	05	p0025	N75-10603	#
JPRS-63514	05	p0027	N75-10983	#	MR-30	05	p0025	N75-10603	#
JPRS-63794	06	p0081	N75-17790	#	MR-31	05	p0025	N75-10603	#
JPRS-64897	07	p0148	N75-25295	#	MR-32	05	p0025	N75-10603	#
					MR-33	05	p0025	N75-10603	#
					MR-34	05	p0025	N75-10603	#
					MR-35	05	p0025	N75-10603	#
					MR-36	05	p0025	N75-10603	#

REPORT/ACCESSION NUMBER INDEX

MR-37	05	p0025	N75-10603 #	NASA-ZP-118	05	p0032	N75-12885**
MRC-DA-404	05	p0034	N75-13398 #	NASA-NEWS-RELEASE-75-44	06	p0085	N75-18716*
MRC-DA-434	05	p0034	N75-13397 #	NASA-SP-290-VOL-3	07	p0147	N75-24741**
MRC-TSR-1500	07	p0161	N75-27569 #	NASA-SP-354-VOL-2	07	p0133	N75-22745**
MTR-2951	07	p0154	N75-26501 #	NASA-TM-X-3192	05	p0039	N75-15161**
MTR-6284-VOL-1	05	p0036	N75-14264 #	NASA-TM-X-3197	06	p0107	N75-21154**
MTR-6606	06	p0107	N75-21160 #	NASA-TM-X-3198	06	p0080	N75-17712**
MTR-6726	05	p0040	N75-15177 #	NASA-TM-X-58127	08	p0207	N75-31573**
MTR-6753	07	p0146	N75-24539 #	NASA-TM-X-58143	05	p0038	N75-15153**
MTR-6830	07	p0157	N75-26525 #	NASA-TM-X-62404	05	p0035	N75-13690**
MTR-6843	08	p0200	N75-28528 #	NASA-TM-X-64924	07	p0135	N75-22903**
NAS/TT-74-01	06	p0080	N75-17749 #	NASA-TM-X-64929	07	p0138	N75-23682**
NASA-CASE-GSC-11182-1	05	p0032	N75-13007*	NASA-TM-X-64940	07	p0160	N75-27562**
NASA-CASE-MFS-21628-2	08	p0202	N75-29548**	NASA-TM-X-66766	07	p0159	N75-27557**
NASA-CASE-MFS-22458-1	07	p0134	N75-22900**	NASA-TM-X-66808	07	p0137	N75-23678**
NASA-CASE-MFS-22743-1	05	p0024	N75-10585**	NASA-TM-X-70410	06	p0096	N75-20155**
NASA-CASE-MFS-22744-1	05	p0024	N75-10586**	NASA-TM-X-70781	05	p0027	N75-11413**
NASA-CASE-MFS-23062-1	07	p0160	N75-27561**	NASA-TM-X-70783	05	p0028	N75-11459**
NASA-CASE-NPO-13308-1	08	p0204	N75-30524*	NASA-TM-X-71626	08	p0211	N75-32595**
NASA-CASE-NPO-13510-1	06	p0074	N75-16972**	NASA-TM-X-71634	05	p0033	N75-13380**
NASA-CASE-NPO-13567-1	07	p0133	N75-22746**	NASA-TM-X-71663	06	p0084	N75-18241**
NASA-CASE-NPO-13579-1	08	p0199	N75-28519**	NASA-TM-X-71689	07	p0128	N75-21794**
NASA-CASE-NPO-13580-1	08	p0199	N75-28519**	NASA-TM-X-71695	08	p0207	N75-31568**
NASA-CASE-NPO-13581-1	07	p0160	N75-27560**	NASA-TM-X-71701	07	p0128	N75-21795**
NASA-CASE-NPO-13613-1	07	p0133	N75-22747**	NASA-TM-X-71707	07	p0140	N75-24111**
NASA-CR-2357	07	p0138	N75-23683**	NASA-TM-X-71714	07	p0140	N75-24106**
NASA-CR-2502	06	p0073	N75-16557**	NASA-TM-X-71715	07	p0141	N75-24119**
NASA-CR-2518	07	p0135	N75-22906**	NASA-TM-X-71718	07	p0140	N75-24108**
NASA-CR-2525	06	p0098	N75-20830**	NASA-TM-X-71719	07	p0141	N75-24116**
NASA-CR-2526	07	p0148	N75-25292**	NASA-TM-X-71720	07	p0140	N75-24110**
NASA-CR-114413	07	p0138	N75-23880**	NASA-TM-X-71722	07	p0140	N75-24109**
NASA-CR-120338	05	p0033	N75-13381**	NASA-TM-X-71729	07	p0138	N75-23681**
NASA-CR-120355	05	p0023	N75-10584**	NASA-TM-X-71738	07	p0141	N75-24118**
NASA-CR-120606	06	p0067	N75-16085**	NASA-TM-X-71740	07	p0146	N75-24739**
NASA-CR-120623	06	p0086	N75-18719**	NASA-TM-X-71745	07	p0154	N75-26497**
NASA-CR-120770	07	p0147	N75-24842**	NASA-TM-X-71752	07	p0154	N75-26500**
