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Cosmic Ray Heavy Ion LET Mapping for Aluminum, Silicon, and Tissue Targets

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Cosmic Ray Heavy Ion LET Mapping for Aluminum, Silicon, and Tissue Targets

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1. INTRODUCTION

A comprehensive study was conducted to map the dependence of the Linear Energy Transfer (LET) values of galactic cosmic rays on ion specie and ion energy. The purpose of this document is to describe the LET values in several media of interest for single-event-upset (SEU) effect assessments or radiobiological evaluations. Specifically, results are presented from calculations performed for a wide range of energies of each ion specie and for three different target compositions. The data are given in graphical and tabular form.

The tables and figures contained in this document represent the initial conditions for either a cosmic ray transport analysis or the selection of energies/ions for the performance of an experiment. For example, a shielding study would require:

a. modification of the free space environment to account for geomagnetic shielding, time averaged over the mission profile;

b. transport of the modified environment through the actual shield materials/geometry;

c. conversion of the transmitted particles to a specific effect, for example:

1. LET spectrum
2. physical dose
3. biological dose
4. pulse height distribution
5. single event upset rate.

Similarly, an experiment would require the definition of:

1. a suitable ion beam (species selection)
2. an appropriate beam energy (LET selection)
3. threshold LET values
4. critical charge
   etc.

The LET iso-contour maps are intended as a practical quick-look reference, so as to provide workers with an easy tool to identify, at one glance, LET equivalent ions and energies.

2. GALACTIC COSMIC RAYS

Predictions of cosmic ray fluxes at 1 AU outside the magnetosphere were obtained for each of thirty-one ion species (Hydrogen through Nickel, Krypton, Silver, and Gold) as a function of relative ion abundance and ion energy[1]. The respective unattenuated interplanetary spectra are given in Tables 1-3.

Galactic cosmic ray intensities have a solar cycle dependence: they are higher during solar minimum, lower during solar maximum. In order to provide a worst case description, solar minimum values were selected for these tables.

3. LET CALCULATIONS

The LET data for the thirty-one ion species mentioned above were obtained from state-of-the-art codes[2]. LET data for Krypton, Silver, and Gold were included in this work because these ions are of special interest for laboratory simulations and tests. The calculations were performed for three target media: aluminum, silicon, and a tissue simulation. For the latter target, a combination of several elements was used: H, C, N, O, Na, Mg, P, S, K, Ca.

The stopping powers presented in this document were calculated by the NOVICE code[2], from a classical equation by Bethe[3]. Littmark and Ziegler[4] state that the Bethe formula is accurate to about 20 percent at a few MeV per nucleon. The error decreases at higher energies where the assumptions of the Bethe formulation apply. At energies below a few MeV per nucleon, the error increases due to unmodeled details of the energy loss mechanisms.

4. RESULTS: DESCRIPTIONS AND EXPLANATIONS

This section describes the form and format in which the results, derived from the calculations, are presented for practical use.

A. Tabular Presentations

The outcome of all calculations is summarized in Tables 1 to 189. The tables are arranged into four sets; set number I (Tables 1-3) contains the galactic cosmic ray distributions, set number II (Tables 4-65) contains the results for aluminum targets, set number III (Tables 66-127) contains the results for silicon targets, and set number IV (Tables 128-189) contains the results for tissue equivalent targets. There are two types of tables in each of sets II, III, and IV: for energy per nucleon and for total energy.

a. Interplanetary Cosmic Ray Spectra: Tables 1-3

These tables list the interplanetary cosmic ray spectra as a function of ion energy. The fluxes are solar minimum values.

Column 1 gives the ion energy in units of MeV/n. The remaining columns in the table list the respective fluxes for the ion specie corresponding to the atomic number indicated in the column heading. The fluxes are differential in units of particles per square centimeter per day per MeV/n.

b. Linear Energy Transfer as a Function of Ion Energy (MeV/n)

Set II:	Aluminum	Tables 4-34
Set III:	Silicon	Tables 66-96
Set IV:	Tissue	Tables 128-158

A separate table is printed for each ion specie considered in the study. The ion identification, its atomic number, its atomic weight, and the target medium are given in the table heading. Column 1 of these tables lists the ion energy in units of MeV per nucleon. Columns 2 through 9 give the LET values for these energies in eight units as described below:

Column #	Unit Symbols	LET Unit Descriptions
2	MEV/N*CM	MeV per nucleon per centimeter
3	MEV/N*UM	MeV per nucleon per micrometer ($=10^4$ Mev/cm)
4	MEV*SQCM/N*G	MeV per nucleon · square centimeter per gram (MeV/cm divided by the density)
5	MEV*SQCM/N*MG	MeV per nucleon · square centimeter per milligram ($=10^{-3}$ MeV · cm^2/g)
6*	PC/N*CM	pico Coulombs per nucleon per centimeter
7*	PC/N*UM	pico Coulombs per nucleon per micrometer
8*	PC*SQCM/N*G	pico Coulombs per nucleon · square centimeter per gram
9*	PC*SQCM/N*G	pico Coulombs per nucleon · square centimeter per milligram

c. Linear Energy Transfer as a Function of Total Energy (MeV)

Set II:	Aluminum	Tables 35-65
Set III:	Silicon	Tables 97-127
Set IV:	Tissue	Tables 159-189

As in the case of the previous section, a separate table is printed for each heavy ion specie evaluated. The ion identification, its atomic number, its atomic weight, and the target medium are given in the table heading.

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*Columns 6 through 9 apply to silicon only. These columns are conversions of energy deposition (MeV/...) to ion pair creation (pico Coulomb/...) using the value of 3.6 eV per ion pair (22.6 MeV of deposited energy produces 1 pC of electrons and 1 pC of holes in silicon). For the tables, a value of 22.0 was used.

Column 1 of these tables lists the total ion energy in units of MeV. Columns 2 through 9 give the LET data for these energies in eight LET units as described below:

Column #	Unit Symbols	LET Unit Descriptions
2	MEV/CM	MeV per centimeter
3	MEV/UM	MeV per micrometer ($=10^{-4}$ MeV/cm)
4	MEV*SQCM/G	MeV · square centimeter per gram (=MeV/cm divided by the density)
5	MEV*SQCM/MG	MeV · square centimeter per milligram ($=10^{-3}$ MeV · cm^2/g)
6*	PC/CM	pico Coulombs per centimeter
7*	PC/UM	pico Coulombs per micrometer
8*	PC*SQCM/G	pico Coulombs · square centimeter per gram
9*	PC*SQCM/MG	pico Coulombs · square centimeter per milligram

B. Graphical Presentation

Some of the tabulated data are also plotted in Figures 1-64. Figures 1-32 are plots of LET profiles. As with the tables, the figures are divided into three sets; set number I shows LET profiles in aluminum targets, set number II shows LET profiles in silicon targets, and set number III shows LET profiles in tissue targets. Figures 33-64 are plots of LET contours in terms of ion energy versus atomic number. Again, the contour plots are divided into three sets; set number IV shows LET contours in aluminum targets, set number V shows LET contours in silicon targets, and set number VI shows LET contours in tissue equivalent targets. There are two types of plots for each set:

a. Linear Energy Transfer Profiles: LET vs Ion Energy (in MeV/n) for Each Ion Specie

Set I:	Aluminum	Figures 1-4
Set II:	Silicon	Figures 9-16
Set III:	Tissue	Figures 25-28

For each of the four LET units for Aluminum and Tissue targets and eight LET units for silicon targets (as described in sections 4.A.b and 4.A.c), a plot is generated showing LET versus ion energy. The target medium is given in the plot title.

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*Columns 6 through 9 apply to silicon only. These columns are conversions of energy deposition (MeV/...) to ion pair creation (pico Coulomb/...) using the value of 3.6 eV per ion pair (22.6 MeV of deposited energy produces 1 pC of electrons and 1 pC of holes in silicon). For the tables, a value of 22.0 was used.

Each plot contains LET profiles for each of the thirty-one ion species considered in the study. The logarithmic ordinate relates to the LET in the units given on each of the eight types of plots. The logarithmic abscissa is the ion energy in units of MeV/nucleon.

b. Linear Energy Tranfer Profiles: LET vs Total Ion Energy (in MeV) for Each Ion Specie

Set I:	Aluminum	Figures 5-8
Set II:	Silicon	Figures 17-24
Set III:	Tissue	Figures 29-32

For each of the four LET units for Aluminum and Tissue targets and eight LET units for silicon targets (as described in sections 4.A.b and 4.A.c), a plot is generated showing LET versus total ion energy. The target medium is given in the plot title. Each plot contains LET profiles for all thirty-one cosmic ray ion species considered in the study. The logarithmic ordinate relates to the LET in the units given on each of the eight types of plots. The logarithmic abscissa is the total ion energy in units of MeV.

c. Linear Energy Transfer Iso-Contours: LET in Terms of Ion Energy (MeV/n) vs Ion Specie

Set IV:	Aluminum	Figures 33-36
Set V:	Silicon	Figures 41-48
Set VI:	Tissue	Figures 57-60

For each of the four LET units for Aluminum and Tissue targets and eight LET units for silicon targets (as described in sections 4.A.b and 4.A.c), a plot is generated showing several LET contours for the LET levels indicated on the plots. The target medium is given in the title. The LET contours are given in terms of ion energy versus ion specie. The logarithmic ordinate relates to the ion energy in units of MeV per nucleon. The linear abscissa represents the cosmic ray ion specie by its atomic number.

d. Linear Energy Transfer Iso-Contours: LET in Terms of Total Ion Energy (MeV) vs. Ion Specie

Set IV:	Aluminum	Figures 37-40
Set V:	Silicon	Figures 49-56
Set VI:	Tissue	Figures 61-64

For each of the four LET units for Aluminum and Tissue targets and eight LET units for silicon targets (as described in sections 4.A.b and 4.A.c), a plot is generated showing several LET contours for the LET levels indicated on the plots. The target medium is given in the title. The LET contours are given in terms of total ion energy versus ion specie. The logarithmic ordinate relates to the total ion energy in units of MeV. The linear abscissa represents the ion specie by its atomic number.

Acknowledgement

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TABLE 1

UNATTENUATED DIFFERENTIAL INTERPLANETARY COSMIC RAY INTENSITIES FOR SOLAR MINIMUM

FLUX(#/CM**2*DAY*MEV/N)

E(MEV/N)	ATOMIC NUMBER 1	2	3	4	5	6	7	8	9	10
10.0	8.995E+01	8.887E+00	4.165E-02	2.145E-02	6.310E-02	2.222E-01	5.696E-02	2.044E-01	3.644E-03	3.111E-02
15.0	4.196E+01	8.189E+00	3.837E-02	1.977E-02	5.814E-02	2.047E-01	5.141E-02	1.883E-01	3.357E-03	2.866E-02
20.0	3.136E+01	8.878E+00	4.160E-02	2.143E-02	6.303E-02	2.219E-01	5.414E-02	2.042E-01	3.640E-03	3.107E-02
30.0	2.908E+01	1.161E+01	5.439E-02	2.802E-02	8.241E-02	2.902E-01	6.728E-02	2.670E-01	4.759E-03	4.063E-02
40.0	3.364E+01	1.506E+01	7.055E-02	3.634E-02	1.069E-01	3.764E-01	8.421E-02	3.463E-01	6.173E-03	5.269E-02
50.0	4.103E+01	1.872E+01	8.773E-02	4.519E-02	1.329E-01	4.680E-01	1.023E-01	4.306E-01	7.676E-03	6.552E-02
60.0	5.017E+01	2.234E+01	1.047E-01	5.393E-02	1.586E-01	5.585E-01	1.202E-01	5.138E-01	9.160E-03	7.819E-02
70.0	6.055E+01	2.576E+01	1.207E-01	6.218E-02	1.829E-01	6.440E-01	1.374E-01	5.925E-01	1.056E-02	9.016E-02
80.0	7.180E+01	2.888E+01	1.354E-01	6.973E-02	2.051E-01	7.221E-01	1.534E-01	6.644E-01	1.184E-02	1.011E-01
90.0	8.363E+01	3.167E+01	1.484E-01	7.646E-02	2.249E-01	7.918E-01	1.679E-01	7.285E-01	1.299E-02	1.109E-01
100.0	9.578E+01	3.411E+01	1.598E-01	8.234E-02	2.422E-01	8.528E-01	1.809E-01	7.845E-01	1.399E-02	1.194E-01
200.0	2.028E+02	4.309E+01	2.019E-01	1.040E-01	3.059E-01	1.077E+00	2.385E-01	9.911E-01	1.767E-02	1.508E-01
300.0	2.547E+02	3.899E+01	1.827E-01	9.413E-02	2.768E-01	9.748E-01	2.256E-01	8.968E-01	1.599E-02	1.365E-01
400.0	2.648E+02	3.260E+01	1.528E-01	7.869E-02	2.314E-01	8.150E-01	1.948E-01	7.498E-01	1.337E-02	1.141E-01
500.0	2.537E+02	2.677E+01	1.254E-01	6.462E-02	1.900E-01	6.692E-01	1.638E-01	6.156E-01	1.097E-02	9.368E-02
600.0	2.340E+02	2.200E+01	1.031E-01	5.312E-02	1.562E-01	5.501E-01	1.369E-01	5.061E-01	9.021E-03	7.701E-02
700.0	2.118E+02	1.823E+01	8.541E-02	4.400E-02	1.294E-01	4.556E-01	1.148E-01	4.192E-01	7.473E-03	6.379E-02
800.0	1.900E+02	1.524E+01	7.143E-02	3.680E-02	1.082E-01	3.811E-01	9.680E-02	3.506E-01	6.250E-03	5.335E-02
900.0	1.699E+02	1.288E+01	6.034E-02	3.109E-02	9.143E-02	3.219E-01	8.227E-02	2.962E-01	5.280E-03	4.507E-02
1000.0	1.519E+02	1.098E+01	5.146E-02	2.651E-02	7.798E-02	2.746E-01	7.045E-02	2.526E-01	4.503E-03	3.844E-02
2000.0	5.717E+01	3.289E+00	1.541E-02	7.940E-03	2.335E-02	8.223E-02	2.093E-02	7.565E-02	1.349E-03	1.151E-02
3000.0	2.786E+01	1.479E+00	6.930E-03	3.570E-03	1.050E-02	3.697E-02	9.082E-03	3.402E-02	6.064E-04	5.176E-03
4000.0	1.601E+01	8.160E-01	3.824E-03	1.970E-03	5.793E-03	2.040E-02	4.816E-03	1.877E-02	3.345E-04	2.856E-03
5000.0	1.023E+01	5.086E-01	2.383E-03	1.228E-03	3.611E-03	1.271E-02	2.887E-03	1.170E-02	2.085E-04	1.780E-03
6000.0	7.033E+00	3.436E-01	1.610E-03	8.296E-04	2.440E-03	8.590E-03	1.879E-03	7.903E-03	1.409E-04	1.203E-03
7000.0	5.097E+00	2.459E-01	1.076E-03	5.544E-04	1.631E-03	6.146E-03	1.297E-03	5.655E-03	1.008E-04	8.605E-04
8000.0	3.844E+00	1.836E-01	7.575E-04	3.903E-04	1.148E-03	4.590E-03	9.368E-04	4.223E-03	7.528E-05	6.426E-04
9000.0	2.992E+00	1.417E-01	5.551E-04	2.859E-04	8.410E-04	3.543E-03	7.004E-04	3.260E-03	5.811E-05	4.961E-04
10000.0	2.388E+00	1.123E-01	4.199E-04	2.163E-04	6.362E-04	2.809E-03	5.386E-04	2.584E-03	4.606E-05	3.932E-04

TABLE 2

UNATTENUATED DIFFERENTIAL INTERPLANETARY COSMIC RAY INTENSITIES FOR SOLAR MINIMUM

FLUX(#/CM**2*DAY*MEV/N)

E(MEV/N)	ATOMIC NUMBER 11	12	13	14	15	16	17	18	19	20
10.0	6.221E-03	4.177E-02	7.377E-03	3.111E-02	1.777E-03	6.577E-03	9.134E-03	1.696E-02	1.174E-02	3.001E-02
15.0	5.732E-03	3.849E-02	6.797E-03	2.866E-02	1.638E-03	6.060E-03	4.461E-03	8.284E-03	5.735E-03	1.466E-02
20.0	6.214E-03	4.173E-02	7.369E-03	3.107E-02	1.776E-03	6.570E-03	3.124E-03	5.802E-03	4.017E-03	1.027E-02
30.0	8.125E-03	5.455E-02	9.634E-03	4.063E-02	2.321E-03	8.589E-03	2.359E-03	4.381E-03	3.033E-03	7.752E-03
40.0	1.054E-02	7.076E-02	1.250E-02	5.269E-02	3.011E-03	1.114E-02	2.229E-03	4.140E-03	2.866E-03	7.325E-03
50.0	1.310E-02	8.799E-02	1.554E-02	6.552E-02	3.744E-03	1.385E-02	2.282E-03	4.238E-03	2.934E-03	7.498E-03
60.0	1.564E-02	1.050E-01	1.854E-02	7.819E-02	4.468E-03	1.653E-02	2.408E-03	4.472E-03	3.096E-03	7.912E-03
70.0	1.803E-02	1.211E-01	2.138E-02	9.016E-02	5.152E-03	1.906E-02	2.567E-03	4.768E-03	3.301E-03	8.436E-03
80.0	2.022E-02	1.358E-01	2.397E-02	1.011E-01	5.777E-03	2.137E-02	2.742E-03	5.092E-03	3.525E-03	9.009E-03
90.0	2.217E-02	1.489E-01	2.629E-02	1.109E-01	6.335E-03	2.344E-02	2.921E-03	5.425E-03	3.756E-03	9.599E-03
100.0	2.388E-02	1.603E-01	2.831E-02	1.194E-01	6.822E-03	2.524E-02	3.100E-03	5.757E-03	3.986E-03	1.019E-02
200.0	3.016E-02	2.025E-01	3.576E-02	1.508E-01	8.618E-03	3.189E-02	4.442E-03	8.249E-03	5.711E-03	1.459E-02
300.0	2.729E-02	1.833E-01	3.236E-02	1.365E-01	7.799E-03	2.885E-02	4.925E-03	9.147E-03	6.332E-03	1.618E-02
400.0	2.282E-02	1.532E-01	2.706E-02	1.141E-01	6.520E-03	2.412E-02	4.898E-03	9.096E-03	6.297E-03	1.609E-02
500.0	1.874E-02	1.258E-01	2.222E-02	9.368E-02	5.353E-03	1.981E-02	4.630E-03	8.599E-03	5.953E-03	1.521E-02
600.0	1.540E-02	1.034E-01	1.826E-02	7.701E-02	4.401E-03	1.628E-02	4.269E-03	7.928E-03	5.488E-03	1.403E-02
700.0	1.276E-02	8.566E-02	1.513E-02	6.379E-02	3.645E-03	1.349E-02	3.886E-03	7.216E-03	4.996E-03	1.277E-02
800.0	1.067E-02	7.165E-02	1.265E-02	5.335E-02	3.049E-03	1.128E-02	3.516E-03	6.529E-03	4.520E-03	1.155E-02
900.0	9.014E-03	6.052E-02	1.069E-02	4.507E-02	2.575E-03	9.529E-03	3.173E-03	5.892E-03	4.079E-03	1.042E-02
1000.0	7.688E-03	5.162E-02	9.115E-03	3.844E-02	2.196E-03	8.127E-03	2.862E-03	5.316E-03	3.680E-03	9.405E-03
2000.0	2.302E-03	1.546E-02	2.730E-03	1.151E-02	6.578E-04	2.434E-03	1.138E-03	2.113E-03	1.463E-03	3.738E-03
3000.0	1.035E-03	6.951E-03	1.228E-03	5.176E-03	2.958E-04	1.094E-03	5.574E-04	1.035E-03	7.167E-04	1.832E-03
4000.0	5.712E-04	3.835E-03	6.772E-04	2.856E-03	1.632E-04	6.038E-04	3.154E-04	5.858E-04	4.055E-04	1.036E-03
5000.0	3.560E-04	2.390E-03	4.221E-04	1.780E-03	1.017E-04	3.763E-04	1.967E-04	3.652E-04	2.528E-04	6.462E-04
6000.0	2.405E-04	1.615E-03	2.852E-04	1.203E-03	6.872E-05	2.543E-04	1.314E-04	2.440E-04	1.689E-04	4.317E-04
7000.0	1.721E-04	1.156E-03	2.041E-04	8.605E-04	4.917E-05	1.819E-04	9.243E-05	1.717E-04	1.188E-04	3.037E-04
8000.0	1.285E-04	8.630E-04	1.524E-04	6.426E-04	3.672E-05	1.359E-04	6.767E-05	1.257E-04	8.701E-05	2.224E-04
9000.0	9.922E-05	6.662E-04	1.176E-04	4.961E-04	2.835E-05	1.049E-04	5.115E-05	9.499E-05	6.576E-05	1.681E-04
10000.0	7.864E-05	5.280E-04	9.325E-05	3.932E-04	2.247E-05	8.314E-05	3.967E-05	7.368E-05	5.101E-05	1.304E-04

TABLE 3

UNATTENUATED DIFFERENTIAL INTERPLANETARY COSMIC RAY INTENSITIES FOR SOLAR MINIMUM

FLUX($/CM**2*DAY*MEV/N)

E(MEV/N)	ATOMIC NUMBER 21	22	23	24	25	26	27	28	36	47	79
10.0	6.524E-03	1.827E-02	9.134E-03	1.827E-02	1.305E-02	1.305E-01	7.829E-04	6.263E-03	2.218E-05	1.044E-05	1.044E-05
15.0	3.186E-03	8.921E-03	4.461E-03	8.921E-03	6.372E-03	6.372E-02	3.823E-04	3.059E-03	1.083E-05	5.098E-06	5.098E-06
20.0	2.232E-03	6.248E-03	3.124E-03	6.248E-03	4.463E-03	4.463E-02	2.678E-04	2.142E-03	7.587E-06	3.570E-06	3.570E-06
30.0	1.685E-03	4.718E-03	2.359E-03	4.718E-03	3.370E-03	3.370E-02	2.022E-04	1.618E-03	5.730E-06	2.696E-06	2.696E-06
40.0	1.592E-03	4.458E-03	2.229E-03	4.458E-03	3.185E-03	3.185E-02	1.911E-04	1.529E-03	5.414E-06	2.548E-06	2.548E-06
50.0	1.630E-03	4.564E-03	2.282E-03	4.564E-03	3.260E-03	3.260E-02	1.956E-04	1.565E-03	5.542E-06	2.608E-06	2.608E-06
60.0	1.720E-03	4.816E-03	2.408E-03	4.816E-03	3.440E-03	3.440E-02	2.064E-04	1.651E-03	5.848E-06	2.752E-06	2.752E-06
70.0	1.834E-03	5.135E-03	2.567E-03	5.135E-03	3.668E-03	3.668E-02	2.201E-04	1.761E-03	6.235E-06	2.934E-06	2.934E-06
80.0	1.958E-03	5.484E-03	2.742E-03	5.484E-03	3.917E-03	3.917E-02	2.350E-04	1.880E-03	6.659E-06	3.134E-06	3.134E-06
90.0	2.087E-03	5.843E-03	2.921E-03	5.843E-03	4.173E-03	4.173E-02	2.504E-04	2.003E-03	7.095E-06	3.339E-06	3.339E-06
100.0	2.214E-03	6.200E-03	3.100E-03	6.200E-03	4.429E-03	4.429E-02	2.657E-04	2.126E-03	7.528E-06	3.543E-06	3.543E-06
200.0	3.173E-03	8.884E-03	4.442E-03	8.884E-03	6.346E-03	6.346E-02	3.807E-04	3.046E-03	1.079E-05	5.076E-06	5.076E-06
300.0	3.518E-03	9.851E-03	4.925E-03	9.851E-03	7.036E-03	7.036E-02	4.222E-04	3.377E-03	1.196E-05	5.629E-06	5.629E-06
400.0	3.499E-03	9.796E-03	4.898E-03	9.796E-03	6.997E-03	6.997E-02	4.198E-04	3.359E-03	1.189E-05	5.598E-06	5.598E-06
500.0	3.307E-03	9.261E-03	4.630E-03	9.261E-03	6.615E-03	6.615E-02	3.969E-04	3.175E-03	1.125E-05	5.292E-06	5.292E-06
600.0	3.049E-03	8.538E-03	4.269E-03	8.538E-03	6.098E-03	6.098E-02	3.659E-04	2.927E-03	1.037E-05	4.879E-06	4.879E-06
700.0	2.776E-03	7.772E-03	3.886E-03	7.772E-03	5.551E-03	5.551E-02	3.331E-04	2.665E-03	9.437E-06	4.441E-06	4.441E-06
800.0	2.511E-03	7.031E-03	3.516E-03	7.031E-03	5.022E-03	5.022E-02	3.013E-04	2.411E-03	8.538E-06	4.018E-06	4.018E-06
900.0	2.266E-03	6.345E-03	3.173E-03	6.345E-03	4.532E-03	4.532E-02	2.719E-04	2.176E-03	7.705E-06	3.626E-06	3.626E-06
1000.0	2.045E-03	5.725E-03	2.862E-03	5.725E-03	4.089E-03	4.089E-02	2.454E-04	1.963E-03	6.952E-06	3.271E-06	3.271E-06
2000.0	8.126E-04	2.275E-03	1.138E-03	2.275E-03	1.625E-03	1.625E-02	9.751E-05	7.801E-04	2.763E-06	1.300E-06	1.300E-06
3000.0	3.982E-04	1.115E-03	5.574E-04	1.115E-03	7.964E-04	7.964E-03	4.778E-05	3.823E-04	1.354E-06	6.371E-07	6.371E-07
4000.0	2.253E-04	6.308E-04	3.154E-04	6.308E-04	4.506E-04	4.506E-03	2.704E-05	2.163E-04	7.660E-07	3.605E-07	3.605E-07
5000.0	1.405E-04	3.933E-04	1.967E-04	3.933E-04	2.809E-04	2.809E-03	1.686E-05	1.349E-04	4.776E-07	2.248E-07	2.248E-07
6000.0	9.385E-05	2.628E-04	1.314E-04	2.628E-04	1.877E-04	1.877E-03	1.126E-05	9.010E-05	3.191E-07	1.502E-07	1.502E-07
7000.0	6.602E-05	1.849E-04	9.243E-05	1.849E-04	1.320E-04	1.320E-03	7.923E-06	6.338E-05	2.245E-07	1.056E-07	1.056E-07
8000.0	4.834E-05	1.353E-04	6.767E-05	1.353E-04	9.668E-05	9.668E-04	5.801E-06	4.640E-05	1.644E-07	7.734E-08	7.734E-08
9000.0	3.653E-05	1.023E-04	5.115E-05	1.023E-04	7.307E-05	7.307E-04	4.384E-06	3.507E-05	1.242E-07	5.846E-08	5.846E-08
10000.0	2.834E-05	7.935E-05	3.967E-05	7.935E-05	5.668E-05	5.668E-04	3.401E-06	2.720E-05	9.635E-08	4.534E-08	4.534E-08

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OF POOR QUALITY

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TABLE 4

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: H Z= 1 A= 1.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.942E+02	1.942E-02	7.194E+01	7.194E-02
2.000E-02	2.747E+02	2.747E-02	1.017E+02	1.017E-01
3.000E-02	3.364E+02	3.364E-02	1.246E+02	1.246E-01
4.000E-02	3.884E+02	3.884E-02	1.438E+02	1.438E-01
5.000E-02	4.342E+02	4.342E-02	1.609E+02	1.609E-01
6.000E-02	4.758E+02	4.758E-02	1.762E+02	1.762E-01
7.000E-02	5.139E+02	5.139E-02	1.903E+02	1.903E-01
8.000E-02	5.494E+02	5.494E-02	2.034E+02	2.034E-01
9.000E-02	5.826E+02	5.826E-02	2.158E+02	2.158E-01
1.000E-01	6.142E+02	6.142E-02	2.275E+02	2.275E-01
2.000E-01	8.361E+02	8.361E-02	3.097E+02	3.097E-01
3.000E-01	8.267E+02	8.267E-02	3.062E+02	3.062E-01
4.000E-01	7.641E+02	7.641E-02	2.830E+02	2.830E-01
5.000E-01	6.995E+02	6.995E-02	2.591E+02	2.591E-01
6.000E-01	6.422E+02	6.422E-02	2.379E+02	2.379E-01
7.000E-01	5.928E+02	5.928E-02	2.196E+02	2.196E-01
8.000E-01	5.506E+02	5.506E-02	2.039E+02	2.039E-01
9.000E-01	5.143E+02	5.143E-02	1.904E+02	1.904E-01
1.000E+00	4.827E+02	4.827E-02	1.787E+02	1.787E-01
2.000E+00	3.064E+02	3.064E-02	1.135E+02	1.135E-01
3.000E+00	2.297E+02	2.297E-02	8.509E+01	8.509E-02
4.000E+00	1.859E+02	1.859E-02	6.887E+01	6.887E-02
5.000E+00	1.573E+02	1.573E-02	5.826E+01	5.826E-02
6.000E+00	1.370E+02	1.370E-02	5.071E+01	5.071E-02
7.000E+00	1.216E+02	1.216E-02	4.506E+01	4.506E-02
8.000E+00	1.097E+02	1.097E-02	4.064E+01	4.064E-02
9.000E+00	1.001E+02	1.001E-02	3.708E+01	3.708E-02
1.000E+01	9.221E+01	9.221E-03	3.415E+01	3.415E-02
2.000E+01	5.333E+01	5.333E-03	1.975E+01	1.975E-02
3.000E+01	3.865E+01	3.865E-03	1.431E+01	1.431E-02
4.000E+01	3.079E+01	3.079E-03	1.141E+01	1.141E-02
5.000E+01	2.586E+01	2.586E-03	9.576E+00	9.576E-03
6.000E+01	2.245E+01	2.245E-03	8.315E+00	8.315E-03
7.000E+01	1.995E+01	1.995E-03	7.389E+00	7.389E-03
8.000E+01	1.803E+01	1.803E-03	6.680E+00	6.680E-03
9.000E+01	1.652E+01	1.652E-03	6.118E+00	6.118E-03
1.000E+02	1.528E+01	1.528E-03	5.661E+00	5.661E-03
2.000E+02	9.498E+00	9.498E-04	3.518E+00	3.518E-03
3.000E+02	7.478E+00	7.478E-04	2.770E+00	2.770E-03
4.000E+02	6.464E+00	6.464E-04	2.393E+00	2.393E-03
5.000E+02	5.862E+00	5.862E-04	2.172E+00	2.172E-03
6.000E+02	5.472E+00	5.472E-04	2.027E+00	2.027E-03
7.000E+02	5.204E+00	5.204E-04	1.927E+00	1.927E-03
8.000E+02	5.012E+00	5.012E-04	1.856E+00	1.856E-03
9.000E+02	4.864E+00	4.864E-04	1.801E+00	1.801E-03
1.000E+03	4.747E+00	4.747E-04	1.758E+00	1.758E-03
2.000E+03	4.363E+00	4.363E-04	1.616E+00	1.616E-03
3.000E+03	4.350E+00	4.350E-04	1.611E+00	1.611E-03
4.000E+03	4.400E+00	4.400E-04	1.629E+00	1.629E-03
5.000E+03	4.462E+00	4.462E-04	1.653E+00	1.653E-03
6.000E+03	4.524E+00	4.524E-04	1.676E+00	1.676E-03
7.000E+03	4.581E+00	4.581E-04	1.697E+00	1.697E-03
8.000E+03	4.635E+00	4.635E-04	1.717E+00	1.717E-03
9.000E+03	4.684E+00	4.684E-04	1.735E+00	1.735E-03
1.000E+04	4.730E+00	4.730E-04	1.752E+00	1.752E-03

TABLE 5

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: HE Z= 2 A= 4.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.534E+02	1.534E-02	5.681E+01	5.681E-02
2.000E-02	2.170E+02	2.170E-02	8.035E+01	8.035E-02
3.000E-02	2.657E+02	2.657E-02	9.840E+01	9.840E-02
4.000E-02	3.068E+02	3.068E-02	1.137E+02	1.137E-01
5.000E-02	3.430E+02	3.430E-02	1.270E+02	1.270E-01
6.000E-02	3.757E+02	3.757E-02	1.392E+02	1.392E-01
7.000E-02	4.059E+02	4.059E-02	1.503E+02	1.503E-01
8.000E-02	4.338E+02	4.338E-02	1.607E+02	1.607E-01
9.000E-02	4.601E+02	4.601E-02	1.705E+02	1.705E-01
1.000E-01	4.850E+02	4.850E-02	1.796E+02	1.796E-01
2.000E-01	6.858E+02	6.858E-02	2.540E+02	2.540E-01
3.000E-01	7.513E+02	7.513E-02	2.783E+02	2.783E-01
4.000E-01	7.309E+02	7.309E-02	2.707E+02	2.707E-01
5.000E-01	6.864E+02	6.864E-02	2.542E+02	2.542E-01
6.000E-01	6.382E+02	6.382E-02	2.364E+02	2.364E-01
7.000E-01	5.934E+02	5.934E-02	2.198E+02	2.198E-01
8.000E-01	5.522E+02	5.522E-02	2.045E+02	2.045E-01
9.000E-01	5.153E+02	5.153E-02	1.908E+02	1.908E-01
1.000E+00	4.833E+02	4.833E-02	1.790E+02	1.790E-01
2.000E+00	3.065E+02	3.065E-02	1.135E+02	1.135E-01
3.000E+00	2.298E+02	2.298E-02	8.511E+01	8.511E-02
4.000E+00	1.860E+02	1.860E-02	6.889E+01	6.889E-02
5.000E+00	1.574E+02	1.574E-02	5.828E+01	5.828E-02
6.000E+00	1.369E+02	1.369E-02	5.073E+01	5.073E-02
7.000E+00	1.217E+02	1.217E-02	4.507E+01	4.507E-02
8.000E+00	1.098E+02	1.098E-02	4.065E+01	4.065E-02
9.000E+00	1.001E+02	1.001E-02	3.709E+01	3.709E-02
1.000E+01	9.223E+01	9.223E-03	3.416E+01	3.416E-02
2.000E+01	5.334E+01	5.334E-03	1.976E+01	1.976E-02
3.000E+01	3.866E+01	3.866E-03	1.433E+01	1.433E-02
4.000E+01	3.080E+01	3.080E-03	1.141E+01	1.141E-02
5.000E+01	2.587E+01	2.587E-03	9.577E+00	9.577E-03
6.000E+01	2.245E+01	2.245E-03	8.317E+00	8.317E-03
7.000E+01	1.996E+01	1.996E-03	7.391E+00	7.391E-03
8.000E+01	1.804E+01	1.804E-03	6.681E+00	6.681E-03
9.000E+01	1.652E+01	1.652E-03	6.120E+00	6.120E-03
1.000E+02	1.529E+01	1.529E-03	5.663E+00	5.663E-03
2.000E+02	9.504E+00	9.504E-04	3.519E+00	3.519E-03
3.000E+02	7.480E+00	7.480E-04	2.770E+00	2.770E-03
4.000E+02	6.465E+00	6.465E-04	2.395E+00	2.395E-03
5.000E+02	5.863E+00	5.863E-04	2.172E+00	2.172E-03
6.000E+02	5.473E+00	5.473E-04	2.027E+00	2.027E-03
7.000E+02	5.205E+00	5.205E-04	1.928E+00	1.928E-03
8.000E+02	5.013E+00	5.013E-04	1.857E+00	1.857E-03
9.000E+02	4.865E+00	4.865E-04	1.802E+00	1.802E-03
1.000E+03	4.748E+00	4.748E-04	1.759E+00	1.759E-03
2.000E+03	4.364E+00	4.364E-04	1.616E+00	1.616E-03
3.000E+03	4.351E+00	4.351E-04	1.611E+00	1.611E-03
4.000E+03	4.401E+00	4.401E-04	1.630E+00	1.630E-03
5.000E+03	4.463E+00	4.463E-04	1.653E+00	1.653E-03
6.000E+03	4.525E+00	4.525E-04	1.676E+00	1.676E-03
7.000E+03	4.582E+00	4.582E-04	1.697E+00	1.697E-03
8.000E+03	4.637E+00	4.637E-04	1.717E+00	1.717E-03
9.000E+03	4.686E+00	4.686E-04	1.735E+00	1.735E-03
1.000E+04	4.731E+00	4.731E-04	1.752E+00	1.752E-03

TABLE 6

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: LI Z= 3 A= 6.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.326E+02	1.326E-02	4.909E+01	4.909E-02
2.000E-02	1.874E+02	1.874E-02	6.944E+01	6.944E-02
3.000E-02	2.295E+02	2.295E-02	8.503E+01	8.503E-02
4.000E-02	2.651E+02	2.651E-02	9.818E+01	9.818E-02
5.000E-02	2.963E+02	2.963E-02	1.098E+02	1.098E-01
6.000E-02	3.247E+02	3.247E-02	1.203E+02	1.203E-01
7.000E-02	3.507E+02	3.507E-02	1.299E+02	1.299E-01
8.000E-02	3.749E+02	3.749E-02	1.389E+02	1.389E-01
9.000E-02	3.977E+02	3.977E-02	1.473E+02	1.473E-01
1.000E-01	4.192E+02	4.192E-02	1.553E+02	1.553E-01
2.000E-01	5.927E+02	5.927E-02	2.195E+02	2.195E-01
3.000E-01	7.089E+02	7.089E-02	2.626E+02	2.626E-01
4.000E-01	7.534E+02	7.534E-02	2.790E+02	2.790E-01
5.000E-01	7.597E+02	7.597E-02	2.814E+02	2.814E-01
6.000E-01	7.450E+02	7.450E-02	2.759E+02	2.759E-01
7.000E-01	7.193E+02	7.193E-02	2.664E+02	2.664E-01
8.000E-01	6.881E+02	6.881E-02	2.548E+02	2.548E-01
9.000E-01	6.552E+02	6.552E-02	2.427E+02	2.427E-01
1.000E+00	6.228E+02	6.228E-02	2.306E+02	2.306E-01
2.000E+00	3.977E+02	3.977E-02	1.474E+02	1.474E-01
3.000E+00	2.982E+02	2.982E-02	1.105E+02	1.105E-01
4.000E+00	2.414E+02	2.414E-02	8.941E+01	8.941E-02
5.000E+00	2.042E+02	2.042E-02	7.563E+01	7.563E-02
6.000E+00	1.777E+02	1.777E-02	6.583E+01	6.583E-02
7.000E+00	1.579E+02	1.579E-02	5.849E+01	5.849E-02
8.000E+00	1.424E+02	1.424E-02	5.275E+01	5.275E-02
9.000E+00	1.299E+02	1.299E-02	4.813E+01	4.813E-02
1.000E+01	1.197E+02	1.197E-02	4.433E+01	4.433E-02
2.000E+01	6.923E+01	6.923E-03	2.564E+01	2.564E-02
3.000E+01	5.018E+01	5.018E-03	1.859E+01	1.859E-02
4.000E+01	3.998E+01	3.998E-03	1.480E+01	1.480E-02
5.000E+01	3.357E+01	3.357E-03	1.243E+01	1.243E-02
6.000E+01	2.914E+01	2.914E-03	1.079E+01	1.079E-02
7.000E+01	2.590E+01	2.590E-03	9.593E+00	9.593E-03
8.000E+01	2.341E+01	2.341E-03	8.671E+00	8.671E-03
9.000E+01	2.144E+01	2.144E-03	7.942E+00	7.942E-03
1.000E+02	1.984E+01	1.984E-03	7.349E+00	7.349E-03
2.000E+02	1.233E+01	1.233E-03	4.567E+00	4.567E-03
3.000E+02	9.708E+00	9.708E-04	3.596E+00	3.596E-03
4.000E+02	8.390E+00	8.390E-04	3.108E+00	3.108E-03
5.000E+02	7.610E+00	7.610E-04	2.819E+00	2.819E-03
6.000E+02	7.104E+00	7.104E-04	2.631E+00	2.631E-03
7.000E+02	6.756E+00	6.756E-04	2.502E+00	2.502E-03
8.000E+02	6.506E+00	6.506E-04	2.409E+00	2.409E-03
9.000E+02	6.313E+00	6.313E-04	2.338E+00	2.338E-03
1.000E+03	6.162E+00	6.162E-04	2.283E+00	2.283E-03
2.000E+03	5.664E+00	5.664E-04	2.098E+00	2.098E-03
3.000E+03	5.648E+00	5.648E-04	2.092E+00	2.092E-03
4.000E+03	5.712E+00	5.712E-04	2.115E+00	2.115E-03
5.000E+03	5.792E+00	5.792E-04	2.146E+00	2.146E-03
6.000E+03	5.872E+00	5.872E-04	2.175E+00	2.175E-03
7.000E+03	5.947E+00	5.947E-04	2.203E+00	2.203E-03
8.000E+03	6.017E+00	6.017E-04	2.228E+00	2.228E-03
9.000E+03	6.081E+00	6.081E-04	2.252E+00	2.252E-03
1.000E+04	6.140E+00	6.140E-04	2.274E+00	2.274E-03