NASA-CR-132573	06	p0079	N75-17336**	NASA-TM-X-71758	08	p0202	N75-29546**
NASA-CR-132578	06	p0084	N75-18220**	NASA-TM-X-71796	08	p0210	N75-32594**
NASA-CR-132608	06	p0091	N75-19224**	NASA-TM-X-71800	08	p0210	N75-32592**
NASA-CR-132631	07	p0133	N75-22486**	NASA-TM-X-71805	08	p0210	N75-32593**
NASA-CR-134696	06	p0073	N75-16637**	NASA-TM-X-71813	08	p0212	N75-33494**
NASA-CR-134721	06	p0067	N75-16084**	NASA-TM-X-72199	05	p0035	N75-14134**
NASA-CR-134724	06	p0066	N75-16079**	NASA-TM-X-72433	07	p0159	N75-27558**
NASA-CR-134804	07	p0154	N75-26495**	NASA-TM-X-72652	06	p0103	N75-20868**
NASA-CR-134818	07	p0154	N75-26496**	NASA-TM-X-72659	06	p0079	N75-17339**
NASA-CR-134864	08	p0207	N75-31571**	NASA-TM-X-72725	07	p0160	N75-27564**
NASA-CR-137525	06	p0096	N75-20291**	NASA-TN-D-7955	08	p0205	N75-30649**
NASA-CR-137526	06	p0097	N75-20292**	NASA-TT-P-682	07	p0160	N75-27563**
NASA-CR-137624	05	p0039	N75-15157**	NASA-TT-P-15982	05	p0024	N75-10587**
NASA-CR-137653	07	p0134	N75-22902**	NASA-TT-P-16057	05	p0033	N75-13384**
NASA-CR-137654	07	p0134	N75-22901**	NASA-TT-P-16058	05	p0033	N75-13385**
NASA-CR-137655	07	p0160	N75-27565**	NASA-TT-P-16062	05	p0039	N75-15154**
NASA-CR-138193	06	p0069	N75-16098**	NASA-TT-P-16086	05	p0035	N75-13882**
NASA-CR-138209	06	p0069	N75-16097**	NASA-TT-P-16089	05	p0033	N75-13386**
NASA-CR-139140	05	p0023	N75-10347**	NASA-TT-P-16090	05	p0033	N75-13382**
NASA-CR-140842	05	p0029	N75-12064**	NASA-TT-P-16091	05	p0033	N75-13383**
NASA-CR-141455	05	p0036	N75-14135**	NASA-TT-P-16092	05	p0038	N75-15149**
NASA-CR-141664	06	p0086	N75-18722**	NASA-TT-P-16102	06	p0096	N75-20160**
NASA-CR-141791	07	p0140	N75-24105**	NASA-TT-P-16155	06	p0081	N75-17787**
NASA-CR-141854	07	p0148	N75-25296**	NASA-TT-P-16170	07	p0135	N75-22904**
NASA-CR-141856	07	p0147	N75-24802**	NASA-TT-P-16174	07	p0133	N75-22580**
NASA-CR-141929	08	p0199	N75-28518**	NASA-TT-P-16195	06	p0080	N75-17786**
NASA-CR-142119	06	p0078	N75-17188**	NASA-TT-P-16201	06	p0093	N75-19821**
NASA-CR-142172	06	p0080	N75-17785**	NASA-TT-P-16204	07	p0128	N75-21796**
NASA-CR-142194	06	p0080	N75-17784**	NASA-TT-P-16399	07	p0147	N75-24957**
NASA-CR-142556	06	p0098	N75-20831**	NATO/CCMS-4	07	p0162	N75-27618 #
NASA-CR-142632	07	p0147	N75-25237**	NBS-BSS-64	07	p0135	N75-22914 #
NASA-CR-142728	07	p0140	N75-24107**	NBS-SP-397	08	p0206	N75-30948 #
NASA-CR-142799	07	p0139	N75-24099**	NBS-SP-409	07	p0146	N75-24183 #
NASA-CR-142816	07	p0141	N75-24113**	NBS-SP-418	08	p0206	N75-30948 #
NASA-CR-142821	07	p0141	N75-24122**	NBS-SP-419	08	p0207	N75-31575 #
NASA-CR-142823	07	p0141	N75-24121**	NBS-TM-664	07	p0155	N75-26509 #
NASA-CR-143064	07	p0158	N75-27515**	NBS/DIB-59/2	07	p0151	N75-25330 #
NASA-CR-143133	07	p0158	N75-27540**	NBSIR-74-633	08	p0214	N75-33749 #
NASA-CR-143201	07	p0160	N75-27567**	NBSIR-74-635	07	p0150	N75-25321 #
NASA-CR-143327	08	p0204	N75-30438**	NCEMP-25	07	p0155	N75-26511 #
NASA-CR-143430	08	p0207	N75-31570**				
NASA-CR-143715	07	p0128	N75-21792**				
NASA-CR-143797	07	p0138	N75-23882**				
NASA-CR-143863	07	p0147	N75-25088**				

REPORT/ACCESSION NUMBER INDEX

NCMP-27	07	p0156	N75-26516	#	NSP/RA/N-74-087	05	p0037	N75-14281	#
NCMP-28	07	p0156	N75-26518	#	NSP/RA/N-74-090	06	p0071	N75-16114	#
NCMP-29	07	p0156	N75-26517	#	NSP/RA/N-74-093	06	p0083	N75-17830	#
NERC-LV-539-30	06	p0073	N75-16337	#	NSP/RA/N-74-094	06	p0070	N75-16110	#
NH/NHLI-NO1-HT-4-2907-1	05	p0037	N75-14278	#	NSP/RA/N-74-095	06	p0071	N75-16116	#
NH/NHLI-73-2930-1	07	p0136	N75-22918	#	NSP/RA/N-74-103	07	p0135	N75-22915	#
NISC-TRANS-3594	07	p0158	N75-27170	#	NSP/RA/N-74-104	06	p0082	N75-17823	#
NISC-TRANS-3622	07	p0144	N75-24141	#	NSP/RA/N-74-105	07	p0130	N75-21816	#
NRRC-KP-115	07	p0147	N75-25200	#	NSP/RA/N-74-108	06	p0089	N75-18755	#
NRRC-KP-129	07	p0132	N75-22264	#	NSP/RA/N-74-109	07	p0130	N75-21821	#
NRRC-KP-133	08	p0202	N75-29270	#	NSP/RA/N-74-110	07	p0143	N75-24134	#
NOAA-TM-ERL-ARL-47	07	p0158	N75-27324	#	NSP/RA/N-74-111	06	p0095	N75-19843	#
NOAA-75020306	07	p0161	N75-27578	#	NSP/RA/N-74-113	07	p0133	N75-22669	#
NOAA-75021104	07	p0152	N75-26484	#	NSP/RA/N-74-115	06	p0088	N75-18742	#
NOAA-75032102	07	p0158	N75-27324	#	NSP/RA/N-74-117	08	p0213	N75-33504	#
NOAA-75041105	08	p0206	N75-31562	#	NSP/RA/N-74-118	07	p0156	N75-26512	#
NOAA-75041807	08	p0208	N75-31579	#	NSP/RA/N-74-122	07	p0155	N75-26510	#
NP-20023	06	p0067	N75-16088	#	NSP/RA/N-74-123	08	p0200	N75-28539	#
NP-20121	06	p0067	N75-16087	#	NSP/RA/N-74-124	07	p0144	N75-24150	#
NSP/RA/E-74-015	08	p0200	N75-28536	#	NSP/RA/N-74-125	07	p0145	N75-24157	#
NSP/RA/E-74-016	07	p0161	N75-27570	#	NSP/RA/N-74-127	06	p0105	N75-20885	#
NSP/RA/E-74-027	08	p0203	N75-29587	#	NSP/RA/N-74-128	07	p0143	N75-24137	#
NSP/RA/G-73-042	06	p0082	N75-17822	#	NSP/RA/N-74-129	07	p0143	N75-24136	#
NSP/RA/G-74-018	08	p0203	N75-29570	#	NSP/RA/N-74-130	06	p0105	N75-20888	#
NSP/RA/G-74-022	07	p0161	N75-27575	#	NSP/RA/N-74-132	07	p0153	N75-26485	#
NSP/RA/G-74-028	08	p0203	N75-29552	#	NSP/RA/N-74-138	07	p0143	N75-24132	#
NSP/RA/G-74-013	06	p0083	N75-17825	#	NSP/RA/N-74-140	07	p0135	N75-22916	#
NSP/RA/G-74-016	06	p0082	N75-17824	#	NSP/RA/N-74-141	07	p0145	N75-24156	#
NSP/RA/N-73-005A	07	p0157	N75-26522	#	NSP/RA/N-74-142	07	p0150	N75-25315	#
NSP/RA/N-73-005B	07	p0157	N75-26521	#	NSP/RA/N-74-143	07	p0130	N75-21822	#
NSP/RA/N-73-022	06	p0105	N75-20884	#	NSP/RA/N-74-144	06	p0105	N75-20890	#
NSP/RA/N-73-078	07	p0136	N75-22919	#	NSP/RA/N-74-147	08	p0200	N75-28543	#
NSP/RA/N-73-082	07	p0143	N75-24138	#	NSP/RA/N-74-152	07	p0155	N75-26504	#
NSP/RA/N-73-090	07	p0144	N75-24151	#	NSP/RA/N-74-152 (1)	07	p0155	N75-26511	#
NSP/RA/N-73-119	07	p0150	N75-25318	#	NSP/RA/N-74-152 (2)	07	p0150	N75-25313	#
NSP/RA/N-73-137	07	p0150	N75-25319	#	NSP/RA/N-74-152 (3)	07	p0156	N75-26520	#
NSP/RA/N-74-002B	05	p0042	N75-15190	#	NSP/RA/N-74-152 (4)	08	p0200	N75-28527	#
NSP/RA/N-74-004	05	p0041	N75-15185	#	NSP/RA/N-74-152 (5)	07	p0156	N75-26519	#
NSP/RA/N-74-004	05	p0041	N75-15186	#	NSP/RA/N-74-152 (6)	07	p0151	N75-25324	#
NSP/RA/N-74-013-1	06	p0069	N75-16097*	#	NSP/RA/N-74-152 (8)	07	p0156	N75-26518	#
NSP/RA/N-74-013-2	06	p0069	N75-16098*	#	NSP/RA/N-74-152 (9)	07	p0156	N75-26517	#
NSP/RA/N-74-013A-VOL-1	06	p0072	N75-16121	#	NSP/RA/N-74-152 (10)	07	p0163	N75-27964	#
NSP/RA/N-74-013B-VOL-2	06	p0072	N75-16122	#	NSP/RA/N-74-153	06	p0104	N75-20883	#
NSP/RA/N-74-014	06	p0069	N75-16095	#	NSP/RA/N-74-154	07	p0151	N75-25327	#