TABLE 7

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: BE Z= 4 A= 9.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.534E+02	1.534E-02	5.681E+01	5.681E-02
2.000E-02	2.170E+02	2.170E-02	8.035E+01	8.035E-02
3.000E-02	2.657E+02	2.657E-02	9.840E+01	9.840E-02
4.000E-02	3.068E+02	3.068E-02	1.137E+02	1.137E-01
5.000E-02	3.430E+02	3.430E-02	1.270E+02	1.270E-01
6.000E-02	3.757E+02	3.757E-02	1.392E+02	1.392E-01
7.000E-02	4.059E+02	4.059E-02	1.503E+02	1.503E-01
8.000E-02	4.338E+02	4.338E-02	1.607E+02	1.607E-01
9.000E-02	4.601E+02	4.601E-02	1.705E+02	1.705E-01
1.000E-01	4.850E+02	4.850E-02	1.796E+02	1.796E-01
2.000E-01	6.857E+02	6.857E-02	2.539E+02	2.539E-01
3.000E-01	8.076E+02	8.076E-02	2.991E+02	2.991E-01
4.000E-01	8.362E+02	8.362E-02	3.097E+02	3.097E-01
5.000E-01	8.285E+02	8.285E-02	3.069E+02	3.069E-01
6.000E-01	8.067E+02	8.067E-02	2.988E+02	2.988E-01
7.000E-01	7.796E+02	7.796E-02	2.888E+02	2.888E-01
8.000E-01	7.511E+02	7.511E-02	2.782E+02	2.782E-01
9.000E-01	7.229E+02	7.229E-02	2.677E+02	2.677E-01
1.000E+00	6.959E+02	6.959E-02	2.577E+02	2.577E-01
2.000E+00	5.013E+02	5.013E-02	1.856E+02	1.856E-01
3.000E+00	3.925E+02	3.925E-02	1.454E+02	1.454E-01
4.000E+00	3.236E+02	3.236E-02	1.198E+02	1.198E-01
5.000E+00	2.762E+02	2.762E-02	1.023E+02	1.023E-01
6.000E+00	2.415E+02	2.415E-02	8.944E+01	8.944E-02
7.000E+00	2.151E+02	2.151E-02	7.967E+01	7.967E-02
8.000E+00	1.943E+02	1.943E-02	7.196E+01	7.196E-02
9.000E+00	1.774E+02	1.774E-02	6.573E+01	6.573E-02
1.000E+01	1.636E+02	1.636E-02	6.059E+01	6.059E-02
2.000E+01	9.476E+01	9.476E-03	3.510E+01	3.510E-02
3.000E+01	6.869E+01	6.869E-03	2.544E+01	2.544E-02
4.000E+01	5.473E+01	5.472E-03	2.026E+01	2.026E-02
5.000E+01	4.595E+01	4.595E-03	1.702E+01	1.702E-02
6.000E+01	3.990E+01	3.990E-03	1.478E+01	1.478E-02
7.000E+01	3.545E+01	3.545E-03	1.313E+01	1.313E-02
8.000E+01	3.205E+01	3.205E-03	1.187E+01	1.187E-02
9.000E+01	2.936E+01	2.936E-03	1.088E+01	1.088E-02
1.000E+02	2.716E+01	2.716E-03	1.006E+01	1.006E-02
2.000E+02	1.688E+01	1.688E-03	6.252E+00	6.252E-03
3.000E+02	1.329E+01	1.329E-03	4.922E+00	4.922E-03
4.000E+02	1.149E+01	1.149E-03	4.254E+00	4.254E-03
5.000E+02	1.042E+01	1.042E-03	3.858E+00	3.858E-03
6.000E+02	9.724E+00	9.724E-04	3.601E+00	3.601E-03
7.000E+02	9.248E+00	9.248E-04	3.425E+00	3.425E-03
8.000E+02	8.906E+00	8.906E-04	3.299E+00	3.299E-03
9.000E+02	8.643E+00	8.643E-04	3.201E+00	3.201E-03
1.000E+03	8.436E+00	8.436E-04	3.124E+00	3.124E-03
2.000E+03	7.753E+00	7.753E-04	2.871E+00	2.871E-03
3.000E+03	7.731E+00	7.731E-04	2.863E+00	2.863E-03
4.000E+03	7.819E+00	7.819E-04	2.896E+00	2.896E-03
5.000E+03	7.929E+00	7.929E-04	2.937E+00	2.937E-03
6.000E+03	8.039E+00	8.039E-04	2.977E+00	2.977E-03
7.000E+03	8.141E+00	8.141E-04	3.015E+00	3.015E-03
8.000E+03	8.236E+00	8.236E-04	3.050E+00	3.050E-03
9.000E+03	8.323E+00	8.323E-04	3.083E+00	3.083E-03
1.000E+04	8.405E+00	8.405E-04	3.113E+00	3.113E-03

TABLE 8

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: B Z= 5 A= 10.82

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.717E+02	1.717E-02	6.358E+01	6.358E-02
2.000E-02	2.428E+02	2.428E-02	8.992E+01	8.992E-02
3.000E-02	2.973E+02	2.973E-02	1.101E+02	1.101E-01
4.000E-02	3.433E+02	3.433E-02	1.272E+02	1.272E-01
5.000E-02	3.838E+02	3.838E-02	1.421E+02	1.421E-01
6.000E-02	4.205E+02	4.205E-02	1.558E+02	1.558E-01
7.000E-02	4.542E+02	4.542E-02	1.682E+02	1.682E-01
8.000E-02	4.855E+02	4.855E-02	1.798E+02	1.798E-01
9.000E-02	5.150E+02	5.150E-02	1.907E+02	1.907E-01
1.000E-01	5.428E+02	5.428E-02	2.010E+02	2.010E-01
2.000E-01	7.675E+02	7.675E-02	2.843E+02	2.843E-01
3.000E-01	9.140E+02	9.140E-02	3.385E+02	3.385E-01
4.000E-01	9.602E+02	9.602E-02	3.556E+02	3.556E-01
5.000E-01	9.625E+02	9.625E-02	3.565E+02	3.565E-01
6.000E-01	9.460E+02	9.460E-02	3.504E+02	3.504E-01
7.000E-01	9.215E+02	9.215E-02	3.413E+02	3.413E-01
8.000E-01	8.937E+02	8.937E-02	3.310E+02	3.310E-01
9.000E-01	8.653E+02	8.653E-02	3.205E+02	3.205E-01
1.000E+00	8.372E+02	8.372E-02	3.100E+02	3.100E-01
2.000E+00	6.221E+02	6.221E-02	2.304E+02	2.304E-01
3.000E+00	4.956E+02	4.956E-02	1.836E+02	1.836E-01
4.000E+00	4.130E+02	4.130E-02	1.530E+02	1.530E-01
5.000E+00	3.548E+02	3.548E-02	1.314E+02	1.314E-01
6.000E+00	3.116E+02	3.116E-02	1.154E+02	1.154E-01
7.000E+00	2.783E+02	2.783E-02	1.031E+02	1.031E-01
8.000E+00	2.518E+02	2.518E-02	9.323E+01	9.323E-02
9.000E+00	2.303E+02	2.303E-02	8.527E+01	8.527E-02
1.000E+01	2.124E+02	2.124E-02	7.865E+01	7.865E-02
2.000E+01	1.234E+02	1.234E-02	4.567E+01	4.567E-02
3.000E+01	8.940E+01	8.940E-03	3.311E+01	3.311E-02
4.000E+01	7.122E+01	7.122E-03	2.638E+01	2.638E-02
5.000E+01	5.980E+01	5.980E-03	2.215E+01	2.215E-02
6.000E+01	5.193E+01	5.193E-03	1.923E+01	1.923E-02
7.000E+01	4.614E+01	4.614E-03	1.709E+01	1.709E-02
8.000E+01	4.172E+01	4.172E-03	1.545E+01	1.545E-02
9.000E+01	**3.820E+01**	**3.820E-03**	**1.415E+01**	**1.415E-02**
1.000E+02	3.535E+01	3.535E-03	1.309E+01	1.309E-02
2.000E+02	2.197E+01	2.197E-03	8.138E+00	8.138E-03
3.000E+02	1.730E+01	1.730E-03	6.407E+00	6.407E-03
4.000E+02	1.495E+01	1.495E-03	5.537E+00	5.537E-03
5.000E+02	1.355E+01	1.355E-03	5.022E+00	5.022E-03
6.000E+02	1.266E+01	1.266E-03	4.688E+00	4.688E-03
7.000E+02	1.204E+01	1.204E-03	4.458E+00	4.458E-03
8.000E+02	1.159E+01	1.159E-03	4.293E+00	4.293E-03
9.000E+02	1.124E+01	1.124E-03	4.166E+00	4.166E-03
1.000E+03	1.098E+01	1.098E-03	4.066E+00	4.066E-03
2.000E+03	1.009E+01	1.009E-03	3.737E+00	3.737E-03
3.000E+03	1.006E+01	1.006E-03	3.727E+00	3.727E-03
4.000E+03	1.018E+01	1.018E-03	3.769E+00	3.769E-03
5.000E+03	1.032E+01	1.032E-03	3.822E+00	3.822E-03
6.000E+03	1.046E+01	1.046E-03	3.875E+00	3.875E-03
7.000E+03	1.059E+01	1.059E-03	3.924E+00	3.924E-03
8.000E+03	1.072E+01	1.072E-03	3.971E+00	3.971E-03
9.000E+03	1.083E+01	1.083E-03	4.013E+00	4.013E-03
1.000E+04	1.094E+01	1.094E-03	4.052E+00	4.052E-03

TABLE 9

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: C Z= 6 A= 12.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.941E+02	1.941E-02	7.190E+01	7.190E-02
2.000E-02	2.745E+02	2.745E-02	1.017E+02	1.017E-01
3.000E-02	3.363E+02	3.363E-02	1.245E+02	1.245E-01
4.000E-02	3.882E+02	3.882E-02	1.438E+02	1.438E-01
5.000E-02	4.341E+02	4.341E-02	1.607E+02	1.607E-01
6.000E-02	4.755E+02	4.755E-02	1.761E+02	1.761E-01
7.000E-02	5.136E+02	5.136E-02	1.902E+02	1.902E-01
8.000E-02	5.491E+02	5.491E-02	2.033E+02	2.033E-01
9.000E-02	5.823E+02	5.823E-02	2.157E+02	2.157E-01
1.000E-01	6.138E+02	6.138E-02	2.273E+02	2.273E-01
2.000E-01	8.680E+02	8.680E-02	3.215E+02	3.215E-01
3.000E-01	1.043E+03	1.043E-01	3.863E+02	3.863E-01
4.000E-01	1.109E+03	1.109E-01	4.107E+02	4.107E-01
5.000E-01	1.122E+03	1.122E-01	4.157E+02	4.157E-01
6.000E-01	1.112E+03	1.112E-01	4.118E+02	4.118E-01
7.000E-01	1.090E+03	1.090E-01	4.039E+02	4.039E-01
8.000E-01	1.064E+03	1.064E-01	3.940E+02	3.940E-01
9.000E-01	1.035E+03	1.035E-01	3.834E+02	3.834E-01
1.000E+00	1.006E+03	1.006E-01	3.726E+02	3.726E-01
2.000E+00	7.683E+02	7.683E-02	2.846E+02	2.846E-01
3.000E+00	6.210E+02	6.210E-02	2.300E+02	2.300E-01
4.000E+00	5.228E+02	5.228E-02	1.936E+02	1.936E-01
5.000E+00	4.523E+02	4.523E-02	1.675E+02	1.675E-01
6.000E+00	3.991E+02	3.991E-02	1.478E+02	1.478E-01
7.000E+00	3.576E+02	3.576E-02	1.325E+02	1.325E-01
8.000E+00	3.243E+02	3.243E-02	1.201E+02	1.201E-01
9.000E+00	2.971E+02	2.971E-02	1.101E+02	1.101E-01
1.000E+01	2.743E+02	2.743E-02	1.016E+02	1.016E-01
2.000E+01	1.599E+02	1.599E-02	5.921E+01	5.921E-02
3.000E+01	1.160E+02	1.160E-02	4.295E+01	4.295E-02
4.000E+01	9.239E+01	9.239E-03	3.422E+01	3.422E-02
5.000E+01	7.758E+01	7.758E-03	2.873E+01	2.873E-02
6.000E+01	6.736E+01	6.736E-03	2.495E+01	2.495E-02
7.000E+01	5.986E+01	5.986E-03	2.217E+01	2.217E-02
8.000E+01	5.411E+01	5.411E-03	2.004E+01	2.004E-02
9.000E+01	4.956E+01	4.956E-03	1.836E+01	1.836E-02
1.000E+02	4.586E+01	4.586E-03	1.699E+01	1.699E-02
2.000E+02	2.850E+01	2.850E-03	1.055E+01	1.055E-02
3.000E+02	2.244E+01	2.244E-03	8.310E+00	8.310E-03
4.000E+02	1.939E+01	1.939E-03	7.183E+00	7.183E-03
5.000E+02	1.759E+01	1.759E-03	6.514E+00	6.514E-03
6.000E+02	1.642E+01	1.642E-03	6.081E+00	6.081E-03
7.000E+02	1.562E+01	1.562E-03	5.783E+00	5.783E-03
8.000E+02	1.503E+01	1.503E-03	5.570E+00	5.570E-03
9.000E+02	1.459E+01	1.459E-03	5.404E+00	5.404E-03
1.000E+03	1.425E+01	1.425E-03	5.275E+00	5.275E-03
2.000E+03	1.309E+01	1.309E-03	4.849E+00	4.849E-03
3.000E+03	1.305E+01	1.305E-03	4.834E+00	4.834E-03
4.000E+03	1.320E+01	1.320E-03	4.890E+00	4.890E-03
5.000E+03	1.339E+01	1.339E-03	4.958E+00	4.958E-03
6.000E+03	1.357E+01	1.357E-03	5.026E+00	5.026E-03
7.000E+03	1.375E+01	1.375E-03	5.091E+00	5.091E-03
8.000E+03	1.390E+01	1.390E-03	5.150E+00	5.150E-03
9.000E+03	1.405E+01	1.405E-03	5.205E+00	5.205E-03
1.000E+04	1.419E+01	1.419E-03	5.256E+00	5.256E-03

TABLE 10

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: N Z= 7 A= 14.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.997E+02	1.997E-02	7.397E+01	7.397E-02
2.000E-02	2.825E+02	2.825E-02	1.046E+02	1.046E-01
3.000E-02	3.459E+02	3.459E-02	1.281E+02	1.281E-01
4.000E-02	3.994E+02	3.994E-02	1.480E+02	1.480E-01
5.000E-02	4.466E+02	4.466E-02	1.654E+02	1.654E-01
6.000E-02	4.892E+02	4.892E-02	1.812E+02	1.812E-01
7.000E-02	5.284E+02	5.284E-02	1.958E+02	1.958E-01
8.000E-02	5.649E+02	5.649E-02	2.092E+02	2.092E-01
9.000E-02	5.991E+02	5.991E-02	2.219E+02	2.219E-01
1.000E-01	6.315E+02	6.315E-02	2.339E+02	2.339E-01
2.000E-01	8.931E+02	8.931E-02	3.308E+02	3.308E-01
3.000E-01	1.081E+03	1.081E-01	4.005E+02	4.005E-01
4.000E-01	1.161E+03	1.161E-01	4.301E+02	4.301E-01
5.000E-01	1.185E+03	1.185E-01	4.389E+02	4.389E-01
6.000E-01	1.182E+03	1.182E-01	4.379E+02	4.379E-01
7.000E-01	1.166E+03	1.166E-01	4.319E+02	4.319E-01
8.000E-01	1.144E+03	1.144E-01	4.235E+02	4.235E-01
9.000E-01	1.118E+03	1.118E-01	4.139E+02	4.139E-01
1.000E+00	1.090E+03	1.090E-01	4.038E+02	4.038E-01
2.000E+00	8.535E+02	8.535E-02	3.161E+02	3.161E-01
3.000E+00	6.988E+02	6.988E-02	2.588E+02	2.588E-01
4.000E+00	5.935E+02	5.935E-02	2.198E+02	2.198E-01
5.000E+00	5.168E+02	5.168E-02	1.914E+02	1.914E-01
6.000E+00	4.583E+02	4.583E-02	1.698E+02	1.698E-01
7.000E+00	4.123E+02	4.123E-02	1.527E+02	1.527E-01
8.000E+00	3.750E+02	3.750E-02	1.389E+02	1.389E-01
9.000E+00	3.442E+02	3.442E-02	1.275E+02	1.275E-01
1.000E+01	3.183E+02	3.183E-02	1.179E+02	1.179E-01
2.000E+01	1.863E+02	1.863E-02	6.902E+01	6.902E-02
3.000E+01	1.353E+02	1.353E-02	5.011E+01	5.011E-02
4.000E+01	1.078E+02	1.078E-02	3.993E+01	3.993E-02
5.000E+01	9.054E+01	9.054E-03	3.353E+01	3.353E-02
6.000E+01	7.861E+01	7.861E-03	2.911E+01	2.911E-02
7.000E+01	6.986E+01	6.986E-03	2.588E+01	2.588E-02
8.000E+01	6.315E+01	6.315E-03	2.339E+01	2.339E-02
9.000E+01	5.784E+01	5.784E-03	2.142E+01	2.142E-02
1.000E+02	5.352E+01	5.352E-03	1.982E+01	1.982E-02
2.000E+02	3.327E+01	3.327E-03	1.232E+01	1.232E-02
3.000E+02	2.619E+01	2.619E-03	9.699E+00	9.699E-03
4.000E+02	2.263E+01	2.263E-03	8.382E+00	8.382E-03
5.000E+02	2.053E+01	2.053E-03	7.602E+00	7.602E-03
6.000E+02	1.916E+01	1.916E-03	7.097E+00	7.097E-03
7.000E+02	1.822E+01	1.822E-03	6.749E+00	6.749E-03
8.000E+02	1.755E+01	1.755E-03	6.500E+00	6.500E-03
9.000E+02	1.703E+01	1.703E-03	6.307E+00	6.307E-03
1.000E+03	1.662E+01	1.662E-03	6.156E+00	6.156E-03
2.000E+03	1.528E+01	1.528E-03	5.659E+00	5.659E-03
3.000E+03	1.523E+01	1.523E-03	5.642E+00	5.642E-03
4.000E+03	1.541E+01	1.541E-03	5.706E+00	5.706E-03
5.000E+03	1.563E+01	1.563E-03	5.786E+00	5.786E-03
6.000E+03	1.584E+01	1.584E-03	5.866E+00	5.866E-03
7.000E+03	1.604E+01	1.604E-03	5.942E+00	5.942E-03
8.000E+03	1.623E+01	1.623E-03	6.011E+00	6.011E-03
9.000E+03	1.640E+01	1.640E-03	6.075E+00	6.075E-03
1.000E+04	1.656E+01	1.656E-03	6.134E+00	6.134E-03

TABLE 11

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: O Z= 8 A= 16.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	2.035E+02	2.035E-02	7.539E+01	7.539E-02
2.000E-02	2.879E+02	2.879E-02	1.066E+02	1.066E-01
3.000E-02	3.525E+02	3.525E-02	1.306E+02	1.306E-01
4.000E-02	4.071E+02	4.071E-02	1.508E+02	1.508E-01
5.000E-02	4.552E+02	4.552E-02	1.686E+02	1.686E-01
6.000E-02	4.986E+02	4.986E-02	1.846E+02	1.846E-01
7.000E-02	5.386E+02	5.386E-02	1.995E+02	1.995E-01
8.000E-02	5.757E+02	5.757E-02	2.133E+02	2.133E-01
9.000E-02	6.106E+02	6.106E-02	2.262E+02	2.262E-01
1.000E-01	6.437E+02	6.437E-02	2.384E+02	2.384E-01
2.000E-01	9.102E+02	9.102E-02	3.371E+02	3.371E-01
3.000E-01	1.107E+03	1.107E-01	4.100E+02	4.100E-01
4.000E-01	1.200E+03	1.200E-01	4.442E+02	4.442E-01
5.000E-01	1.233E+03	1.233E-01	4.566E+02	4.566E-01
6.000E-01	1.237E+03	1.237E-01	4.583E+02	4.583E-01
7.000E-01	1.227E+03	1.227E-01	4.544E+02	4.544E-01
8.000E-01	1.209E+03	1.209E-01	4.475E+02	4.475E-01
9.000E-01	1.186E+03	1.186E-01	4.392E+02	4.392E-01
1.000E+00	1.161E+03	1.161E-01	4.300E+02	4.300E-01
2.000E+00	9.294E+02	9.294E-02	3.442E+02	3.442E-01
3.000E+00	7.700E+02	7.700E-02	2.852E+02	2.852E-01
4.000E+00	6.590E+02	6.590E-02	2.441E+02	2.441E-01
5.000E+00	5.773E+02	5.773E-02	2.138E+02	2.138E-01
6.000E+00	5.144E+02	5.144E-02	1.906E+02	1.906E-01
7.000E+00	4.645E+02	4.645E-02	1.720E+02	1.720E-01
8.000E+00	4.237E+02	4.237E-02	1.569E+02	1.569E-01
9.000E+00	3.898E+02	3.898E-02	1.444E+02	1.444E-01
1.000E+01	3.612E+02	3.612E-02	1.338E+02	1.338E-01
2.000E+01	2.128E+02	2.128E-02	7.881E+01	7.881E-02
3.000E+01	1.546E+02	1.546E-02	5.728E+01	5.728E-02
4.000E+01	1.232E+02	1.232E-02	4.566E+01	4.566E-02
5.000E+01	1.035E+02	1.035E-02	3.834E+01	3.834E-02
6.000E+01	8.989E+01	8.989E-03	3.329E+01	3.329E-02
7.000E+01	7.988E+01	7.988E-03	2.958E+01	2.958E-02
8.000E+01	7.221E+01	7.221E-03	2.675E+01	2.675E-02
9.000E+01	6.614E+01	6.614E-03	2.450E+01	2.450E-02
1.000E+02	6.120E+01	6.120E-03	2.267E+01	2.267E-02
2.000E+02	3.804E+01	3.804E-03	1.409E+01	1.409E-02
3.000E+02	2.994E+01	2.994E-03	1.109E+01	1.109E-02
4.000E+02	2.588E+01	2.588E-03	9.584E+00	9.584E-03
5.000E+02	2.347E+01	2.347E-03	8.693E+00	8.693E-03
6.000E+02	2.191E+01	2.191E-03	8.115E+00	8.115E-03
7.000E+02	2.084E+01	2.084E-03	7.718E+00	7.718E-03
8.000E+02	2.006E+01	2.006E-03	7.432E+00	7.432E-03
9.000E+02	1.947E+01	1.947E-03	7.212E+00	7.212E-03
1.000E+03	1.901E+01	1.901E-03	7.040E+00	7.040E-03
2.000E+03	1.747E+01	1.747E-03	6.470E+00	6.470E-03
3.000E+03	1.742E+01	1.742E-03	6.451E+00	6.451E-03
4.000E+03	1.762E+01	1.762E-03	6.525E+00	6.525E-03
5.000E+03	1.787E+01	1.787E-03	6.617E+00	6.617E-03
6.000E+03	1.811E+01	1.811E-03	6.708E+00	6.708E-03
7.000E+03	1.834E+01	1.834E-03	6.794E+00	6.794E-03
8.000E+03	1.856E+01	1.856E-03	6.873E+00	6.873E-03
9.000E+03	1.876E+01	1.876E-03	6.946E+00	6.946E-03
1.000E+04	1.894E+01	1.894E-03	7.014E+00	7.014E-03

TABLE 12

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: F Z= 9 A= 19.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.951E+02	1.951E-02	7.227E+01	7.227E-02
2.000E-02	2.759E+02	2.759E-02	1.022E+02	1.022E-01
3.000E-02	3.380E+02	3.380E-02	1.252E+02	1.252E-01
4.000E-02	3.902E+02	3.902E-02	1.445E+02	1.445E-01
5.000E-02	4.363E+02	4.363E-02	1.616E+02	1.616E-01
6.000E-02	4.780E+02	4.780E-02	1.770E+02	1.770E-01
7.000E-02	5.162E+02	5.162E-02	1.912E+02	1.912E-01
8.000E-02	5.519E+02	5.519E-02	2.044E+02	2.044E-01
9.000E-02	5.853E+02	5.853E-02	2.168E+02	2.168E-01
1.000E-01	6.170E+02	6.170E-02	2.285E+02	2.285E-01
2.000E-01	8.726E+02	8.726E-02	3.232E+02	3.232E-01
3.000E-01	1.063E+03	1.063E-01	3.938E+02	3.938E-01
4.000E-01	1.161E+03	1.161E-01	4.302E+02	4.302E-01
5.000E-01	1.201E+03	1.201E-01	4.450E+02	4.450E-01
6.000E-01	1.212E+03	1.212E-01	4.490E+02	4.490E-01
7.000E-01	1.208E+03	1.208E-01	4.473E+02	4.473E-01
8.000E-01	1.194E+03	1.194E-01	4.423E+02	4.423E-01
9.000E-01	1.176E+03	1.176E-01	4.355E+02	4.355E-01
1.000E+00	1.155E+03	1.155E-01	4.278E+02	4.278E-01
2.000E+00	9.439E+02	9.439E-02	3.496E+02	3.496E-01
3.000E+00	7.905E+02	7.905E-02	2.928E+02	2.928E-01
4.000E+00	6.814E+02	6.814E-02	2.524E+02	2.524E-01
5.000E+00	6.003E+02	6.003E-02	2.223E+02	2.223E-01
6.000E+00	5.371E+02	5.371E-02	1.990E+02	1.990E-01
7.000E+00	4.867E+02	4.867E-02	1.803E+02	1.803E-01
8.000E+00	4.452E+02	4.452E-02	1.649E+02	1.649E-01
9.000E+00	4.106E+02	4.106E-02	1.521E+02	1.521E-01
1.000E+01	3.812E+02	3.812E-02	1.412E+02	1.412E-01
2.000E+01	2.263E+02	2.263E-02	8.382E+01	8.382E-02
3.000E+01	1.647E+02	1.647E-02	6.100E+01	6.100E-02
4.000E+01	1.313E+02	1.313E-02	4.865E+01	4.865E-02
5.000E+01	1.104E+02	1.104E-02	4.086E+01	4.086E-02
6.000E+01	9.580E+01	9.580E-03	3.548E+01	3.548E-02
7.000E+01	8.513E+01	8.513E-03	3.154E+01	3.154E-02
8.000E+01	7.697E+01	7.697E-03	2.851E+01	2.851E-02
9.000E+01	7.049E+01	7.049E-03	2.611E+01	2.611E-02
1.000E+02	6.523E+01	6.523E-03	2.415E+01	2.415E-02
2.000E+02	4.054E+01	4.054E-03	1.501E+01	1.501E-02
3.000E+02	3.192E+01	3.192E-03	1.182E+01	1.182E-02
4.000E+02	2.758E+01	2.758E-03	1.021E+01	1.021E-02
5.000E+02	2.501E+01	2.501E-03	9.265E+00	9.265E-03
6.000E+02	2.336E+01	2.336E-03	8.649E+00	8.649E-03
7.000E+02	2.221E+01	2.221E-03	8.225E+00	8.225E-03
8.000E+02	2.138E+01	2.138E-03	7.921E+00	7.921E-03
9.000E+02	2.076E+01	2.076E-03	7.687E+00	7.687E-03
1.000E+03	2.026E+01	2.026E-03	7.503E+00	7.503E-03
2.000E+03	1.862E+01	1.862E-03	6.896E+00	6.896E-03
3.000E+03	1.856E+01	1.856E-03	6.877E+00	6.877E-03
4.000E+03	1.878E+01	1.878E-03	6.954E+00	6.954E-03
5.000E+03	1.904E+01	1.904E-03	7.052E+00	7.052E-03
6.000E+03	1.931E+01	1.931E-03	7.150E+00	7.150E-03
7.000E+03	1.956E+01	1.956E-03	7.241E+00	7.241E-03
8.000E+03	1.978E+01	1.978E-03	7.326E+00	7.326E-03
9.000E+03	1.999E+01	1.999E-03	7.404E+00	7.404E-03
1.000E+04	2.018E+01	2.018E-03	7.476E+00	7.476E-03

TABLE 13

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: NE Z= 10 A= 20.18

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	2.052E+02	2.052E-02	7.601E+01	7.601E-02
2.000E-02	2.903E+02	2.903E-02	1.075E+02	1.075E-01
3.000E-02	3.554E+02	3.554E-02	1.317E+02	1.317E-01
4.000E-02	4.105E+02	4.105E-02	1.521E+02	1.521E-01
5.000E-02	4.589E+02	4.589E-02	1.699E+02	1.699E-01
6.000E-02	5.028E+02	5.028E-02	1.862E+02	1.862E-01
7.000E-02	5.430E+02	5.430E-02	2.011E+02	2.011E-01
8.000E-02	5.805E+02	5.805E-02	2.150E+02	2.150E-01
9.000E-02	6.156E+02	6.156E-02	2.280E+02	2.280E-01
1.000E-01	6.490E+02	6.490E-02	2.404E+02	2.404E-01
2.000E-01	9.177E+02	9.177E-02	3.399E+02	3.399E-01
3.000E-01	1.120E+03	1.120E-01	4.149E+02	4.149E-01
4.000E-01	1.232E+03	1.232E-01	4.565E+02	4.565E-01
5.000E-01	1.282E+03	1.282E-01	4.750E+02	4.750E-01
6.000E-01	1.300E+03	1.300E-01	4.815E+02	4.815E-01
7.000E-01	1.301E+03	1.301E-01	4.817E+02	4.817E-01
8.000E-01	1.291E+03	1.291E-01	4.781E+02	4.781E-01
9.000E-01	1.275E+03	1.275E-01	4.724E+02	4.724E-01
1.000E+00	1.256E+03	1.256E-01	4.653E+02	4.653E-01
2.000E+00	1.046E+03	1.046E-01	3.874E+02	3.874E-01
3.000E+00	8.851E+02	8.851E-02	3.278E+02	3.278E-01
4.000E+00	7.681E+02	7.681E-02	2.845E+02	2.845E-01
5.000E+00	6.799E+02	6.799E-02	2.518E+02	2.518E-01
6.000E+00	6.110E+02	6.110E-02	2.262E+02	2.262E-01
7.000E+00	5.554E+02	5.554E-02	2.057E+02	2.057E-01
8.000E+00	5.095E+02	5.095E-02	1.887E+02	1.887E-01
9.000E+00	4.709E+02	4.709E-02	1.744E+02	1.744E-01
1.000E+01	4.381E+02	4.381E-02	1.623E+02	1.623E-01
2.000E+01	2.623E+02	2.623E-02	9.715E+01	9.715E-02
3.000E+01	1.912E+02	1.912E-02	7.082E+01	7.082E-02
4.000E+01	1.526E+02	1.526E-02	5.652E+01	5.652E-02
5.000E+01	1.282E+02	1.282E-02	4.748E+01	4.748E-02
6.000E+01	1.114E+02	1.114E-02	4.123E+01	4.123E-02
7.000E+01	9.894E+01	9.894E-03	3.665E+01	3.665E-02
8.000E+01	8.945E+01	8.945E-03	3.313E+01	3.313E-02
9.000E+01	8.192E+01	8.192E-03	3.035E+01	3.035E-02
1.000E+02	7.580E+01	7.580E-03	2.808E+01	2.808E-02
2.000E+02	4.711E+01	4.711E-03	1.745E+01	1.745E-02
3.000E+02	3.709E+01	3.709E-03	1.374E+01	1.374E-02
4.000E+02	3.206E+01	3.206E-03	1.188E+01	1.188E-02
5.000E+02	2.907E+01	2.907E-03	1.076E+01	1.076E-02
6.000E+02	2.714E+01	2.714E-03	1.005E+01	1.005E-02
7.000E+02	2.581E+01	2.581E-03	9.559E+00	9.559E-03
8.000E+02	2.486E+01	2.486E-03	9.206E+00	9.206E-03
9.000E+02	2.412E+01	2.412E-03	8.934E+00	8.934E-03
1.000E+03	2.354E+01	2.354E-03	8.720E+00	8.720E-03
2.000E+03	2.164E+01	2.164E-03	8.015E+00	8.015E-03
3.000E+03	2.158E+01	2.158E-03	7.991E+00	7.991E-03
4.000E+03	2.183E+01	2.183E-03	8.032E+00	8.082E-03
5.000E+03	2.213E+01	2.213E-03	8.196E+00	8.196E-03
6.000E+03	2.243E+01	2.243E-03	8.309E+00	8.309E-03
7.000E+03	2.272E+01	2.272E-03	8.416E+00	8.416E-03
8.000E+03	2.299E+01	2.299E-03	8.514E+00	8.514E-03
9.000E+03	2.323E+01	2.323E-03	8.604E+00	8.604E-03
1.000E+04	2.346E+01	2.346E-03	8.688E+00	8.688E-03

TABLE 14

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: NA Z= 11 A= 22.99

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.983E+02	1.983E-02	7.346E+01	7.346E-02
2.000E-02	2.806E+02	2.806E-02	1.039E+02	1.039E-01
3.000E-02	3.436E+02	3.436E-02	1.273E+02	1.273E-01
4.000E-02	3.966E+02	3.966E-02	1.469E+02	1.469E-01
5.000E-02	4.434E+02	4.434E-02	1.642E+02	1.642E-01
6.000E-02	4.858E+02	4.858E-02	1.799E+02	1.799E-01
7.000E-02	5.248E+02	5.248E-02	1.943E+02	1.943E-01
8.000E-02	5.610E+02	5.610E-02	2.077E+02	2.077E-01
9.000E-02	5.949E+02	5.949E-02	2.203E+02	2.203E-01
1.000E-01	6.272E+02	6.272E-02	2.323E+02	2.323E-01
2.000E-01	8.869E+02	8.869E-02	3.285E+02	3.285E-01
3.000E-01	1.085E+03	1.085E-01	4.016E+02	4.016E-01
4.000E-01	1.202E+03	1.202E-01	4.449E+02	4.449E-01
5.000E-01	1.256E+03	1.256E-01	4.652E+02	4.652E-01
6.000E-01	1.279E+03	1.279E-01	4.738E+02	4.738E-01
7.000E-01	1.284E+03	1.284E-01	4.756E+02	4.756E-01
8.000E-01	1.279E+03	1.279E-01	4.736E+02	4.736E-01
9.000E-01	1.267E+03	1.267E-01	4.694E+02	4.694E-01
1.000E+00	1.252E+03	1.252E-01	4.637E+02	4.637E-01
2.000E+00	1.061E+03	1.061E-01	3.928E+02	3.928E-01
3.000E+00	9.061E+02	9.061E-02	3.356E+02	3.356E-01
4.000E+00	7.913E+02	7.913E-02	2.931E+02	2.931E-01
5.000E+00	7.037E+02	7.037E-02	2.606E+02	2.606E-01
6.000E+00	6.346E+02	6.346E-02	2.350E+02	2.350E-01
7.000E+00	5.786E+02	5.786E-02	2.143E+02	2.143E-01
8.000E+00	5.322E+02	5.322E-02	1.971E+02	1.971E-01
9.000E+00	4.931E+02	4.931E-02	1.826E+02	1.826E-01
1.000E+01	4.596E+02	4.596E-02	1.702E+02	1.702E-01
2.000E+01	2.777E+02	2.777E-02	1.029E+02	1.029E-01
3.000E+01	2.029E+02	2.029E-02	7.513E+01	7.513E-02
4.000E+01	1.620E+02	1.620E-02	6.000E+01	6.000E-02
5.000E+01	1.361E+02	1.361E-02	5.042E+01	5.042E-02
6.000E+01	1.183E+02	1.183E-02	4.379E+01	4.379E-02
7.000E+01	1.051E+02	1.051E-02	3.892E+01	3.892E-02
8.000E+01	9.501E+01	9.501E-03	3.519E+01	3.519E-02
9.000E+01	8.702E+01	8.702E-03	3.223E+01	3.223E-02
1.000E+02	8.052E+01	8.052E-03	2.982E+01	2.982E-02
2.000E+02	5.005E+01	5.005E-03	1.854E+01	1.854E-02
3.000E+02	3.940E+01	3.940E-03	1.459E+01	1.459E-02
4.000E+02	3.405E+01	3.405E-03	1.261E+01	1.261E-02
5.000E+02	3.088E+01	3.088E-03	1.144E+01	1.144E-02
6.000E+02	2.883E+01	2.883E-03	1.068E+01	1.068E-02
7.000E+02	2.742E+01	2.742E-03	1.015E+01	1.015E-02
8.000E+02	2.641E+01	2.641E-03	9.778E+00	9.778E-03
9.000E+02	2.562E+01	2.562E-03	9.490E+00	9.490E-03
1.000E+03	2.501E+01	2.501E-03	9.262E+00	9.262E-03
2.000E+03	2.299E+01	2.299E-03	8.514E+00	8.514E-03
3.000E+03	2.292E+01	2.292E-03	8.489E+00	8.489E-03
4.000E+03	2.318E+01	2.318E-03	8.586E+00	8.586E-03
5.000E+03	2.351E+01	2.351E-03	8.706E+00	8.706E-03
6.000E+03	2.383E+01	2.383E-03	8.826E+00	8.826E-03
7.000E+03	2.414E+01	2.414E-03	8.939E+00	8.939E-03
8.000E+03	2.441E+01	2.441E-03	9.043E+00	9.043E-03
9.000E+03	2.467E+01	2.467E-03	9.140E+00	9.140E-03
1.000E+04	2.492E+01	2.492E-03	9.229E+00	9.229E-03

TABLE 15

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: MG Z= 12 A= 24.32

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	2.040E+02	2.040E-02	7.554E+01	7.554E-02
2.000E-02	2.885E+02	2.885E-02	1.068E+02	1.068E-01
3.000E-02	3.532E+02	3.532E-02	1.309E+02	1.309E-01
4.000E-02	4.079E+02	4.079E-02	1.511E+02	1.511E-01
5.000E-02	4.561E+02	4.561E-02	1.689E+02	1.689E-01
6.000E-02	4.996E+02	4.996E-02	1.850E+02	1.850E-01
7.000E-02	5.396E+02	5.396E-02	1.999E+02	1.999E-01
8.000E-02	5.769E+02	5.769E-02	2.137E+02	2.137E-01
9.000E-02	6.118E+02	6.118E-02	2.266E+02	2.266E-01
1.000E-01	6.450E+02	6.450E-02	2.388E+02	2.388E-01
2.000E-01	9.120E+02	9.120E-02	3.378E+02	3.378E-01
3.000E-01	1.117E+03	1.117E-01	4.137E+02	4.137E-01
4.000E-01	1.245E+03	1.245E-01	4.610E+02	4.610E-01
5.000E-01	1.308E+03	1.308E-01	4.844E+02	4.844E-01
6.000E-01	1.337E+03	1.337E-01	4.952E+02	4.952E-01
7.000E-01	1.348E+03	1.348E-01	4.989E+02	4.989E-01
8.000E-01	1.346E+03	1.346E-01	4.984E+02	4.984E-01
9.000E-01	1.337E+03	1.337E-01	4.952E+02	4.952E-01
1.000E+00	1.324E+03	1.324E-01	4.904E+02	4.904E-01
2.000E+00	1.140E+03	1.140E-01	4.222E+02	4.222E-01
3.000E+00	9.828E+02	9.828E-02	3.639E+02	3.639E-01
4.000E+00	8.634E+02	8.634E-02	3.198E+02	3.198E-01
5.000E+00	7.712E+02	7.712E-02	2.857E+02	2.857E-01
6.000E+00	6.979E+02	6.979E-02	2.584E+02	2.584E-01
7.000E+00	6.381E+02	6.381E-02	2.363E+02	2.363E-01
8.000E+00	5.883E+02	5.883E-02	2.179E+02	2.179E-01
9.000E+00	5.462E+02	5.462E-02	2.023E+02	2.023E-01
1.000E+01	5.101E+02	5.101E-02	1.889E+02	1.889E-01
2.000E+01	3.112E+02	3.112E-02	1.153E+02	1.153E-01
3.000E+01	2.279E+02	2.279E-02	8.440E+01	8.440E-02
4.000E+01	1.821E+02	1.821E-02	6.745E+01	6.745E-02
5.000E+01	1.531E+02	1.531E-02	5.671E+01	5.671E-02
6.000E+01	1.330E+02	1.330E-02	4.926E+01	4.926E-02
7.000E+01	1.182E+02	1.182E-02	4.379E+01	4.379E-02
8.000E+01	1.069E+02	1.069E-02	3.959E+01	3.959E-02
9.000E+01	9.790E+01	9.790E-03	3.625E+01	3.625E-02
1.000E+02	9.058E+01	9.058E-03	3.355E+01	3.355E-02
2.000E+02	5.630E+01	5.630E-03	2.085E+01	2.085E-02
3.000E+02	4.432E+01	4.432E-03	1.642E+01	1.642E-02
4.000E+02	3.831E+01	3.831E-03	1.419E+01	1.419E-02
5.000E+02	3.475E+01	3.475E-03	1.287E+01	1.287E-02
6.000E+02	3.243E+01	3.243E-03	1.201E+01	1.201E-02
7.000E+02	3.084E+01	3.084E-03	1.143E+01	1.143E-02
8.000E+02	2.971E+01	2.971E-03	1.100E+01	1.100E-02
9.000E+02	2.883E+01	2.883E-03	1.068E+01	1.068E-02
1.000E+03	2.813E+01	2.813E-03	1.042E+01	1.042E-02
2.000E+03	2.586E+01	2.586E-03	9.578E+00	9.578E-03
3.000E+03	2.578E+01	2.578E-03	9.550E+00	9.550E-03
4.000E+03	2.608E+01	2.608E-03	9.659E+00	9.659E-03
5.000E+03	2.645E+01	2.645E-03	9.794E+00	9.794E-03
6.000E+03	2.681E+01	2.681E-03	9.930E+00	9.930E-03
7.000E+03	2.715E+01	2.715E-03	1.006E+01	1.006E-02
8.000E+03	2.747E+01	2.747E-03	1.018E+01	1.018E-02
9.000E+03	2.776E+01	2.776E-03	1.028E+01	1.028E-02
1.000E+04	2.803E+01	2.803E-03	1.038E+01	1.038E-02

TABLE 16

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AL Z= 13 A= 26.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.981E+02	1.981E-02	7.336E+01	7.336E-02
2.000E-02	2.802E+02	2.802E-02	1.037E+02	1.037E-01
3.000E-02	3.431E+02	3.431E-02	1.271E+02	1.271E-01
4.000E-02	3.961E+02	3.961E-02	1.467E+02	1.467E-01
5.000E-02	4.429E+02	4.429E-02	1.640E+02	1.640E-01
6.000E-02	4.852E+02	4.852E-02	1.797E+02	1.797E-01
7.000E-02	5.241E+02	5.241E-02	1.940E+02	1.940E-01
8.000E-02	5.602E+02	5.602E-02	2.074E+02	2.074E-01
9.000E-02	5.942E+02	5.942E-02	2.200E+02	2.200E-01
1.000E-01	6.263E+02	6.263E-02	2.320E+02	2.320E-01
2.000E-01	8.857E+02	8.857E-02	3.281E+02	3.281E-01
3.000E-01	1.086E+03	1.086E-01	4.020E+02	4.020E-01
4.000E-01	1.216E+03	1.216E-01	4.504E+02	4.504E-01
5.000E-01	1.284E+03	1.284E-01	4.754E+02	4.754E-01
6.000E-01	1.317E+03	1.317E-01	4.879E+02	4.879E-01
7.000E-01	1.331E+03	1.331E-01	4.931E+02	4.931E-01
8.000E-01	1.334E+03	1.334E-01	4.939E+02	4.939E-01
9.000E-01	1.328E+03	1.328E-01	4.921E+02	4.921E-01
1.000E+00	1.318E+03	1.318E-01	4.883E+02	4.883E-01
2.000E+00	1.153E+03	1.153E-01	4.269E+02	4.269E-01
3.000E+00	1.002E+03	1.002E-01	3.711E+02	3.711E-01
4.000E+00	8.854E+02	8.854E-02	3.279E+02	3.279E-01
5.000E+00	7.941E+02	7.941E-02	2.942E+02	2.942E-01
6.000E+00	7.209E+02	7.209E-02	2.670E+02	2.670E-01
7.000E+00	6.610E+02	6.610E-02	2.447E+02	2.447E-01
8.000E+00	6.108E+02	6.108E-02	2.262E+02	2.262E-01
9.000E+00	5.682E+02	5.682E-02	2.105E+02	2.105E-01
1.000E+01	5.315E+02	5.315E-02	1.969E+02	1.969E-01
2.000E+01	3.274E+02	3.274E-02	1.213E+02	1.213E-01
3.000E+01	2.404E+02	2.404E-02	8.905E+01	8.905E-02
4.000E+01	1.923E+02	1.923E-02	7.124E+01	7.124E-02
5.000E+01	1.617E+02	1.617E-02	5.991E+01	5.991E-02
6.000E+01	1.405E+02	1.405E-02	5.206E+01	5.206E-02
7.000E+01	1.250E+02	1.250E-02	4.628E+01	4.628E-02
8.000E+01	1.130E+02	1.130E-02	4.184E+01	4.184E-02
9.000E+01	1.035E+02	1.035E-02	3.832E+01	3.832E-02
1.000E+02	9.577E+01	9.577E-03	3.547E+01	3.547E-02
2.000E+02	5.952E+01	5.952E-03	2.204E+01	2.204E-02
3.000E+02	4.686E+01	4.686E-03	1.735E+01	1.735E-02
4.000E+02	4.050E+01	4.050E-03	1.500E+01	1.500E-02
5.000E+02	3.673E+01	3.673E-03	1.360E+01	1.360E-02
6.000E+02	3.428E+01	3.428E-03	1.270E+01	1.270E-02
7.000E+02	3.261E+01	3.261E-03	1.207E+01	1.207E-02
8.000E+02	3.140E+01	3.140E-03	1.163E+01	1.163E-02
9.000E+02	3.047E+01	3.047E-03	1.129E+01	1.129E-02
1.000E+03	2.975E+01	2.975E-03	1.102E+01	1.102E-02
2.000E+03	2.734E+01	2.734E-03	1.013E+01	1.013E-02
3.000E+03	2.726E+01	2.726E-03	1.010E+01	1.010E-02
4.000E+03	2.757E+01	2.757E-03	1.021E+01	1.021E-02
5.000E+03	2.796E+01	2.796E-03	1.036E+01	1.036E-02
6.000E+03	2.834E+01	2.834E-03	1.049E+01	1.049E-02
7.000E+03	2.871E+01	2.871E-03	1.063E+01	1.063E-02
8.000E+03	2.904E+01	2.904E-03	1.076E+01	1.076E-02
9.000E+03	2.935E+01	2.935E-03	1.087E+01	1.087E-02
1.000E+04	2.963E+01	2.963E-03	1.098E+01	1.098E-02

TABLE 17

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: SI Z= 14 A= 28.09

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	2.039E+02	2.039E-02	7.553E+01	7.553E-02
2.000E-02	2.885E+02	2.885E-02	1.068E+02	1.068E-01
3.000E-02	3.532E+02	3.532E-02	1.309E+02	1.309E-01
4.000E-02	4.079E+02	4.079E-02	1.511E+02	1.511E-01
5.000E-02	4.560E+02	4.560E-02	1.689E+02	1.689E-01
6.000E-02	4.996E+02	4.996E-02	1.850E+02	1.850E-01
7.000E-02	5.396E+02	5.396E-02	1.999E+02	1.999E-01
8.000E-02	5.768E+02	5.768E-02	2.137E+02	2.137E-01
9.000E-02	6.117E+02	6.117E-02	2.266E+02	2.266E-01
1.000E-01	6.448E+02	6.448E-02	2.388E+02	2.388E-01
2.000E-01	9.119E+02	9.119E-02	3.377E+02	3.377E-01
3.000E-01	1.117E+03	1.117E-01	4.139E+02	4.139E-01
4.000E-01	1.258E+03	1.258E-01	4.657E+02	4.657E-01
5.000E-01	1.332E+03	1.332E-01	4.935E+02	4.935E-01
6.000E-01	1.372E+03	1.372E-01	5.082E+02	5.082E-01
7.000E-01	1.391E+03	1.391E-01	5.152E+02	5.152E-01
8.000E-01	1.397E+03	1.397E-01	5.174E+02	5.174E-01
9.000E-01	1.395E+03	1.395E-01	5.166E+02	5.166E-01
1.000E+00	1.387E+03	1.387E-01	5.138E+02	5.138E-01
2.000E+00	1.230E+03	1.230E-01	4.556E+02	4.556E-01
3.000E+00	1.078E+03	1.078E-01	3.993E+02	3.993E-01
4.000E+00	9.578E+02	9.578E-02	3.547E+02	3.547E-01
5.000E+00	8.623E+02	8.623E-02	3.194E+02	3.194E-01
6.000E+00	7.853E+02	7.853E-02	2.908E+02	2.908E-01
7.000E+00	7.218E+02	7.218E-02	2.674E+02	2.674E-01
8.000E+00	6.684E+02	6.684E-02	2.476E+02	2.476E-01
9.000E+00	6.230E+02	6.230E-02	2.308E+02	2.308E-01
1.000E+01	5.837E+02	5.837E-02	2.162E+02	2.162E-01
2.000E+01	3.630E+02	3.630E-02	1.345E+02	1.345E-01
3.000E+01	2.675E+02	2.675E-02	9.904E+01	9.904E-02
4.000E+01	2.141E+02	2.141E-02	7.932E+01	7.932E-02
5.000E+01	1.802E+02	1.802E-02	6.675E+01	6.675E-02
6.000E+01	1.566E+02	1.566E-02	5.800E+01	5.800E-02
7.000E+01	1.393E+02	1.393E-02	5.158E+01	5.158E-02
8.000E+01	1.259E+02	1.259E-02	4.664E+01	4.664E-02
9.000E+01	1.153E+02	1.153E-02	4.273E+01	4.273E-02
1.000E+02	1.067E+02	1.067E-02	3.954E+01	3.954E-02
2.000E+02	6.635E+01	6.635E-03	2.457E+01	2.457E-02
3.000E+02	5.224E+01	5.224E-03	1.935E+01	1.935E-02
4.000E+02	4.515E+01	4.515E-03	1.672E+01	1.672E-02
5.000E+02	4.094E+01	4.094E-03	1.517E+01	1.517E-02
6.000E+02	3.822E+01	3.822E-03	1.416E+01	1.416E-02
7.000E+02	3.635E+01	3.635E-03	1.347E+01	1.347E-02
8.000E+02	3.500E+01	3.500E-03	1.296E+01	1.296E-02
9.000E+02	3.397E+01	3.397E-03	1.258E+01	1.258E-02
1.000E+03	3.316E+01	3.316E-03	1.229E+01	1.229E-02
2.000E+03	3.048E+01	3.048E-03	1.128E+01	1.128E-02
3.000E+03	3.038E+01	3.038E-03	1.126E+01	1.126E-02
4.000E+03	3.073E+01	3.073E-03	1.138E+01	1.138E-02
5.000E+03	3.116E+01	3.116E-03	1.154E+01	1.154E-02
6.000E+03	3.159E+01	3.159E-03	1.170E+01	1.170E-02
7.000E+03	3.200E+01	3.200E-03	1.185E+01	1.185E-02
8.000E+03	3.237E+01	3.237E-03	1.199E+01	1.199E-02
9.000E+03	3.272E+01	3.272E-03	1.212E+01	1.212E-02
1.000E+04	3.304E+01	3.304E-03	1.224E+01	1.224E-02

TABLE 18

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: P Z= 15 A= 30.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.967E+02	1.967E-02	7.286E+01	7.286E-02
2.000E-02	2.782E+02	2.782E-02	1.030E+02	1.030E-01
3.000E-02	3.407E+02	3.407E-02	1.262E+02	1.262E-01
4.000E-02	3.934E+02	3.934E-02	1.457E+02	1.457E-01
5.000E-02	4.398E+02	4.398E-02	1.629E+02	1.629E-01
6.000E-02	4.819E+02	4.819E-02	1.784E+02	1.784E-01
7.000E-02	5.205E+02	5.205E-02	1.927E+02	1.927E-01
8.000E-02	5.564E+02	5.564E-02	2.060E+02	2.060E-01
9.000E-02	5.901E+02	5.901E-02	2.185E+02	2.185E-01
1.000E-01	6.220E+02	6.220E-02	2.304E+02	2.304E-01
2.000E-01	8.796E+02	8.796E-02	3.258E+02	3.258E-01
3.000E-01	1.078E+03	1.078E-01	3.992E+02	3.992E-01
4.000E-01	1.218E+03	1.218E-01	4.510E+02	4.510E-01
5.000E-01	1.295E+03	1.295E-01	4.798E+02	4.798E-01
6.000E-01	1.338E+03	1.338E-01	4.956E+02	4.956E-01
7.000E-01	1.361E+03	1.361E-01	5.038E+02	5.038E-01
8.000E-01	1.370E+03	1.370E-01	5.072E+02	5.072E-01
9.000E-01	1.370E+03	1.370E-01	5.075E+02	5.075E-01
1.000E+00	1.365E+03	1.365E-01	5.058E+02	5.058E-01
2.000E+00	1.227E+03	1.227E-01	4.545E+02	4.545E-01
3.000E+00	1.084E+03	1.084E-01	4.013E+02	4.013E-01
4.000E+00	9.676E+02	9.676E-02	3.584E+02	3.584E-01
5.000E+00	8.746E+02	8.746E-02	3.240E+02	3.240E-01
6.000E+00	7.988E+02	7.988E-02	2.959E+02	2.959E-01
7.000E+00	7.360E+02	7.360E-02	2.726E+02	2.726E-01
8.000E+00	6.830E+02	6.830E-02	2.529E+02	2.529E-01
9.000E+00	6.377E+02	6.377E-02	2.362E+02	2.362E-01
1.000E+01	5.984E+02	5.984E-02	2.216E+02	2.216E-01
2.000E+01	3.756E+02	3.756E-02	1.391E+02	1.391E-01
3.000E+01	2.777E+02	2.777E-02	1.028E+02	1.028E-01
4.000E+01	2.227E+02	2.227E-02	8.247E+01	8.247E-02
5.000E+01	1.875E+02	1.875E-02	6.943E+01	6.943E-02
6.000E+01	1.630E+02	1.630E-02	6.036E+01	6.036E-02
7.000E+01	1.449E+02	1.449E-02	5.368E+01	5.368E-02
8.000E+01	1.311E+02	1.311E-02	4.855E+01	4.855E-02
9.000E+01	1.201E+02	1.201E-02	4.447E+01	4.447E-02
1.000E+02	1.111E+02	1.111E-02	4.115E+01	4.115E-02
2.000E+02	6.907E+01	6.907E-03	2.558E+01	2.558E-02
3.000E+02	5.438E+01	5.438E-03	2.014E+01	2.014E-02
4.000E+02	4.699E+01	4.699E-03	1.741E+01	1.741E-02
5.000E+02	4.263E+01	4.263E-03	1.578E+01	1.578E-02
6.000E+02	3.979E+01	3.979E-03	1.474E+01	1.474E-02
7.000E+02	3.784E+01	3.784E-03	1.401E+01	1.401E-02
8.000E+02	3.644E+01	3.644E-03	1.350E+01	1.350E-02
9.000E+02	3.536E+01	3.536E-03	1.310E+01	1.310E-02
1.000E+03	3.452E+01	3.452E-03	1.278E+01	1.278E-02
2.000E+03	3.173E+01	3.173E-03	1.175E+01	1.175E-02
3.000E+03	3.163E+01	3.163E-03	1.172E+01	1.172E-02
4.000E+03	3.200E+01	3.200E-03	1.185E+01	1.185E-02
5.000E+03	3.244E+01	3.244E-03	1.202E+01	1.202E-02
6.000E+03	3.289E+01	3.289E-03	1.218E+01	1.218E-02
7.000E+03	3.331E+01	3.331E-03	1.234E+01	1.234E-02
8.000E+03	3.370E+01	3.370E-03	1.248E+01	1.248E-02
9.000E+03	3.406E+01	3.406E-03	1.262E+01	1.262E-02
1.000E+04	3.439E+01	3.439E-03	1.274E+01	1.274E-02

TABLE 19

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: S Z= 16 A= 32.07

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	2.009E+02	2.009E-02	7.442E+01	7.442E-02
2.000E-02	2.842E+02	2.842E-02	1.052E+02	1.052E-01
3.000E-02	3.480E+02	3.480E-02	1.289E+02	1.289E-01
4.000E-02	4.019E+02	4.019E-02	1.489E+02	1.489E-01
5.000E-02	4.493E+02	4.493E-02	1.664E+02	1.664E-01
6.000E-02	4.922E+02	4.922E-02	1.823E+02	1.823E-01
7.000E-02	5.316E+02	5.316E-02	1.969E+02	1.969E-01
8.000E-02	5.683E+02	5.683E-02	2.105E+02	2.105E-01
9.000E-02	6.028E+02	6.028E-02	2.232E+02	2.232E-01
1.000E-01	6.354E+02	6.354E-02	2.353E+02	2.353E-01
2.000E-01	8.985E+02	8.985E-02	3.328E+02	3.328E-01
3.000E-01	1.101E+03	1.101E-01	4.077E+02	4.077E-01
4.000E-01	1.248E+03	1.248E-01	4.625E+02	4.625E-01
5.000E-01	1.333E+03	1.333E-01	4.937E+02	4.937E-01
6.000E-01	1.381E+03	1.381E-01	5.115E+02	5.115E-01
7.000E-01	1.408E+03	1.408E-01	5.213E+02	5.213E-01
8.000E-01	1.420E+03	1.420E-01	5.261E+02	5.261E-01
9.000E-01	1.424E+03	1.424E-01	5.275E+02	5.275E-01
1.000E+00	1.422E+03	1.422E-01	5.267E+02	5.267E-01
2.000E+00	1.293E+03	1.293E-01	4.791E+02	4.791E-01
3.000E+00	1.151E+03	1.151E-01	4.262E+02	4.262E-01
4.000E+00	1.033E+03	1.033E-01	3.824E+02	3.824E-01
5.000E+00	9.367E+02	9.367E-02	3.470E+02	3.470E-01
6.000E+00	8.580E+02	8.580E-02	3.177E+02	3.177E-01
7.000E+00	7.923E+02	7.923E-02	2.935E+02	2.935E-01
8.000E+00	7.367E+02	7.367E-02	2.728E+02	2.728E-01
9.000E+00	6.889E+02	6.889E-02	2.551E+02	2.551E-01
1.000E+01	6.474E+02	6.474E-02	2.398E+02	2.398E-01
2.000E+01	4.101E+02	4.101E-02	1.519E+02	1.519E-01
3.000E+01	3.043E+02	3.043E-02	1.127E+02	1.127E-01
4.000E+01	2.443E+02	2.443E-02	9.049E+01	9.049E-02
5.000E+01	2.058E+02	2.058E-02	7.624E+01	7.624E-02
6.000E+01	1.790E+02	1.790E-02	6.630E+01	6.630E-02
7.000E+01	1.593E+02	1.593E-02	5.898E+01	5.898E-02
8.000E+01	1.440E+02	1.440E-02	5.334E+01	5.334E-02
9.000E+01	1.320E+02	1.320E-02	4.887E+01	4.887E-02
1.000E+02	1.221E+02	1.221E-02	4.523E+01	4.523E-02
2.000E+02	7.592E+01	7.592E-03	2.812E+01	2.812E-02
3.000E+02	5.976E+01	5.976E-03	2.213E+01	2.213E-02
4.000E+02	5.165E+01	5.165E-03	1.913E+01	1.913E-02
5.000E+02	4.685E+01	4.685E-03	1.735E+01	1.735E-02
6.000E+02	4.373E+01	4.373E-03	1.619E+01	1.619E-02
7.000E+02	4.159E+01	4.159E-03	1.541E+01	1.541E-02
8.000E+02	4.006E+01	4.006E-03	1.483E+01	1.483E-02
9.000E+02	3.887E+01	3.887E-03	1.439E+01	1.439E-02
1.000E+03	3.793E+01	3.793E-03	1.405E+01	1.405E-02
2.000E+03	3.487E+01	3.487E-03	1.291E+01	1.291E-02
3.000E+03	3.477E+01	3.477E-03	1.288E+01	1.288E-02
4.000E+03	3.516E+01	3.516E-03	1.303E+01	1.303E-02
5.000E+03	3.565E+01	3.565E-03	1.321E+01	1.321E-02
6.000E+03	3.615E+01	3.615E-03	1.338E+01	1.338E-02
7.000E+03	3.661E+01	3.661E-03	1.356E+01	1.356E-02
8.000E+03	3.704E+01	3.704E-03	1.371E+01	1.371E-02
9.000E+03	3.743E+01	3.743E-03	1.386E+01	1.386E-02
1.000E+04	3.780E+01	3.780E-03	1.400E+01	1.400E-02

TABLE 20

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CL Z= 17 A= 35.46

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.912E+02	1.912E-02	7.081E+01	7.081E-02
2.000E-02	2.704E+02	2.704E-02	1.001E+02	1.001E-01
3.000E-02	3.312E+02	3.312E-02	1.227E+02	1.227E-01
4.000E-02	3.824E+02	3.824E-02	1.416E+02	1.416E-01
5.000E-02	4.275E+02	4.275E-02	1.583E+02	1.583E-01
6.000E-02	4.683E+02	4.683E-02	1.734E+02	1.734E-01
7.000E-02	5.059E+02	5.059E-02	1.873E+02	1.873E-01
8.000E-02	5.407E+02	5.407E-02	2.003E+02	2.003E-01
9.000E-02	5.736E+02	5.736E-02	2.124E+02	2.124E-01
1.000E-01	6.046E+02	6.046E-02	2.239E+02	2.239E-01
2.000E-01	8.549E+02	8.549E-02	3.166E+02	3.166E-01
3.000E-01	1.047E+03	1.047E-01	3.878E+02	3.878E-01
4.000E-01	1.192E+03	1.192E-01	4.416E+02	4.416E-01
5.000E-01	1.277E+03	1.277E-01	4.730E+02	4.730E-01
6.000E-01	1.327E+03	1.327E-01	4.915E+02	4.915E-01
7.000E-01	1.356E+03	1.356E-01	5.022E+02	5.022E-01
8.000E-01	1.371E+03	1.371E-01	5.078E+02	5.078E-01
9.000E-01	1.377E+03	1.377E-01	5.101E+02	5.101E-01
1.000E+00	1.378E+03	1.378E-01	5.102E+02	5.102E-01
2.000E+00	1.268E+03	1.268E-01	4.696E+02	4.696E-01
3.000E+00	1.136E+03	1.136E-01	4.207E+02	4.207E-01
4.000E+00	1.024E+03	1.024E-01	3.792E+02	3.792E-01
5.000E+00	9.321E+02	9.321E-02	3.453E+02	3.453E-01
6.000E+00	8.561E+02	8.561E-02	3.170E+02	3.170E-01
7.000E+00	7.923E+02	7.923E-02	2.935E+02	2.935E-01
8.000E+00	7.380E+02	7.380E-02	2.733E+02	2.733E-01
9.000E+00	6.913E+02	6.913E-02	2.560E+02	2.560E-01
1.000E+01	6.506E+02	6.506E-02	2.409E+02	2.409E-01
2.000E+01	4.157E+02	4.157E-02	1.539E+02	1.539E-01
3.000E+01	3.096E+02	3.096E-02	1.147E+02	1.147E-01
4.000E+01	2.490E+02	2.490E-02	9.223E+01	9.223E-02
5.000E+01	2.099E+02	2.099E-02	7.775E+01	7.775E-02
6.000E+01	1.827E+02	1.827E-02	6.764E+01	6.764E-02
7.000E+01	1.625E+02	1.625E-02	6.018E+01	6.018E-02
8.000E+01	1.470E+02	1.470E-02	5.445E+01	5.445E-02
9.000E+01	1.347E+02	1.347E-02	4.989E+01	4.989E-02
1.000E+02	1.247E+02	1.247E-02	4.617E+01	4.617E-02
2.000E+02	7.750E+01	7.750E-03	2.871E+01	2.871E-02
3.000E+02	6.102E+01	6.102E-03	2.260E+01	2.260E-02
4.000E+02	5.273E+01	5.273E-03	1.953E+01	1.953E-02
5.000E+02	4.783E+01	4.783E-03	1.772E+01	1.772E-02
6.000E+02	4.465E+01	4.465E-03	1.653E+01	1.653E-02
7.000E+02	4.246E+01	4.246E-03	1.573E+01	1.573E-02
8.000E+02	4.089E+01	4.089E-03	1.515E+01	1.515E-02
9.000E+02	3.968E+01	3.968E-03	1.469E+01	1.469E-02
1.000E+03	3.873E+01	3.873E-03	1.435E+01	1.435E-02
2.000E+03	3.560E+01	3.560E-03	1.319E+01	1.319E-02
3.000E+03	3.550E+01	3.550E-03	1.315E+01	1.315E-02
4.000E+03	3.590E+01	3.590E-03	1.329E+01	1.329E-02
5.000E+03	3.640E+01	3.640E-03	1.349E+01	1.349E-02
6.000E+03	3.691E+01	3.691E-03	1.367E+01	1.367E-02
7.000E+03	3.738E+01	3.738E-03	1.385E+01	1.385E-02
8.000E+03	3.782E+01	3.782E-03	1.400E+01	1.400E-02
9.000E+03	3.822E+01	3.822E-03	1.415E+01	1.415E-02
1.000E+04	3.859E+01	3.859E-03	1.429E+01	1.429E-02

TABLE 21

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AR Z= 18 A= 39.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.778E+02	1.778E-02	6.585E+01	6.585E-02
2.000E-02	2.514E+02	2.514E-02	9.313E+01	9.313E-02
3.000E-02	3.080E+02	3.080E-02	1.140E+02	1.140E-01
4.000E-02	3.555E+02	3.555E-02	1.317E+02	1.317E-01
5.000E-02	3.976E+02	3.976E-02	1.472E+02	1.472E-01
6.000E-02	4.355E+02	4.355E-02	1.613E+02	1.613E-01
7.000E-02	4.704E+02	4.704E-02	1.742E+02	1.742E-01
8.000E-02	5.028E+02	5.028E-02	1.863E+02	1.863E-01
9.000E-02	5.333E+02	5.333E-02	1.975E+02	1.975E-01
1.000E-01	5.622E+02	5.622E-02	2.082E+02	2.082E-01
2.000E-01	7.950E+02	7.950E-02	2.944E+02	2.944E-01
3.000E-01	9.736E+02	9.736E-02	3.606E+02	3.606E-01
4.000E-01	1.113E+03	1.113E-01	4.120E+02	4.120E-01
5.000E-01	1.195E+03	1.195E-01	4.428E+02	4.428E-01
6.000E-01	1.245E+03	1.245E-01	4.613E+02	4.613E-01
7.000E-01	1.275E+03	1.275E-01	4.724E+02	4.724E-01
8.000E-01	1.292E+03	1.292E-01	4.787E+02	4.787E-01
9.000E-01	1.301E+03	1.301E-01	4.817E+02	4.817E-01
1.000E+00	1.303E+03	1.303E-01	4.826E+02	4.826E-01
2.000E+00	1.213E+03	1.213E-01	4.491E+02	4.491E-01
3.000E+00	1.093E+03	1.093E-01	4.049E+02	4.049E-01
4.000E+00	9.900E+02	9.900E-02	3.667E+02	3.667E-01
5.000E+00	9.043E+02	9.043E-02	3.349E+02	3.349E-01
6.000E+00	8.328E+02	8.328E-02	3.084E+02	3.084E-01
7.000E+00	7.724E+02	7.724E-02	2.860E+02	2.860E-01
8.000E+00	7.207E+02	7.207E-02	2.669E+02	2.669E-01
9.000E+00	6.761E+02	6.761E-02	2.504E+02	2.504E-01
1.000E+01	6.371E+02	6.371E-02	2.360E+02	2.360E-01
2.000E+01	4.105E+02	4.105E-02	1.520E+02	1.520E-01
3.000E+01	3.069E+02	3.069E-02	1.137E+02	1.137E-01
4.000E+01	2.473E+02	2.473E-02	9.160E+01	9.160E-02
5.000E+01	2.086E+02	2.086E-02	7.729E+01	7.729E-02
6.000E+01	1.816E+02	1.816E-02	6.726E+01	6.726E-02
7.000E+01	1.617E+02	1.617E-02	5.987E+01	5.987E-02
8.000E+01	1.462E+02	1.462E-02	5.416E+01	5.416E-02
9.000E+01	1.340E+02	1.340E-02	4.963E+01	4.963E-02
1.000E+02	1.241E+02	1.241E-02	4.594E+01	4.594E-02
2.000E+02	7.713E+01	7.713E-03	2.857E+01	2.857E-02
3.000E+02	6.072E+01	6.072E-03	2.249E+01	2.249E-02
4.000E+02	5.248E+01	5.248E-03	1.944E+01	1.944E-02
5.000E+02	4.759E+01	4.759E-03	1.763E+01	1.763E-02
6.000E+02	4.443E+01	4.443E-03	1.646E+01	1.646E-02
7.000E+02	4.226E+01	4.226E-03	1.565E+01	1.565E-02
8.000E+02	4.069E+01	4.069E-03	1.507E+01	1.507E-02
9.000E+02	3.949E+01	3.949E-03	1.463E+01	1.463E-02
1.000E+03	3.855E+01	3.855E-03	1.427E+01	1.427E-02
2.000E+03	3.543E+01	3.543E-03	1.312E+01	1.312E-02
3.000E+03	3.533E+01	3.533E-03	1.308E+01	1.308E-02
4.000E+03	3.572E+01	3.572E-03	1.323E+01	1.323E-02
5.000E+03	3.622E+01	3.622E-03	1.342E+01	1.342E-02
6.000E+03	3.673E+01	3.673E-03	1.360E+01	1.360E-02
7.000E+03	3.720E+01	3.720E-03	1.378E+01	1.378E-02
8.000E+03	3.764E+01	3.764E-03	1.393E+01	1.393E-02
9.000E+03	3.803E+01	3.803E-03	1.408E+01	1.408E-02
1.000E+04	3.840E+01	3.840E-03	1.422E+01	1.422E-02

TABLE 22

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: K Z= 19 A= 39.10

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.895E+02	1.895E-02	7.020E+01	7.020E-02
2.000E-02	2.680E+02	2.680E-02	9.928E+01	9.928E-02
3.000E-02	3.283E+02	3.283E-02	1.216E+02	1.216E-01
4.000E-02	3.791E+02	3.791E-02	1.404E+02	1.404E-01
5.000E-02	4.238E+02	4.238E-02	1.570E+02	1.570E-01
6.000E-02	4.643E+02	4.643E-02	1.719E+02	1.719E-01
7.000E-02	5.014E+02	5.014E-02	1.857E+02	1.857E-01
8.000E-02	5.361E+02	5.361E-02	1.985E+02	1.985E-01
9.000E-02	5.686E+02	5.686E-02	2.106E+02	2.106E-01
1.000E-01	5.994E+02	5.994E-02	2.220E+02	2.220E-01
2.000E-01	8.475E+02	8.475E-02	3.139E+02	3.139E-01
3.000E-01	1.038E+03	1.038E-01	3.844E+02	3.844E-01
4.000E-01	1.190E+03	1.190E-01	4.407E+02	4.407E-01
5.000E-01	1.282E+03	1.282E-01	4.750E+02	4.750E-01
6.000E-01	1.339E+03	1.339E-01	4.962E+02	4.962E-01
7.000E-01	1.375E+03	1.375E-01	5.091E+02	5.091E-01
8.000E-01	1.396E+03	1.396E-01	5.169E+02	5.169E-01
9.000E-01	1.407E+03	1.407E-01	5.211E+02	5.211E-01
1.000E+00	1.412E+03	1.412E-01	5.228E+02	5.228E-01
2.000E+00	1.327E+03	1.327E-01	4.917E+02	4.917E-01
3.000E+00	1.204E+03	1.204E-01	4.461E+02	4.461E-01
4.000E+00	1.096E+03	1.096E-01	4.057E+02	4.057E-01
5.000E+00	1.004E+03	1.004E-01	3.718E+02	3.718E-01
6.000E+00	9.267E+02	9.267E-02	3.432E+02	3.432E-01
7.000E+00	8.613E+02	8.613E-02	3.190E+02	3.190E-01
8.000E+00	8.051E+02	8.051E-02	2.981E+02	2.981E-01
9.000E+00	7.564E+02	7.564E-02	2.801E+02	2.801E-01
1.000E+01	7.137E+02	7.137E-02	2.643E+02	2.643E-01
2.000E+01	4.635E+02	4.635E-02	1.717E+02	1.717E-01
3.000E+01	3.480E+02	3.480E-02	1.288E+02	1.288E-01
4.000E+01	2.809E+02	2.809E-02	1.040E+02	1.040E-01
5.000E+01	2.372E+02	2.372E-02	8.785E+01	8.785E-02
6.000E+01	2.065E+02	2.065E-02	7.650E+01	7.650E-02
7.000E+01	1.839E+02	1.839E-02	6.809E+01	6.809E-02
8.000E+01	1.664E+02	1.664E-02	6.162E+01	6.162E-02
9.000E+01	1.525E+02	1.525E-02	5.648E+01	5.648E-02
1.000E+02	1.411E+02	1.411E-02	5.228E+01	5.228E-02
2.000E+02	8.779E+01	8.779E-03	3.252E+01	3.252E-02
3.000E+02	6.912E+01	6.912E-03	2.560E+01	2.560E-02
4.000E+02	5.974E+01	5.974E-03	2.212E+01	2.212E-02
5.000E+02	5.418E+01	5.418E-03	2.007E+01	2.007E-02
6.000E+02	5.057E+01	5.057E-03	1.873E+01	1.873E-02
7.000E+02	4.809E+01	4.809E-03	1.781E+01	1.781E-02
8.000E+02	4.632E+01	4.632E-03	1.715E+01	1.715E-02
9.000E+02	4.495E+01	4.495E-03	1.665E+01	1.665E-02
1.000E+03	4.387E+01	4.387E-03	1.625E+01	1.625E-02
2.000E+03	4.033E+01	4.033E-03	1.494E+01	1.494E-02
3.000E+03	4.021E+01	4.021E-03	1.489E+01	1.489E-02
4.000E+03	4.067E+01	4.067E-03	1.506E+01	1.506E-02
5.000E+03	4.123E+01	4.123E-03	1.528E+01	1.528E-02
6.000E+03	4.181E+01	4.181E-03	1.548E+01	1.548E-02
7.000E+03	4.235E+01	4.235E-03	1.569E+01	1.569E-02
8.000E+03	4.284E+01	4.284E-03	1.586E+01	1.586E-02
9.000E+03	4.329E+01	4.329E-03	1.604E+01	1.604E-02
1.000E+04	4.371E+01	4.371E-03	1.619E+01	1.619E-02