NSP/RA/N-74-019	07	p0150	N75-25314	#	NSP/RA/N-74-155	06	p0087	N75-18733	#
NSP/RA/N-74-021A	06	p0069	N75-16101	#	NSP/RA/N-74-156	06	p0089	N75-17756	#
NSP/RA/N-74-021B	06	p0069	N75-16102	#	NSP/RA/N-74-158	06	p0083	N75-17829	#
NSP/RA/N-74-021C	05	p0042	N75-15191	#	NSP/RA/N-74-159	06	p0098	N75-20831*	#
NSP/RA/N-74-021D-VOL-3-BK-2	06	p0070	N75-16108	#	NSP/RA/N-74-160	07	p0150	N75-25317	#
NSP/RA/N-74-022A	06	p0070	N75-16107	#	NSP/RA/N-74-163	07	p0144	N75-24144	#
NSP/RA/N-74-022C	06	p0070	N75-16103	#	NSP/RA/N-74-164	07	p0136	N75-22927	#
NSP/RA/N-74-023A	05	p0042	N75-15195	#	NSP/RA/N-74-165	07	p0143	N75-24140	#
NSP/RA/N-74-023B	05	p0042	N75-15192	#	NSP/RA/N-74-166	08	p0202	N75-29269	#
NSP/RA/N-74-023C	05	p0042	N75-15193	#	NSP/RA/N-74-167	07	p0151	N75-25322	#
NSP/RA/N-74-023D	05	p0042	N75-15194	#	NSP/RA/N-74-170	07	p0136	N75-22926	#
NSP/RA/N-74-028	06	p0070	N75-16109	#	NSP/RA/N-74-171	07	p0143	N75-24139	#
NSP/RA/N-74-036	05	p0026	N75-10605	#	NSP/RA/N-74-188	07	p0150	N75-25320	#
NSP/RA/N-74-041	06	p0069	N75-16096	#	NSP/RA/N-74-189	07	p0146	N75-24539	#
NSP/RA/N-74-043	05	p0038	N75-14284	#	NSP/RA/N-74-204	08	p0214	N75-33932	#
NSP/RA/N-74-045	05	p0038	N75-14283	#	NSP/RA/N-75-002	07	p0136	N75-22930	#
NSP/RA/N-74-048	05	p0038	N75-14282	#	NSP/RA/N-75-013	08	p0201	N75-28545	#
NSP/RA/N-74-053	06	p0071	N75-16117	#	NSP/RA/N-75-015	08	p0201	N75-28544	#
NSP/RA/N-74-055	06	p0105	N75-20886	#	NSP/RA/N-75-027	08	p0213	N75-33502	#
NSP/RA/N-74-057	06	p0070	N75-16104	#	NSP/RA/N-75-028	08	p0213	N75-33509	#
NSP/RA/N-74-059	06	p0077	N75-17005	#	NSP/RA/N-75-029	08	p0213	N75-33508	#
NSP/RA/N-74-060	07	p0157	N75-26524	#	NSP/RA/N-75-033	08	p0214	N75-33511	#
NSP/RA/N-74-062	06	p0089	N75-18757	#	NSP/RA/R-73-008	08	p0213	N75-33505	#
NSP/RA/N-74-063	07	p0144	N75-24145	#	NSP/RA/S-74-002	06	p0080	N75-17749	#
NSP/RA/N-74-064	07	p0155	N75-26505	#	NSP/RA/S-75-004	08	p0201	N75-28551	#
NSP/RA/N-74-065-VOL-1	06	p0105	N75-20887	#	NSP/RANN/SE/AER72-03579/A03	07	p0143	N75-24132	#
NSP/RA/N-74-067	07	p0136	N75-22928	#	NSP/RANN/SE/AER74-17521/A01/FR	08	p0213	N75-33509	#
NSP/RA/N-74-068	05	p0041	N75-15183	#	NSP/RANN/SE/AER74-17631/PR-74-3	07	p0145	N75-24156	#
NSP/RA/N-74-072	06	p0080	N75-17785*	#	NSP/RANN/SE/GI-27976/PR-73-5	07	p0157	N75-26521	#
NSP/RA/N-74-075	07	p0134	N75-22929	#	NSP/RANN/SE/GI-27976/PR-73-5	07	p0157	N75-26522	#
NSP/RA/N-74-076	06	p0072	N75-16120	#	NSP/RANN/SE/GI-27976/TR-72-20	06	p0077	N75-17005	#
NSP/RA/N-74-077	06	p0072	N75-16119	#	NSP/RANN/SE/GI-27976/TR-73-1	07	p0150	N75-25320	#
NSP/RA/N-74-081	05	p0037	N75-14280	#	NSP/RANN/SE/GI-27976/TR-73-1	07	p0156	N75-26520	#
NSP/RA/N-74-082	06	p0071	N75-16118	#	NSP/RANN/SE/GI-27976/73/1	07	p0136	N75-22919	#
NSP/RA/N-74-083	06	p0071	N75-16115	#	NSP/RANN/SE/GI-29729/PR-74-2	07	p0155	N75-26504	#
NSP/RA/N-74-085	07	p0144	N75-24147	#	NSP/RANN/SE/GI-29729/PR-74-2	08	p0200	N75-28527	#
NSP/RA/N-74-086	06	p0077	N75-17003	#	NSP/RANN/SE/GI-29729/TR-73-1	07	p0145	N75-24152	#
					NSP/RANN/SE/GI-29729/TR-73-2	07	p0144	N75-24151	#
					NSP/RANN/SE/GI-29729/TR-73-4	07	p0143	N75-24138	#
					NSP/RANN/SE/GI-29729D/PR-74-2	07	p0150	N75-25313	#
					NSP/RANN/SE/GI-29729X/PR-74-2	07	p0156	N75-26519	#
					NSP/RANN/SE/GI-32488/PR-73	06	p0069	N75-16095	#
					NSP/RANN/SE/GI-32488/TR-73	07	p0145	N75-24157	#
					NSP/RANN/SE/GI-34029/PR-74-2	07	p0136	N75-22926	#
					NSP/RANN/SE/GI-34871/PR-74-2	08	p0200	N75-28543	#