TABLE 23

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CA Z= 20 A= 40.08

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.927E+02	1.927E-02	7.136E+01	7.136E-02
2.000E-02	2.724E+02	2.724E-02	1.009E+02	1.009E-01
3.000E-02	3.337E+02	3.337E-02	1.236E+02	1.236E-01
4.000E-02	3.853E+02	3.853E-02	1.427E+02	1.427E-01
5.000E-02	4.308E+02	4.308E-02	1.596E+02	1.596E-01
6.000E-02	4.719E+02	4.719E-02	1.748E+02	1.748E-01
7.000E-02	5.097E+02	5.097E-02	1.888E+02	1.888E-01
8.000E-02	5.449E+02	5.449E-02	2.018E+02	2.018E-01
9.000E-02	5.780E+02	5.780E-02	2.141E+02	2.141E-01
1.000E-01	6.092E+02	6.092E-02	2.257E+02	2.257E-01
2.000E-01	8.615E+02	8.615E-02	3.191E+02	3.191E-01
3.000E-01	1.055E+03	1.055E-01	3.907E+02	3.907E-01
4.000E-01	1.211E+03	1.211E-01	4.485E+02	4.485E-01
5.000E-01	1.309E+03	1.309E-01	4.849E+02	4.849E-01
6.000E-01	1.371E+03	1.371E-01	5.077E+02	5.077E-01
7.000E-01	1.410E+03	1.410E-01	5.221E+02	5.221E-01
8.000E-01	1.434E+03	1.434E-01	5.310E+02	5.310E-01
9.000E-01	1.448E+03	1.448E-01	5.362E+02	5.362E-01
1.000E+00	1.454E+03	1.454E-01	5.387E+02	5.387E-01
2.000E+00	1.382E+03	1.382E-01	5.117E+02	5.117E-01
3.000E+00	1.260E+03	1.260E-01	4.669E+02	4.669E-01
4.000E+00	1.152E+03	1.152E-01	4.265E+02	4.265E-01
5.000E+00	1.058E+03	1.058E-01	3.920E+02	3.920E-01
6.000E+00	9.796E+02	9.796E-02	3.628E+02	3.628E-01
7.000E+00	9.121E+02	9.121E-02	3.379E+02	3.379E-01
8.000E+00	8.541E+02	8.541E-02	3.163E+02	3.163E-01
9.000E+00	8.035E+02	8.035E-02	2.976E+02	2.976E-01
1.000E+01	7.591E+02	7.591E-02	2.812E+02	2.812E-01
2.000E+01	4.969E+02	4.969E-02	1.840E+02	1.840E-01
3.000E+01	3.744E+02	3.744E-02	1.387E+02	1.387E-01
4.000E+01	3.028E+02	3.028E-02	1.122E+02	1.122E-01
5.000E+01	2.560E+02	2.560E-02	9.483E+01	9.483E-02
6.000E+01	2.230E+02	2.230E-02	8.261E+01	8.261E-02
7.000E+01	1.986E+02	1.986E-02	7.356E+01	7.356E-02
8.000E+01	1.797E+02	1.797E-02	6.658E+01	6.658E-02
9.000E+01	1.648E+02	1.648E-02	6.102E+01	6.102E-02
1.000E+02	1.525E+02	1.525E-02	5.650E+01	5.650E-02
2.000E+02	9.490E+01	9.490E-03	3.515E+01	3.515E-02
3.000E+02	7.471E+01	7.471E-03	2.767E+01	2.767E-02
4.000E+02	6.457E+01	6.457E-03	2.392E+01	2.392E-02
5.000E+02	5.857E+01	5.857E-03	2.169E+01	2.169E-02
6.000E+02	5.467E+01	5.467E-03	2.024E+01	2.024E-02
7.000E+02	5.200E+01	5.200E-03	1.925E+01	1.925E-02
8.000E+02	5.007E+01	5.007E-03	1.855E+01	1.855E-02
9.000E+02	4.859E+01	4.859E-03	1.799E+01	1.799E-02
1.000E+03	4.743E+01	4.743E-03	1.756E+01	1.756E-02
2.000E+03	4.359E+01	4.359E-03	1.614E+01	1.614E-02
3.000E+03	4.347E+01	4.347E-03	1.609E+01	1.609E-02
4.000E+03	4.396E+01	4.396E-03	1.628E+01	1.628E-02
5.000E+03	4.457E+01	4.457E-03	1.651E+01	1.651E-02
6.000E+03	4.519E+01	4.519E-03	1.674E+01	1.674E-02
7.000E+03	4.577E+01	4.577E-03	1.695E+01	1.695E-02
8.000E+03	4.631E+01	4.631E-03	1.715E+01	1.715E-02
9.000E+03	4.680E+01	4.680E-03	1.733E+01	1.733E-02
1.000E+04	4.725E+01	4.725E-03	1.750E+01	1.750E-02

TABLE 24

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: SC Z= 21 A= 44.96

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.784E+02	1.784E-02	6.609E+01	6.609E-02
2.000E-02	2.524E+02	2.524E-02	9.347E+01	9.347E-02
3.000E-02	3.091E+02	3.091E-02	1.144E+02	1.144E-01
4.000E-02	3.568E+02	3.568E-02	1.322E+02	1.322E-01
5.000E-02	3.990E+02	3.990E-02	1.478E+02	1.478E-01
6.000E-02	4.371E+02	4.371E-02	1.619E+02	1.619E-01
7.000E-02	4.721E+02	4.721E-02	1.748E+02	1.748E-01
8.000E-02	5.047E+02	5.047E-02	1.870E+02	1.870E-01
9.000E-02	5.353E+02	5.353E-02	1.983E+02	1.983E-01
1.000E-01	5.643E+02	5.643E-02	2.090E+02	2.090E-01
2.000E-01	7.979E+02	7.979E-02	2.955E+02	2.955E-01
3.000E-01	9.770E+02	9.770E-02	3.619E+02	3.619E-01
4.000E-01	1.123E+03	1.123E-01	4.159E+02	4.159E-01
5.000E-01	1.218E+03	1.218E-01	4.509E+02	4.509E-01
6.000E-01	1.277E+03	1.277E-01	4.732E+02	4.732E-01
7.000E-01	1.316E+03	1.316E-01	4.876E+02	4.876E-01
8.000E-01	1.341E+03	1.341E-01	4.967E+02	4.967E-01
9.000E-01	1.357E+03	1.357E-01	5.023E+02	5.023E-01
1.000E+00	1.365E+03	1.365E-01	5.054E+02	5.054E-01
2.000E+00	1.309E+03	1.309E-01	4.845E+02	4.845E-01
3.000E+00	1.201E+03	1.201E-01	4.447E+02	4.447E-01
4.000E+00	1.101E+03	1.101E-01	4.078E+02	4.078E-01
5.000E+00	1.015E+03	1.015E-01	3.760E+02	3.760E-01
6.000E+00	9.416E+02	9.416E-02	3.487E+02	3.487E-01
7.000E+00	8.785E+02	8.785E-02	3.254E+02	3.254E-01
8.000E+00	8.238E+02	8.238E-02	3.051E+02	3.051E-01
9.000E+00	7.762E+02	7.762E-02	2.875E+02	2.875E-01
1.000E+01	7.342E+02	7.342E-02	2.719E+02	2.719E-01
2.000E+01	4.841E+02	4.841E-02	1.793E+02	1.793E-01
3.000E+01	3.662E+02	3.662E-02	1.356E+02	1.356E-01
4.000E+01	2.969E+02	2.969E-02	1.099E+02	1.099E-01
5.000E+01	2.512E+02	2.512E-02	9.304E+01	9.304E-02
6.000E+01	2.190E+02	2.190E-02	8.110E+01	8.110E-02
7.000E+01	1.951E+02	1.951E-02	7.224E+01	7.224E-02
8.000E+01	1.766E+02	1.766E-02	6.540E+01	6.540E-02
9.000E+01	1.619E+02	1.619E-02	5.995E+01	5.995E-02
1.000E+02	1.499E+02	1.499E-02	5.551E+01	5.551E-02
2.000E+02	9.327E+01	9.327E-03	3.454E+01	3.454E-02
3.000E+02	7.343E+01	7.343E-03	2.720E+01	2.720E-02
4.000E+02	6.346E+01	6.346E-03	2.351E+01	2.351E-02
5.000E+02	5.755E+01	5.755E-03	2.131E+01	2.131E-02
6.000E+02	5.373E+01	5.373E-03	1.990E+01	1.990E-02
7.000E+02	5.110E+01	5.110E-03	1.892E+01	1.892E-02
8.000E+02	4.921E+01	4.921E-03	1.822E+01	1.822E-02
9.000E+02	4.775E+01	4.775E-03	1.769E+01	1.769E-02
1.000E+03	4.661E+01	4.661E-03	1.726E+01	1.726E-02
2.000E+03	4.284E+01	4.284E-03	1.586E+01	1.586E-02
3.000E+03	4.272E+01	4.272E-03	1.582E+01	1.582E-02
4.000E+03	4.320E+01	4.320E-03	1.600E+01	1.600E-02
5.000E+03	4.381E+01	4.381E-03	1.623E+01	1.623E-02
6.000E+03	4.441E+01	4.441E-03	1.645E+01	1.645E-02
7.000E+03	4.498E+01	4.498E-03	1.666E+01	1.666E-02
8.000E+03	4.551E+01	4.551E-03	1.686E+01	1.686E-02
9.000E+03	4.599E+01	4.599E-03	1.703E+01	1.703E-02
1.000E+04	4.644E+01	4.644E-03	1.720E+01	1.720E-02

TABLE 25

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: TI Z= 22 A= 47.90

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.736E+02	1.736E-02	6.428E+01	6.428E-02
2.000E-02	2.455E+02	2.455E-02	9.091E+01	9.091E-02
3.000E-02	3.006E+02	3.006E-02	1.113E+02	1.113E-01
4.000E-02	3.471E+02	3.471E-02	1.286E+02	1.286E-01
5.000E-02	3.881E+02	3.881E-02	1.437E+02	1.437E-01
6.000E-02	4.251E+02	4.251E-02	1.575E+02	1.575E-01
7.000E-02	4.592E+02	4.592E-02	1.701E+02	1.701E-01
8.000E-02	4.908E+02	4.908E-02	1.818E+02	1.818E-01
9.000E-02	5.206E+02	5.206E-02	1.928E+02	1.928E-01
1.000E-01	5.488E+02	5.488E-02	2.033E+02	2.033E-01
2.000E-01	7.761E+02	7.761E-02	2.875E+02	2.875E-01
3.000E-01	9.504E+02	9.504E-02	3.520E+02	3.520E-01
4.000E-01	1.093E+03	1.093E-01	4.049E+02	4.049E-01
5.000E-01	1.189E+03	1.189E-01	4.402E+02	4.402E-01
6.000E-01	1.250E+03	1.250E-01	4.630E+02	4.630E-01
7.000E-01	1.290E+03	1.290E-01	4.779E+02	4.779E-01
8.000E-01	1.317E+03	1.317E-01	4.877E+02	4.877E-01
9.000E-01	1.334E+03	1.334E-01	4.939E+02	4.939E-01
1.000E+00	1.344E+03	1.344E-01	4.976E+02	4.976E-01
2.000E+00	1.299E+03	1.299E-01	4.814E+02	4.814E-01
3.000E+00	1.199E+03	1.199E-01	4.442E+02	4.442E-01
4.000E+00	1.104E+03	1.104E-01	4.088E+02	4.088E-01
5.000E+00	1.021E+03	1.021E-01	3.780E+02	3.780E-01
6.000E+00	9.488E+02	9.488E-02	3.514E+02	3.514E-01
7.000E+00	8.870E+02	8.870E-02	3.285E+02	3.285E-01
8.000E+00	8.331E+02	8.331E-02	3.086E+02	3.086E-01
9.000E+00	7.860E+02	7.860E-02	2.912E+02	2.912E-01
1.000E+01	7.443E+02	7.443E-02	2.757E+02	2.757E-01
2.000E+01	4.943E+02	4.943E-02	1.831E+02	1.831E-01
3.000E+01	3.754E+02	3.754E-02	1.391E+02	1.391E-01
4.000E+01	3.048E+02	3.048E-02	1.129E+02	1.129E-01
5.000E+01	2.583E+02	2.583E-02	9.567E+01	9.567E-02
6.000E+01	2.253E+02	2.253E-02	8.345E+01	8.345E-02
7.000E+01	2.007E+02	2.007E-02	7.435E+01	7.435E-02
8.000E+01	1.818E+02	1.818E-02	6.733E+01	6.733E-02
9.000E+01	1.667E+02	1.667E-02	6.174E+01	6.174E-02
1.000E+02	1.543E+02	1.543E-02	5.717E+01	5.717E-02
2.000E+02	9.608E+01	9.608E-03	3.558E+01	3.558E-02
3.000E+02	7.564E+01	7.564E-03	2.802E+01	2.802E-02
4.000E+02	6.537E+01	6.537E-03	2.421E+01	2.421E-02
5.000E+02	5.929E+01	5.929E-03	2.196E+01	2.196E-02
6.000E+02	5.535E+01	5.535E-03	2.050E+01	2.050E-02
7.000E+02	5.264E+01	5.264E-03	1.950E+01	1.950E-02
8.000E+02	5.069E+01	5.069E-03	1.878E+01	1.878E-02
9.000E+02	4.919E+01	4.919E-03	1.823E+01	1.823E-02
1.000E+03	4.802E+01	4.802E-03	1.779E+01	1.779E-02
2.000E+03	4.413E+01	4.413E-03	1.634E+01	1.634E-02
3.000E+03	4.401E+01	4.401E-03	1.629E+01	1.629E-02
4.000E+03	4.451E+01	4.451E-03	1.648E+01	1.648E-02
5.000E+03	4.513E+01	4.513E-03	1.672E+01	1.672E-02
6.000E+03	4.575E+01	4.575E-03	1.695E+01	1.695E-02
7.000E+03	4.634E+01	4.634E-03	1.716E+01	1.716E-02
8.000E+03	4.688E+01	4.688E-03	1.736E+01	1.736E-02
9.000E+03	4.738E+01	4.738E-03	1.755E+01	1.755E-02
1.000E+04	4.784E+01	4.784E-03	1.772E+01	1.772E-02

TABLE 26

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: V Z= 23 A= 50.95

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.687E+02	1.687E-02	6.248E+01	6.248E-02
2.000E-02	2.386E+02	2.386E-02	8.836E+01	8.836E-02
3.000E-02	2.921E+02	2.921E-02	1.082E+02	1.082E-01
4.000E-02	3.374E+02	3.374E-02	1.250E+02	1.250E-01
5.000E-02	3.771E+02	3.771E-02	1.397E+02	1.397E-01
6.000E-02	4.132E+02	4.132E-02	1.531E+02	1.531E-01
7.000E-02	4.463E+02	4.463E-02	1.653E+02	1.653E-01
8.000E-02	4.771E+02	4.771E-02	1.767E+02	1.767E-01
9.000E-02	5.060E+02	5.060E-02	1.875E+02	1.875E-01
1.000E-01	5.334E+02	5.334E-02	1.976E+02	1.976E-01
2.000E-01	7.543E+02	7.543E-02	2.794E+02	2.794E-01
3.000E-01	9.237E+02	9.237E-02	3.421E+02	3.421E-01
4.000E-01	1.064E+03	1.064E-01	3.939E+02	3.939E-01
5.000E-01	1.159E+03	1.159E-01	4.294E+02	4.294E-01
6.000E-01	1.223E+03	1.223E-01	4.526E+02	4.526E-01
7.000E-01	1.263E+03	1.263E-01	4.680E+02	4.680E-01
8.000E-01	1.291E+03	1.291E-01	4.783E+02	4.783E-01
9.000E-01	1.310E+03	1.310E-01	4.851E+02	4.851E-01
1.000E+00	1.322E+03	1.322E-01	4.894E+02	4.894E-01
2.000E+00	1.289E+03	1.289E-01	4.774E+02	4.774E-01
3.000E+00	1.195E+03	1.195E-01	4.427E+02	4.427E-01
4.000E+00	1.105E+03	1.105E-01	4.090E+02	4.090E-01
5.000E+00	1.024E+03	1.024E-01	3.792E+02	3.792E-01
6.000E+00	9.541E+02	9.541E-02	3.534E+02	3.534E-01
7.000E+00	8.935E+02	8.935E-02	3.309E+02	3.309E-01
8.000E+00	8.405E+02	8.405E-02	3.113E+02	3.113E-01
9.000E+00	7.940E+02	7.940E-02	2.940E+02	2.940E-01
1.000E+01	7.527E+02	7.527E-02	2.788E+02	2.788E-01
2.000E+01	5.033E+02	5.033E-02	1.864E+02	1.864E-01
3.000E+01	3.836E+02	3.836E-02	1.421E+02	1.421E-01
4.000E+01	3.122E+02	3.122E-02	1.156E+02	1.156E-01
5.000E+01	2.649E+02	2.649E-02	9.808E+01	9.808E-02
6.000E+01	2.312E+02	2.312E-02	8.564E+01	8.564E-02
7.000E+01	2.061E+02	2.061E-02	7.634E+01	7.634E-02
8.000E+01	1.867E+02	1.867E-02	6.913E+01	6.913E-02
9.000E+01	1.712E+02	1.712E-02	6.340E+01	6.340E-02
1.000E+02	1.585E+02	1.585E-02	5.872E+01	5.872E-02
2.000E+02	9.873E+01	9.873E-03	3.656E+01	3.656E-02
3.000E+02	7.772E+01	7.772E-03	2.879E+01	2.879E-02
4.000E+02	6.718E+01	6.718E-03	2.488E+01	2.488E-02
5.000E+02	6.092E+01	6.092E-03	2.256E+01	2.256E-02
6.000E+02	5.688E+01	5.688E-03	2.107E+01	2.107E-02
7.000E+02	5.409E+01	5.409E-03	2.003E+01	2.003E-02
8.000E+02	5.209E+01	5.209E-03	1.929E+01	1.929E-02
9.000E+02	5.055E+01	5.055E-03	1.872E+01	1.872E-02
1.000E+03	4.934E+01	4.934E-03	1.827E+01	1.827E-02
2.000E+03	4.535E+01	4.535E-03	1.679E+01	1.679E-02
3.000E+03	4.522E+01	4.522E-03	1.674E+01	1.674E-02
4.000E+03	4.573E+01	4.573E-03	1.693E+01	1.693E-02
5.000E+03	4.637E+01	4.637E-03	1.718E+01	1.718E-02
6.000E+03	4.701E+01	4.701E-03	1.742E+01	1.742E-02
7.000E+03	4.761E+01	4.761E-03	1.764E+01	1.764E-02
8.000E+03	4.818E+01	4.818E-03	1.784E+01	1.784E-02
9.000E+03	4.868E+01	4.868E-03	1.803E+01	1.803E-02
1.000E+04	4.916E+01	4.916E-03	1.821E+01	1.821E-02

TABLE 27

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CR Z= 24 A= 52.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.705E+02	1.705E-02	6.314E+01	6.314E-02
2.000E-02	2.411E+02	2.411E-02	8.930E+01	8.930E-02
3.000E-02	2.953E+02	2.953E-02	1.093E+02	1.093E-01
4.000E-02	3.409E+02	3.409E-02	1.263E+02	1.263E-01
5.000E-02	3.812E+02	3.812E-02	1.412E+02	1.412E-01
6.000E-02	4.176E+02	4.176E-02	1.547E+02	1.547E-01
7.000E-02	4.510E+02	4.510E-02	1.671E+02	1.671E-01
8.000E-02	4.822E+02	4.822E-02	1.785E+02	1.785E-01
9.000E-02	5.114E+02	5.114E-02	1.894E+02	1.894E-01
1.000E-01	5.391E+02	5.391E-02	1.997E+02	1.997E-01
2.000E-01	7.623E+02	7.623E-02	2.824E+02	2.824E-01
3.000E-01	9.335E+02	9.335E-02	3.458E+02	3.458E-01
4.000E-01	1.076E+03	1.076E-01	3.985E+02	3.985E-01
5.000E-01	1.176E+03	1.176E-01	4.355E+02	4.355E-01
6.000E-01	1.242E+03	1.242E-01	4.599E+02	4.599E-01
7.000E-01	1.286E+03	1.286E-01	4.764E+02	4.764E-01
8.000E-01	1.317E+03	1.317E-01	4.876E+02	4.876E-01
9.000E-01	1.337E+03	1.337E-01	4.952E+02	4.952E-01
1.000E+00	1.350E+03	1.350E-01	5.001E+02	5.001E-01
2.000E+00	1.328E+03	1.328E-01	4.919E+02	4.919E-01
3.000E+00	1.238E+03	1.238E-01	4.584E+02	4.584E-01
4.000E+00	1.148E+03	1.148E-01	4.249E+02	4.249E-01
5.000E+00	1.067E+03	1.067E-01	3.950E+02	3.950E-01
6.000E+00	9.964E+02	9.964E-02	3.689E+02	3.689E-01
7.000E+00	9.343E+02	9.343E-02	3.461E+02	3.461E-01
8.000E+00	8.803E+02	8.803E-02	3.260E+02	3.260E-01
9.000E+00	8.325E+02	8.325E-02	3.084E+02	3.084E-01
1.000E+01	7.901E+02	7.901E-02	2.926E+02	2.926E-01
2.000E+01	5.319E+02	5.319E-02	1.970E+02	1.970E-01
3.000E+01	4.069E+02	4.069E-02	1.507E+02	1.507E-01
4.000E+01	3.319E+02	3.319E-02	1.229E+02	1.229E-01
5.000E+01	2.819E+02	2.819E-02	1.044E+02	1.044E-01
6.000E+01	2.463E+02	2.463E-02	9.120E+01	9.120E-02
7.000E+01	2.196E+02	2.196E-02	8.134E+01	8.134E-02
8.000E+01	1.989E+02	1.989E-02	7.369E+01	7.369E-02
9.000E+01	1.825E+02	1.825E-02	6.759E+01	6.759E-02
1.000E+02	1.690E+02	1.690E-02	6.260E+01	6.260E-02
2.000E+02	1.053E+02	1.053E-02	3.900E+01	3.900E-02
3.000E+02	8.291E+01	8.291E-03	3.071E+01	3.071E-02
4.000E+02	7.165E+01	7.165E-03	2.654E+01	2.654E-02
5.000E+02	6.499E+01	6.499E-03	2.407E+01	2.407E-02
6.000E+02	6.066E+01	6.066E-03	2.247E+01	2.247E-02
7.000E+02	5.769E+01	5.769E-03	2.137E+01	2.137E-02
8.000E+02	5.556E+01	5.556E-03	2.058E+01	2.058E-02
9.000E+02	5.392E+01	5.392E-03	1.997E+01	1.997E-02
1.000E+03	5.262E+01	5.262E-03	1.949E+01	1.949E-02
2.000E+03	4.837E+01	4.837E-03	1.792E+01	1.792E-02
3.000E+03	4.823E+01	4.823E-03	1.786E+01	1.786E-02
4.000E+03	4.878E+01	4.878E-03	1.807E+01	1.807E-02
5.000E+03	4.946E+01	4.946E-03	1.832E+01	1.832E-02
6.000E+03	5.014E+01	5.014E-03	1.857E+01	1.857E-02
7.000E+03	5.079E+01	5.079E-03	1.881E+01	1.881E-02
8.000E+03	5.138E+01	5.138E-03	1.903E+01	1.903E-02
9.000E+03	5.193E+01	5.193E-03	1.924E+01	1.924E-02
1.000E+04	5.243E+01	5.243E-03	1.942E+01	1.942E-02

TABLE 28

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: MN Z= 25 A= 54.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.662E+02	1.662E-02	6.155E+01	6.155E-02
2.000E-02	2.350E+02	2.350E-02	8.705E+01	8.705E-02
3.000E-02	2.878E+02	2.878E-02	1.066E+02	1.066E-01
4.000E-02	3.324E+02	3.324E-02	1.231E+02	1.231E-01
5.000E-02	3.716E+02	3.716E-02	1.376E+02	1.376E-01
6.000E-02	4.071E+02	4.071E-02	1.508E+02	1.508E-01
7.000E-02	4.397E+02	4.397E-02	1.629E+02	1.629E-01
8.000E-02	4.701E+02	4.701E-02	1.741E+02	1.741E-01
9.000E-02	4.986E+02	4.986E-02	1.847E+02	1.847E-01
1.000E-01	5.255E+02	5.255E-02	1.947E+02	1.947E-01
2.000E-01	7.431E+02	7.431E-02	2.752E+02	2.752E-01
3.000E-01	9.101E+02	9.101E-02	3.371E+02	3.371E-01
4.000E-01	1.050E+03	1.050E-01	3.889E+02	3.889E-01
5.000E-01	1.150E+03	1.150E-01	4.259E+02	4.259E-01
6.000E-01	1.217E+03	1.217E-01	4.507E+02	4.507E-01
7.000E-01	1.262E+03	1.262E-01	4.676E+02	4.676E-01
8.000E-01	1.294E+03	1.294E-01	4.793E+02	4.793E-01
9.000E-01	1.316E+03	1.316E-01	4.874E+02	4.874E-01
1.000E+00	1.331E+03	1.331E-01	4.928E+02	4.928E-01
2.000E+00	1.318E+03	1.318E-01	4.884E+02	4.884E-01
3.000E+00	1.235E+03	1.235E-01	4.573E+02	4.573E-01
4.000E+00	1.149E+03	1.149E-01	4.254E+02	4.254E-01
5.000E+00	1.071E+03	1.071E-01	3.964E+02	3.964E-01
6.000E+00	1.002E+03	1.002E-01	3.710E+02	3.710E-01
7.000E+00	9.412E+02	9.412E-02	3.487E+02	3.487E-01
8.000E+00	8.880E+02	8.880E-02	3.289E+02	3.289E-01
9.000E+00	8.409E+02	8.409E-02	3.114E+02	3.114E-01
1.000E+01	7.989E+02	7.989E-02	2.959E+02	2.959E-01
2.000E+01	5.413E+02	5.413E-02	2.005E+02	2.005E-01
3.000E+01	4.155E+02	4.155E-02	1.539E+02	1.539E-01
4.000E+01	3.396E+02	3.396E-02	1.258E+02	1.258E-01
5.000E+01	2.889E+02	2.889E-02	1.070E+02	1.070E-01
6.000E+01	2.526E+02	2.526E-02	9.354E+01	9.354E-02
7.000E+01	2.253E+02	2.253E-02	8.346E+01	8.346E-02
8.000E+01	2.042E+02	2.042E-02	7.563E+01	7.563E-02
9.000E+01	1.873E+02	1.873E-02	6.939E+01	6.939E-02
1.000E+02	1.735E+02	1.735E-02	6.427E+01	6.427E-02
2.000E+02	1.081E+02	1.081E-02	4.006E+01	4.006E-02
3.000E+02	8.516E+01	8.516E-03	3.154E+01	3.154E-02
4.000E+02	7.360E+01	7.360E-03	2.726E+01	2.726E-02
5.000E+02	6.676E+01	6.676E-03	2.472E+01	2.472E-02
6.000E+02	6.231E+01	6.231E-03	2.308E+01	2.308E-02
7.000E+02	5.926E+01	5.926E-03	2.195E+01	2.195E-02
8.000E+02	5.708E+01	5.708E-03	2.114E+01	2.114E-02
9.000E+02	5.539E+01	5.539E-03	2.051E+01	2.051E-02
1.000E+03	5.406E+01	5.406E-03	2.003E+01	2.003E-02
2.000E+03	4.969E+01	4.969E-03	1.840E+01	1.840E-02
3.000E+03	4.954E+01	4.954E-03	1.835E+01	1.835E-02
4.000E+03	5.011E+01	5.011E-03	1.856E+01	1.856E-02
5.000E+03	5.081E+01	5.081E-03	1.882E+01	1.882E-02
6.000E+03	5.151E+01	5.151E-03	1.908E+01	1.908E-02
7.000E+03	5.217E+01	5.217E-03	1.932E+01	1.932E-02
8.000E+03	5.278E+01	5.278E-03	1.955E+01	1.955E-02
9.000E+03	5.334E+01	5.334E-03	1.976E+01	1.976E-02
1.000E+04	5.386E+01	5.386E-03	1.995E+01	1.995E-02

TABLE 29

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: FE Z= 26 A= 55.84

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.681E+02	1.681E-02	6.225E+01	6.225E-02
2.000E-02	2.377E+02	2.377E-02	8.804E+01	8.804E-02
3.000E-02	2.911E+02	2.911E-02	1.078E+02	1.078E-01
4.000E-02	3.361E+02	3.361E-02	1.245E+02	1.245E-01
5.000E-02	3.758E+02	3.758E-02	1.392E+02	1.392E-01
6.000E-02	4.116E+02	4.116E-02	1.525E+02	1.525E-01
7.000E-02	4.446E+02	4.446E-02	1.647E+02	1.647E-01
8.000E-02	4.754E+02	4.754E-02	1.760E+02	1.760E-01
9.000E-02	5.042E+02	5.042E-02	1.868E+02	1.868E-01
1.000E-01	5.314E+02	5.314E-02	1.968E+02	1.968E-01
2.000E-01	7.515E+02	7.515E-02	2.784E+02	2.784E-01
3.000E-01	9.204E+02	9.204E-02	3.409E+02	3.409E-01
4.000E-01	1.063E+03	1.063E-01	3.936E+02	3.936E-01
5.000E-01	1.167E+03	1.167E-01	4.321E+02	4.321E-01
6.000E-01	1.237E+03	1.237E-01	4.581E+02	4.581E-01
7.000E-01	1.286E+03	1.286E-01	4.760E+02	4.760E-01
8.000E-01	1.320E+03	1.320E-01	4.886E+02	4.886E-01
9.000E-01	1.343E+03	1.343E-01	4.974E+02	4.974E-01
1.000E+00	1.360E+03	1.360E-01	5.035E+02	5.035E-01
2.000E+00	1.357E+03	1.357E-01	5.027E+02	5.027E-01
3.000E+00	1.277E+03	1.277E-01	4.728E+02	4.728E-01
4.000E+00	1.192E+03	1.192E-01	4.412E+02	4.412E-01
5.000E+00	1.113E+03	1.113E-01	4.122E+02	4.122E-01
6.000E+00	1.044E+03	1.044E-01	3.865E+02	3.865E-01
7.000E+00	9.819E+02	9.819E-02	3.638E+02	3.638E-01
8.000E+00	9.281E+02	9.281E-02	3.436E+02	3.436E-01
9.000E+00	8.797E+02	8.797E-02	3.258E+02	3.258E-01
1.000E+01	8.367E+02	8.367E-02	3.099E+02	3.099E-01
2.000E+01	5.704E+02	5.704E-02	2.113E+02	2.113E-01
3.000E+01	4.394E+02	4.394E-02	1.627E+02	1.627E-01
4.000E+01	3.600E+02	3.600E-02	1.333E+02	1.333E-01
5.000E+01	3.066E+02	3.066E-02	1.135E+02	1.135E-01
6.000E+01	2.682E+02	2.682E-02	9.934E+01	9.934E-02
7.000E+01	2.395E+02	2.395E-02	8.869E+01	8.869E-02
8.000E+01	2.171E+02	2.171E-02	8.040E+01	8.040E-02
9.000E+01	1.992E+02	1.992E-02	7.378E+01	7.378E-02
1.000E+02	1.846E+02	1.846E-02	6.835E+01	6.835E-02
2.000E+02	1.151E+02	1.151E-02	4.262E+01	4.262E-02
3.000E+02	9.062E+01	9.062E-03	3.356E+01	3.356E-02
4.000E+02	7.831E+01	7.831E-03	2.900E+01	2.900E-02
5.000E+02	7.102E+01	7.102E-03	2.630E+01	2.630E-02
6.000E+02	6.630E+01	6.630E-03	2.456E+01	2.456E-02
7.000E+02	6.306E+01	6.306E-03	2.336E+01	2.336E-02
8.000E+02	6.073E+01	6.073E-03	2.249E+01	2.249E-02
9.000E+02	5.892E+01	5.892E-03	2.182E+01	2.182E-02
1.000E+03	5.751E+01	5.751E-03	2.130E+01	2.130E-02
2.000E+03	5.287E+01	5.287E-03	1.958E+01	1.958E-02
3.000E+03	5.271E+01	5.271E-03	1.953E+01	1.953E-02
4.000E+03	5.331E+01	5.331E-03	1.974E+01	1.974E-02
5.000E+03	5.406E+01	5.406E-03	2.003E+01	2.003E-02
6.000E+03	5.481E+01	5.481E-03	2.030E+01	2.030E-02
7.000E+03	5.551E+01	5.551E-03	2.056E+01	2.056E-02
8.000E+03	5.616E+01	5.616E-03	2.080E+01	2.080E-02
9.000E+03	5.676E+01	5.676E-03	2.102E+01	2.102E-02
1.000E+04	5.731E+01	5.731E-03	2.122E+01	2.122E-02

TABLE 30

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CO Z= 27 A= 58.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.636E+02	1.636E-02	6.058E+01	6.058E-02
2.000E-02	2.313E+02	2.313E-02	8.568E+01	8.568E-02
3.000E-02	2.833E+02	2.833E-02	1.050E+02	1.050E-01
4.000E-02	3.271E+02	3.271E-02	1.212E+02	1.212E-01
5.000E-02	3.657E+02	3.657E-02	1.355E+02	1.355E-01
6.000E-02	4.007E+02	4.007E-02	1.484E+02	1.484E-01
7.000E-02	4.327E+02	4.327E-02	1.602E+02	1.602E-01
8.000E-02	4.625E+02	4.625E-02	1.713E+02	1.713E-01
9.000E-02	4.906E+02	4.906E-02	1.817E+02	1.817E-01
1.000E-01	5.172E+02	5.172E-02	1.915E+02	1.915E-01
2.000E-01	7.314E+02	7.314E-02	2.709E+02	2.709E-01
3.000E-01	8.957E+02	8.957E-02	3.318E+02	3.318E-01
4.000E-01	1.035E+03	1.035E-01	3.833E+02	3.833E-01
5.000E-01	1.139E+03	1.139E-01	4.216E+02	4.216E-01
6.000E-01	1.209E+03	1.209E-01	4.478E+02	4.478E-01
7.000E-01	1.258E+03	1.258E-01	4.660E+02	4.660E-01
8.000E-01	1.293E+03	1.293E-01	4.790E+02	4.790E-01
9.000E-01	1.318E+03	1.318E-01	4.881E+02	4.881E-01
1.000E+00	1.335E+03	1.335E-01	4.945E+02	4.945E-01
2.000E+00	1.343E+03	1.343E-01	4.973E+02	4.973E-01
3.000E+00	1.269E+03	1.269E-01	4.697E+02	4.697E-01
4.000E+00	1.187E+03	1.187E-01	4.397E+02	4.397E-01
5.000E+00	1.112E+03	1.112E-01	4.118E+02	4.118E-01
6.000E+00	1.044E+03	1.044E-01	3.868E+02	3.868E-01
7.000E+00	9.845E+02	9.845E-02	3.647E+02	3.647E-01
8.000E+00	9.315E+02	9.315E-02	3.450E+02	3.450E-01
9.000E+00	8.842E+02	8.842E-02	3.275E+02	3.275E-01
1.000E+01	8.418E+02	8.418E-02	3.118E+02	3.118E-01
2.000E+01	5.774E+02	5.774E-02	2.139E+02	2.139E-01
3.000E+01	4.462E+02	4.462E-02	1.652E+02	1.652E-01
4.000E+01	3.663E+02	3.663E-02	1.356E+02	1.356E-01
5.000E+01	3.124E+02	3.124E-02	1.157E+02	1.157E-01
6.000E+01	2.736E+02	2.736E-02	1.013E+02	1.013E-01
7.000E+01	2.444E+02	2.444E-02	9.052E+01	9.052E-02
8.000E+01	2.216E+02	2.216E-02	8.208E+01	8.208E-02
9.000E+01	2.033E+02	2.033E-02	7.533E+01	7.533E-02
1.000E+02	1.885E+02	1.885E-02	6.980E+01	6.980E-02
2.000E+02	1.176E+02	1.176E-02	4.354E+01	4.354E-02
3.000E+02	9.259E+01	9.259E-03	3.429E+01	3.429E-02
4.000E+02	8.002E+01	8.002E-03	2.964E+01	2.964E-02
5.000E+02	7.258E+01	7.258E-03	2.688E+01	2.688E-02
6.000E+02	6.775E+01	6.775E-03	2.510E+01	2.510E-02
7.000E+02	6.443E+01	6.443E-03	2.386E+01	2.386E-02
8.000E+02	6.205E+01	6.205E-03	2.298E+01	2.298E-02
9.000E+02	6.021E+01	6.021E-03	2.230E+01	2.230E-02
1.000E+03	5.877E+01	5.877E-03	2.177E+01	2.177E-02
2.000E+03	5.403E+01	5.403E-03	2.000E+01	2.000E-02
3.000E+03	5.386E+01	5.386E-03	1.995E+01	1.995E-02
4.000E+03	5.448E+01	5.448E-03	2.017E+01	2.017E-02
5.000E+03	5.524E+01	5.524E-03	2.046E+01	2.046E-02
6.000E+03	5.601E+01	5.601E-03	2.074E+01	2.074E-02
7.000E+03	5.673E+01	5.673E-03	2.101E+01	2.101E-02
8.000E+03	5.739E+01	5.739E-03	2.125E+01	2.125E-02
9.000E+03	5.799E+01	5.799E-03	2.148E+01	2.148E-02
1.000E+04	5.856E+01	5.856E-03	2.169E+01	2.169E-02

TABLE 31

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: NI Z= 28 A= 58.71

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.685E+02	1.685E-02	6.242E+01	6.242E-02
2.000E-02	2.384E+02	2.384E-02	8.828E+01	8.828E-02
3.000E-02	2.919E+02	2.919E-02	1.081E+02	1.081E-01
4.000E-02	3.371E+02	3.371E-02	1.248E+02	1.248E-01
5.000E-02	3.768E+02	3.768E-02	1.396E+02	1.396E-01
6.000E-02	4.128E+02	4.128E-02	1.529E+02	1.529E-01
7.000E-02	4.459E+02	4.459E-02	1.652E+02	1.652E-01
8.000E-02	4.767E+02	4.767E-02	1.765E+02	1.765E-01
9.000E-02	5.056E+02	5.056E-02	1.873E+02	1.873E-01
1.000E-01	5.330E+02	5.330E-02	1.974E+02	1.974E-01
2.000E-01	7.537E+02	7.537E-02	2.791E+02	2.791E-01
3.000E-01	9.231E+02	9.231E-02	3.418E+02	3.418E-01
4.000E-01	1.066E+03	1.066E-01	3.949E+02	3.949E-01
5.000E-01	1.175E+03	1.175E-01	4.352E+02	4.352E-01
6.000E-01	1.250E+03	1.250E-01	4.629E+02	4.629E-01
7.000E-01	1.303E+03	1.303E-01	4.825E+02	4.825E-01
8.000E-01	1.340E+03	1.340E-01	4.966E+02	4.966E-01
9.000E-01	1.367E+03	1.367E-01	5.066E+02	5.066E-01
1.000E+00	1.387E+03	1.387E-01	5.138E+02	5.138E-01
2.000E+00	1.404E+03	1.404E-01	5.201E+02	5.201E-01
3.000E+00	1.332E+03	1.332E-01	4.933E+02	4.933E-01
4.000E+00	1.251E+03	1.251E-01	4.632E+02	4.632E-01
5.000E+00	1.174E+03	1.174E-01	4.348E+02	4.348E-01
6.000E+00	1.105E+03	1.105E-01	4.092E+02	4.092E-01
7.000E+00	1.043E+03	1.043E-01	3.864E+02	3.864E-01
8.000E+00	9.879E+02	9.879E-02	3.660E+02	3.660E-01
9.000E+00	9.390E+02	9.390E-02	3.478E+02	3.478E-01
1.000E+01	8.948E+02	8.948E-02	3.314E+02	3.314E-01
2.000E+01	6.175E+02	6.175E-02	2.287E+02	2.287E-01
3.000E+01	4.786E+02	4.786E-02	1.773E+02	1.773E-01
4.000E+01	3.938E+02	3.938E-02	1.458E+02	1.458E-01
5.000E+01	3.363E+02	3.363E-02	1.246E+02	1.246E-01
6.000E+01	2.948E+02	2.948E-02	1.092E+02	1.092E-01
7.000E+01	2.634E+02	2.634E-02	9.757E+01	9.757E-02
8.000E+01	2.391E+02	2.391E-02	8.853E+01	8.853E-02
9.000E+01	2.194E+02	2.194E-02	8.127E+01	8.127E-02
1.000E+02	2.034E+02	2.034E-02	7.532E+01	7.532E-02
2.000E+02	1.269E+02	1.269E-02	4.702E+01	4.702E-02
3.000E+02	9.995E+01	9.995E-03	3.702E+01	3.702E-02
4.000E+02	8.640E+01	8.640E-03	3.200E+01	3.200E-02
5.000E+02	7.836E+01	7.836E-03	2.902E+01	2.902E-02
6.000E+02	7.315E+01	7.315E-03	2.709E+01	2.709E-02
7.000E+02	6.956E+01	6.956E-03	2.576E+01	2.576E-02
8.000E+02	6.700E+01	6.700E-03	2.481E+01	2.481E-02
9.000E+02	6.501E+01	6.501E-03	2.408E+01	2.408E-02
1.000E+03	6.345E+01	6.345E-03	2.350E+01	2.350E-02
2.000E+03	5.833E+01	5.833E-03	2.160E+01	2.160E-02
3.000E+03	5.816E+01	5.816E-03	2.154E+01	2.154E-02
4.000E+03	5.881E+01	5.881E-03	2.179E+01	2.179E-02
5.000E+03	5.964E+01	5.964E-03	2.209E+01	2.209E-02
6.000E+03	6.047E+01	6.047E-03	2.239E+01	2.239E-02
7.000E+03	6.124E+01	6.124E-03	2.268E+01	2.268E-02
8.000E+03	6.196E+01	6.196E-03	2.295E+01	2.295E-02
9.000E+03	6.261E+01	6.261E-03	2.319E+01	2.319E-02
1.000E+04	6.322E+01	6.322E-03	2.342E+01	2.342E-02