REPORT/ACCESSION NUMBER INDEX

PB-236190/5	06	p0077	N75-17005	#	PB-238189/5	07	p0129	N75-21810	#
PB-236193/9	06	p0071	N75-16115	#	PB-238197/8	07	p0130	N75-21819	#
PB-236196/2	06	p0071	N75-16116	#	PB-238285/1	06	p0105	N75-20884	#
PB-236208/5	06	p0071	N75-16117	#	PB-238304/0	07	p0145	N75-24179	#
PB-236247/3	06	p0071	N75-16114	#	PB-238322/2	07	p0139	N75-24074	#
PB-236266/3	05	p0037	N75-14281	#	PB-238360/2	06	p0105	N75-20889	#
PB-236305/9	05	p0040	N75-15169	#	PB-238417/0	07	p0130	N75-21815	#
PB-236322/4	06	p0071	N75-16111	#	PB-238505/2	06	p0105	N75-20890	#
PB-236346/3	06	p0092	N75-19599	#	PB-238506/0	07	p0143	N75-24136	#
PB-236351/3	06	p0072	N75-16123	#	PB-238507/8	06	p0105	N75-20885	#
PB-236368/7	06	p0071	N75-16118	#	PB-238509/4	07	p0130	N75-21822	#
PB-236412/3	06	p0083	N75-17830	#	PB-238522/7	07	p0130	N75-21812	#
PB-236422/2	06	p0077	N75-17003	#	PB-238529/2	07	p0142	N75-24127	#
PB-236498/2	06	p0065	N75-15769	#	PB-238532/6	07	p0134	N75-22897	#
PB-236522/9	06	p0065	N75-15768	#	PB-238533/4	07	p0143	N75-24132	#
PB-236581/5	06	p0077	N75-17004	#	PB-238534/2	07	p0135	N75-22916	#
PB-236582/3	06	p0088	N75-18737	#	PB-238535/9	07	p0145	N75-24152	#
PB-236583/1	06	p0088	N75-18736	#	PB-238537/5	07	p0143	N75-24138	#
PB-236585/6	06	p0090	N75-18783	#	PB-238539/1	07	p0127	N75-21786	#
PB-236587/2	06	p0090	N75-18784	#	PB-238545/8	07	p0136	N75-22919	#
PB-236588/0	06	p0088	N75-18743	#	PB-238570/6	07	p0130	N75-21816	#
PB-236608/6	06	p0084	N75-17848	#	PB-238571/4	07	p0130	N75-21821	#
PB-236631/8	06	p0071	N75-16113	#	PB-238572/2	07	p0143	N75-24134	#
PB-236632/6	06	p0078	N75-17007	#	PB-238578/9	07	p0144	N75-24151	#
PB-236633/4	06	p0078	N75-17008	#	PB-238582/1	06	p0105	N75-20886	#
PB-236669/8	06	p0090	N75-18786	#	PB-238595/3	07	p0133	N75-22669	#
PB-236683/9	06	p0078	N75-17006	#	PB-238642/3	07	p0135	N75-22915	#
PB-236712/6	06	p0086	N75-18718	#	PB-238646/4	07	p0144	N75-24147	#
PB-236714/2	06	p0079	N75-17456	#	PB-238658/9	07	p0143	N75-24133	#
PB-236726/6	06	p0066	N75-16072	#	PB-238659/7	06	p0107	N75-21155	#
PB-236755/5	06	p0080	N75-17749	#	PB-238666/2	07	p0142	N75-24131	#
PB-236767/8	07	p0130	N75-21817	#	PB-238671/2	07	p0130	N75-21818	#
PB-236900/7	06	p0085	N75-18443	#	PB-238677/9	07	p0132	N75-22478	#
PB-236971/8	06	p0089	N75-18747	#	PB-238678/7	07	p0132	N75-22479	#
PB-236972/6	06	p0088	N75-18740	#	PB-238679/5	07	p0132	N75-22480	#
PB-236974/2	06	p0083	N75-17825	#	PB-238683/7	07	p0136	N75-22928	#
PB-236997/3	06	p0082	N75-17821	#	PB-238693/6	07	p0132	N75-22481	#
PB-237005/4	06	p0088	N75-18742	#	PB-238694/4	07	p0132	N75-22482	#
PB-237006/2	06	p0082	N75-17824	#	PB-238695/1	07	p0133	N75-22483	#
PB-237028/6	06	p0083	N75-17828	#	PB-238696/9	07	p0133	N75-22484	#
PB-237042/7	06	p0082	N75-17823	#	PB-238749/6	07	p0145	N75-24158	#
PB-237045/0	06	p0082	N75-17822	#	PB-238765/2	07	p0136	N75-22925	#
PB-237113/6	06	p0095	N75-19879	#	PB-238771/0	07	p0137	N75-23391	#
PB-237116/9	06	p0088	N75-18739	#	PB-238783/5	06	p0106	N75-21028	#
PB-237142/5	06	p0087	N75-18730	#	PB-238791/8	07	p0131	N75-21823	#
PB-237151/6	06	p0088	N75-18744	#	PB-238877/5	07	p0131	N75-22199	#
PB-237209/2	06	p0083	N75-17826	#	PB-238878/3	07	p0131	N75-22200	#
PB-237215/9	06	p0084	N75-17853	#	PB-238879/1	07	p0131	N75-22201	#
PB-237216/7	07	p0129	N75-21803	#	PB-238947/6	07	p0143	N75-24137	#
PB-237316/5	06	p0083	N75-17827	#	PB-238964/1	07	p0134	N75-22898	#
PB-237353/8	06	p0085	N75-18442	#	PB-238994/8	07	p0142	N75-24130	#
PB-237493/2	07	p0130	N75-21811	#	PB-239075/5	07	p0145	N75-24153	#
PB-237605/1	06	p0093	N75-19814	#	PB-239086/2	07	p0136	N75-22918	#
PB-237625/9	06	p0087	N75-18734	#	PB-239099	07	p0142	N75-24128	#
PB-237661/4	06	p0087	N75-18735	#	PB-239100/1	07	p0145	N75-24155	#
PB-237670/5	06	p0095	N75-19838	#	PB-239159	07	p0149	N75-25306	#
PB-237694/5	06	p0096	N75-19880	#	PB-239164/7	07	p0156	N75-26513	#
PB-237695/2	06	p0091	N75-18788	#	PB-239185/2	07	p0136	N75-22930	#
PB-237696/0	06	p0091	N75-18797	#	PB-239189/4	07	p0136	N75-22926	#
PB-237720/8	06	p0090	N75-18782	#	PB-239221/5	07	p0146	N75-24198	#
PB-237763/8	06	p0095	N75-19839	#	PB-239236/3	07	p0143	N75-24139	#
PB-237764/6	06	p0095	N75-19840	#	PB-239261/1	07	p0151	N75-25327	#
PB-237765/3	06	p0095	N75-19841	#	PB-239270/2	07	p0144	N75-24150	#
PB-237766/1	06	p0095	N75-19842	#	PB-239272/8	07	p0150	N75-25315	#
PB-237815/6	06	p0085	N75-18713	#	PB-239275/1	07	p0146	N75-24539	#
PB-237831/3	06	p0090	N75-18762	#	PB-239277/7	07	p0145	N75-24157	#
PB-237843/8	06	p0088	N75-18738	#	PB-239282/7	07	p0145	N75-24156	#
PB-237845/3	06	p0087	N75-18732	#	PB-239290/0	07	p0136	N75-22927	#
PB-237848/7	06	p0089	N75-18760	#	PB-239291/8	07	p0144	N75-24144	#
PB-237849/5	06	p0090	N75-18761	#	PB-239292/6	07	p0143	N75-24140	#
PB-237851/1	06	p0093	N75-19813	#	PB-239302/3	07	p0151	N75-25323	#
PB-237894/1	06	p0089	N75-18759	#	PB-239338/7	07	p0155	N75-26504	#
PB-237936/0	06	p0091	N75-18801	#	PB-239343/7	07	p0151	N75-25322	#
PB-237937/8	06	p0084	N75-17858	#	PB-239355/1	07	p0150	N75-25320	#
PB-238002/0	06	p0087	N75-18733	#	PB-239356/9	07	p0138	N75-23740	#
PB-238003/8	06	p0089	N75-18756	#	PB-239369/2	07	p0150	N75-25319	#
PB-238005/3	06	p0083	N75-17829	#	PB-239371/8	07	p0150	N75-25318	#
PB-238041/8	06	p0107	N75-21160	#	PB-239374/2	07	p0150	N75-25317	#
PB-238064/0	06	p0097	N75-20478	#	PB-239383/3	07	p0151	N75-25325	#
PB-238066/5	06	p0089	N75-18757	#	PB-239392/4	07	p0143	N75-24135	#
PB-238068/1	06	p0095	N75-19843	#	PB-239394/0	07	p0157	N75-26522	#
PB-238069/9	06	p0089	N75-18755	#	PB-239395/7	07	p0157	N75-26521	#
PB-238073/1	06	p0105	N75-20888	#	PB-239397/3	07	p0150	N75-25314	#
PB-238075/6	06	p0106	N75-20936	#	PB-239408/8	07	p0157	N75-26523	#
PB-238082/2	06	p0105	N75-20887	#	PB-239419/5	07	p0144	N75-24145	#
PB-238103/6	06	p0104	N75-20883	#	PB-239465/8	08	p0200	N75-28529	#
PB-238109/3	07	p0145	N75-24154	#	PB-239514/3	07	p0144	N75-24148	#
PB-238124/2	06	p0097	N75-20746	#	PB-239515/0	08	p0199	N75-28508	#
PB-238188/7	07	p0127	N75-21788	#	PB-239516/8	07	p0155	N75-26505	#

REPORT/ACCESSION NUMBER INDEX

PB-239579/6	07	p0153	N75-26486	#	PB-241126/2	08	p0205	N75-30945	#
PB-239580/4	07	p0153	N75-26487	#	PB-241141/1	08	p0204	N75-29596	#
PB-239581/2	07	p0153	N75-26488	#	PB-241323/5	08	p0211	N75-32601	#
PB-239582/0	07	p0153	N75-26489	#	PB-241346/6	08	p0208	N75-31581	#
PB-239583/8	07	p0153	N75-26490	#	PB-241351/6	08	p0209	N75-31962	#
PB-239607/5	07	p0157	N75-26524	#	PB-241357/3	08	p0204	N75-30331	#
PB-239674/5	08	p0200	N75-28536	#	PB-241462/1	08	p0212	N75-33498	#
PB-239675/2	07	p0161	N75-27570	#	PB-241479/5	08	p0208	N75-31610	#
PB-239710/7	07	p0156	N75-26514	#	PB-241620/4	08	p0208	N75-31582	#
PB-239718/0	07	p0153	N75-26485	#	PB-241672/5	08	p0211	N75-32602	#
PB-239756/0	07	p0155	N75-26511	#	PB-241772/3	08	p0212	N75-33410	#
PB-239757/8	07	p0150	N75-25313	#	PB-241774/9	08	p0210	N75-32471	#
PB-239758/6	07	p0156	N75-26520	#	PB-241776/4	08	p0210	N75-32470	#
PB-239759/4	08	p0200	N75-28527	#	PB-241777/2	08	p0212	N75-33411	#
PB-239760/2	07	p0156	N75-26519	#	PB-241792/1	08	p0212	N75-32627	#
PB-239761/0	07	p0151	N75-25324	#	PB-241821/8	08	p0211	N75-32606	#
PB-239762/8	07	p0156	N75-26516	#	PB-241843/2	08	p0212	N75-33499	#
PB-239763/6	07	p0156	N75-26518	#	PB-241892/9	08	p0211	N75-32603	#
PB-239764/4	07	p0156	N75-26517	#	PB-241926/5	08	p0211	N75-32607	#
PB-239765	07	p0163	N75-27964	#	PB-241990/1	08	p0213	N75-33503	#
PB-239766	07	p0162	N75-27579	#	PB-242142/8	08	p0213	N75-33506	#
PB-239767/1	07	p0157	N75-26526	#	PB-242151/9	08	p0213	N75-33502	#
PB-239768/5	07	p0157	N75-26527	#	PB-242164/2	08	p0214	N75-33511	#
PB-239777/6	07	p0151	N75-25326	#	PB-242166/7	08	p0214	N75-33932	#
PB-239941/8	07	p0154	N75-26501	#	PB-242167/5	08	p0213	N75-33509	#
PB-239961/6	07	p0156	N75-26515	#	PB-242189/9	08	p0213	N75-33505	#
PB-239970/7	07	p0162	N75-27583	#	PB-242217/8	08	p0213	N75-33504	#
PB-240008/3	07	p0157	N75-26550	#	PB-242569/2	08	p0213	N75-33508	#
PB-240012/5	08	p0202	N75-29269	#	PB-242774/8	08	p0212	N75-33491	#
PB-240023/2	07	p0148	N75-25283	#					
PB-240098/4	07	p0147	N75-24852	#	PEL-237E	07	p0135	N75-22909	#
PB-240112	07	p0159	N75-27549	#					
PB-240113	07	p0159	N75-27548	#	POCR-82-INT-4	07	p0129	N75-21803	#
PB-240136/2	07	p0148	N75-25288	#					
PB-240154/5	07	p0152	N75-25354	#	PR-3	06	p0105	N75-20888	#
PB-240177/6	08	p0200	N75-28524	#	PR-3	07	p0153	N75-26485	#
PB-240193/3	07	p0152	N75-25349	#	PR-3	07	p0159	N75-27559	#
PB-240220/4	07	p0163	N75-27970	#	PR-4	07	p0157	N75-26524	#
PB-240263/4	07	p0151	N75-25328	#					
PB-240306/1	08	p0200	N75-28539	#	PUB-LAW-93-322	08	p0209	N75-31957	#
PB-240371/5	07	p0162	N75-27626	#					
PB-240406/9	07	p0152	N75-25331	#	PUBL-165	08	p0206	N75-31285	#
PB-240407/7	07	p0161	N75-27577	#					
PB-240418/4	08	p0204	N75-29953	#	PWA-4984	06	p0067	N75-16084*	#
PB-240423/4	07	p0152	N75-25774	#	PWA-5201	07	p0154	N75-26496*	#
PB-240424/2	07	p0151	N75-25329	#					
PB-240453/1	07	p0152	N75-25348	#	QCR-54-INT-12-VOL-4-PT-4	06	p0095	N75-19841	#
PB-240463/0	08	p0201	N75-28552	#					
PB-240472/1	08	p0201	N75-28546	#	QPR-1	05	p0038	N75-14283	#
PB-240492	07	p0162	N75-27612	#	QPR-1	07	p0130	N75-21816	#
PB-240548/8	07	p0161	N75-27575	#	QPR-1	07	p0150	N75-25317	#
PB-240553/8	08	p0203	N75-29570	#	QPR-2	06	p0071	N75-16118	#
PB-240564/5	07	p0162	N75-27618	#	QPR-2	06	p0097	N75-20580	#
PB-240609/8	07	p0156	N75-26512	#	QPR-3	05	p0038	N75-14284	#
PB-240611/4	07	p0155	N75-26510	#	QPR-3	06	p0105	N75-20890	#
PB-240613/0	07	p0157	N75-26525	#					
PB-240623/9	07	p0162	N75-27581	#	QR-1	06	p0105	N75-20886	#
PB-240632/0	07	p0159	N75-27556	#	QR-3	06	p0104	N75-20882	#
PB-240669/2	07	p0159	N75-27554	#	QR-3	07	p0130	N75-21822	#
PB-240681/7	08	p0202	N75-29545	#	QR-3	07	p0143	N75-24137	#
PB-240699/9	08	p0203	N75-29587	#	QR-3	07	p0145	N75-24156	#
PB-240734/4	08	p0200	N75-28528	#					
PB-240776/5	07	p0162	N75-27619	#	R-1404-ARPA	07	p0162	N75-27901	#
PB-240784/9	08	p0203	N75-29552	#	R-1448-ARPA	05	p0031	N75-12449	#
PB-240799/7	07	p0161	N75-27573	#	R-1553-ARPA	07	p0132	N75-22476	#
PB-240800/3	07	p0161	N75-27574	#	R-1592-FEA	05	p0034	N75-13388	#
PB-240835/9	07	p0158	N75-27120	#	R-1603-ARPA	07	p0137	N75-23387	#
PB-240839/1	07	p0161	N75-27572	#					
PB-240841/7	08	p0201	N75-28548	#	RADC-TR-74-154	05	p0026	N75-10609	#
PB-240865	08	p0201	N75-28964	#					
PB-240929/0	08	p0200	N75-28530	#	RAE-TR-73134	06	p0073	N75-16572	#
PB-240941/5	08	p0199	N75-28503	#					
PB-240942/3	08	p0205	N75-30665	#	REPT-1	06	p0093	N75-19827	#
PB-241007/4	08	p0201	N75-28545	#	REPT-2	07	p0151	N75-25327	#
PB-241021/5	08	p0204	N75-29597	#	REPT-194-M	05	p0035	N75-14002	#
PB-241048/8	08	p0202	N75-29271	#	REPT-749	07	p0148	N75-25293	#
PB-241051/2	08	p0201	N75-28551	#	REPT-2852-41429	06	p0066	N75-16079*	#
PB-241084/2	08	p0199	N75-28514	#	REPT-4074-VOL-1	06	p0091	N75-19339	#
PB-241089/2	08	p0200	N75-28543	#	REPT-4074-VOL-2	06	p0091	N75-19340	#
PB-241090/0	08	p0201	N75-28544	#	REPT-4074-VOL-3	06	p0091	N75-19341	#
PB-241095/9	08	p0203	N75-29559	#					
PB-241096/7	08	p0203	N75-29560	#	RESOURCE-IP-6	07	p0157	N75-26550	#
PB-241097/5	08	p0203	N75-29561	#					
PB-241098/3	08	p0203	N75-29562	#	RFF-WORKING-PAPER-PH-4	06	p0080	N75-17783	#
PB-241113/0	08	p0204	N75-29952	#					
PB-241117/1	08	p0205	N75-30668	#	RT/PROT-(74) 10	06	p0068	N75-16091	#
PB-241123/9	08	p0206	N75-30946	#					
PB-241124/7	08	p0205	N75-30944	#	R74AEG418	06	p0073	N75-16637*	#
PB-241125/4	08	p0205	N75-30667	#					