TABLE 32

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: KR Z= 36 A= 83.80

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.401E+02	1.401E-02	5.190E+01	5.190E-02
2.000E-02	1.981E+02	1.981E-02	7.340E+01	7.340E-02
3.000E-02	2.427E+02	2.427E-02	8.989E+01	8.989E-02
4.000E-02	2.803E+02	2.803E-02	1.038E+02	1.038E-01
5.000E-02	3.133E+02	3.133E-02	1.161E+02	1.161E-01
6.000E-02	3.433E+02	3.433E-02	1.271E+02	1.271E-01
7.000E-02	3.708E+02	3.708E-02	1.373E+02	1.373E-01
8.000E-02	3.963E+02	3.963E-02	1.468E+02	1.468E-01
9.000E-02	4.204E+02	4.204E-02	1.557E+02	1.557E-01
1.000E-01	4.431E+02	4.431E-02	1.641E+02	1.641E-01
2.000E-01	6.266E+02	6.266E-02	2.321E+02	2.321E-01
3.000E-01	7.674E+02	7.674E-02	2.842E+02	2.842E-01
4.000E-01	8.860E+02	8.860E-02	3.281E+02	3.281E-01
5.000E-01	9.886E+02	9.886E-02	3.662E+02	3.662E-01
6.000E-01	1.063E+03	1.063E-01	3.939E+02	3.939E-01
7.000E-01	1.119E+03	1.119E-01	4.144E+02	4.144E-01
8.000E-01	1.161E+03	1.161E-01	4.300E+02	4.300E-01
9.000E-01	1.193E+03	1.193E-01	4.419E+02	4.419E-01
1.000E+00	1.218E+03	1.218E-01	4.512E+02	4.512E-01
2.000E+00	1.290E+03	1.290E-01	4.778E+02	4.778E-01
3.000E+00	1.259E+03	1.259E-01	4.660E+02	4.660E-01
4.000E+00	1.205E+03	1.205E-01	4.465E+02	4.465E-01
5.000E+00	1.150E+03	1.150E-01	4.257E+02	4.257E-01
6.000E+00	1.096E+03	1.096E-01	4.059E+02	4.059E-01
7.000E+00	1.046E+03	1.046E-01	3.874E+02	3.874E-01
8.000E+00	1.000E+03	1.000E-01	3.704E+02	3.704E-01
9.000E+00	9.580E+02	9.580E-02	3.548E+02	3.548E-01
1.000E+01	9.194E+02	9.194E-02	3.405E+02	3.405E-01
2.000E+01	6.619E+02	6.619E-02	2.452E+02	2.452E-01
3.000E+01	5.247E+02	5.247E-02	1.944E+02	1.944E-01
4.000E+01	4.384E+02	4.384E-02	1.624E+02	1.624E-01
5.000E+01	3.785E+02	3.785E-02	1.402E+02	1.402E-01
6.000E+01	3.344E+02	3.344E-02	1.239E+02	1.239E-01
7.000E+01	3.005E+02	3.005E-02	1.113E+02	1.113E-01
8.000E+01	2.736E+02	2.736E-02	1.014E+02	1.014E-01
9.000E+01	2.518E+02	2.518E-02	9.330E+01	9.330E-02
1.000E+02	2.339E+02	2.339E-02	8.663E+01	8.663E-02
2.000E+02	1.468E+02	1.468E-02	5.439E+01	5.439E-02
3.000E+02	1.158E+02	1.158E-02	4.287E+01	4.287E-02
4.000E+02	1.000E+02	1.000E-02	3.706E+01	3.706E-02
5.000E+02	9.075E+01	9.075E-03	3.361E+01	3.361E-02
6.000E+02	8.471E+01	8.471E-03	3.137E+01	3.137E-02
7.000E+02	8.056E+01	8.056E-03	2.984E+01	2.984E-02
8.000E+02	7.759E+01	7.759E-03	2.874E+01	2.874E-02
9.000E+02	7.529E+01	7.529E-03	2.789E+01	2.789E-02
1.000E+03	7.349E+01	7.349E-03	2.722E+01	2.722E-02
2.000E+03	6.755E+01	6.755E-03	2.501E+01	2.501E-02
3.000E+03	6.735E+01	6.735E-03	2.494E+01	2.494E-02
4.000E+03	6.812E+01	6.812E-03	2.523E+01	2.523E-02
5.000E+03	6.908E+01	6.908E-03	2.559E+01	2.559E-02
6.000E+03	7.003E+01	7.003E-03	2.594E+01	2.594E-02
7.000E+03	7.092E+01	7.092E-03	2.627E+01	2.627E-02
8.000E+03	7.175E+01	7.175E-03	2.658E+01	2.658E-02
9.000E+03	7.251E+01	7.251E-03	2.686E+01	2.686E-02
1.000E+04	7.322E+01	7.322E-03	2.712E+01	2.712E-02

TABLE 33

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AG Z= 47 A= 107.87

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.300E+02	1.300E-02	4.814E+01	4.814E-02
2.000E-02	1.838E+02	1.838E-02	6.809E+01	6.809E-02
3.000E-02	2.252E+02	2.252E-02	8.338E+01	8.338E-02
4.000E-02	2.599E+02	2.599E-02	9.628E+01	9.628E-02
5.000E-02	2.907E+02	2.907E-02	1.076E+02	1.076E-01
6.000E-02	3.184E+02	3.184E-02	1.180E+02	1.180E-01
7.000E-02	3.439E+02	3.439E-02	1.273E+02	1.273E-01
8.000E-02	3.676E+02	3.676E-02	1.362E+02	1.362E-01
9.000E-02	3.899E+02	3.899E-02	1.444E+02	1.444E-01
1.000E-01	4.110E+02	4.110E-02	1.523E+02	1.523E-01
2.000E-01	5.812E+02	5.812E-02	2.153E+02	2.153E-01
3.000E-01	7.118E+02	7.118E-02	2.637E+02	2.637E-01
4.000E-01	8.219E+02	8.219E-02	3.044E+02	3.044E-01
5.000E-01	9.189E+02	9.189E-02	3.403E+02	3.403E-01
6.000E-01	1.000E+03	1.000E-01	3.706E+02	3.706E-01
7.000E-01	1.063E+03	1.063E-01	3.936E+02	3.936E-01
8.000E-01	1.112E+03	1.112E-01	4.119E+02	4.119E-01
9.000E-01	1.151E+03	1.151E-01	4.264E+02	4.264E-01
1.000E+00	1.183E+03	1.183E-01	4.381E+02	4.381E-01
2.000E+00	1.309E+03	1.309E-01	4.848E+02	4.848E-01
3.000E+00	1.312E+03	1.312E-01	4.860E+02	4.860E-01
4.000E+00	1.283E+03	1.283E-01	4.751E+02	4.751E-01
5.000E+00	1.243E+03	1.243E-01	4.605E+02	4.605E-01
6.000E+00	1.202E+03	1.202E-01	4.450E+02	4.450E-01
7.000E+00	1.160E+03	1.160E-01	4.296E+02	4.296E-01
8.000E+00	1.120E+03	1.120E-01	4.148E+02	4.148E-01
9.000E+00	1.082E+03	1.082E-01	4.008E+02	4.008E-01
1.000E+01	1.046E+03	1.046E-01	3.876E+02	3.876E-01
2.000E+01	7.905E+02	7.905E-02	2.928E+02	2.928E-01
3.000E+01	6.425E+02	6.425E-02	2.380E+02	2.380E-01
4.000E+01	5.459E+02	5.459E-02	2.021E+02	2.021E-01
5.000E+01	4.774E+02	4.774E-02	1.768E+02	1.768E-01
6.000E+01	4.259E+02	4.259E-02	1.577E+02	1.577E-01
7.000E+01	3.857E+02	3.857E-02	1.429E+02	1.429E-01
8.000E+01	3.535E+02	3.535E-02	1.309E+02	1.309E-01
9.000E+01	3.270E+02	3.270E-02	1.211E+02	1.211E-01
1.000E+02	3.048E+02	3.048E-02	1.129E+02	1.129E-01
2.000E+02	1.938E+02	1.938E-02	7.178E+01	7.178E-02
3.000E+02	1.531E+02	1.531E-02	5.671E+01	5.671E-02
4.000E+02	1.324E+02	1.324E-02	4.906E+01	4.906E-02
5.000E+02	1.201E+02	1.201E-02	4.450E+01	4.450E-02
6.000E+02	1.122E+02	1.122E-02	4.155E+01	4.155E-02
7.000E+02	1.067E+02	1.067E-02	3.951E+01	3.951E-02
8.000E+02	1.027E+02	1.027E-02	3.805E+01	3.805E-02
9.000E+02	9.970E+01	9.970E-03	3.693E+01	3.693E-02
1.000E+03	9.731E+01	9.731E-03	3.604E+01	3.604E-02
2.000E+03	8.944E+01	8.944E-03	3.312E+01	3.312E-02
3.000E+03	8.918E+01	8.918E-03	3.303E+01	3.303E-02
4.000E+03	9.019E+01	9.019E-03	3.340E+01	3.340E-02
5.000E+03	9.146E+01	9.146E-03	3.387E+01	3.387E-02
6.000E+03	9.273E+01	9.273E-03	3.434E+01	3.434E-02
7.000E+03	9.392E+01	9.392E-03	3.478E+01	3.478E-02
8.000E+03	9.501E+01	9.501E-03	3.519E+01	3.519E-02
9.000E+03	9.602E+01	9.602E-03	3.556E+01	3.556E-02
1.000E+04	9.695E+01	9.695E-03	3.591E+01	3.591E-02

TABLE 34

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AU Z= 79 A= 197.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	9.962E+01	9.962E-03	3.689E+01	3.689E-02
2.000E-02	1.409E+02	1.409E-02	5.218E+01	5.218E-02
3.000E-02	1.725E+02	1.725E-02	6.390E+01	6.390E-02
4.000E-02	1.993E+02	1.993E-02	7.379E+01	7.379E-02
5.000E-02	2.228E+02	2.228E-02	8.250E+01	8.250E-02
6.000E-02	2.440E+02	2.440E-02	9.037E+01	9.037E-02
7.000E-02	2.635E+02	2.635E-02	9.762E+01	9.762E-02
8.000E-02	2.817E+02	2.817E-02	1.044E+02	1.044E-01
9.000E-02	2.988E+02	2.988E-02	1.107E+02	1.107E-01
1.000E-01	3.150E+02	3.150E-02	1.167E+02	1.167E-01
2.000E-01	4.455E+02	4.455E-02	1.650E+02	1.650E-01
3.000E-01	5.455E+02	5.455E-02	2.020E+02	2.020E-01
4.000E-01	6.299E+02	6.299E-02	2.333E+02	2.333E-01
5.000E-01	7.041E+02	7.041E-02	2.608E+02	2.608E-01
6.000E-01	7.713E+02	7.713E-02	2.857E+02	2.857E-01
7.000E-01	8.320E+02	8.320E-02	3.082E+02	3.082E-01
8.000E-01	8.832E+02	8.832E-02	3.271E+02	3.271E-01
9.000E-01	9.258E+02	9.258E-02	3.429E+02	3.429E-01
1.000E+00	9.622E+02	9.622E-02	3.564E+02	3.564E-01
2.000E+00	1.148E+03	1.148E-01	4.249E+02	4.249E-01
3.000E+00	1.205E+03	1.205E-01	4.461E+02	4.461E-01
4.000E+00	1.219E+03	1.219E-01	4.516E+02	4.516E-01
5.000E+00	1.216E+03	1.216E-01	4.502E+02	4.502E-01
6.000E+00	1.203E+03	1.203E-01	4.455E+02	4.455E-01
7.000E+00	1.186E+03	1.186E-01	4.391E+02	4.391E-01
8.000E+00	1.166E+03	1.166E-01	4.318E+02	4.318E-01
9.000E+00	1.145E+03	1.145E-01	4.240E+02	4.240E-01
1.000E+01	1.123E+03	1.123E-01	4.161E+02	4.161E-01
2.000E+01	9.346E+02	9.346E-02	3.462E+02	3.462E-01
3.000E+01	8.014E+02	8.014E-02	2.968E+02	2.968E-01
4.000E+01	7.054E+02	7.054E-02	2.613E+02	2.613E-01
5.000E+01	6.333E+02	6.333E-02	2.346E+02	2.346E-01
6.000E+01	5.770E+02	5.770E-02	2.137E+02	2.137E-01
7.000E+01	5.317E+02	5.317E-02	1.969E+02	1.969E-01
8.000E+01	4.944E+02	4.944E-02	1.831E+02	1.831E-01
9.000E+01	4.631E+02	4.631E-02	1.716E+02	1.716E-01
1.000E+02	4.364E+02	4.364E-02	1.617E+02	1.617E-01
2.000E+02	2.931E+02	2.931E-02	1.086E+02	1.086E-01
3.000E+02	2.348E+02	2.348E-02	8.695E+01	8.695E-02
4.000E+02	2.041E+02	2.041E-02	7.557E+01	7.557E-02
5.000E+02	1.855E+02	1.855E-02	6.870E+01	6.870E-02
6.000E+02	1.733E+02	1.733E-02	6.420E+01	6.420E-02
7.000E+02	1.649E+02	1.649E-02	6.109E+01	6.109E-02
8.000E+02	1.589E+02	1.589E-02	5.885E+01	5.885E-02
9.000E+02	1.542E+02	1.542E-02	5.712E+01	5.712E-02
1.000E+03	1.506E+02	1.506E-02	5.575E+01	5.575E-02
2.000E+03	1.384E+02	1.384E-02	5.125E+01	5.125E-02
3.000E+03	1.380E+02	1.380E-02	5.110E+01	5.110E-02
4.000E+03	1.396E+02	1.396E-02	5.169E+01	5.169E-02
5.000E+03	1.415E+02	1.415E-02	5.241E+01	5.241E-02
6.000E+03	1.435E+02	1.435E-02	5.314E+01	5.314E-02
7.000E+03	1.453E+02	1.453E-02	5.382E+01	5.382E-02
8.000E+03	1.470E+02	1.470E-02	5.444E+01	5.444E-02
9.000E+03	1.485E+02	1.485E-02	5.502E+01	5.502E-02
1.000E+04	1.500E+02	1.500E-02	5.556E+01	5.556E-02

TABLE 35

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: H Z= 1 A= 1.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-02	2.748E+02	2.748E-02	1.018E+02	1.018E-01
3.000E-02	3.366E+02	3.366E-02	1.246E+02	1.246E-01
4.000E-02	3.886E+02	3.886E-02	1.440E+02	1.440E-01
5.000E-02	4.346E+02	4.346E-02	1.609E+02	1.609E-01
6.000E-02	4.760E+02	4.760E-02	1.763E+02	1.763E-01
7.000E-02	5.142E+02	5.142E-02	1.904E+02	1.904E-01
8.000E-02	5.496E+02	5.496E-02	2.035E+02	2.035E-01
9.000E-02	5.829E+02	5.829E-02	2.159E+02	2.159E-01
1.000E-01	6.145E+02	6.145E-02	2.276E+02	2.276E-01
2.000E-01	8.369E+02	8.369E-02	3.100E+02	3.100E-01
3.000E-01	8.277E+02	8.277E-02	3.065E+02	3.065E-01
4.000E-01	7.651E+02	7.651E-02	2.834E+02	2.834E-01
5.000E-01	7.005E+02	7.005E-02	2.595E+02	2.595E-01
6.000E-01	6.431E+02	6.431E-02	2.382E+02	2.382E-01
7.000E-01	5.937E+02	5.937E-02	2.199E+02	2.199E-01
8.000E-01	5.514E+02	5.514E-02	2.042E+02	2.042E-01
9.000E-01	5.151E+02	5.151E-02	1.907E+02	1.907E-01
1.000E+00	4.835E+02	4.835E-02	1.791E+02	1.791E-01
2.000E+00	3.069E+02	3.069E-02	1.137E+02	1.137E-01
3.000E+00	2.301E+02	2.301E-02	8.523E+01	8.523E-02
4.000E+00	1.863E+02	1.863E-02	6.900E+01	6.900E-02
5.000E+00	1.576E+02	1.576E-02	5.836E+01	5.836E-02
6.000E+00	1.371E+02	1.371E-02	5.081E+01	5.081E-02
7.000E+00	1.219E+02	1.219E-02	4.513E+01	4.513E-02
8.000E+00	1.099E+02	1.099E-02	4.071E+01	4.071E-02
9.000E+00	1.003E+02	1.003E-02	3.715E+01	3.715E-02
1.000E+01	9.237E+01	9.237E-03	3.422E+01	3.422E-02
2.000E+01	5.343E+01	5.343E-03	1.979E+01	1.979E-02
3.000E+01	3.872E+01	3.872E-03	1.435E+01	1.435E-02
4.000E+01	3.085E+01	3.085E-03	1.143E+01	1.143E-02
5.000E+01	2.590E+01	2.590E-03	9.592E+00	9.592E-03
6.000E+01	2.249E+01	2.249E-03	8.329E+00	8.329E-03
7.000E+01	1.999E+01	1.999E-03	7.402E+00	7.402E-03
8.000E+01	1.807E+01	1.807E-03	6.692E+00	6.692E-03
9.000E+01	1.654E+01	1.654E-03	6.128E+00	6.128E-03
1.000E+02	1.531E+01	1.531E-03	5.670E+00	5.670E-03
2.000E+02	9.513E+00	9.513E-04	3.524E+00	3.524E-03
3.000E+02	7.491E+00	7.491E-04	2.774E+00	2.774E-03
4.000E+02	6.472E+00	6.472E-04	2.398E+00	2.398E-03
5.000E+02	5.871E+00	5.871E-04	2.175E+00	2.175E-03
6.000E+02	5.480E+00	5.480E-04	2.030E+00	2.030E-03
7.000E+02	5.211E+00	5.211E-04	1.930E+00	1.930E-03
8.000E+02	5.018E+00	5.018E-04	1.858E+00	1.858E-03
9.000E+02	4.869E+00	4.869E-04	1.803E+00	1.803E-03
1.000E+03	4.753E+00	4.753E-04	1.760E+00	1.760E-03
2.000E+03	4.368E+00	4.368E-04	1.618E+00	1.618E-03
3.000E+03	4.354E+00	4.354E-04	1.613E+00	1.613E-03
4.000E+03	4.404E+00	4.404E-04	1.631E+00	1.631E-03
5.000E+03	4.466E+00	4.466E-04	1.654E+00	1.654E-03
6.000E+03	4.528E+00	4.528E-04	1.677E+00	1.677E-03
7.000E+03	4.586E+00	4.586E-04	1.698E+00	1.698E-03
8.000E+03	4.639E+00	4.639E-04	1.718E+00	1.718E-03
9.000E+03	4.688E+00	4.688E-04	1.737E+00	1.737E-03
1.000E+04	4.734E+00	4.734E-04	1.754E+00	1.754E-03

TABLE 36

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: HE Z= 2 A= 4.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-02	6.863E+02	6.863E-02	2.542E+02	2.542E-01
6.000E-02	7.517E+02	7.517E-02	2.784E+02	2.784E-01
7.000E-02	8.121E+02	8.121E-02	3.007E+02	3.007E-01
8.000E-02	8.681E+02	8.681E-02	3.215E+02	3.215E-01
9.000E-02	9.208E+02	9.208E-02	3.410E+02	3.410E-01
1.000E-01	9.705E+02	9.705E-02	3.594E+02	3.594E-01
2.000E-01	1.373E+03	1.373E-01	5.083E+02	5.083E-01
3.000E-01	1.681E+03	1.681E-01	6.226E+02	6.226E-01
4.000E-01	1.941E+03	1.941E-01	7.189E+02	7.189E-01
5.000E-01	2.170E+03	2.170E-01	8.037E+02	8.037E-01
6.000E-01	2.377E+03	2.377E-01	8.805E+02	8.805E-01
7.000E-01	2.567E+03	2.567E-01	9.508E+02	9.508E-01
8.000E-01	2.744E+03	2.744E-01	1.017E+03	1.017E+00
9.000E-01	2.873E+03	2.873E-01	1.065E+03	1.065E+00
1.000E+00	2.948E+03	2.948E-01	1.092E+03	1.092E+00
2.000E+00	2.749E+03	2.749E-01	1.018E+03	1.018E+00
3.000E+00	2.292E+03	2.292E-01	8.490E+02	8.490E-01
4.000E+00	1.936E+03	1.936E-01	7.170E+02	7.170E-01
5.000E+00	1.682E+03	1.682E-01	6.230E+02	6.230E-01
6.000E+00	1.492E+03	1.492E-01	5.529E+02	5.529E-01
7.000E+00	1.345E+03	1.345E-01	4.984E+02	4.984E-01
8.000E+00	1.228E+03	1.228E-01	4.547E+02	4.547E-01
9.000E+00	1.131E+03	1.131E-01	4.187E+02	4.187E-01
1.000E+01	1.049E+03	1.049E-01	3.885E+02	3.885E-01
2.000E+01	6.301E+02	6.301E-02	2.333E+02	2.333E-01
3.000E+01	4.621E+02	4.621E-02	1.712E+02	1.712E-01
4.000E+01	3.694E+02	3.694E-02	1.368E+02	1.368E-01
5.000E+01	3.100E+02	3.100E-02	1.148E+02	1.148E-01
6.000E+01	2.685E+02	2.685E-02	9.943E+01	9.943E-02
7.000E+01	2.376E+02	2.376E-02	8.799E+01	8.799E-02
8.000E+01	2.137E+02	2.137E-02	7.915E+01	7.915E-02
9.000E+01	1.946E+02	1.946E-02	7.207E+01	7.207E-02
1.000E+02	1.790E+02	1.790E-02	6.629E+01	6.629E-02
2.000E+02	1.036E+02	1.036E-02	3.837E+01	3.837E-02
3.000E+02	7.585E+01	7.585E-03	2.809E+01	2.809E-02
4.000E+02	6.125E+01	6.125E-03	2.268E+01	2.268E-02
5.000E+02	5.217E+01	5.217E-03	1.932E+01	1.932E-02
6.000E+02	4.597E+01	4.597E-03	1.703E+01	1.703E-02
7.000E+02	4.147E+01	4.147E-03	1.536E+01	1.536E-02
8.000E+02	3.806E+01	3.806E-03	1.410E+01	1.410E-02
9.000E+02	3.537E+01	3.537E-03	1.310E+01	1.310E-02
1.000E+03	3.321E+01	3.321E-03	1.230E+01	1.230E-02
2.000E+03	2.348E+01	2.348E-03	8.696E+00	8.696E-03
3.000E+03	2.043E+01	2.043E-03	7.566E+00	7.566E-03
4.000E+03	1.901E+01	1.901E-03	7.041E+00	7.041E-03
5.000E+03	1.826E+01	1.826E-03	6.763E+00	6.763E-03
6.000E+03	1.784E+01	1.784E-03	6.607E+00	6.607E-03
7.000E+03	1.760E+01	1.760E-03	6.519E+00	6.519E-03
8.000E+03	1.747E+01	1.747E-03	6.470E+00	6.470E-03
9.000E+03	1.741E+01	1.741E-03	6.447E+00	6.447E-03
1.000E+04	1.739E+01	1.739E-03	6.439E+00	6.439E-03
2.000E+04	1.787E+01	1.787E-03	6.617E+00	6.617E-03
3.000E+04	1.845E+01	1.845E-03	6.834E+00	6.834E-03
4.000E+04	1.894E+01	1.894E-03	7.014E+00	7.013E-03

TABLE 37

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: LI Z= 3 A= 6.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
7.000E-02	9.238E+02	9.238E-02	3.421E+02	3.421E-01
8.000E-02	9.877E+02	9.877E-02	3.658E+02	3.658E-01
9.000E-02	1.047E+03	1.047E-01	3.880E+02	3.880E-01
1.000E-01	1.104E+03	1.104E-01	4.091E+02	4.091E-01
2.000E-01	1.562E+03	1.562E-01	5.784E+02	5.784E-01
3.000E-01	1.913E+03	1.913E-01	7.084E+02	7.084E-01
4.000E-01	2.208E+03	2.208E-01	8.179E+02	8.179E-01
5.000E-01	2.470E+03	2.470E-01	9.145E+02	9.145E-01
6.000E-01	2.705E+03	2.705E-01	1.002E+03	1.002E+00
7.000E-01	2.922E+03	2.922E-01	1.082E+03	1.082E+00
8.000E-01	3.123E+03	3.123E-01	1.156E+03	1.156E+00
9.000E-01	3.312E+03	3.312E-01	1.227E+03	1.227E+00
1.000E+00	3.491E+03	3.491E-01	1.293E+03	1.293E+00
2.000E+00	4.856E+03	4.856E-01	1.799E+03	1.799E+00
3.000E+00	5.264E+03	5.264E-01	1.950E+03	1.950E+00
4.000E+00	5.204E+03	5.204E-01	1.927E+03	1.927E+00
5.000E+00	4.949E+03	4.949E-01	1.833E+03	1.833E+00
6.000E+00	4.628E+03	4.628E-01	1.714E+03	1.714E+00
7.000E+00	4.304E+03	4.304E-01	1.594E+03	1.594E+00
8.000E+00	3.989E+03	3.989E-01	1.477E+03	1.477E+00
9.000E+00	3.693E+03	3.693E-01	1.368E+03	1.368E+00
1.000E+01	3.448E+03	3.448E-01	1.277E+03	1.277E+00
2.000E+01	2.131E+03	2.131E-01	7.891E+02	7.891E-01
3.000E+01	1.581E+03	1.581E-01	5.855E+02	5.855E-01
4.000E+01	1.272E+03	1.272E-01	4.711E+02	4.711E-01
5.000E+01	1.072E+03	1.072E-01	3.970E+02	3.970E-01
6.000E+01	9.306E+02	9.306E-02	3.447E+02	3.447E-01
7.000E+01	8.251E+02	8.251E-02	3.056E+02	3.056E-01
8.000E+01	7.431E+02	7.431E-02	2.752E+02	2.752E-01
9.000E+01	6.773E+02	6.773E-02	2.508E+02	2.508E-01
1.000E+02	6.231E+02	6.231E-02	2.307E+02	2.307E-01
2.000E+02	3.595E+02	3.595E-02	1.332E+02	1.332E-01
3.000E+02	2.611E+02	2.611E-02	9.666E+01	9.666E-02
4.000E+02	2.086E+02	2.086E-02	7.727E+01	7.727E-02
5.000E+02	1.759E+02	1.759E-02	6.512E+01	6.512E-02
6.000E+02	1.534E+02	1.534E-02	5.678E+01	5.678E-02
7.000E+02	1.369E+02	1.369E-02	5.068E+01	5.068E-02
8.000E+02	1.243E+02	1.243E-02	4.602E+01	4.602E-02
9.000E+02	1.143E+02	1.143E-02	4.234E+01	4.234E-02
1.000E+03	1.063E+02	1.063E-02	3.936E+01	3.936E-02
2.000E+03	6.888E+01	6.888E-03	2.551E+01	2.551E-02
3.000E+03	5.619E+01	5.619E-03	2.082E+01	2.082E-02
4.000E+03	5.001E+01	5.001E-03	1.852E+01	1.852E-02
5.000E+03	4.649E+01	4.649E-03	1.722E+01	1.722E-02
6.000E+03	4.426E+01	4.426E-03	1.639E+01	1.639E-02
7.000E+03	4.269E+01	4.269E-03	1.581E+01	1.581E-02
8.000E+03	4.162E+01	4.162E-03	1.541E+01	1.541E-02
9.000E+03	4.085E+01	4.085E-03	1.514E+01	1.514E-02
1.000E+04	4.031E+01	4.031E-03	1.494E+01	1.494E-02
2.000E+04	3.916E+01	3.916E-03	1.450E+01	1.450E-02
3.000E+04	3.982E+01	3.982E-03	1.475E+01	1.475E-02
4.000E+04	4.062E+01	4.062E-03	1.504E+01	1.504E-02
5.000E+04	4.137E+01	4.137E-03	1.532E+01	1.532E-02
6.000E+04	4.205E+01	4.205E-03	1.557E+01	1.557E-02

TABLE 38

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: BE Z= 4 A= 9.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
1.000E-01	1.456E+03	1.456E-01	5.393E+02	5.393E-01
2.000E-01	2.060E+03	2.060E-01	7.627E+02	7.627E-01
3.000E-01	2.522E+03	2.522E-01	9.342E+02	9.342E-01
4.000E-01	2.913E+03	2.913E-01	1.079E+03	1.079E+00
5.000E-01	3.256E+03	3.256E-01	1.206E+03	1.206E+00
6.000E-01	3.567E+03	3.567E-01	1.321E+03	1.321E+00
7.000E-01	3.852E+03	3.852E-01	1.427E+03	1.427E+00
8.000E-01	4.119E+03	4.119E-01	1.525E+03	1.525E+00
9.000E-01	4.369E+03	4.369E-01	1.618E+03	1.618E+00
1.000E+00	4.605E+03	4.605E-01	1.705E+03	1.705E+00
2.000E+00	6.518E+03	6.518E-01	2.414E+03	2.414E+00
3.000E+00	7.422E+03	7.422E-01	2.749E+03	2.749E+00
4.000E+00	7.531E+03	7.531E-01	2.790E+03	2.790E+00
5.000E+00	7.370E+03	7.370E-01	2.729E+03	2.729E+00
6.000E+00	7.113E+03	7.113E-01	2.634E+03	2.634E+00
7.000E+00	6.829E+03	6.829E-01	2.529E+03	2.529E+00
8.000E+00	6.547E+03	6.547E-01	2.425E+03	2.425E+00
9.000E+00	6.276E+03	6.276E-01	2.324E+03	2.324E+00
1.000E+01	6.021E+03	6.021E-01	2.230E+03	2.230E+00
2.000E+01	4.259E+03	4.259E-01	1.577E+03	1.577E+00
3.000E+01	3.305E+03	3.305E-01	1.224E+03	1.224E+00
4.000E+01	2.711E+03	2.711E-01	1.004E+03	1.004E+00
5.000E+01	2.307E+03	2.307E-01	8.543E+02	8.543E-01
6.000E+01	2.014E+03	2.014E-01	7.459E+02	7.459E-01
7.000E+01	1.792E+03	1.792E-01	6.635E+02	6.635E-01
8.000E+01	1.617E+03	1.617E-01	5.989E+02	5.989E-01
9.000E+01	1.476E+03	1.476E-01	5.467E+02	5.467E-01
1.000E+02	1.360E+03	1.360E-01	5.037E+02	5.037E-01
2.000E+02	7.866E+02	7.866E-02	2.913E+02	2.913E-01
3.000E+02	5.702E+02	5.702E-02	2.112E+02	2.112E-01
4.000E+02	4.546E+02	4.546E-02	1.684E+02	1.684E-01
5.000E+02	3.820E+02	3.820E-02	1.415E+02	1.415E-01
6.000E+02	3.320E+02	3.320E-02	1.229E+02	1.229E-01
7.000E+02	2.953E+02	2.953E-02	1.094E+02	1.094E-01
8.000E+02	2.673E+02	2.673E-02	9.901E+01	9.901E-02
9.000E+02	2.451E+02	2.451E-02	9.076E+01	9.076E-02
1.000E+03	2.270E+02	2.270E-02	8.410E+01	8.410E-02
2.000E+03	1.426E+02	1.426E-02	5.283E+01	5.283E-02
3.000E+03	1.133E+02	1.133E-02	4.198E+01	4.198E-02
4.000E+03	9.876E+01	9.876E-03	3.657E+01	3.657E-02
5.000E+03	9.017E+01	9.017E-03	3.339E+01	3.339E-02
6.000E+03	8.466E+01	8.466E-03	3.136E+01	3.136E-02
7.000E+03	8.091E+01	8.091E-03	2.997E+01	2.997E-02
8.000E+03	7.816E+01	7.816E-03	2.895E+01	2.895E-02
9.000E+03	7.606E+01	7.606E-03	2.817E+01	2.817E-02
1.000E+04	7.450E+01	7.450E-03	2.759E+01	2.759E-02
2.000E+04	6.965E+01	6.965E-03	2.579E+01	2.579E-02
3.000E+04	6.989E+01	6.989E-03	2.588E+01	2.588E-02
4.000E+04	7.090E+01	7.090E-03	2.626E+01	2.626E-02
5.000E+04	7.201E+01	7.201E-03	2.667E+01	2.667E-02
6.000E+04	7.307E+01	7.307E-03	2.706E+01	2.706E-02
7.000E+04	7.404E+01	7.404E-03	2.743E+01	2.743E-02
8.000E+04	7.493E+01	7.493E-03	2.775E+01	2.775E-02
9.000E+04	7.574E+01	7.574E-03	2.806E+01	2.806E-02

TABLE 39

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: B Z= 5 A= 10.82

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	2.525E+03	2.525E-01	9.353E+02	9.353E-01
3.000E-01	3.093E+03	3.093E-01	1.146E+03	1.146E+00
4.000E-01	3.571E+03	3.571E-01	1.323E+03	1.323E+00
5.000E-01	3.993E+03	3.993E-01	1.479E+03	1.479E+00
6.000E-01	4.374E+03	4.374E-01	1.620E+03	1.620E+00
7.000E-01	4.724E+03	4.724E-01	1.750E+03	1.750E+00
8.000E-01	5.050E+03	5.050E-01	1.870E+03	1.870E+00
9.000E-01	5.356E+03	5.356E-01	1.984E+03	1.984E+00
1.000E+00	5.647E+03	5.647E-01	2.091E+03	2.091E+00
2.000E+00	7.984E+03	7.984E-01	2.957E+03	2.957E+00
3.000E+00	9.650E+03	9.650E-01	3.574E+03	3.574E+00
4.000E+00	1.031E+04	1.031E+00	3.817E+03	3.817E+00
5.000E+00	1.044E+04	1.044E+00	3.867E+03	3.867E+00
6.000E+00	1.033E+04	1.033E+00	3.827E+03	3.827E+00
7.000E+00	1.012E+04	1.012E+00	3.748E+03	3.748E+00
8.000E+00	9.854E+03	9.854E-01	3.649E+03	3.649E+00
9.000E+00	9.573E+03	9.573E-01	3.545E+03	3.545E+00
1.000E+01	9.287E+03	9.287E-01	3.439E+03	3.439E+00
2.000E+01	7.008E+03	7.008E-01	2.595E+03	2.595E+00
3.000E+01	5.620E+03	5.620E-01	2.082E+03	2.082E+00
4.000E+01	4.706E+03	4.706E-01	1.742E+03	1.742E+00
5.000E+01	4.055E+03	4.055E-01	1.502E+03	1.502E+00
6.000E+01	3.568E+03	3.568E-01	1.322E+03	1.322E+00
7.000E+01	3.191E+03	3.191E-01	1.182E+03	1.182E+00
8.000E+01	2.891E+03	2.891E-01	1.070E+03	1.070E+00
9.000E+01	2.645E+03	2.645E-01	9.795E+02	9.795E-01
1.000E+02	2.441E+03	2.441E-01	9.041E+02	9.041E-01
2.000E+02	1.420E+03	1.420E-01	5.260E+02	5.260E-01
3.000E+02	1.030E+03	1.030E-01	3.814E+02	3.814E-01
4.000E+02	8.201E+02	8.201E-02	3.037E+02	3.037E-01
5.000E+02	6.882E+02	6.882E-02	2.549E+02	2.549E-01
6.000E+02	5.971E+02	5.971E-02	2.211E+02	2.211E-01
7.000E+02	5.302E+02	5.302E-02	1.964E+02	1.964E-01
8.000E+02	4.790E+02	4.790E-02	1.774E+02	1.774E-01
9.000E+02	4.383E+02	4.383E-02	1.624E+02	1.624E-01
1.000E+03	4.053E+02	4.053E-02	1.501E+02	1.501E-01
2.000E+03	2.501E+02	2.501E-02	9.260E+01	9.260E-02
3.000E+03	1.956E+02	1.956E-02	7.242E+01	7.242E-02
4.000E+03	1.680E+02	1.680E-02	6.221E+01	6.221E-02
5.000E+03	1.516E+02	1.516E-02	5.615E+01	5.615E-02
6.000E+03	1.409E+02	1.409E-02	5.219E+01	5.219E-02
7.000E+03	1.335E+02	1.335E-02	4.945E+01	4.945E-02
8.000E+03	1.282E+02	1.282E-02	4.747E+01	4.747E-02
9.000E+03	1.242E+02	1.242E-02	4.598E+01	4.598E-02
1.000E+04	1.209E+02	1.209E-02	4.479E+01	4.479E-02
2.000E+04	1.096E+02	1.096E-02	4.060E+01	4.060E-02
3.000E+04	1.087E+02	1.087E-02	4.027E+01	4.027E-02
4.000E+04	1.097E+02	1.097E-02	4.062E+01	4.062E-02
5.000E+04	1.111E+02	1.111E-02	4.114E+01	4.114E-02
6.000E+04	1.125E+02	1.125E-02	4.167E+01	4.167E-02
7.000E+04	1.139E+02	1.139E-02	4.219E+01	4.219E-02
8.000E+04	1.151E+02	1.151E-02	4.266E+01	4.266E-02
9.000E+04	1.164E+02	1.164E-02	4.311E+01	4.311E-02
1.000E+05	1.175E+02	1.175E-02	4.352E+01	4.352E-02

TABLE 40

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: C Z= 6 A= 12.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	3.009E+03	3.009E-01	1.114E+03	1.114E+00
3.000E-01	3.685E+03	3.685E-01	1.365E+03	1.365E+00
4.000E-01	4.256E+03	4.256E-01	1.576E+03	1.576E+00
5.000E-01	4.757E+03	4.757E-01	1.762E+03	1.762E+00
6.000E-01	5.211E+03	5.211E-01	1.930E+03	1.930E+00
7.000E-01	5.628E+03	5.628E-01	2.085E+03	2.085E+00
8.000E-01	6.018E+03	6.018E-01	2.229E+03	2.229E+00
9.000E-01	6.383E+03	6.383E-01	2.364E+03	2.364E+00
1.000E+00	6.728E+03	6.728E-01	2.492E+03	2.492E+00
2.000E+00	9.513E+03	9.513E-01	3.523E+03	3.523E+00
3.000E+00	1.164E+04	1.164E+00	4.312E+03	4.312E+00
4.000E+00	1.289E+04	1.289E+00	4.775E+03	4.775E+00
5.000E+00	1.338E+04	1.338E+00	4.953E+03	4.953E+00
6.000E+00	1.348E+04	1.348E+00	4.993E+03	4.993E+00
7.000E+00	1.339E+04	1.339E+00	4.959E+03	4.959E+00
8.000E+00	1.320E+04	1.320E+00	4.887E+03	4.887E+00
9.000E+00	1.294E+04	1.294E+00	4.795E+03	4.795E+00
1.000E+01	1.267E+04	1.267E+00	4.692E+03	4.692E+00
2.000E+01	1.003E+04	1.003E+00	3.716E+03	3.716E+00
3.000E+01	8.250E+03	8.250E-01	3.055E+03	3.055E+00
4.000E+01	7.020E+03	7.020E-01	2.600E+03	2.600E+00
5.000E+01	6.122E+03	6.122E-01	2.268E+03	2.268E+00
6.000E+01	5.435E+03	5.435E-01	2.013E+03	2.013E+00
7.000E+01	4.892E+03	4.892E-01	1.812E+03	1.812E+00
8.000E+01	4.452E+03	4.452E-01	1.649E+03	1.649E+00
9.000E+01	4.089E+03	4.089E-01	1.515E+03	1.515E+00
1.000E+02	3.782E+03	3.782E-01	1.401E+03	1.401E+00
2.000E+02	2.218E+03	2.218E-01	8.217E+02	8.217E-01
3.000E+02	1.611E+03	1.611E-01	5.964E+02	5.964E-01
4.000E+02	1.282E+03	1.282E-01	4.749E+02	4.749E-01
5.000E+02	1.076E+03	1.076E-01	3.984E+02	3.984E-01
6.000E+02	9.324E+02	9.324E-02	3.454E+02	3.454E-01
7.000E+02	8.274E+02	8.274E-02	3.065E+02	3.065E-01
8.000E+02	7.467E+02	7.467E-02	2.766E+02	2.766E-01
9.000E+02	6.827E+02	6.827E-02	2.529E+02	2.529E-01
1.000E+03	6.307E+02	6.307E-02	2.336E+02	2.336E-01
2.000E+03	3.855E+02	3.855E-02	1.428E+02	1.428E-01
3.000E+03	2.990E+02	2.990E-02	1.107E+02	1.107E-01
4.000E+03	2.550E+02	2.550E-02	9.443E+01	9.443E-02
5.000E+03	2.286E+02	2.286E-02	8.468E+01	8.468E-02
6.000E+03	2.114E+02	2.114E-02	7.827E+01	7.827E-02
7.000E+03	1.992E+02	1.992E-02	7.379E+01	7.379E-02
8.000E+03	1.904E+02	1.904E-02	7.053E+01	7.053E-02
9.000E+03	1.838E+02	1.838E-02	6.810E+01	6.810E-02
1.000E+04	1.788E+02	1.788E-02	6.620E+01	6.620E-02
2.000E+04	1.590E+02	1.590E-02	5.889E+01	5.889E-02
3.000E+04	1.565E+02	1.565E-02	5.795E+01	5.795E-02
4.000E+04	1.572E+02	1.572E-02	5.824E+01	5.824E-02
5.000E+04	1.589E+02	1.589E-02	5.885E+01	5.885E-02
6.000E+04	1.608E+02	1.608E-02	5.955E+01	5.955E-02
7.000E+04	1.627E+02	1.627E-02	6.024E+01	6.024E-02
8.000E+04	1.644E+02	1.644E-02	6.089E+01	6.089E-02
9.000E+04	1.660E+02	1.660E-02	6.150E+01	6.150E-02
1.000E+05	1.676E+02	1.676E-02	6.208E+01	6.208E-02

TABLE 41

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: N Z= 7 A= 14.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	3.343E+03	3.343E-01	1.238E+03	1.238E+00
3.000E-01	4.094E+03	4.094E-01	1.516E+03	1.516E+00
4.000E-01	4.728E+03	4.728E-01	1.751E+03	1.751E+00
5.000E-01	5.285E+03	5.285E-01	1.957E+03	1.957E+00
6.000E-01	5.790E+03	5.790E-01	2.144E+03	2.144E+00
7.000E-01	6.254E+03	6.254E-01	2.316E+03	2.316E+00
8.000E-01	6.686E+03	6.686E-01	2.476E+03	2.476E+00
9.000E-01	7.091E+03	7.091E-01	2.626E+03	2.626E+00
1.000E+00	7.474E+03	7.474E-01	2.768E+03	2.768E+00
2.000E+00	1.057E+04	1.057E+00	3.914E+03	3.914E+00
3.000E+00	1.295E+04	1.295E+00	4.794E+03	4.794E+00
4.000E+00	1.487E+04	1.487E+00	5.508E+03	5.508E+00
5.000E+00	1.592E+04	1.592E+00	5.896E+03	5.896E+00
6.000E+00	1.641E+04	1.641E+00	6.080E+03	6.080E+00
7.000E+00	1.660E+04	1.660E+00	6.148E+03	6.148E+00
8.000E+00	1.659E+04	1.659E+00	6.147E+03	6.147E+00
9.000E+00	1.648E+04	1.648E+00	6.104E+03	6.104E+00
1.000E+01	1.629E+04	1.629E+00	6.036E+03	6.036E+00
2.000E+01	1.370E+04	1.370E+00	5.074E+03	5.074E+00
3.000E+01	1.159E+04	1.159E+00	4.293E+03	4.293E+00
4.000E+01	1.005E+04	1.005E+00	3.723E+03	3.723E+00
5.000E+01	8.886E+03	8.886E-01	3.291E+03	3.291E+00
6.000E+01	7.976E+03	7.976E-01	2.954E+03	2.954E+00
7.000E+01	7.241E+03	7.241E-01	2.682E+03	2.682E+00
8.000E+01	6.637E+03	6.637E-01	2.458E+03	2.458E+00
9.000E+01	6.129E+03	6.129E-01	2.270E+03	2.270E+00
1.000E+02	5.697E+03	5.697E-01	2.110E+03	2.110E+00
2.000E+02	3.398E+03	3.398E-01	1.259E+03	1.259E+00
3.000E+02	2.474E+03	2.474E-01	9.162E+02	9.162E-01
4.000E+02	1.970E+03	1.970E-01	7.298E+02	7.298E-01
5.000E+02	1.652E+03	1.652E-01	6.119E+02	6.119E-01
6.000E+02	1.431E+03	1.431E-01	5.301E+02	5.301E-01
7.000E+02	1.268E+03	1.268E-01	4.699E+02	4.699E-01
8.000E+02	1.144E+03	1.144E-01	4.237E+02	4.237E-01
9.000E+02	1.045E+03	1.045E-01	3.869E+02	3.869E-01
1.000E+03	9.641E+02	9.641E-02	3.571E+02	3.571E-01
2.000E+03	5.822E+02	5.822E-02	2.157E+02	2.157E-01
3.000E+03	4.465E+02	4.465E-02	1.654E+02	1.654E-01
4.000E+03	3.770E+02	3.770E-02	1.396E+02	1.396E-01
5.000E+03	3.350E+02	3.350E-02	1.241E+02	1.241E-01
6.000E+03	3.072E+02	3.072E-02	1.138E+02	1.138E-01
7.000E+03	2.877E+02	2.877E-02	1.065E+02	1.065E-01
8.000E+03	2.732E+02	2.732E-02	1.012E+02	1.012E-01
9.000E+03	2.622E+02	2.622E-02	9.714E+01	9.714E-02
1.000E+04	2.538E+02	2.538E-02	9.400E+01	9.400E-02
2.000E+04	2.197E+02	2.197E-02	8.138E+01	8.138E-02
3.000E+04	2.135E+02	2.135E-02	7.908E+01	7.908E-02
4.000E+04	2.132E+02	2.132E-02	7.896E+01	7.896E-02
5.000E+04	2.147E+02	2.147E-02	7.950E+01	7.950E-02
6.000E+04	2.167E+02	2.167E-02	8.025E+01	8.025E-02
7.000E+04	2.189E+02	2.189E-02	8.105E+01	8.105E-02
8.000E+04	2.210E+02	2.210E-02	8.186E+01	8.186E-02
9.000E+04	2.231E+02	2.231E-02	8.263E+01	8.263E-02
1.000E+05	2.251E+02	2.251E-02	8.336E+01	8.336E-02

TABLE 42

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: O Z= 8 A= 16.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	3.642E+03	3.642E-01	1.349E+03	1.349E+00
3.000E-01	4.460E+03	4.460E-01	1.652E+03	1.652E+00
4.000E-01	5.150E+03	5.150E-01	1.907E+03	1.907E+00
5.000E-01	5.756E+03	5.756E-01	2.132E+03	2.132E+00
6.000E-01	6.307E+03	6.307E-01	2.336E+03	2.336E+00
7.000E-01	6.813E+03	6.813E-01	2.523E+03	2.523E+00
8.000E-01	7.282E+03	7.282E-01	2.697E+03	2.697E+00
9.000E-01	7.723E+03	7.723E-01	2.861E+03	2.861E+00
1.000E+00	8.142E+03	8.142E-01	3.016E+03	3.016E+00
2.000E+00	1.151E+04	1.151E+00	4.264E+03	4.264E+00
3.000E+00	1.410E+04	1.410E+00	5.223E+03	5.223E+00
4.000E+00	1.629E+04	1.629E+00	6.033E+03	6.033E+00
5.000E+00	1.798E+04	1.798E+00	6.657E+03	6.657E+00
6.000E+00	1.893E+04	1.893E+00	7.014E+03	7.014E+00
7.000E+00	1.947E+04	1.947E+00	7.210E+03	7.210E+00
8.000E+00	1.972E+04	1.972E+00	7.306E+03	7.306E+00
9.000E+00	1.981E+04	1.981E+00	7.336E+03	7.336E+00
1.000E+01	1.977E+04	1.977E+00	7.323E+03	7.323E+00
2.000E+01	1.756E+04	1.756E+00	6.503E+03	6.503E+00
3.000E+01	1.527E+04	1.527E+00	5.655E+03	5.655E+00
4.000E+01	1.347E+04	1.347E+00	4.989E+03	4.989E+00
5.000E+01	1.206E+04	1.206E+00	4.468E+03	4.468E+00
6.000E+01	1.093E+04	1.093E+00	4.050E+03	4.050E+00
7.000E+01	1.001E+04	1.001E+00	3.707E+03	3.707E+00
8.000E+01	9.237E+03	9.237E-01	3.421E+03	3.421E+00
9.000E+01	8.581E+03	8.581E-01	3.178E+03	3.178E+00
1.000E+02	8.015E+03	8.015E-01	2.968E+03	2.968E+00
2.000E+02	4.894E+03	4.894E-01	1.812E+03	1.812E+00
3.000E+02	3.581E+03	3.581E-01	1.326E+03	1.326E+00
4.000E+02	2.857E+03	2.857E-01	1.058E+03	1.058E+00
5.000E+02	2.395E+03	2.395E-01	8.873E+02	8.873E-01
6.000E+02	2.075E+03	2.075E-01	7.686E+02	7.686E-01
7.000E+02	1.839E+03	1.839E-01	6.809E+02	6.809E-01
8.000E+02	1.656E+03	1.656E-01	6.135E+02	6.135E-01
9.000E+02	1.512E+03	1.512E-01	5.599E+02	5.599E-01
1.000E+03	1.394E+03	1.394E-01	5.162E+02	5.162E-01
2.000E+03	8.343E+02	8.343E-02	3.090E+02	3.090E-01
3.000E+03	6.342E+02	6.342E-02	2.349E+02	2.349E-01
4.000E+03	5.312E+02	5.312E-02	1.967E+02	1.967E-01
5.000E+03	4.688E+02	4.688E-02	1.736E+02	1.736E-01
6.000E+03	4.270E+02	4.270E-02	1.582E+02	1.582E-01
7.000E+03	3.975E+02	3.975E-02	1.472E+02	1.472E-01
8.000E+03	3.756E+02	3.756E-02	1.391E+02	1.391E-01
9.000E+03	3.588E+02	3.588E-02	1.329E+02	1.329E-01
1.000E+04	3.457E+02	3.457E-02	1.280E+02	1.280E-01
2.000E+04	2.921E+02	2.921E-02	1.082E+02	1.082E-01
3.000E+04	2.804E+02	2.804E-02	1.039E+02	1.039E-01
4.000E+04	2.782E+02	2.782E-02	1.030E+02	1.030E-01
5.000E+04	2.790E+02	2.790E-02	1.033E+02	1.033E-01
6.000E+04	2.810E+02	2.810E-02	1.040E+02	1.040E-01
7.000E+04	2.833E+02	2.833E-02	1.049E+02	1.049E-01
8.000E+04	2.859E+02	2.859E-02	1.059E+02	1.059E-01
9.000E+04	2.883E+02	2.883E-02	1.068E+02	1.068E-01
1.000E+05	2.907E+02	2.907E-02	1.077E+02	1.077E-01

TABLE 43

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: F Z= 9 A= 19.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	3.803E+03	3.803E-01	1.408E+03	1.408E+00
3.000E-01	4.658E+03	4.658E-01	1.725E+03	1.725E+00
4.000E-01	5.379E+03	5.379E-01	1.993E+03	1.993E+00
5.000E-01	6.015E+03	6.015E-01	2.228E+03	2.228E+00
6.000E-01	6.588E+03	6.588E-01	2.440E+03	2.440E+00
7.000E-01	7.116E+03	7.116E-01	2.636E+03	2.636E+00
8.000E-01	7.607E+03	7.607E-01	2.818E+03	2.818E+00
9.000E-01	8.069E+03	8.069E-01	2.989E+03	2.989E+00
1.000E+00	8.505E+03	8.505E-01	3.151E+03	3.151E+00
2.000E+00	1.203E+04	1.203E+00	4.455E+03	4.455E+00
3.000E+00	1.473E+04	1.473E+00	5.456E+03	5.456E+00
4.000E+00	1.701E+04	1.701E+00	6.299E+03	6.299E+00
5.000E+00	1.903E+04	1.903E+00	7.047E+03	7.047E+00
6.000E+00	2.061E+04	2.061E+00	7.633E+03	7.633E+00
7.000E+00	2.163E+04	2.163E+00	8.015E+03	8.015E+00
8.000E+00	2.229E+04	2.229E+00	8.256E+03	8.256E+00
9.000E+00	2.269E+04	2.269E+00	8.406E+03	8.406E+00
1.000E+01	2.292E+04	2.292E+00	8.489E+03	8.489E+00
2.000E+01	2.173E+04	2.173E+00	8.050E+03	8.050E+00
3.000E+01	1.951E+04	1.951E+00	7.226E+03	7.226E+00
4.000E+01	1.757E+04	1.757E+00	6.509E+03	6.509E+00
5.000E+01	1.597E+04	1.597E+00	5.916E+03	5.916E+00
6.000E+01	1.465E+04	1.465E+00	5.424E+03	5.424E+00
7.000E+01	1.353E+04	1.353E+00	5.012E+03	5.012E+00
8.000E+01	1.258E+04	1.258E+00	4.661E+03	4.661E+00
9.000E+01	1.177E+04	1.177E+00	4.359E+03	4.359E+00
1.000E+02	1.106E+04	1.106E+00	4.097E+03	4.097E+00
2.000E+02	6.982E+03	6.982E-01	2.586E+03	2.586E+00
3.000E+02	5.162E+03	5.162E-01	1.911E+03	1.911E+00
4.000E+02	4.131E+03	4.131E-01	1.530E+03	1.530E+00
5.000E+02	3.468E+03	3.468E-01	1.284E+03	1.284E+00
6.000E+02	3.005E+03	3.005E-01	1.113E+03	1.113E+00
7.000E+02	2.662E+03	2.662E-01	9.858E+02	9.858E-01
8.000E+02	2.397E+03	2.397E-01	8.879E+02	8.879E-01
9.000E+02	2.186E+03	2.186E-01	8.098E+02	8.098E-01
1.000E+03	2.014E+03	2.014E-01	7.460E+02	7.460E-01
2.000E+03	1.194E+03	1.194E-01	4.421E+02	4.421E-01
3.000E+03	8.987E+02	8.987E-02	3.328E+02	3.328E-01
4.000E+03	7.459E+02	7.459E-02	2.763E+02	2.763E-01
5.000E+03	6.526E+02	6.526E-02	2.417E+02	2.417E-01
6.000E+03	5.899E+02	5.899E-02	2.185E+02	2.185E-01
7.000E+03	5.451E+02	5.451E-02	2.019E+02	2.019E-01
8.000E+03	5.117E+02	5.117E-02	1.895E+02	1.895E-01
9.000E+03	4.860E+02	4.860E-02	1.800E+02	1.800E-01
1.000E+04	4.657E+02	4.657E-02	1.725E+02	1.725E-01
2.000E+04	3.808E+02	3.808E-02	1.411E+02	1.411E-01
3.000E+04	3.594E+02	3.594E-02	1.331E+02	1.331E-01
4.000E+04	3.531E+02	3.531E-02	1.307E+02	1.307E-01
5.000E+04	3.521E+02	3.521E-02	1.304E+02	1.304E-01
6.000E+04	3.533E+02	3.533E-02	1.308E+02	1.308E-01
7.000E+04	3.553E+02	3.553E-02	1.316E+02	1.316E-01
8.000E+04	3.578E+02	3.578E-02	1.325E+02	1.325E-01
9.000E+04	3.604E+02	3.604E-02	1.335E+02	1.335E-01
1.000E+05	3.631E+02	3.631E-02	1.345E+02	1.345E-01

TABLE 44

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: NE Z= 10 A= 20.18

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	5.050E+03	5.050E-01	1.870E+03	1.870E+00
4.000E-01	5.831E+03	5.831E-01	2.160E+03	2.160E+00
5.000E-01	6.520E+03	6.520E-01	2.415E+03	2.415E+00
6.000E-01	7.142E+03	7.142E-01	2.645E+03	2.645E+00
7.000E-01	7.714E+03	7.714E-01	2.857E+03	2.857E+00
8.000E-01	8.247E+03	8.247E-01	3.054E+03	3.054E+00
9.000E-01	8.747E+03	8.747E-01	3.240E+03	3.240E+00
1.000E+00	9.220E+03	9.220E-01	3.415E+03	3.415E+00
2.000E+00	1.304E+04	1.304E+00	4.829E+03	4.829E+00
3.000E+00	1.597E+04	1.597E+00	5.914E+03	5.914E+00
4.000E+00	1.844E+04	1.844E+00	6.828E+03	6.828E+00
5.000E+00	2.061E+04	2.061E+00	7.637E+03	7.637E+00
6.000E+00	2.252E+04	2.252E+00	8.341E+03	8.341E+00
7.000E+00	2.390E+04	2.390E+00	8.851E+03	8.851E+00
8.000E+00	2.482E+04	2.482E+00	9.194E+03	9.194E+00
9.000E+00	2.545E+04	2.545E+00	9.425E+03	9.425E+00
1.000E+01	2.586E+04	2.586E+00	9.576E+03	9.576E+00
2.000E+01	2.540E+04	2.540E+00	9.407E+03	9.407E+00
3.000E+01	2.323E+04	2.323E+00	8.604E+03	8.604E+00
4.000E+01	2.118E+04	2.118E+00	7.846E+03	7.846E+00
5.000E+01	1.943E+04	1.943E+00	7.195E+03	7.195E+00
6.000E+01	1.794E+04	1.794E+00	6.644E+03	6.644E+00
7.000E+01	1.667E+04	1.667E+00	6.174E+03	6.174E+00
8.000E+01	1.558E+04	1.558E+00	5.769E+03	5.769E+00
9.000E+01	1.463E+04	1.463E+00	5.418E+03	5.418E+00
1.000E+02	1.379E+04	1.379E+00	5.108E+03	5.108E+00
2.000E+02	8.898E+03	8.898E-01	3.295E+03	3.295E+00
3.000E+02	6.638E+03	6.638E-01	2.458E+03	2.458E+00
4.000E+02	5.332E+03	5.332E-01	1.975E+03	1.975E+00
5.000E+02	4.482E+03	4.482E-01	1.660E+03	1.660E+00
6.000E+02	3.887E+03	3.887E-01	1.440E+03	1.440E+00
7.000E+02	3.444E+03	3.444E-01	1.276E+03	1.276E+00
8.000E+02	3.102E+03	3.102E-01	1.149E+03	1.149E+00
9.000E+02	2.829E+03	2.829E-01	1.048E+03	1.048E+00
1.000E+03	2.606E+03	2.606E-01	9.652E+02	9.652E-01
2.000E+03	1.540E+03	1.540E-01	5.705E+02	5.705E-01
3.000E+03	1.156E+03	1.156E-01	4.281E+02	4.281E-01
4.000E+03	9.563E+02	9.563E-02	3.543E+02	3.543E-01
5.000E+03	8.344E+02	8.344E-02	3.090E+02	3.090E-01
6.000E+03	7.524E+02	7.524E-02	2.786E+02	2.786E-01
7.000E+03	6.936E+02	6.936E-02	2.569E+02	2.569E-01
8.000E+03	6.497E+02	6.497E-02	2.407E+02	2.407E-01
9.000E+03	6.158E+02	6.158E-02	2.281E+02	2.281E-01
1.000E+04	5.889E+02	5.889E-02	2.182E+02	2.182E-01
2.000E+04	4.761E+02	4.761E-02	1.763E+02	1.763E-01
3.000E+04	4.464E+02	4.464E-02	1.653E+02	1.653E-01
4.000E+04	4.370E+02	4.370E-02	1.618E+02	1.618E-01
5.000E+04	4.346E+02	4.346E-02	1.610E+02	1.610E-01
6.000E+04	4.354E+02	4.354E-02	1.613E+02	1.613E-01
7.000E+04	4.375E+02	4.375E-02	1.621E+02	1.621E-01
8.000E+04	4.403E+02	4.403E-02	1.631E+02	1.631E-01
9.000E+04	4.433E+02	4.433E-02	1.642E+02	1.642E-01
1.000E+05	4.463E+02	4.463E-02	1.653E+02	1.653E-01
2.000E+05	4.730E+02	4.730E-02	1.753E+02	1.753E-01

TABLE 45

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: NA Z= 11 A= 22.99

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	5.208E+03	5.208E-01	1.929E+03	1.929E+00
4.000E-01	6.015E+03	6.015E-01	2.227E+03	2.227E+00
5.000E-01	6.725E+03	6.725E-01	2.491E+03	2.491E+00
6.000E-01	7.366E+03	7.366E-01	2.728E+03	2.728E+00
7.000E-01	7.956E+03	7.956E-01	2.947E+03	2.947E+00
8.000E-01	8.506E+03	8.506E-01	3.151E+03	3.151E+00
9.000E-01	9.022E+03	9.022E-01	3.342E+03	3.342E+00
1.000E+00	9.509E+03	9.509E-01	3.523E+03	3.523E+00
2.000E+00	1.345E+04	1.345E+00	4.981E+03	4.981E+00
3.000E+00	1.647E+04	1.647E+00	6.100E+03	6.100E+00
4.000E+00	1.902E+04	1.902E+00	7.044E+03	7.044E+00
5.000E+00	2.126E+04	2.126E+00	7.874E+03	7.874E+00
6.000E+00	2.330E+04	2.330E+00	8.627E+03	8.627E+00
7.000E+00	2.510E+04	2.510E+00	9.296E+03	9.296E+00
8.000E+00	2.647E+04	2.647E+00	9.805E+03	9.805E+00
9.000E+00	2.746E+04	2.746E+00	1.017E+04	1.017E+01
1.000E+01	2.817E+04	2.817E+00	1.043E+04	1.043E+01
2.000E+01	2.923E+04	2.923E+00	1.082E+04	1.082E+01
3.000E+01	2.747E+04	2.747E+00	1.017E+04	1.017E+01
4.000E+01	2.549E+04	2.549E+00	9.442E+03	9.442E+00
5.000E+01	2.369E+04	2.369E+00	8.773E+03	8.773E+00
6.000E+01	2.209E+04	2.209E+00	8.182E+03	8.182E+00
7.000E+01	2.070E+04	2.070E+00	7.665E+03	7.665E+00
8.000E+01	1.947E+04	1.947E+00	7.211E+03	7.211E+00
9.000E+01	1.839E+04	1.839E+00	6.811E+03	6.811E+00
1.000E+02	1.744E+04	1.744E+00	6.456E+03	6.456E+00
2.000E+02	1.159E+04	1.159E+00	4.293E+03	4.293E+00
3.000E+02	8.774E+03	8.774E-01	3.250E+03	3.250E+00
4.000E+02	7.097E+03	7.097E-01	2.629E+03	2.629E+00
5.000E+02	5.987E+03	5.987E-01	2.217E+03	2.217E+00
6.000E+02	5.199E+03	5.199E-01	1.926E+03	1.926E+00
7.000E+02	4.610E+03	4.610E-01	1.707E+03	1.707E+00
8.000E+02	4.154E+03	4.154E-01	1.538E+03	1.538E+00
9.000E+02	3.788E+03	3.788E-01	1.403E+03	1.403E+00
1.000E+03	3.488E+03	3.488E-01	1.292E+03	1.292E+00
2.000E+03	2.052E+03	2.052E-01	7.600E+02	7.600E-01
3.000E+03	1.531E+03	1.531E-01	5.668E+02	5.668E-01
4.000E+03	1.258E+03	1.258E-01	4.662E+02	4.662E-01
5.000E+03	1.092E+03	1.092E-01	4.044E+02	4.044E-01
6.000E+03	9.794E+02	9.794E-02	3.628E+02	3.628E-01
7.000E+03	8.987E+02	8.987E-02	3.328E+02	3.328E-01
8.000E+03	8.379E+02	8.379E-02	3.103E+02	3.103E-01
9.000E+03	7.909E+02	7.909E-02	2.929E+02	2.929E-01
1.000E+04	7.534E+02	7.534E-02	2.790E+02	2.790E-01
2.000E+04	5.941E+02	5.941E-02	2.200E+02	2.200E-01
3.000E+04	5.488E+02	5.488E-02	2.033E+02	2.033E-01
4.000E+04	5.327E+02	5.327E-02	1.973E+02	1.973E-01
5.000E+04	5.270E+02	5.270E-02	1.952E+02	1.952E-01
6.000E+04	5.259E+02	5.259E-02	1.948E+02	1.948E-01
7.000E+04	5.271E+02	5.271E-02	1.952E+02	1.952E-01
8.000E+04	5.295E+02	5.295E-02	1.961E+02	1.961E-01
9.000E+04	5.324E+02	5.324E-02	1.972E+02	1.972E-01
1.000E+05	5.355E+02	5.355E-02	1.984E+02	1.984E-01
2.000E+05	5.656E+02	5.656E-02	2.095E+02	2.095E-01

TABLE 46

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: MG Z= 12 A= 24.32

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	5.510E+03	5.510E-01	2.041E+03	2.041E+00
4.000E-01	6.362E+03	6.362E-01	2.356E+03	2.356E+00
5.000E-01	7.113E+03	7.113E-01	2.634E+03	2.634E+00
6.000E-01	7.791E+03	7.791E-01	2.886E+03	2.886E+00
7.000E-01	8.416E+03	8.416E-01	3.117E+03	3.117E+00
8.000E-01	8.996E+03	8.996E-01	3.332E+03	3.332E+00
9.000E-01	9.543E+03	9.543E-01	3.534E+03	3.534E+00
1.000E+00	1.006E+04	1.006E+00	3.726E+03	3.726E+00
2.000E+00	1.422E+04	1.422E+00	5.268E+03	5.268E+00
3.000E+00	1.742E+04	1.742E+00	6.452E+03	6.452E+00
4.000E+00	2.012E+04	2.012E+00	7.450E+03	7.450E+00
5.000E+00	2.249E+04	2.249E+00	8.329E+03	8.329E+00
6.000E+00	2.463E+04	2.463E+00	9.123E+03	9.123E+00
7.000E+00	2.661E+04	2.661E+00	9.856E+03	9.856E+00
8.000E+00	2.831E+04	2.831E+00	1.049E+04	1.049E+01
9.000E+00	2.956E+04	2.956E+00	1.095E+04	1.095E+01
1.000E+01	3.050E+04	3.050E+00	1.130E+04	1.130E+01
2.000E+01	3.269E+04	3.269E+00	1.211E+04	1.211E+01
3.000E+01	3.124E+04	3.124E+00	1.157E+04	1.157E+01
4.000E+01	2.934E+04	2.934E+00	1.087E+04	1.087E+01
5.000E+01	2.749E+04	2.749E+00	1.018E+04	1.018E+01
6.000E+01	2.581E+04	2.581E+00	9.560E+03	9.560E+00
7.000E+01	2.431E+04	2.431E+00	9.004E+03	9.004E+00
8.000E+01	2.298E+04	2.298E+00	8.511E+03	8.511E+00
9.000E+01	2.178E+04	2.178E+00	8.069E+03	8.069E+00
1.000E+02	2.072E+04	2.072E+00	7.674E+03	7.674E+00
2.000E+02	1.407E+04	1.407E+00	5.209E+03	5.209E+00
3.000E+02	1.076E+04	1.076E+00	3.985E+03	3.985E+00
4.000E+02	8.758E+03	8.758E-01	3.243E+03	3.243E+00
5.000E+02	7.412E+03	7.412E-01	2.745E+03	2.745E+00
6.000E+02	6.448E+03	6.448E-01	2.388E+03	2.388E+00
7.000E+02	5.723E+03	5.723E-01	2.120E+03	2.120E+00
8.000E+02	5.158E+03	5.158E-01	1.911E+03	1.911E+00
9.000E+02	4.705E+03	4.705E-01	1.743E+03	1.743E+00
1.000E+03	4.335E+03	4.335E-01	1.605E+03	1.605E+00
2.000E+03	2.546E+03	2.546E-01	9.432E+02	9.432E-01
3.000E+03	1.894E+03	1.894E-01	7.017E+02	7.017E-01
4.000E+03	1.555E+03	1.555E-01	5.758E+02	5.758E-01
5.000E+03	1.345E+03	1.345E-01	4.985E+02	4.985E-01
6.000E+03	1.205E+03	1.205E-01	4.461E+02	4.461E-01
7.000E+03	1.102E+03	1.102E-01	4.085E+02	4.085E-01
8.000E+03	1.027E+03	1.027E-01	3.801E+02	3.801E-01
9.000E+03	9.671E+02	9.671E-02	3.582E+02	3.582E-01
1.000E+04	9.198E+02	9.198E-02	3.407E+02	3.407E-01
2.000E+04	7.172E+02	7.172E-02	2.657E+02	2.657E-01
3.000E+04	6.585E+02	6.585E-02	2.440E+02	2.440E-01
4.000E+04	6.367E+02	6.367E-02	2.358E+02	2.358E-01
5.000E+04	6.283E+02	6.283E-02	2.327E+02	2.327E-01
6.000E+04	6.259E+02	6.259E-02	2.318E+02	2.318E-01
7.000E+04	6.266E+02	6.266E-02	2.321E+02	2.321E-01
8.000E+04	6.288E+02	6.288E-02	2.328E+02	2.328E-01
9.000E+04	6.318E+02	6.318E-02	2.340E+02	2.340E-01
1.000E+05	6.352E+02	6.352E-02	2.353E+02	2.353E-01
2.000E+05	6.698E+02	6.698E-02	2.480E+02	2.480E-01

TABLE 47

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AL Z= 13 A= 26.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	5.636E+03	5.636E-01	2.087E+03	2.087E+00
4.000E-01	6.509E+03	6.509E-01	2.411E+03	2.411E+00
5.000E-01	7.278E+03	7.278E-01	2.695E+03	2.695E+00
6.000E-01	7.972E+03	7.972E-01	2.953E+03	2.953E+00
7.000E-01	8.611E+03	8.611E-01	3.189E+03	3.189E+00
8.000E-01	9.206E+03	9.206E-01	3.410E+03	3.410E+00
9.000E-01	9.764E+03	9.764E-01	3.616E+03	3.616E+00
1.000E+00	1.029E+04	1.029E+00	3.812E+03	3.812E+00
2.000E+00	1.455E+04	1.455E+00	5.390E+03	5.390E+00
3.000E+00	1.782E+04	1.782E+00	6.602E+03	6.602E+00
4.000E+00	2.059E+04	2.059E+00	7.623E+03	7.623E+00
5.000E+00	2.301E+04	2.301E+00	8.522E+03	8.522E+00
6.000E+00	2.521E+04	2.521E+00	9.336E+03	9.336E+00
7.000E+00	2.722E+04	2.722E+00	1.008E+04	1.008E+01
8.000E+00	2.913E+04	2.913E+00	1.079E+04	1.079E+01
9.000E+00	3.077E+04	3.077E+00	1.140E+04	1.140E+01
1.000E+01	3.202E+04	3.202E+00	1.186E+04	1.186E+01
2.000E+01	3.600E+04	3.600E+00	1.334E+04	1.334E+01
3.000E+01	3.520E+04	3.520E+00	1.304E+04	1.304E+01
4.000E+01	3.356E+04	3.356E+00	1.243E+04	1.243E+01
5.000E+01	3.181E+04	3.181E+00	1.178E+04	1.178E+01
6.000E+01	3.013E+04	3.013E+00	1.116E+04	1.116E+01
7.000E+01	2.860E+04	2.860E+00	1.059E+04	1.059E+01
8.000E+01	2.719E+04	2.719E+00	1.007E+04	1.007E+01
9.000E+01	2.592E+04	2.592E+00	9.598E+03	9.598E+00
1.000E+02	2.475E+04	2.475E+00	9.167E+03	9.167E+00
2.000E+02	1.727E+04	1.727E+00	6.395E+03	6.395E+00
3.000E+02	1.340E+04	1.340E+00	4.962E+03	4.962E+00
4.000E+02	1.099E+04	1.099E+00	4.073E+03	4.073E+00
5.000E+02	9.361E+03	9.361E-01	3.467E+03	3.467E+00
6.000E+02	8.168E+03	8.168E-01	3.025E+03	3.025E+00
7.000E+02	7.263E+03	7.263E-01	2.690E+03	2.690E+00
8.000E+02	6.554E+03	6.554E-01	2.428E+03	2.428E+00
9.000E+02	5.983E+03	5.983E-01	2.216E+03	2.216E+00
1.000E+03	5.513E+03	5.513E-01	2.042E+03	2.042E+00
2.000E+03	3.233E+03	3.233E-01	1.197E+03	1.197E+00
3.000E+03	2.396E+03	2.396E-01	8.872E+02	8.872E-01
4.000E+03	1.957E+03	1.957E-01	7.251E+02	7.251E-01
5.000E+03	1.688E+03	1.688E-01	6.252E+02	6.252E-01
6.000E+03	1.505E+03	1.505E-01	5.575E+02	5.575E-01
7.000E+03	1.373E+03	1.373E-01	5.087E+02	5.087E-01
8.000E+03	1.274E+03	1.274E-01	4.718E+02	4.718E-01
9.000E+03	1.196E+03	1.196E-01	4.431E+02	4.431E-01
1.000E+04	1.135E+03	1.135E-01	4.202E+02	4.202E-01
2.000E+04	8.659E+02	8.659E-02	3.207E+02	3.207E-01
3.000E+04	7.866E+02	7.866E-02	2.914E+02	2.914E-01
4.000E+04	7.546E+02	7.546E-02	2.795E+02	2.795E-01
5.000E+04	7.410E+02	7.410E-02	2.744E+02	2.744E-01
6.000E+04	7.356E+02	7.356E-02	2.725E+02	2.725E-01
7.000E+04	7.346E+02	7.346E-02	2.721E+02	2.721E-01
8.000E+04	7.358E+02	7.358E-02	2.725E+02	2.725E-01
9.000E+04	7.383E+02	7.383E-02	2.735E+02	2.735E-01
1.000E+05	7.415E+02	7.415E-02	2.746E+02	2.746E-01
2.000E+05	7.788E+02	7.788E-02	2.885E+02	2.885E-01

TABLE 48

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: SI Z= 14 A= 28.09

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	5.918E+03	5.918E-01	2.192E+03	2.192E+00
4.000E-01	6.836E+03	6.836E-01	2.532E+03	2.532E+00
5.000E-01	7.642E+03	7.642E-01	2.831E+03	2.831E+00
6.000E-01	8.372E+03	8.372E-01	3.101E+03	3.101E+00
7.000E-01	9.043E+03	9.043E-01	3.349E+03	3.349E+00
8.000E-01	9.667E+03	9.667E-01	3.581E+03	3.581E+00
9.000E-01	1.026E+04	1.026E+00	3.798E+03	3.798E+00
1.000E+00	1.081E+04	1.081E+00	4.004E+03	4.004E+00
2.000E+00	1.529E+04	1.529E+00	5.661E+03	5.661E+00
3.000E+00	1.872E+04	1.872E+00	6.934E+03	6.934E+00
4.000E+00	2.161E+04	2.161E+00	8.006E+03	8.006E+00
5.000E+00	2.416E+04	2.416E+00	8.950E+03	8.950E+00
6.000E+00	2.647E+04	2.647E+00	9.804E+03	9.804E+00
7.000E+00	2.859E+04	2.859E+00	1.059E+04	1.059E+01
8.000E+00	3.058E+04	3.058E+00	1.132E+04	1.132E+01
9.000E+00	3.240E+04	3.240E+00	1.200E+04	1.200E+01
1.000E+01	3.389E+04	3.389E+00	1.255E+04	1.255E+01
2.000E+01	3.911E+04	3.911E+00	1.449E+04	1.449E+01
3.000E+01	3.877E+04	3.877E+00	1.436E+04	1.436E+01
4.000E+01	3.730E+04	3.730E+00	1.382E+04	1.382E+01
5.000E+01	3.560E+04	3.560E+00	1.318E+04	1.318E+01
6.000E+01	3.392E+04	3.392E+00	1.257E+04	1.257E+01
7.000E+01	3.234E+04	3.234E+00	1.198E+04	1.198E+01
8.000E+01	3.087E+04	3.087E+00	1.143E+04	1.143E+01
9.000E+01	2.952E+04	2.952E+00	1.093E+04	1.093E+01
1.000E+02	2.829E+04	2.829E+00	1.048E+04	1.048E+01
2.000E+02	2.009E+04	2.009E+00	7.438E+03	7.438E+00
3.000E+02	1.573E+04	1.573E+00	5.825E+03	5.825E+00
4.000E+02	1.299E+04	1.299E+00	4.811E+03	4.811E+00
5.000E+02	1.110E+04	1.110E+00	4.111E+03	4.111E+00
6.000E+02	9.717E+03	9.717E-01	3.598E+03	3.598E+00
7.000E+02	8.652E+03	8.652E-01	3.205E+03	3.205E+00
8.000E+02	7.817E+03	7.817E-01	2.895E+03	2.895E+00
9.000E+02	7.141E+03	7.141E-01	2.645E+03	2.645E+00
1.000E+03	6.583E+03	6.583E-01	2.438E+03	2.438E+00
2.000E+03	3.861E+03	3.861E-01	1.430E+03	1.430E+00
3.000E+03	2.858E+03	2.858E-01	1.059E+03	1.059E+00
4.000E+03	2.333E+03	2.333E-01	8.640E+02	8.640E-01
5.000E+03	2.008E+03	2.008E-01	7.439E+02	7.439E-01
6.000E+03	1.788E+03	1.788E-01	6.625E+02	6.625E-01
7.000E+03	1.630E+03	1.630E-01	6.036E+02	6.036E-01
8.000E+03	1.510E+03	1.510E-01	5.593E+02	5.593E-01
9.000E+03	1.416E+03	1.416E-01	5.247E+02	5.247E-01
1.000E+04	1.342E+03	1.342E-01	4.970E+02	4.970E-01
2.000E+04	1.016E+03	1.016E-01	3.762E+02	3.762E-01
3.000E+04	9.191E+02	9.191E-02	3.404E+02	3.404E-01
4.000E+04	8.791E+02	8.791E-02	3.256E+02	3.256E-01
5.000E+04	8.614E+02	8.614E-02	3.191E+02	3.191E-01
6.000E+04	8.541E+02	8.541E-02	3.163E+02	3.163E-01
7.000E+04	8.519E+02	8.519E-02	3.155E+02	3.155E-01
8.000E+04	8.527E+02	8.527E-02	3.158E+02	3.158E-01
9.000E+04	8.551E+02	8.551E-02	3.167E+02	3.167E-01
1.000E+05	8.584E+02	8.584E-02	3.179E+02	3.179E-01
2.000E+05	9.001E+02	9.001E-02	3.334E+02	3.334E-01