REPORT/ACCRSSION NUMBER INDEX

S-REPT-93-980 07 p0142 N75-24124 #
 S-REPT-93-1252 07 p0142 N75-24123 #
 S-442-VOL-1 06 p0098 N75-20830*#
 S-443-VOL-2 07 p0148 N75-25292*#
 SA/ATR-1162 06 p0088 N75-18745 #
 SAE PAPER 740884 05 p0019 A75-16925
 SAE PAPER 740885 06 p0048 A75-22948
 SAE PAPER 750587 08 p0169 A75-40502*
 SAE PAPER 750615 08 p0169 A75-40521
 SAND-74-26 05 p0034 N75-13390 #
 SAND-74-0007 06 p0076 N75-16991 #
 SAND-74-0035 06 p0092 N75-19390 #
 SAND-74-0093 06 p0076 N75-16992 #
 SAND-74-0113 07 p0129 N75-21802 #
 SAND-74-0124 06 p0076 N75-16986 #
 SAND-74-0125 06 p0103 N75-20869 #
 SAND-74-0146 06 p0087 N75-18727 #
 SAND-74-0208 06 p0081 N75-17810 #
 SAND-74-8219 06 p0087 N75-18726 #
 SAND-74-8604 05 p0034 N75-13389 #
 SAPR-1 05 p0037 N75-14280 #
 SAPR-1 06 p0072 N75-16119 #
 SAPR-1 06 p0072 N75-16120 #
 SAPR-1 06 p0077 N75-17003 #
 SAPR-1 06 p0088 N75-18742 #
 SAPR-1 07 p0156 N75-26519 #
 SAPR-4 08 p0200 N75-28543 #
 SAR-5 08 p0201 N75-28544 #
 SANE PAPER 1065 08 p0195 A75-47495
 SANE PAPER 1091 08 p0196 A75-47509
 SD-75-SA-0012 07 p0147 N75-24842*#
 SLA-73-5888 06 p0077 N75-16994 #
 SLA-74-281 05 p0034 N75-13392 #
 SLA-74-0162 06 p0093 N75-19825 #
 SLA-74-5078 05 p0036 N75-14268 #
 SLA-74-5288 06 p0094 N75-19832 #
 SLA-74-5363 06 p0076 N75-16988 #
 SLA-74-5381 06 p0076 N75-16989 #
 SLL-73-0263 06 p0074 N75-16773 #
 SM/BIB/409/1 05 p0034 N75-13400 #
 SM/BIB/859 06 p0072 N75-16123 #
 SMRT PAPER A2/1 06 p0046 A75-21713
 SS-405 06 p0083 N75-17825 #
 SS-411 06 p0082 N75-17824 #
 STUDY-2B 07 p0160 N75-27565*#
 SU-SGT-TR-1 07 p0153 N75-26485 #
 SWRI-01-3487-001 06 p0091 N75-18788 #
 TDCK-65202 05 p0035 N75-14002 #
 TE-5392-34-75 07 p0145 N75-24154 #
 TID-3349 05 p0023 N75-10578 +
 TID-3351 06 p0103 N75-20871 #
 TID-26534 05 p0031 N75-12442 #
 TID-26637 06 p0097 N75-20805 #
 TR-7 08 p0208 N75-31579 #
 TR-74-3 07 p0130 N75-21821 #
 TR-74-105 06 p0083 N75-17828 #
 TR-75-T11 08 p0207 N75-31570*#
 TR-152 05 p0033 N75-13385*#
 TRW-13111-6033-RO-00 07 p0138 N75-23880*#
 TRW-21568-003 06 p0070 N75-16103 #
 TRW-25168.001 06 p0070 N75-16107 #
 TRW-25168.002 05 p0042 N75-15190 #
 TT-70-57216 07 p0155 N75-26503 #
 TT-70-57759 07 p0138 N75-23691 #
 TVA-BULL-Y-91 08 p0211 N75-32602 #

TW-555 05 p0024 N75-10587*#
 UAG-R-225 06 p0105 N75-20885 #
 UARL-N951923-1 07 p0130 N75-21816 #
 UCID-16520 06 p0068 N75-16090 #
 UCID-16528 06 p0077 N75-16996 #
 UCID-16591 06 p0104 N75-20875 #
 UCID-16593 06 p0094 N75-19830 #
 UCID-16630-74-1 06 p0093 N75-19827 #
 UCID-16631 06 p0097 N75-20693 #
 UCID-51600 07 p0128 N75-21797 #
 UCRL-51487 05 p0024 N75-10593 #
 UCRL-51511 05 p0024 N75-10594 #
 UCRL-51533-REV-1 05 p0028 N75-11467 #
 UCRL-51557 05 p0043 N75-15462 #
 UCRL-51578 05 p0039 N75-15166 #
 UCRL-51685 07 p0127 N75-21781 #
 UCRL-51686 07 p0127 N75-21480 #
 UCRL-75353 06 p0082 N75-17815 #
 UCRL-75418 05 p0029 N75-11745 #
 UCRL-75443 06 p0073 N75-16362 #
 UCRL-75600 05 p0028 N75-11466 #
 UCRL-75835 07 p0131 N75-22113 #
 UCRL-76051 07 p0129 N75-21800 #
 UCRL-76076 06 p0095 N75-19867 #
 UHNE/SOL/2 06 p0083 N75-17830 #
 UHNE/SOL/3 07 p0130 N75-21822 #
 UILU-ENG-74-2019 05 p0041 N75-15183 #
 UILU-WRC-74-0093 08 p0208 N75-31581 #
 UIUC-CAC-DN-73-105 06 p0070 N75-16104 #
 UIUC-CAC-DN-74-108R 07 p0151 N75-25322 #
 UIUC-CAC-DN-74-127 08 p0202 N75-29269 #
 OKY-TR86-74-CHE2 05 p0040 N75-15176 #
 UM-HSRI-SA-75-9 08 p0212 N75-33499 #
 UMTA-DC-06-0102 07 p0156 N75-26513 #
 UMTA-IT-06-0092-74-2 06 p0068 N75-16094 #
 UMTA-PA-06-0005-74-1 06 p0090 N75-18783 #
 UMTA-VA-06-0023-74-3 06 p0107 N75-21166 #
 UNIHI-SEAGRANT-CR-75-02 08 p0208 N75-31579 #
 US-PATENT-APPL-SN-393527 05 p0032 N75-13007*
 US-PATENT-APPL-SN-455165 08 p0204 N75-30524*
 US-PATENT-APPL-SN-518544 05 p0024 N75-10586*#
 US-PATENT-APPL-SN-518684 05 p0024 N75-10585*#
 US-PATENT-APPL-SN-536786 06 p0074 N75-16972*#
 US-PATENT-APPL-SN-561020 08 p0202 N75-29548*#
 US-PATENT-APPL-SN-566493 07 p0133 N75-22746*#
 US-PATENT-APPL-SN-571458 07 p0134 N75-22900*#
 US-PATENT-APPL-SN-574208 07 p0133 N75-22747*#
 US-PATENT-APPL-SN-590975 07 p0160 N75-27560*#
 US-PATENT-APPL-SN-591569 07 p0160 N75-27561*#
 US-PATENT-APPL-SN-598969 08 p0199 N75-28519*#
 US-PATENT-CLASS-310-4 08 p0204 N75-30524*
 US-PATENT-CLASS-325-4 05 p0032 N75-13007*
 US-PATENT-CLASS-331-DIG.1 08 p0204 N75-30524*
 US-PATENT-3,851,250 05 p0032 N75-13007*
 US-PATENT-3,899,696 08 p0204 N75-30524*
 USCG-D-57-75 07 p0136 N75-22953 #
 USGS-CD-74-001 07 p0127 N75-21788 #
 USGS-CD-74-002-VOL-1 07 p0157 N75-26526 #
 USGS-CD-74-003-VOL-2 07 p0157 N75-26527 #
 USGS-GD-74-035 06 p0072 N75-16124 #
 USNA-EPRD-9 08 p0211 N75-32596 #
 UTEC-HSE-74-068 07 p0157 N75-26524 #
 UTIAS-39 05 p0035 N75-13641 #