TABLE 49

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: P Z= 15 A= 30.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	6.925E+03	6.925E-01	2.565E+03	2.565E+00
5.000E-01	7.741E+03	7.741E-01	2.867E+03	2.867E+00
6.000E-01	8.481E+03	8.481E-01	3.141E+03	3.141E+00
7.000E-01	9.159E+03	9.159E-01	3.393E+03	3.393E+00
8.000E-01	9.792E+03	9.792E-01	3.627E+03	3.627E+00
9.000E-01	1.039E+04	1.039E+00	3.847E+03	3.847E+00
1.000E+00	1.095E+04	1.095E+00	4.055E+03	4.055E+00
2.000E+00	1.549E+04	1.549E+00	5.735E+03	5.735E+00
3.000E+00	1.896E+04	1.896E+00	7.023E+03	7.023E+00
4.000E+00	2.190E+04	2.190E+00	8.109E+03	8.109E+00
5.000E+00	2.447E+04	2.447E+00	9.066E+03	9.066E+00
6.000E+00	2.682E+04	2.682E+00	9.930E+03	9.930E+00
7.000E+00	2.897E+04	2.897E+00	1.072E+04	1.072E+01
8.000E+00	3.096E+04	3.096E+00	1.146E+04	1.146E+01
9.000E+00	3.285E+04	3.285E+00	1.217E+04	1.217E+01
1.000E+01	3.460E+04	3.460E+00	1.281E+04	1.281E+01
2.000E+01	4.183E+04	4.183E+00	1.549E+04	1.549E+01
3.000E+01	4.237E+04	4.237E+00	1.569E+04	1.569E+01
4.000E+01	4.135E+04	4.135E+00	1.531E+04	1.531E+01
5.000E+01	3.988E+04	3.988E+00	1.477E+04	1.477E+01
6.000E+01	3.832E+04	3.832E+00	1.419E+04	1.419E+01
7.000E+01	3.678E+04	3.678E+00	1.362E+04	1.362E+01
8.000E+01	3.532E+04	3.532E+00	1.308E+04	1.308E+01
9.000E+01	3.395E+04	3.395E+00	1.258E+04	1.258E+01
1.000E+02	3.268E+04	3.268E+00	1.211E+04	1.211E+01
2.000E+02	2.381E+04	2.381E+00	8.818E+03	8.818E+00
3.000E+02	1.890E+04	1.890E+00	7.000E+03	7.000E+00
4.000E+02	1.575E+04	1.575E+00	5.834E+03	5.834E+00
5.000E+02	1.355E+04	1.355E+00	5.017E+03	5.017E+00
6.000E+02	1.191E+04	1.191E+00	4.410E+03	4.410E+00
7.000E+02	1.064E+04	1.064E+00	3.941E+03	3.941E+00
8.000E+02	9.632E+03	9.632E-01	3.568E+03	3.568E+00
9.000E+02	8.813E+03	8.813E-01	3.263E+03	3.263E+00
1.000E+03	8.132E+03	8.132E-01	3.011E+03	3.011E+00
2.000E+03	4.773E+03	4.773E-01	1.768E+03	1.768E+00
3.000E+03	3.524E+03	3.524E-01	1.305E+03	1.305E+00
4.000E+03	2.867E+03	2.867E-01	1.061E+03	1.061E+00
5.000E+03	2.460E+03	2.460E-01	9.110E+02	9.110E-01
6.000E+03	2.183E+03	2.183E-01	8.086E+02	8.086E-01
7.000E+03	1.984E+03	1.984E-01	7.346E+02	7.346E-01
8.000E+03	1.832E+03	1.832E-01	6.787E+02	6.787E-01
9.000E+03	1.714E+03	1.714E-01	6.349E+02	6.349E-01
1.000E+04	1.619E+03	1.619E-01	5.999E+02	5.999E-01
2.000E+04	1.203E+03	1.203E-01	4.453E+02	4.453E-01
3.000E+04	1.077E+03	1.077E-01	3.987E+02	3.987E-01
4.000E+04	1.022E+03	1.022E-01	3.785E+02	3.785E-01
5.000E+04	9.962E+02	9.962E-02	3.691E+02	3.691E-01
6.000E+04	9.842E+02	9.842E-02	3.645E+02	3.645E-01
7.000E+04	9.791E+02	9.791E-02	3.626E+02	3.626E-01
8.000E+04	9.780E+02	9.780E-02	3.622E+02	3.622E-01
9.000E+04	9.792E+02	9.792E-02	3.627E+02	3.627E-01
1.000E+05	9.819E+02	9.819E-02	3.637E+02	3.637E-01
2.000E+05	1.025E+03	1.025E-01	3.796E+02	3.796E-01
3.000E+05	1.062E+03	1.062E-01	3.933E+02	3.933E-01

TABLE 50

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: S Z= 16 A= 32.07

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	7.197E+03	7.197E-01	2.665E+03	2.665E+00
5.000E-01	8.046E+03	8.046E-01	2.980E+03	2.980E+00
6.000E-01	8.814E+03	8.814E-01	3.265E+03	3.265E+00
7.000E-01	9.519E+03	9.519E-01	3.526E+03	3.526E+00
8.000E-01	1.018E+04	1.018E+00	3.769E+03	3.769E+00
9.000E-01	1.080E+04	1.080E+00	3.998E+03	3.998E+00
1.000E+00	1.138E+04	1.138E+00	4.214E+03	4.214E+00
2.000E+00	1.610E+04	1.610E+00	5.960E+03	5.960E+00
3.000E+00	1.971E+04	1.971E+00	7.299E+03	7.299E+00
4.000E+00	2.276E+04	2.276E+00	8.428E+03	8.428E+00
5.000E+00	2.544E+04	2.544E+00	9.422E+03	9.422E+00
6.000E+00	2.787E+04	2.787E+00	1.032E+04	1.032E+01
7.000E+00	3.010E+04	3.010E+00	1.115E+04	1.115E+01
8.000E+00	3.217E+04	3.217E+00	1.192E+04	1.192E+01
9.000E+00	3.413E+04	3.413E+00	1.264E+04	1.264E+01
1.000E+01	3.597E+04	3.597E+00	1.333E+04	1.333E+01
2.000E+01	4.454E+04	4.454E+00	1.649E+04	1.649E+01
3.000E+01	4.566E+04	4.566E+00	1.691E+04	1.691E+01
4.000E+01	4.493E+04	4.493E+00	1.664E+04	1.664E+01
5.000E+01	4.361E+04	4.361E+00	1.615E+04	1.615E+01
6.000E+01	4.211E+04	4.211E+00	1.559E+04	1.559E+01
7.000E+01	4.059E+04	4.059E+00	1.504E+04	1.504E+01
8.000E+01	3.913E+04	3.913E+00	1.449E+04	1.449E+01
9.000E+01	3.772E+04	3.772E+00	1.397E+04	1.397E+01
1.000E+02	3.640E+04	3.640E+00	1.349E+04	1.349E+01
2.000E+02	2.698E+04	2.698E+00	9.990E+03	9.990E+00
3.000E+02	2.159E+04	2.159E+00	7.999E+03	7.999E+00
4.000E+02	1.810E+04	1.810E+00	6.706E+03	6.706E+00
5.000E+02	1.563E+04	1.563E+00	5.791E+03	5.791E+00
6.000E+02	1.379E+04	1.379E+00	5.106E+03	5.106E+00
7.000E+02	1.234E+04	1.234E+00	4.574E+03	4.574E+00
8.000E+02	1.120E+04	1.120E+00	4.147E+03	4.147E+00
9.000E+02	1.026E+04	1.026E+00	3.799E+03	3.799E+00
1.000E+03	9.474E+03	9.474E-01	3.509E+03	3.509E+00
2.000E+03	5.573E+03	5.573E-01	2.064E+03	2.064E+00
3.000E+03	4.112E+03	4.112E-01	1.523E+03	1.523E+00
4.000E+03	3.341E+03	3.341E-01	1.237E+03	1.237E+00
5.000E+03	2.864E+03	2.864E-01	1.061E+03	1.061E+00
6.000E+03	2.540E+03	2.540E-01	9.408E+02	9.408E-01
7.000E+03	2.305E+03	2.305E-01	8.537E+02	8.537E-01
8.000E+03	2.127E+03	2.127E-01	7.879E+02	7.879E-01
9.000E+03	1.989E+03	1.989E-01	7.365E+02	7.365E-01
1.000E+04	1.877E+03	1.877E-01	6.951E+02	6.951E-01
2.000E+04	1.383E+03	1.383E-01	5.125E+02	5.125E-01
3.000E+04	1.235E+03	1.235E-01	4.574E+02	4.574E-01
4.000E+04	1.169E+03	1.169E-01	4.329E+02	4.329E-01
5.000E+04	1.137E+03	1.137E-01	4.212E+02	4.212E-01
6.000E+04	1.122E+03	1.122E-01	4.155E+02	4.155E-01
7.000E+04	1.115E+03	1.115E-01	4.129E+02	4.129E-01
8.000E+04	1.113E+03	1.113E-01	4.121E+02	4.121E-01
9.000E+04	1.114E+03	1.114E-01	4.124E+02	4.124E-01
1.000E+05	1.116E+03	1.116E-01	4.133E+02	4.133E-01
2.000E+05	1.162E+03	1.162E-01	4.306E+02	4.306E-01
3.000E+05	1.205E+03	1.205E-01	4.461E+02	4.461E-01

TABLE 51

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CL Z= 17 A= 35.46

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	7.200E+03	7.200E-01	2.666E+03	2.666E+00
5.000E-01	8.050E+03	8.050E-01	2.982E+03	2.982E+00
6.000E-01	8.819E+03	8.819E-01	3.266E+03	3.266E+00
7.000E-01	9.526E+03	9.526E-01	3.528E+03	3.528E+00
8.000E-01	1.018E+04	1.018E+00	3.771E+03	3.771E+00
9.000E-01	1.080E+04	1.080E+00	4.000E+03	4.000E+00
1.000E+00	1.138E+04	1.138E+00	4.216E+03	4.216E+00
2.000E+00	1.610E+04	1.610E+00	5.963E+03	5.963E+00
3.000E+00	1.972E+04	1.972E+00	7.303E+03	7.303E+00
4.000E+00	2.277E+04	2.277E+00	8.432E+03	8.432E+00
5.000E+00	2.545E+04	2.545E+00	9.429E+03	9.429E+00
6.000E+00	2.789E+04	2.789E+00	1.033E+04	1.033E+01
7.000E+00	3.011E+04	3.011E+00	1.115E+04	1.115E+01
8.000E+00	3.220E+04	3.220E+00	1.193E+04	1.193E+01
9.000E+00	3.415E+04	3.415E+00	1.265E+04	1.265E+01
1.000E+01	3.600E+04	3.600E+00	1.333E+04	1.333E+01
2.000E+01	4.653E+04	4.653E+00	1.723E+04	1.723E+01
3.000E+01	4.875E+04	4.875E+00	1.805E+04	1.805E+01
4.000E+01	4.864E+04	4.864E+00	1.802E+04	1.802E+01
5.000E+01	4.771E+04	4.771E+00	1.767E+04	1.767E+01
6.000E+01	4.645E+04	4.645E+00	1.720E+04	1.720E+01
7.000E+01	4.508E+04	4.508E+00	1.670E+04	1.670E+01
8.000E+01	4.371E+04	4.371E+00	1.619E+04	1.619E+01
9.000E+01	4.236E+04	4.236E+00	1.568E+04	1.568E+01
1.000E+02	4.107E+04	4.107E+00	1.521E+04	1.521E+01
2.000E+02	3.126E+04	3.126E+00	1.158E+04	1.158E+01
3.000E+02	2.538E+04	2.538E+00	9.398E+03	9.398E+00
4.000E+02	2.147E+04	2.147E+00	7.950E+03	7.950E+00
5.000E+02	1.866E+04	1.866E+00	6.911E+03	6.911E+00
6.000E+02	1.654E+04	1.654E+00	6.125E+03	6.125E+00
7.000E+02	1.487E+04	1.487E+00	5.508E+03	5.508E+00
8.000E+02	1.353E+04	1.353E+00	5.011E+03	5.011E+00
9.000E+02	1.242E+04	1.242E+00	4.601E+03	4.601E+00
1.000E+03	1.149E+04	1.149E+00	4.258E+03	4.258E+00
2.000E+03	6.788E+03	6.788E-01	2.514E+03	2.514E+00
3.000E+03	4.999E+03	4.999E-01	1.852E+03	1.852E+00
4.000E+03	4.052E+03	4.052E-01	1.500E+03	1.500E+00
5.000E+03	3.462E+03	3.462E-01	1.283E+03	1.283E+00
6.000E+03	3.062E+03	3.062E-01	1.134E+03	1.134E+00
7.000E+03	2.771E+03	2.771E-01	1.026E+03	1.026E+00
8.000E+03	2.550E+03	2.550E-01	9.446E+02	9.446E-01
9.000E+03	2.378E+03	2.378E-01	8.805E+02	8.805E-01
1.000E+04	2.239E+03	2.239E-01	8.291E+02	8.291E-01
2.000E+04	1.618E+03	1.618E-01	5.994E+02	5.994E-01
3.000E+04	1.429E+03	1.429E-01	5.293E+02	5.293E-01
4.000E+04	1.341E+03	1.341E-01	4.968E+02	4.968E-01
5.000E+04	1.298E+03	1.298E-01	4.807E+02	4.807E-01
6.000E+04	1.275E+03	1.275E-01	4.722E+02	4.722E-01
7.000E+04	1.263E+03	1.263E-01	4.678E+02	4.678E-01
8.000E+04	1.257E+03	1.257E-01	4.658E+02	4.658E-01
9.000E+04	1.256E+03	1.256E-01	4.652E+02	4.652E-01
1.000E+05	1.258E+03	1.258E-01	4.656E+02	4.656E-01
2.000E+05	1.302E+03	1.302E-01	4.824E+02	4.824E-01
3.000E+05	1.348E+03	1.348E-01	4.991E+02	4.991E-01

TABLE 52

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AR Z= 18 A= 39.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	7.106E+03	7.106E-01	2.632E+03	2.632E+00
5.000E-01	7.946E+03	7.946E-01	2.943E+03	2.943E+00
6.000E-01	8.704E+03	8.704E-01	3.224E+03	3.224E+00
7.000E-01	9.402E+03	9.402E-01	3.482E+03	3.482E+00
8.000E-01	1.005E+04	1.005E+00	3.722E+03	3.722E+00
9.000E-01	1.066E+04	1.066E+00	3.948E+03	3.948E+00
1.000E+00	1.124E+04	1.124E+00	4.161E+03	4.161E+00
2.000E+00	1.589E+04	1.589E+00	5.885E+03	5.885E+00
3.000E+00	1.946E+04	1.946E+00	7.208E+03	7.208E+00
4.000E+00	2.247E+04	2.247E+00	8.323E+03	8.323E+00
5.000E+00	2.512E+04	2.512E+00	9.305E+03	9.305E+00
6.000E+00	2.752E+04	2.752E+00	1.019E+04	1.019E+01
7.000E+00	2.973E+04	2.973E+00	1.101E+04	1.101E+01
8.000E+00	3.178E+04	3.178E+00	1.177E+04	1.177E+01
9.000E+00	3.371E+04	3.371E+00	1.248E+04	1.248E+01
1.000E+01	3.553E+04	3.553E+00	1.316E+04	1.316E+01
2.000E+01	4.777E+04	4.777E+00	1.769E+04	1.769E+01
3.000E+01	5.134E+04	5.134E+00	1.901E+04	1.901E+01
4.000E+01	5.204E+04	5.204E+00	1.928E+04	1.928E+01
5.000E+01	5.164E+04	5.164E+00	1.913E+04	1.913E+01
6.000E+01	5.074E+04	5.074E+00	1.879E+04	1.879E+01
7.000E+01	4.963E+04	4.963E+00	1.838E+04	1.838E+01
8.000E+01	4.843E+04	4.843E+00	1.794E+04	1.794E+01
9.000E+01	4.720E+04	4.720E+00	1.748E+04	1.748E+01
1.000E+02	4.598E+04	4.598E+00	1.702E+04	1.702E+01
2.000E+02	3.611E+04	3.611E+00	1.338E+04	1.338E+01
3.000E+02	2.976E+04	2.976E+00	1.103E+04	1.103E+01
4.000E+02	2.543E+04	2.543E+00	9.418E+03	9.418E+00
5.000E+02	2.227E+04	2.227E+00	8.249E+03	8.249E+00
6.000E+02	1.986E+04	1.986E+00	7.354E+03	7.354E+00
7.000E+02	1.794E+04	1.794E+00	6.645E+03	6.645E+00
8.000E+02	1.639E+04	1.639E+00	6.068E+03	6.068E+00
9.000E+02	1.509E+04	1.509E+00	5.588E+03	5.588E+00
1.000E+03	1.399E+04	1.399E+00	5.184E+03	5.184E+00
2.000E+03	8.326E+03	8.326E-01	3.084E+03	3.084E+00
3.000E+03	6.123E+03	6.123E-01	2.268E+03	2.268E+00
4.000E+03	4.950E+03	4.950E-01	1.833E+03	1.833E+00
5.000E+03	4.218E+03	4.218E-01	1.562E+03	1.562E+00
6.000E+03	3.719E+03	3.719E-01	1.377E+03	1.377E+00
7.000E+03	3.354E+03	3.354E-01	1.242E+03	1.242E+00
8.000E+03	3.078E+03	3.078E-01	1.140E+03	1.140E+00
9.000E+03	2.862E+03	2.862E-01	1.060E+03	1.060E+00
1.000E+04	2.687E+03	2.687E-01	9.955E+02	9.955E-01
2.000E+04	1.900E+03	1.900E-01	7.038E+02	7.038E-01
3.000E+04	1.654E+03	1.654E-01	6.125E+02	6.125E-01
4.000E+04	1.539E+03	1.539E-01	5.701E+02	5.701E-01
5.000E+04	1.478E+03	1.478E-01	5.476E+02	5.476E-01
6.000E+04	1.445E+03	1.445E-01	5.350E+02	5.350E-01
7.000E+04	1.425E+03	1.425E-01	5.279E+02	5.279E-01
8.000E+04	1.415E+03	1.415E-01	5.241E+02	5.241E-01
9.000E+04	1.410E+03	1.410E-01	5.223E+02	5.223E-01
1.000E+05	1.408E+03	1.408E-01	5.216E+02	5.216E-01
2.000E+05	1.447E+03	1.447E-01	5.361E+02	5.361E-01
3.000E+05	1.495E+03	1.495E-01	5.537E+02	5.537E-01

TABLE 53

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: K Z= 19 A= 39.10

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	7.494E+03	7.494E-01	2.776E+03	2.776E+00
5.000E-01	8.381E+03	8.381E-01	3.105E+03	3.105E+00
6.000E-01	9.181E+03	9.181E-01	3.400E+03	3.400E+00
7.000E-01	9.917E+03	9.917E-01	3.672E+03	3.672E+00
8.000E-01	1.060E+04	1.060E+00	3.926E+03	3.926E+00
9.000E-01	1.125E+04	1.125E+00	4.164E+03	4.164E+00
1.000E+00	1.186E+04	1.186E+00	4.391E+03	4.391E+00
2.000E+00	1.676E+04	1.676E+00	6.208E+03	6.208E+00
3.000E+00	2.053E+04	2.053E+00	7.603E+03	7.603E+00
4.000E+00	2.370E+04	2.370E+00	8.779E+03	8.779E+00
5.000E+00	2.650E+04	2.650E+00	9.816E+03	9.816E+00
6.000E+00	2.903E+04	2.903E+00	1.076E+04	1.076E+01
7.000E+00	3.135E+04	3.135E+00	1.162E+04	1.162E+01
8.000E+00	3.352E+04	3.352E+00	1.241E+04	1.241E+01
9.000E+00	3.555E+04	3.555E+00	1.316E+04	1.316E+01
1.000E+01	3.747E+04	3.747E+00	1.388E+04	1.388E+01
2.000E+01	5.046E+04	5.046E+00	1.869E+04	1.869E+01
3.000E+01	5.435E+04	5.435E+00	2.013E+04	2.013E+01
4.000E+01	5.521E+04	5.521E+00	2.044E+04	2.044E+01
5.000E+01	5.488E+04	5.488E+00	2.032E+04	2.032E+01
6.000E+01	5.401E+04	5.401E+00	2.000E+04	2.000E+01
7.000E+01	5.290E+04	5.290E+00	1.959E+04	1.959E+01
8.000E+01	5.168E+04	5.168E+00	1.914E+04	1.914E+01
9.000E+01	5.043E+04	5.043E+00	1.868E+04	1.868E+01
1.000E+02	4.919E+04	4.919E+00	1.822E+04	1.822E+01
2.000E+02	3.888E+04	3.888E+00	1.440E+04	1.440E+01
3.000E+02	3.216E+04	3.216E+00	1.191E+04	1.191E+01
4.000E+02	2.755E+04	2.755E+00	1.020E+04	1.020E+01
5.000E+02	2.417E+04	2.417E+00	8.952E+03	8.952E+00
6.000E+02	2.158E+04	2.158E+00	7.993E+03	7.993E+00
7.000E+02	1.952E+04	1.952E+00	7.232E+03	7.232E+00
8.000E+02	1.784E+04	1.784E+00	6.610E+03	6.610E+00
9.000E+02	1.645E+04	1.645E+00	6.093E+03	6.093E+00
1.000E+03	1.527E+04	1.527E+00	5.654E+03	5.654E+00
2.000E+03	9.116E+03	9.116E-01	3.376E+03	3.376E+00
3.000E+03	6.712E+03	6.712E-01	2.485E+03	2.485E+00
4.000E+03	5.429E+03	5.429E-01	2.011E+03	2.011E+00
5.000E+03	4.630E+03	4.630E-01	1.715E+03	1.715E+00
6.000E+03	4.083E+03	4.083E-01	1.512E+03	1.512E+00
7.000E+03	3.686E+03	3.686E-01	1.365E+03	1.365E+00
8.000E+03	3.384E+03	3.384E-01	1.253E+03	1.253E+00
9.000E+03	3.147E+03	3.147E-01	1.165E+03	1.165E+00
1.000E+04	2.957E+03	2.957E-01	1.095E+03	1.095E+00
2.000E+04	2.099E+03	2.099E-01	7.774E+02	7.774E-01
3.000E+04	1.832E+03	1.832E-01	6.784E+02	6.784E-01
4.000E+04	1.707E+03	1.707E-01	6.323E+02	6.323E-01
5.000E+04	1.642E+03	1.642E-01	6.082E+02	6.082E-01
6.000E+04	1.606E+03	1.606E-01	5.949E+02	5.949E-01
7.000E+04	1.586E+03	1.586E-01	5.874E+02	5.874E-01
8.000E+04	1.575E+03	1.575E-01	5.834E+02	5.834E-01
9.000E+04	1.570E+03	1.570E-01	5.816E+02	5.816E-01
1.000E+05	1.569E+03	1.569E-01	5.811E+02	5.811E-01
2.000E+05	1.615E+03	1.615E-01	5.982E+02	5.982E-01
3.000E+05	1.669E+03	1.669E-01	6.180E+02	6.180E-01

TABLE 54

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CA Z= 20 A= 40.08

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-01	8.625E+03	8.625E-01	3.195E+03	3.195E+00
6.000E-01	9.448E+03	9.448E-01	3.500E+03	3.500E+00
7.000E-01	1.021E+04	1.021E+00	3.779E+03	3.779E+00
8.000E-01	1.091E+04	1.091E+00	4.041E+03	4.041E+00
9.000E-01	1.157E+04	1.157E+00	4.286E+03	4.286E+00
1.000E+00	1.220E+04	1.220E+00	4.518E+03	4.518E+00
2.000E+00	1.725E+04	1.725E+00	6.390E+03	6.390E+00
3.000E+00	2.112E+04	2.112E+00	7.824E+03	7.824E+00
4.000E+00	2.440E+04	2.440E+00	9.035E+03	9.035E+00
5.000E+00	2.727E+04	2.727E+00	1.010E+04	1.010E+01
6.000E+00	2.988E+04	2.988E+00	1.106E+04	1.106E+01
7.000E+00	3.227E+04	3.227E+00	1.195E+04	1.195E+01
8.000E+00	3.450E+04	3.450E+00	1.278E+04	1.278E+01
9.000E+00	3.658E+04	3.658E+00	1.355E+04	1.355E+01
1.000E+01	3.856E+04	3.856E+00	1.429E+04	1.429E+01
2.000E+01	5.244E+04	5.244E+00	1.943E+04	1.943E+01
3.000E+01	5.703E+04	5.703E+00	2.112E+04	2.112E+01
4.000E+01	5.829E+04	5.829E+00	2.159E+04	2.159E+01
5.000E+01	5.822E+04	5.822E+00	2.157E+04	2.157E+01
6.000E+01	5.754E+04	5.754E+00	2.131E+04	2.131E+01
7.000E+01	5.654E+04	5.654E+00	2.094E+04	2.094E+01
8.000E+01	5.539E+04	5.539E+00	2.051E+04	2.051E+01
9.000E+01	5.419E+04	5.419E+00	2.007E+04	2.007E+01
1.000E+02	5.297E+04	5.297E+00	1.961E+04	1.961E+01
2.000E+02	4.246E+04	4.246E+00	1.573E+04	1.573E+01
3.000E+02	3.539E+04	3.539E+00	1.311E+04	1.311E+01
4.000E+02	3.046E+04	3.046E+00	1.128E+04	1.128E+01
5.000E+02	2.682E+04	2.682E+00	9.935E+03	9.935E+00
6.000E+02	2.401E+04	2.401E+00	8.893E+03	8.893E+00
7.000E+02	2.178E+04	2.178E+00	8.065E+03	8.065E+00
8.000E+02	1.994E+04	1.994E+00	7.386E+03	7.386E+00
9.000E+02	1.841E+04	1.841E+00	6.819E+03	6.819E+00
1.000E+03	1.711E+04	1.711E+00	6.338E+03	6.338E+00
2.000E+03	1.028E+04	1.028E+00	3.806E+03	3.806E+00
3.000E+03	7.571E+03	7.571E-01	2.804E+03	2.804E+00
4.000E+03	6.123E+03	6.123E-01	2.267E+03	2.267E+00
5.000E+03	5.219E+03	5.219E-01	1.933E+03	1.933E+00
6.000E+03	4.600E+03	4.600E-01	1.703E+03	1.703E+00
7.000E+03	4.151E+03	4.151E-01	1.537E+03	1.537E+00
8.000E+03	3.809E+03	3.809E-01	1.411E+03	1.411E+00
9.000E+03	3.540E+03	3.540E-01	1.311E+03	1.311E+00
1.000E+04	3.324E+03	3.324E-01	1.231E+03	1.231E+00
2.000E+04	2.349E+03	2.349E-01	8.700E+02	8.700E-01
3.000E+04	2.044E+03	2.044E-01	7.568E+02	7.568E-01
4.000E+04	1.901E+03	1.901E-01	7.043E+02	7.043E-01
5.000E+04	1.826E+03	1.826E-01	6.764E+02	6.764E-01
6.000E+04	1.784E+03	1.784E-01	6.608E+02	6.608E-01
7.000E+04	1.760E+03	1.760E-01	6.520E+02	6.520E-01
8.000E+04	1.747E+03	1.747E-01	6.471E+02	6.471E-01
9.000E+04	1.741E+03	1.741E-01	6.447E+02	6.447E-01
1.000E+05	1.739E+03	1.739E-01	6.439E+02	6.439E-01
2.000E+05	1.786E+03	1.786E-01	6.616E+02	6.616E-01
3.000E+05	1.845E+03	1.845E-01	6.833E+02	6.833E-01
4.000E+05	1.894E+03	1.894E-01	7.013E+02	7.013E-01

TABLE 55

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: SC Z= 21 A= 44.96

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-01	8.460E+03	8.460E-01	3.133E+03	3.133E+00
6.000E-01	9.267E+03	9.267E-01	3.433E+03	3.433E+00
7.000E-01	1.001E+04	1.001E+00	3.708E+03	3.708E+00
8.000E-01	1.071E+04	1.071E+00	3.964E+03	3.964E+00
9.000E-01	1.135E+04	1.135E+00	4.204E+03	4.204E+00
1.000E+00	1.196E+04	1.196E+00	4.431E+03	4.431E+00
2.000E+00	1.692E+04	1.692E+00	6.267E+03	6.267E+00
3.000E+00	2.072E+04	2.072E+00	7.676E+03	7.676E+00
4.000E+00	2.393E+04	2.393E+00	8.863E+03	8.863E+00
5.000E+00	2.675E+04	2.675E+00	9.908E+03	9.908E+00
6.000E+00	2.930E+04	2.930E+00	1.085E+04	1.085E+01
7.000E+00	3.166E+04	3.166E+00	1.173E+04	1.173E+01
8.000E+00	3.384E+04	3.384E+00	1.253E+04	1.253E+01
9.000E+00	3.589E+04	3.589E+00	1.329E+04	1.329E+01
1.000E+01	3.784E+04	3.784E+00	1.401E+04	1.401E+01
2.000E+01	5.264E+04	5.264E+00	1.950E+04	1.950E+01
3.000E+01	5.869E+04	5.869E+00	2.174E+04	2.174E+01
4.000E+01	6.092E+04	6.092E+00	2.256E+04	2.256E+01
5.000E+01	6.152E+04	6.152E+00	2.278E+04	2.278E+01
6.000E+01	6.131E+04	6.131E+00	2.271E+04	2.271E+01
7.000E+01	6.068E+04	6.068E+00	2.247E+04	2.247E+01
8.000E+01	5.981E+04	5.981E+00	2.215E+04	2.215E+01
9.000E+01	5.882E+04	5.882E+00	2.179E+04	2.179E+01
1.000E+02	5.775E+04	5.775E+00	2.139E+04	2.139E+01
2.000E+02	4.769E+04	4.769E+00	1.766E+04	1.766E+01
3.000E+02	4.037E+04	4.037E+00	1.495E+04	1.495E+01
4.000E+02	3.511E+04	3.511E+00	1.301E+04	1.301E+01
5.000E+02	3.114E+04	3.114E+00	1.154E+04	1.154E+01
6.000E+02	2.804E+04	2.804E+00	1.038E+04	1.038E+01
7.000E+02	2.554E+04	2.554E+00	9.460E+03	9.460E+00
8.000E+02	2.348E+04	2.348E+00	8.698E+03	8.698E+00
9.000E+02	2.175E+04	2.175E+00	8.057E+03	8.057E+00
1.000E+03	2.028E+04	2.028E+00	7.511E+03	7.511E+00
2.000E+03	1.233E+04	1.233E+00	4.567E+03	4.567E+00
3.000E+03	9.089E+03	9.089E-01	3.367E+03	3.367E+00
4.000E+03	7.340E+03	7.340E-01	2.718E+03	2.718E+00
5.000E+03	6.242E+03	6.242E-01	2.312E+03	2.312E+00
6.000E+03	5.488E+03	5.488E-01	2.033E+03	2.033E+00
7.000E+03	4.938E+03	4.938E-01	1.829E+03	1.829E+00
8.000E+03	4.520E+03	4.520E-01	1.674E+03	1.674E+00
9.000E+03	4.191E+03	4.191E-01	1.552E+03	1.552E+00
1.000E+04	3.925E+03	3.925E-01	1.454E+03	1.454E+00
2.000E+04	2.719E+03	2.719E-01	1.007E+03	1.007E+00
3.000E+04	2.332E+03	2.332E-01	8.636E+02	8.636E-01
4.000E+04	2.153E+03	2.153E-01	7.974E+02	7.974E-01
5.000E+04	2.053E+03	2.053E-01	7.601E+02	7.601E-01
6.000E+04	1.995E+03	1.995E-01	7.386E+02	7.386E-01
7.000E+04	1.959E+03	1.959E-01	7.257E+02	7.257E-01
8.000E+04	1.938E+03	1.938E-01	7.179E+02	7.179E-01
9.000E+04	1.926E+03	1.926E-01	7.134E+02	7.134E-01
1.000E+05	1.919E+03	1.919E-01	7.110E+02	7.110E-01
2.000E+05	1.954E+03	1.954E-01	7.238E+02	7.238E-01
3.000E+05	2.015E+03	2.015E-01	7.460E+02	7.460E-01
4.000E+05	2.066E+03	2.066E-01	7.651E+02	7.651E-01

TABLE 56

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: TI Z= 22 A= 47.90

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-01	8.492E+03	8.492E-01	3.145E+03	3.145E+00
6.000E-01	9.305E+03	9.305E-01	3.446E+03	3.446E+00
7.000E-01	1.005E+04	1.005E+00	3.722E+03	3.722E+00
8.000E-01	1.075E+04	1.075E+00	3.979E+03	3.979E+00
9.000E-01	1.139E+04	1.139E+00	4.220E+03	4.220E+00
1.000E+00	1.201E+04	1.201E+00	4.449E+03	4.449E+00
2.000E+00	1.699E+04	1.699E+00	6.292E+03	6.292E+00
3.000E+00	2.081E+04	2.081E+00	7.706E+03	7.706E+00
4.000E+00	2.402E+04	2.402E+00	8.897E+03	8.897E+00
5.000E+00	2.686E+04	2.686E+00	9.947E+03	9.947E+00
6.000E+00	2.942E+04	2.942E+00	1.090E+04	1.090E+01
7.000E+00	3.177E+04	3.177E+00	1.177E+04	1.177E+01
8.000E+00	3.397E+04	3.397E+00	1.258E+04	1.258E+01
9.000E+00	3.603E+04	3.603E+00	1.334E+04	1.334E+01
1.000E+01	3.797E+04	3.797E+00	1.406E+04	1.406E+01
2.000E+01	5.332E+04	5.332E+00	1.975E+04	1.975E+01
3.000E+01	6.046E+04	6.046E+00	2.239E+04	2.239E+01
4.000E+01	6.340E+04	6.340E+00	2.348E+04	2.348E+01
5.000E+01	6.449E+04	6.449E+00	2.388E+04	2.388E+01
6.000E+01	6.464E+04	6.464E+00	2.394E+04	2.394E+01
7.000E+01	6.428E+04	6.428E+00	2.381E+04	2.381E+01
8.000E+01	6.362E+04	6.362E+00	2.357E+04	2.357E+01
9.000E+01	6.279E+04	6.279E+00	2.325E+04	2.325E+01
1.000E+02	6.186E+04	6.186E+00	2.291E+04	2.291E+01
2.000E+02	5.213E+04	5.213E+00	1.931E+04	1.931E+01
3.000E+02	4.463E+04	4.463E+00	1.653E+04	1.653E+01
4.000E+02	3.909E+04	3.909E+00	1.448E+04	1.448E+01
5.000E+02	3.484E+04	3.484E+00	1.290E+04	1.290E+01
6.000E+02	3.150E+04	3.150E+00	1.167E+04	1.167E+01
7.000E+02	2.879E+04	2.879E+00	1.066E+04	1.066E+01
8.000E+02	2.655E+04	2.655E+00	9.831E+03	9.831E+00
9.000E+02	2.465E+04	2.465E+00	9.130E+03	9.130E+00
1.000E+03	2.302E+04	2.302E+00	8.526E+03	8.526E+00
2.000E+03	1.414E+04	1.414E+00	5.240E+03	5.240E+00
3.000E+03	1.045E+04	1.045E+00	3.871E+03	3.871E+00
4.000E+03	8.436E+03	8.436E-01	3.124E+03	3.124E+00
5.000E+03	7.168E+03	7.168E-01	2.655E+03	2.655E+00
6.000E+03	6.295E+03	6.295E-01	2.332E+03	2.332E+00
7.000E+03	5.658E+03	5.658E-01	2.096E+03	2.096E+00
8.000E+03	5.172E+03	5.172E-01	1.916E+03	1.916E+00
9.000E+03	4.789E+03	4.789E-01	1.774E+03	1.774E+00
1.000E+04	4.481E+03	4.481E-01	1.659E+03	1.659E+00
2.000E+04	3.070E+03	3.070E-01	1.137E+03	1.137E+00
3.000E+04	2.612E+03	2.612E-01	9.676E+02	9.676E-01
4.000E+04	2.402E+03	2.402E-01	8.893E+02	8.893E-01
5.000E+04	2.279E+03	2.279E-01	8.443E+02	8.443E-01
6.000E+04	2.209E+03	2.209E-01	8.179E+02	8.179E-01
7.000E+04	2.164E+03	2.164E-01	8.016E+02	8.016E-01
8.000E+04	2.137E+03	2.137E-01	7.915E+02	7.915E-01
9.000E+04	2.121E+03	2.121E-01	7.853E+02	7.853E-01
1.000E+05	2.111E+03	2.111E-01	7.817E+02	7.817E-01
2.000E+05	2.137E+03	2.137E-01	7.914E+02	7.914E-01
3.000E+05	2.199E+03	2.199E-01	8.145E+02	8.145E-01
4.000E+05	2.254E+03	2.254E-01	8.349E+02	8.349E-01