REPORT/ACCESSION NUMBER INDEX

VP-X-129	05	p0030	N75-12436 #
VP-X-129	07	p0130	N75-21815 #
W-DESC-SS-10275-1	05	p0042	N75-15192 #
W-DESC-SS-10275-2	05	p0042	N75-15193 #
W-DESC-SS-10275-3	05	p0042	N75-15194 #
W-DESC-SS-10275-4	05	p0042	N75-15195 #
WASH-1139-74	05	p0031	N75-12723 #
WASH-1281-4	05	p0024	N75-10595 #
WASH-1290	05	p0031	N75-12797 #
WASH-1295	05	p0035	N75-13644 #
WASH-1310	05	p0031	N75-12445 #
WASH-1337-5-DRAFT	06	p0077	N75-16993 #
WASH-1344	06	p0077	N75-16997 #
WHOI-75-3	07	p0146	N75-24285 #
WIS-SG-74-409	07	p0161	N75-27578 #
WRRC-BULL-74	07	p0156	N75-26515 #
W74-12356	05	p0037	N75-14277 #
W75-00012	06	p0084	N75-17848 #
W75-05440	07	p0159	N75-27549 #
W75-05453	07	p0159	N75-27548 #
W75-06977	08	p0211	N75-32601 #
W75-07089	08	p0208	N75-31581 #
X-704-74-277	05	p0028	N75-11459*#
X-923-74-322	05	p0027	N75-11413*#

1. Report No. NASA SP-7043 (08)	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle ENERGY A Continuing Bibliography (Issue 8)		5. Report Date February 1976	6. Performing Organization Code
		8. Performing Organization Report No.	10. Work Unit No.
7. Author(s)		11. Contract or Grant No.	13. Type of Report and Period Covered
		9. Performing Organization Name and Address National Aeronautics and Space Administration Washington, D. C. 20546	
12. Sponsoring Agency Name and Address		15. Supplementary Notes	
16. Abstract This bibliography lists 397 reports, articles, and other documents introduced into the NASA scientific and technical information system from October 1, 1975 through December 31, 1975.			
17. Key Words (Suggested by Author(s)) Bibliographies Wind Energy Energy Conversion Energy Policy Solar Energy		18. Distribution Statement Unclassified - Unlimited	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 286	22. Price* \$4.00 HC

*For sale by the National Technical Information Service, Springfield, Virginia 22161

PUBLIC COLLECTIONS OF NASA DOCUMENTS

DOMESTIC

NASA distributes its technical documents and bibliographic tools to eleven special libraries located in the organizations listed below. Each library is prepared to furnish the public such services as reference assistance, interlibrary loans, photocopy service, and assistance in obtaining copies of NASA documents for retention.

CALIFORNIA

University of California, Berkeley

COLORADO

University of Colorado, Boulder

DISTRICT OF COLUMBIA

Library of Congress

GEORGIA

Georgia Institute of Technology, Atlanta

ILLINOIS

The John Crerar Library, Chicago

MASSACHUSETTS

Massachusetts Institute of Technology, Cambridge

MISSOURI

Linda Hall Library, Kansas City

NEW YORK

Columbia University, New York

OKLAHOMA

University of Oklahoma, Bizzell Library

PENNSYLVANIA

Carnegie Library of Pittsburgh

WASHINGTON

University of Washington, Seattle

NASA publications (those indicated by an "*" following the accession number) are also received by the following public and free libraries:

CALIFORNIA

Los Angeles Public Library

San Diego Public Library

COLORADO

Denver Public Library

CONNECTICUT

Hartford Public Library

MARYLAND

Enoch Pratt Free Library, Baltimore

MASSACHUSETTS

Boston Public Library

MICHIGAN

Detroit Public Library

MINNESOTA

Minneapolis Public Library

MISSOURI

Kansas City Public Library

St. Louis Public Library

NEW JERSEY

Trenton Public Library

NEW YORK

Brooklyn Public Library

Buffalo and Erie County Public Library

Rochester Public Library

New York Public Library

OHIO

Akron Public Library

Cincinnati Public Library

Cleveland Public Library

Dayton Public Library

Toledo Public Library

TENNESSEE

Memphis Public Library

TEXAS

Dallas Public Library

Fort Worth Public Library

WASHINGTON

Seattle Public Library

WISCONSIN

Milwaukee Public Library

An extensive collection of NASA and NASA-sponsored documents and aerospace publications available to the public for reference purposes is maintained by the American Institute of Aeronautics and Astronautics, Technical Information Service, 750 Third Avenue, New York, New York 10017.

EUROPEAN

An extensive collection of NASA and NASA-sponsored publications is maintained by the British Library Lending Division, Boston Spa, Wetherby, Yorkshire, England. By virtue of arrangements other than with NASA, the British Library Lending Division also has available many of the non-NASA publications cited in *STAR*. European requesters may purchase facsimile copy of microfiche of NASA and NASA-sponsored documents, those identified by both the symbols "#" and "*", from: ESA Space Documentation Service, European Space Agency, 114 Avenue Charles-de-Gaulle, 92522 Neuilly-sur-Seine, France.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
WASHINGTON, D.C. 20546

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

SPECIAL FOURTH CLASS MAIL
Book

POSTAGE AND FEES PAID
NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION
NASA-481



POSTMASTER: If Undeliverable (Section 158
Postal Manual) Do Not Return

NASA CONTINUING BIBLIOGRAPHY SERIES

NUMBER	TITLE	FREQUENCY
NASA SP-7011	AEROSPACE MEDICINE AND BIOLOGY Aviation medicine, space medicine, and space biology	Monthly
NASA SP-7037	AERONAUTICAL ENGINEERING Engineering, design, and operation of aircraft and aircraft components	Monthly
NASA SP-7039	NASA PATENT ABSTRACTS BIBLIOGRAPHY NASA patents and applications for patent	Semiannually
NASA SP-7041	EARTH RESOURCES Remote sensing of earth resources by aircraft and spacecraft	Quarterly
NASA SP-7043	ENERGY Energy sources, solar energy, energy conversion, transport, and storage	Quarterly
NASA SP-7500	MANAGEMENT Program, contract, and personnel management, and management techniques	Annually

Details on the availability of these publications may be obtained from:

**SCIENTIFIC AND TECHNICAL INFORMATION OFFICE
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
Washington, D.C. 20546**