TABLE 57

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: V Z= 23 A= 50.95

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	9.327E+03	9.327E-01	3.455E+03	3.455E+00
7.000E-01	1.007E+04	1.007E+00	3.731E+03	3.731E+00
8.000E-01	1.077E+04	1.077E+00	3.989E+03	3.989E+00
9.000E-01	1.142E+04	1.142E+00	4.230E+03	4.230E+00
1.000E+00	1.204E+04	1.204E+00	4.458E+03	4.458E+00
2.000E+00	1.703E+04	1.703E+00	6.307E+03	6.307E+00
3.000E+00	2.086E+04	2.086E+00	7.724E+03	7.724E+00
4.000E+00	2.408E+04	2.408E+00	8.919E+03	8.919E+00
5.000E+00	2.692E+04	2.692E+00	9.971E+03	9.971E+00
6.000E+00	2.949E+04	2.949E+00	1.093E+04	1.093E+01
7.000E+00	3.186E+04	3.186E+00	1.180E+04	1.180E+01
8.000E+00	3.405E+04	3.405E+00	1.261E+04	1.261E+01
9.000E+00	3.612E+04	3.612E+00	1.338E+04	1.338E+01
1.000E+01	3.808E+04	3.808E+00	1.411E+04	1.411E+01
2.000E+01	5.372E+04	5.372E+00	1.990E+04	1.990E+01
3.000E+01	6.196E+04	6.196E+00	2.295E+04	2.295E+01
4.000E+01	6.562E+04	6.562E+00	2.430E+04	2.430E+01
5.000E+01	6.723E+04	6.723E+00	2.490E+04	2.490E+01
6.000E+01	6.777E+04	6.777E+00	2.510E+04	2.510E+01
7.000E+01	6.770E+04	6.770E+00	2.508E+04	2.508E+01
8.000E+01	6.727E+04	6.727E+00	2.491E+04	2.491E+01
9.000E+01	6.663E+04	6.663E+00	2.467E+04	2.467E+01
1.000E+02	6.584E+04	6.584E+00	2.438E+04	2.438E+01
2.000E+02	5.660E+04	5.660E+00	2.097E+04	2.097E+01
3.000E+02	4.899E+04	4.899E+00	1.814E+04	1.814E+01
4.000E+02	4.320E+04	4.320E+00	1.600E+04	1.600E+01
5.000E+02	3.872E+04	3.872E+00	1.434E+04	1.434E+01
6.000E+02	3.515E+04	3.515E+00	1.302E+04	1.302E+01
7.000E+02	3.222E+04	3.222E+00	1.193E+04	1.193E+01
8.000E+02	2.979E+04	2.979E+00	1.103E+04	1.103E+01
9.000E+02	2.773E+04	2.773E+00	1.027E+04	1.027E+01
1.000E+03	2.596E+04	2.596E+00	9.614E+03	9.614E+00
2.000E+03	1.612E+04	1.612E+00	5.972E+03	5.972E+00
3.000E+03	1.194E+04	1.194E+00	4.424E+03	4.424E+00
4.000E+03	9.644E+03	9.644E-01	3.572E+03	3.572E+00
5.000E+03	8.189E+03	8.189E-01	3.033E+03	3.033E+00
6.000E+03	7.185E+03	7.185E-01	2.661E+03	2.661E+00
7.000E+03	6.451E+03	6.451E-01	2.389E+03	2.389E+00
8.000E+03	5.890E+03	5.890E-01	2.182E+03	2.182E+00
9.000E+03	5.447E+03	5.447E-01	2.018E+03	2.018E+00
1.000E+04	5.089E+03	5.089E-01	1.885E+03	1.885E+00
2.000E+04	3.453E+03	3.453E-01	1.279E+03	1.279E+00
3.000E+04	2.917E+03	2.917E-01	1.080E+03	1.080E+00
4.000E+04	2.667E+03	2.667E-01	9.877E+02	9.877E-01
5.000E+04	2.524E+03	2.524E-01	9.348E+02	9.348E-01
6.000E+04	2.437E+03	2.437E-01	9.028E+02	9.028E-01
7.000E+04	2.383E+03	2.383E-01	8.826E+02	8.826E-01
8.000E+04	2.349E+03	2.349E-01	8.698E+02	8.698E-01
9.000E+04	2.326E+03	2.326E-01	8.616E+02	8.616E-01
1.000E+05	2.313E+03	2.313E-01	8.565E+02	8.565E-01
2.000E+05	2.328E+03	2.328E-01	8.621E+02	8.621E-01
3.000E+05	2.391E+03	2.391E-01	8.858E+02	8.858E-01
4.000E+05	2.450E+03	2.450E-01	9.075E+02	9.075E-01
5.000E+05	2.500E+03	2.500E-01	9.260E+02	9.260E-01

TABLE 58

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CR Z= 24 A= 52.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	9.524E+03	9.524E-01	3.528E+03	3.528E+00
7.000E-01	1.029E+04	1.029E+00	3.809E+03	3.809E+00
8.000E-01	1.100E+04	1.100E+00	4.073E+03	4.073E+00
9.000E-01	1.167E+04	1.167E+00	4.320E+03	4.320E+00
1.000E+00	1.229E+04	1.229E+00	4.553E+03	4.553E+00
2.000E+00	1.739E+04	1.739E+00	6.440E+03	6.440E+00
3.000E+00	2.129E+04	2.129E+00	7.887E+03	7.887E+00
4.000E+00	2.459E+04	2.459E+00	9.107E+03	9.107E+00
5.000E+00	2.749E+04	2.749E+00	1.018E+04	1.018E+01
6.000E+00	3.011E+04	3.011E+00	1.116E+04	1.116E+01
7.000E+00	3.253E+04	3.253E+00	1.205E+04	1.205E+01
8.000E+00	3.477E+04	3.477E+00	1.288E+04	1.288E+01
9.000E+00	3.688E+04	3.688E+00	1.366E+04	1.366E+01
1.000E+01	3.887E+04	3.887E+00	1.440E+04	1.440E+01
2.000E+01	5.493E+04	5.493E+00	2.035E+04	2.035E+01
3.000E+01	6.390E+04	6.390E+00	2.367E+04	2.367E+01
4.000E+01	6.805E+04	6.805E+00	2.520E+04	2.520E+01
5.000E+01	7.000E+04	7.000E+00	2.593E+04	2.593E+01
6.000E+01	7.079E+04	7.079E+00	2.622E+04	2.622E+01
7.000E+01	7.091E+04	7.091E+00	2.626E+04	2.626E+01
8.000E+01	7.062E+04	7.062E+00	2.615E+04	2.615E+01
9.000E+01	7.009E+04	7.009E+00	2.596E+04	2.596E+01
1.000E+02	6.938E+04	6.938E+00	2.569E+04	2.569E+01
2.000E+02	6.037E+04	6.037E+00	2.236E+04	2.236E+01
3.000E+02	5.261E+04	5.261E+00	1.948E+04	1.948E+01
4.000E+02	4.662E+04	4.662E+00	1.726E+04	1.726E+01
5.000E+02	4.192E+04	4.192E+00	1.552E+04	1.552E+01
6.000E+02	3.814E+04	3.814E+00	1.412E+04	1.412E+01
7.000E+02	3.505E+04	3.505E+00	1.298E+04	1.298E+01
8.000E+02	3.246E+04	3.246E+00	1.203E+04	1.203E+01
9.000E+02	3.026E+04	3.026E+00	1.121E+04	1.121E+01
1.000E+03	2.836E+04	2.836E+00	1.050E+04	1.050E+01
2.000E+03	1.775E+04	1.775E+00	6.576E+03	6.576E+00
3.000E+03	1.319E+04	1.319E+00	4.885E+03	4.884E+00
4.000E+03	1.065E+04	1.065E+00	3.946E+03	3.946E+00
5.000E+03	9.046E+03	9.046E-01	3.350E+03	3.350E+00
6.000E+03	7.936E+03	7.936E-01	2.940E+03	2.940E+00
7.000E+03	7.123E+03	7.123E-01	2.639E+03	2.639E+00
8.000E+03	6.502E+03	6.502E-01	2.408E+03	2.408E+00
9.000E+03	6.012E+03	6.012E-01	2.227E+03	2.227E+00
1.000E+04	5.616E+03	5.616E-01	2.080E+03	2.080E+00
2.000E+04	3.797E+03	3.797E-01	1.406E+03	1.406E+00
3.000E+04	3.200E+03	3.200E-01	1.185E+03	1.185E+00
4.000E+04	2.921E+03	2.921E-01	1.081E+03	1.081E+00
5.000E+04	2.761E+03	2.761E-01	1.022E+03	1.022E+00
6.000E+04	2.664E+03	2.664E-01	9.864E+02	9.864E-01
7.000E+04	2.601E+03	2.601E-01	9.636E+02	9.636E-01
8.000E+04	2.562E+03	2.562E-01	9.489E+02	9.489E-01
9.000E+04	2.537E+03	2.537E-01	9.395E+02	9.395E-01
1.000E+05	2.521E+03	2.521E-01	9.335E+02	9.335E-01
2.000E+05	2.531E+03	2.531E-01	9.377E+02	9.377E-01
3.000E+05	2.600E+03	2.600E-01	9.630E+02	9.630E-01
4.000E+05	2.663E+03	2.663E-01	9.864E+02	9.864E-01
5.000E+05	2.717E+03	2.717E-01	1.006E+03	1.006E+00

TABLE 59

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: MN Z= 25 A= 54.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	9.539E+03	9.539E-01	3.534E+03	3.534E+00
7.000E-01	1.030E+04	1.030E+00	3.818E+03	3.818E+00
8.000E-01	1.101E+04	1.101E+00	4.081E+03	4.081E+00
9.000E-01	1.169E+04	1.169E+00	4.328E+03	4.328E+00
1.000E+00	1.232E+04	1.232E+00	4.563E+03	4.563E+00
2.000E+00	1.742E+04	1.742E+00	6.452E+03	6.452E+00
3.000E+00	2.134E+04	2.134E+00	7.903E+03	7.903E+00
4.000E+00	2.463E+04	2.463E+00	9.124E+03	9.124E+00
5.000E+00	2.754E+04	2.754E+00	1.020E+04	1.020E+01
6.000E+00	3.017E+04	3.017E+00	1.117E+04	1.117E+01
7.000E+00	3.259E+04	3.259E+00	1.207E+04	1.207E+01
8.000E+00	3.484E+04	3.484E+00	1.290E+04	1.290E+01
9.000E+00	3.695E+04	3.695E+00	1.368E+04	1.368E+01
1.000E+01	3.895E+04	3.895E+00	1.442E+04	1.442E+01
2.000E+01	5.507E+04	5.507E+00	2.040E+04	2.040E+01
3.000E+01	6.505E+04	6.505E+00	2.409E+04	2.409E+01
4.000E+01	6.992E+04	6.992E+00	2.590E+04	2.590E+01
5.000E+01	7.239E+04	7.239E+00	2.681E+04	2.681E+01
6.000E+01	7.358E+04	7.358E+00	2.725E+04	2.725E+01
7.000E+01	7.402E+04	7.402E+00	2.742E+04	2.742E+01
8.000E+01	7.398E+04	7.398E+00	2.740E+04	2.740E+01
9.000E+01	7.364E+04	7.364E+00	2.727E+04	2.727E+01
1.000E+02	7.311E+04	7.311E+00	2.708E+04	2.708E+01
2.000E+02	6.477E+04	6.477E+00	2.399E+04	2.399E+01
3.000E+02	5.700E+04	5.700E+00	2.111E+04	2.111E+01
4.000E+02	5.085E+04	5.085E+00	1.883E+04	1.883E+01
5.000E+02	4.596E+04	4.596E+00	1.702E+04	1.702E+01
6.000E+02	4.198E+04	4.198E+00	1.555E+04	1.555E+01
7.000E+02	3.869E+04	3.869E+00	1.433E+04	1.433E+01
8.000E+02	3.592E+04	3.592E+00	1.330E+04	1.330E+01
9.000E+02	3.356E+04	3.356E+00	1.243E+04	1.243E+01
1.000E+03	3.151E+04	3.151E+00	1.167E+04	1.167E+01
2.000E+03	1.995E+04	1.995E+00	7.390E+03	7.390E+00
3.000E+03	1.488E+04	1.488E+00	5.509E+03	5.509E+00
4.000E+03	1.203E+04	1.203E+00	4.454E+03	4.454E+00
5.000E+03	1.020E+04	1.020E+00	3.781E+03	3.781E+00
6.000E+03	8.951E+03	8.951E-01	3.315E+03	3.315E+00
7.000E+03	8.027E+03	8.027E-01	2.974E+03	2.974E+00
8.000E+03	7.321E+03	7.321E-01	2.712E+03	2.712E+00
9.000E+03	6.763E+03	6.763E-01	2.505E+03	2.505E+00
1.000E+04	6.311E+03	6.311E-01	2.338E+03	2.338E+00
2.000E+04	4.232E+03	4.232E-01	1.567E+03	1.567E+00
3.000E+04	3.543E+03	3.543E-01	1.312E+03	1.312E+00
4.000E+04	3.218E+03	3.218E-01	1.192E+03	1.192E+00
5.000E+04	3.034E+03	3.034E-01	1.124E+03	1.124E+00
6.000E+04	2.918E+03	2.918E-01	1.081E+03	1.081E+00
7.000E+04	2.845E+03	2.845E-01	1.053E+03	1.053E+00
8.000E+04	2.796E+03	2.796E-01	1.035E+03	1.035E+00
9.000E+04	2.764E+03	2.764E-01	1.024E+03	1.024E+00
1.000E+05	2.743E+03	2.743E-01	1.016E+03	1.016E+00
2.000E+05	2.740E+03	2.740E-01	1.015E+03	1.015E+00
3.000E+05	2.810E+03	2.810E-01	1.041E+03	1.041E+00
4.000E+05	2.876E+03	2.876E-01	1.065E+03	1.065E+00
5.000E+05	2.934E+03	2.934E-01	1.086E+03	1.086E+00

TABLE 60

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: FE Z= 26 A= 55.84

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	9.728E+03	9.728E-01	3.603E+03	3.603E+00
7.000E-01	1.051E+04	1.051E+00	3.893E+03	3.893E+00
8.000E-01	1.124E+04	1.124E+00	4.161E+03	4.161E+00
9.000E-01	1.191E+04	1.191E+00	4.413E+03	4.413E+00
1.000E+00	1.256E+04	1.256E+00	4.652E+03	4.652E+00
2.000E+00	1.777E+04	1.777E+00	6.579E+03	6.579E+00
3.000E+00	2.175E+04	2.175E+00	8.057E+03	8.057E+00
4.000E+00	2.512E+04	2.512E+00	9.303E+03	9.303E+00
5.000E+00	2.809E+04	2.809E+00	1.040E+04	1.040E+01
6.000E+00	3.076E+04	3.076E+00	1.139E+04	1.139E+01
7.000E+00	3.323E+04	3.323E+00	1.231E+04	1.231E+01
8.000E+00	3.552E+04	3.552E+00	1.316E+04	1.316E+01
9.000E+00	3.767E+04	3.767E+00	1.396E+04	1.396E+01
1.000E+01	3.972E+04	3.972E+00	1.471E+04	1.471E+01
2.000E+01	5.615E+04	5.615E+00	2.079E+04	2.079E+01
3.000E+01	6.680E+04	6.680E+00	2.474E+04	2.474E+01
4.000E+01	7.214E+04	7.214E+00	2.672E+04	2.672E+01
5.000E+01	7.495E+04	7.495E+00	2.776E+04	2.776E+01
6.000E+01	7.640E+04	7.640E+00	2.830E+04	2.830E+01
7.000E+01	7.703E+04	7.703E+00	2.853E+04	2.853E+01
8.000E+01	7.716E+04	7.716E+00	2.857E+04	2.857E+01
9.000E+01	7.694E+04	7.694E+00	2.850E+04	2.850E+01
1.000E+02	7.650E+04	7.650E+00	2.833E+04	2.833E+01
2.000E+02	6.849E+04	6.849E+00	2.537E+04	2.537E+01
3.000E+02	6.067E+04	6.067E+00	2.247E+04	2.247E+01
4.000E+02	5.434E+04	5.434E+00	2.012E+04	2.012E+01
5.000E+02	4.926E+04	4.926E+00	1.825E+04	1.825E+01
6.000E+02	4.510E+04	4.510E+00	1.671E+04	1.671E+01
7.000E+02	4.165E+04	4.165E+00	1.542E+04	1.542E+01
8.000E+02	3.873E+04	3.873E+00	1.434E+04	1.434E+01
9.000E+02	3.623E+04	3.623E+00	1.342E+04	1.342E+01
1.000E+03	3.406E+04	3.406E+00	1.261E+04	1.261E+01
2.000E+03	2.172E+04	2.172E+00	8.047E+03	8.047E+00
3.000E+03	1.625E+04	1.625E+00	6.019E+03	6.019E+00
4.000E+03	1.315E+04	1.315E+00	4.871E+03	4.871E+00
5.000E+03	1.117E+04	1.117E+00	4.136E+03	4.136E+00
6.000E+03	9.790E+03	9.790E-01	3.626E+03	3.626E+00
7.000E+03	8.779E+03	8.779E-01	3.251E+03	3.251E+00
8.000E+03	8.006E+03	8.006E-01	2.965E+03	2.965E+00
9.000E+03	7.394E+03	7.394E-01	2.738E+03	2.738E+00
1.000E+04	6.898E+03	6.898E-01	2.555E+03	2.555E+00
2.000E+04	4.615E+03	4.615E-01	1.709E+03	1.709E+00
3.000E+04	3.856E+03	3.856E-01	1.428E+03	1.428E+00
4.000E+04	3.498E+03	3.498E-01	1.295E+03	1.295E+00
5.000E+04	3.295E+03	3.295E-01	1.220E+03	1.220E+00
6.000E+04	3.166E+03	3.166E-01	1.173E+03	1.173E+00
7.000E+04	3.084E+03	3.084E-01	1.143E+03	1.143E+00
8.000E+04	3.030E+03	3.030E-01	1.122E+03	1.122E+00
9.000E+04	2.994E+03	2.994E-01	1.109E+03	1.109E+00
1.000E+05	2.969E+03	2.969E-01	1.100E+03	1.100E+00
2.000E+05	2.961E+03	2.961E-01	1.097E+03	1.097E+00
3.000E+05	3.035E+03	3.035E-01	1.124E+03	1.124E+00
4.000E+05	3.106E+03	3.106E-01	1.150E+03	1.150E+00
5.000E+05	3.168E+03	3.168E-01	1.174E+03	1.174E+00

TABLE 61

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: CO Z= 27 A= 58.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	9.725E+03	9.725E-01	3.602E+03	3.602E+00
7.000E-01	1.051E+04	1.051E+00	3.892E+03	3.892E+00
8.000E-01	1.123E+04	1.123E+00	4.159E+03	4.159E+00
9.000E-01	1.191E+04	1.191E+00	4.412E+03	4.412E+00
1.000E+00	1.256E+04	1.256E+00	4.652E+03	4.652E+00
2.000E+00	1.776E+04	1.776E+00	6.576E+03	6.576E+00
3.000E+00	2.175E+04	2.175E+00	8.055E+03	8.055E+00
4.000E+00	2.511E+04	2.511E+00	9.302E+03	9.302E+00
5.000E+00	2.808E+04	2.808E+00	1.040E+04	1.040E+01
6.000E+00	3.076E+04	3.076E+00	1.139E+04	1.139E+01
7.000E+00	3.322E+04	3.322E+00	1.230E+04	1.230E+01
8.000E+00	3.551E+04	3.551E+00	1.315E+04	1.315E+01
9.000E+00	3.766E+04	3.766E+00	1.395E+04	1.395E+01
1.000E+01	3.971E+04	3.971E+00	1.471E+04	1.471E+01
2.000E+01	5.613E+04	5.613E+00	2.079E+04	2.079E+01
3.000E+01	6.754E+04	6.754E+00	2.501E+04	2.501E+01
4.000E+01	7.361E+04	7.361E+00	2.726E+04	2.726E+01
5.000E+01	7.698E+04	7.698E+00	2.851E+04	2.851E+01
6.000E+01	7.885E+04	7.885E+00	2.920E+04	2.920E+01
7.000E+01	7.983E+04	7.983E+00	2.956E+04	2.956E+01
8.000E+01	8.022E+04	8.022E+00	2.971E+04	2.971E+01
9.000E+01	8.024E+04	8.024E+00	2.972E+04	2.972E+01
1.000E+02	7.999E+04	7.999E+00	2.962E+04	2.962E+01
2.000E+02	7.286E+04	7.286E+00	2.698E+04	2.698E+01
3.000E+02	6.516E+04	6.516E+00	2.413E+04	2.413E+01
4.000E+02	5.875E+04	5.875E+00	2.176E+04	2.176E+01
5.000E+02	5.351E+04	5.351E+00	1.982E+04	1.982E+01
6.000E+02	4.919E+04	4.919E+00	1.822E+04	1.822E+01
7.000E+02	4.556E+04	4.556E+00	1.688E+04	1.688E+01
8.000E+02	4.248E+04	4.248E+00	1.573E+04	1.573E+01
9.000E+02	3.982E+04	3.982E+00	1.475E+04	1.475E+01
1.000E+03	3.750E+04	3.750E+00	1.389E+04	1.389E+01
2.000E+03	2.420E+04	2.420E+00	8.963E+03	8.963E+00
3.000E+03	1.818E+04	1.818E+00	6.733E+03	6.733E+00
4.000E+03	1.474E+04	1.474E+00	5.458E+03	5.458E+00
5.000E+03	1.251E+04	1.251E+00	4.635E+03	4.635E+00
6.000E+03	1.097E+04	1.097E+00	4.062E+03	4.062E+00
7.000E+03	9.830E+03	9.830E-01	3.640E+03	3.640E+00
8.000E+03	8.956E+03	8.956E-01	3.317E+03	3.317E+00
9.000E+03	8.265E+03	8.265E-01	3.061E+03	3.061E+00
1.000E+04	7.707E+03	7.707E-01	2.855E+03	2.855E+00
2.000E+04	5.114E+03	5.114E-01	1.894E+03	1.894E+00
3.000E+04	4.247E+03	4.247E-01	1.573E+03	1.573E+00
4.000E+04	3.834E+03	3.834E-01	1.420E+03	1.420E+00
5.000E+04	3.602E+03	3.602E-01	1.334E+03	1.334E+00
6.000E+04	3.451E+03	3.451E-01	1.278E+03	1.278E+00
7.000E+04	3.354E+03	3.354E-01	1.242E+03	1.242E+00
8.000E+04	3.289E+03	3.289E-01	1.218E+03	1.218E+00
9.000E+04	3.245E+03	3.245E-01	1.202E+03	1.202E+00
1.000E+05	3.215E+03	3.215E-01	1.191E+03	1.191E+00
2.000E+05	3.187E+03	3.187E-01	1.180E+03	1.180E+00
3.000E+05	3.261E+03	3.261E-01	1.207E+03	1.207E+00
4.000E+05	3.334E+03	3.334E-01	1.235E+03	1.235E+00
5.000E+05	3.400E+03	3.400E-01	1.259E+03	1.259E+00

TABLE 62

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: NI Z= 28 A= 58.71

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	1.000E+04	1.000E+00	3.704E+03	3.704E+00
7.000E-01	1.080E+04	1.080E+00	4.002E+03	4.002E+00
8.000E-01	1.155E+04	1.155E+00	4.278E+03	4.278E+00
9.000E-01	1.225E+04	1.225E+00	4.538E+03	4.538E+00
1.000E+00	1.291E+04	1.291E+00	4.783E+03	4.783E+00
2.000E+00	1.827E+04	1.827E+00	6.763E+03	6.763E+00
3.000E+00	2.237E+04	2.237E+00	8.284E+03	8.284E+00
4.000E+00	2.583E+04	2.583E+00	9.565E+03	9.565E+00
5.000E+00	2.888E+04	2.888E+00	1.070E+04	1.070E+01
6.000E+00	3.163E+04	3.163E+00	1.172E+04	1.172E+01
7.000E+00	3.417E+04	3.417E+00	1.266E+04	1.266E+01
8.000E+00	3.652E+04	3.652E+00	1.352E+04	1.352E+01
9.000E+00	3.874E+04	3.874E+00	1.435E+04	1.435E+01
1.000E+01	4.084E+04	4.084E+00	1.513E+04	1.513E+01
2.000E+01	5.774E+04	5.774E+00	2.138E+04	2.138E+01
3.000E+01	6.956E+04	6.956E+00	2.576E+04	2.576E+01
4.000E+01	7.598E+04	7.598E+00	2.814E+04	2.814E+01
5.000E+01	7.960E+04	7.960E+00	2.948E+04	2.948E+01
6.000E+01	8.165E+04	8.165E+00	3.024E+04	3.024E+01
7.000E+01	8.276E+04	8.276E+00	3.065E+04	3.065E+01
8.000E+01	8.327E+04	8.327E+00	3.084E+04	3.084E+01
9.000E+01	8.337E+04	8.337E+00	3.088E+04	3.088E+01
1.000E+02	8.319E+04	8.319E+00	3.082E+04	3.082E+01
2.000E+02	7.625E+04	7.625E+00	2.824E+04	2.824E+01
3.000E+02	6.845E+04	6.845E+00	2.535E+04	2.535E+01
4.000E+02	6.189E+04	6.189E+00	2.292E+04	2.292E+01
5.000E+02	5.649E+04	5.649E+00	2.092E+04	2.092E+01
6.000E+02	5.201E+04	5.201E+00	1.926E+04	1.926E+01
7.000E+02	4.823E+04	4.823E+00	1.786E+04	1.786E+01
8.000E+02	4.501E+04	4.501E+00	1.667E+04	1.667E+01
9.000E+02	4.223E+04	4.223E+00	1.564E+04	1.564E+01
1.000E+03	3.981E+04	3.981E+00	1.475E+04	1.475E+01
2.000E+03	2.581E+04	2.581E+00	9.561E+03	9.561E+00
3.000E+03	1.944E+04	1.944E+00	7.199E+03	7.199E+00
4.000E+03	1.578E+04	1.578E+00	5.843E+03	5.843E+00
5.000E+03	1.341E+04	1.341E+00	4.966E+03	4.966E+00
6.000E+03	1.175E+04	1.175E+00	4.354E+03	4.354E+00
7.000E+03	1.054E+04	1.054E+00	3.903E+03	3.903E+00
8.000E+03	9.604E+03	9.604E-01	3.556E+03	3.556E+00
9.000E+03	8.865E+03	8.865E-01	3.283E+03	3.283E+00
1.000E+04	8.264E+03	8.264E-01	3.061E+03	3.061E+00
2.000E+04	5.489E+03	5.489E-01	2.033E+03	2.033E+00
3.000E+04	4.561E+03	4.561E-01	1.689E+03	1.689E+00
4.000E+04	4.118E+03	4.118E-01	1.525E+03	1.525E+00
5.000E+04	3.869E+03	3.869E-01	1.433E+03	1.433E+00
6.000E+04	3.709E+03	3.709E-01	1.374E+03	1.374E+00
7.000E+04	3.605E+03	3.605E-01	1.335E+03	1.335E+00
8.000E+04	3.536E+03	3.536E-01	1.309E+03	1.309E+00
9.000E+04	3.488E+03	3.488E-01	1.292E+03	1.292E+00
1.000E+05	3.457E+03	3.457E-01	1.280E+03	1.280E+00
2.000E+05	3.428E+03	3.428E-01	1.269E+03	1.269E+00
3.000E+05	3.507E+03	3.507E-01	1.299E+03	1.299E+00
4.000E+05	3.587E+03	3.587E-01	1.328E+03	1.328E+00
5.000E+05	3.658E+03	3.658E-01	1.355E+03	1.355E+00

TABLE 63

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: KR Z= 36 A= 83.80

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
9.000E-01	1.216E+04	1.216E+00	4.506E+03	4.506E+00
1.000E+00	1.283E+04	1.283E+00	4.751E+03	4.751E+00
2.000E+00	1.814E+04	1.814E+00	6.719E+03	6.719E+00
3.000E+00	2.222E+04	2.222E+00	8.229E+03	8.229E+00
4.000E+00	2.566E+04	2.566E+00	9.502E+03	9.502E+00
5.000E+00	2.869E+04	2.869E+00	1.063E+04	1.063E+01
6.000E+00	3.143E+04	3.143E+00	1.164E+04	1.164E+01
7.000E+00	3.394E+04	3.394E+00	1.257E+04	1.257E+01
8.000E+00	3.628E+04	3.628E+00	1.343E+04	1.343E+01
9.000E+00	3.849E+04	3.849E+00	1.425E+04	1.425E+01
1.000E+01	4.057E+04	4.057E+00	1.503E+04	1.503E+01
2.000E+01	5.737E+04	5.737E+00	2.125E+04	2.125E+01
3.000E+01	7.025E+04	7.025E+00	2.602E+04	2.602E+01
4.000E+01	8.110E+04	8.110E+00	3.004E+04	3.004E+01
5.000E+01	8.893E+04	8.893E+00	3.293E+04	3.293E+01
6.000E+01	9.440E+04	9.440E+00	3.496E+04	3.496E+01
7.000E+01	9.833E+04	9.833E+00	3.642E+04	3.642E+01
8.000E+01	1.012E+05	1.012E+01	3.749E+04	3.749E+01
9.000E+01	1.034E+05	1.034E+01	3.828E+04	3.828E+01
1.000E+02	1.049E+05	1.049E+01	3.886E+04	3.886E+01
2.000E+02	1.075E+05	1.075E+01	3.980E+04	3.980E+01
3.000E+02	1.029E+05	1.029E+01	3.813E+04	3.813E+01
4.000E+02	9.739E+04	9.739E+00	3.607E+04	3.607E+01
5.000E+02	9.199E+04	9.199E+00	3.407E+04	3.407E+01
6.000E+02	8.703E+04	8.703E+00	3.223E+04	3.223E+01
7.000E+02	8.253E+04	8.253E+00	3.057E+04	3.057E+01
8.000E+02	7.847E+04	7.847E+00	2.906E+04	2.906E+01
9.000E+02	7.482E+04	7.482E+00	2.771E+04	2.771E+01
1.000E+03	7.152E+04	7.152E+00	2.649E+04	2.649E+01
2.000E+03	5.029E+04	5.029E+00	1.862E+04	1.862E+01
3.000E+03	3.943E+04	3.943E+00	1.461E+04	1.461E+01
4.000E+03	3.271E+04	3.271E+00	1.212E+04	1.212E+01
5.000E+03	2.813E+04	2.813E+00	1.042E+04	1.042E+01
6.000E+03	2.479E+04	2.479E+00	9.179E+03	9.179E+00
7.000E+03	2.225E+04	2.225E+00	8.239E+03	8.239E+00
8.000E+03	2.025E+04	2.025E+00	7.500E+03	7.500E+00
9.000E+03	1.865E+04	1.865E+00	6.906E+03	6.906E+00
1.000E+04	1.732E+04	1.732E+00	6.417E+03	6.417E+00
2.000E+04	1.104E+04	1.104E+00	4.092E+03	4.092E+00
3.000E+04	8.847E+03	8.847E-01	3.277E+03	3.277E+00
4.000E+04	7.752E+03	7.752E-01	2.871E+03	2.871E+00
5.000E+04	7.113E+03	7.113E-01	2.635E+03	2.635E+00
6.000E+04	6.706E+03	6.706E-01	2.484E+03	2.484E+00
7.000E+04	6.429E+03	6.429E-01	2.381E+03	2.381E+00
8.000E+04	6.222E+03	6.222E-01	2.304E+03	2.304E+00
9.000E+04	6.070E+03	6.070E-01	2.249E+03	2.249E+00
1.000E+05	5.959E+03	5.959E-01	2.207E+03	2.207E+00
2.000E+05	5.635E+03	5.635E-01	2.087E+03	2.087E+00
3.000E+05	5.677E+03	5.677E-01	2.103E+03	2.103E+00
4.000E+05	5.770E+03	5.770E-01	2.137E+03	2.137E+00
5.000E+05	5.866E+03	5.866E-01	2.172E+03	2.172E+00
6.000E+05	5.955E+03	5.955E-01	2.206E+03	2.206E+00
7.000E+05	6.036E+03	6.036E-01	2.236E+03	2.236E+00
8.000E+05	6.109E+03	6.109E-01	2.263E+03	2.263E+00

TABLE 64

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AG Z= 47 A= 107.87

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E+00	1.909E+04	1.909E+00	7.072E+03	7.072E+00
3.000E+00	2.339E+04	2.339E+00	8.661E+03	8.661E+00
4.000E+00	2.700E+04	2.700E+00	1.000E+04	1.000E+01
5.000E+00	3.019E+04	3.019E+00	1.118E+04	1.118E+01
6.000E+00	3.307E+04	3.307E+00	1.225E+04	1.225E+01
7.000E+00	3.572E+04	3.572E+00	1.323E+04	1.323E+01
8.000E+00	3.819E+04	3.819E+00	1.415E+04	1.415E+01
9.000E+00	4.050E+04	4.050E+00	1.500E+04	1.500E+01
1.000E+01	4.269E+04	4.269E+00	1.581E+04	1.581E+01
2.000E+01	6.036E+04	6.036E+00	2.236E+04	2.236E+01
3.000E+01	7.393E+04	7.393E+00	2.738E+04	2.738E+01
4.000E+01	8.536E+04	8.536E+00	3.161E+04	3.161E+01
5.000E+01	9.542E+04	9.542E+00	3.534E+04	3.534E+01
6.000E+01	1.044E+05	1.044E+01	3.867E+04	3.867E+01
7.000E+01	1.114E+05	1.114E+01	4.127E+04	4.127E+01
8.000E+01	1.170E+05	1.170E+01	4.333E+04	4.333E+01
9.000E+01	1.215E+05	1.215E+01	4.500E+04	4.500E+01
1.000E+02	1.251E+05	1.251E+01	4.636E+04	4.636E+01
2.000E+02	1.405E+05	1.405E+01	5.204E+04	5.204E+01
3.000E+02	1.419E+05	1.419E+01	5.256E+04	5.256E+01
4.000E+02	1.395E+05	1.395E+01	5.166E+04	5.166E+01
5.000E+02	1.358E+05	1.358E+01	5.027E+04	5.027E+01
6.000E+02	1.316E+05	1.316E+01	4.874E+04	4.874E+01
7.000E+02	1.274E+05	1.274E+01	4.718E+04	4.718E+01
8.000E+02	1.233E+05	1.233E+01	4.566E+04	4.566E+01
9.000E+02	1.194E+05	1.194E+01	4.421E+04	4.421E+01
1.000E+03	1.157E+05	1.157E+01	4.284E+04	4.284E+01
2.000E+03	8.834E+04	8.834E+00	3.272E+04	3.272E+01
3.000E+03	7.219E+04	7.219E+00	2.674E+04	2.674E+01
4.000E+03	6.153E+04	6.153E+00	2.279E+04	2.279E+01
5.000E+03	5.392E+04	5.392E+00	1.997E+04	1.997E+01
6.000E+03	4.819E+04	4.819E+00	1.785E+04	1.785E+01
7.000E+03	4.370E+04	4.370E+00	1.618E+04	1.618E+01
8.000E+03	4.007E+04	4.007E+00	1.484E+04	1.484E+01
9.000E+03	3.709E+04	3.709E+00	1.374E+04	1.374E+01
1.000E+04	3.458E+04	3.458E+00	1.281E+04	1.281E+01
2.000E+04	2.192E+04	2.192E+00	8.119E+03	8.119E+00
3.000E+04	1.722E+04	1.722E+00	6.377E+03	6.377E+00
4.000E+04	1.482E+04	1.482E+00	5.486E+03	5.486E+00
5.000E+04	1.338E+04	1.338E+00	4.954E+03	4.954E+00
6.000E+04	1.243E+04	1.243E+00	4.606E+03	4.606E+00
7.000E+04	1.178E+04	1.178E+00	4.364E+03	4.364E+00
8.000E+04	1.131E+04	1.131E+00	4.191E+03	4.191E+00
9.000E+04	1.096E+04	1.096E+00	4.060E+03	4.060E+00
1.000E+05	1.067E+04	1.067E+00	3.954E+03	3.954E+00
2.000E+05	9.684E+03	9.684E-01	3.587E+03	3.587E+00
3.000E+05	9.606E+03	9.606E-01	3.558E+03	3.558E+00
4.000E+05	9.692E+03	9.692E-01	3.590E+03	3.590E+00
5.000E+05	9.816E+03	9.816E-01	3.636E+03	3.636E+00
6.000E+05	9.944E+03	9.944E-01	3.682E+03	3.682E+00
7.000E+05	1.007E+04	1.007E+00	3.728E+03	3.728E+00
8.000E+05	1.018E+04	1.018E+00	3.771E+03	3.771E+00
9.000E+05	1.029E+04	1.029E+00	3.810E+03	3.810E+00
1.000E+06	1.039E+04	1.039E+00	3.847E+03	3.847E+00

TABLE 65

COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM

ELEMENT: AU Z= 79 A= 197.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E+00	1.977E+04	1.977E+00	7.321E+03	7.321E+00
3.000E+00	2.422E+04	2.422E+00	8.969E+03	8.969E+00
4.000E+00	2.797E+04	2.797E+00	1.036E+04	1.036E+01
5.000E+00	3.126E+04	3.126E+00	1.158E+04	1.158E+01
6.000E+00	3.425E+04	3.425E+00	1.268E+04	1.268E+01
7.000E+00	3.699E+04	3.699E+00	1.370E+04	1.370E+01
8.000E+00	3.954E+04	3.954E+00	1.465E+04	1.465E+01
9.000E+00	4.194E+04	4.194E+00	1.554E+04	1.554E+01
1.000E+01	4.421E+04	4.421E+00	1.637E+04	1.637E+01
2.000E+01	6.253E+04	6.253E+00	2.316E+04	2.316E+01
3.000E+01	7.656E+04	7.656E+00	2.836E+04	2.836E+01
4.000E+01	8.841E+04	8.841E+00	3.274E+04	3.274E+01
5.000E+01	9.886E+04	9.886E+00	3.661E+04	3.661E+01
6.000E+01	1.083E+05	1.083E+01	4.010E+04	4.010E+01
7.000E+01	1.169E+05	1.169E+01	4.332E+04	4.332E+01
8.000E+01	1.250E+05	1.250E+01	4.630E+04	4.630E+01
9.000E+01	1.326E+05	1.326E+01	4.911E+04	4.911E+01
1.000E+02	1.398E+05	1.398E+01	5.177E+04	5.177E+01
2.000E+02	1.905E+05	1.905E+01	7.056E+04	7.056E+01
3.000E+02	2.140E+05	2.140E+01	7.926E+04	7.926E+01
4.000E+02	2.265E+05	2.265E+01	8.390E+04	8.390E+01
5.000E+02	2.336E+05	2.336E+01	8.651E+04	8.651E+01
6.000E+02	2.375E+05	2.375E+01	8.797E+04	8.797E+01
7.000E+02	2.395E+05	2.395E+01	8.870E+04	8.870E+01
8.000E+02	2.402E+05	2.402E+01	8.897E+04	8.897E+01
9.000E+02	2.400E+05	2.400E+01	8.892E+04	8.892E+01
1.000E+03	2.393E+05	2.393E+01	8.863E+04	8.863E+01
2.000E+03	2.207E+05	2.207E+01	8.172E+04	8.172E+01
3.000E+03	2.003E+05	2.003E+01	7.421E+04	7.421E+01
4.000E+03	1.831E+05	1.831E+01	6.783E+04	6.783E+01
5.000E+03	1.688E+05	1.688E+01	6.253E+04	6.253E+01
6.000E+03	1.568E+05	1.568E+01	5.809E+04	5.809E+01
7.000E+03	1.467E+05	1.467E+01	5.433E+04	5.433E+01
8.000E+03	1.380E+05	1.380E+01	5.110E+04	5.110E+01
9.000E+03	1.304E+05	1.304E+01	4.830E+04	4.830E+01
1.000E+04	1.238E+05	1.238E+01	4.585E+04	4.585E+01
2.000E+04	8.522E+04	8.522E+00	3.156E+04	3.156E+01
3.000E+04	6.752E+04	6.752E+00	2.501E+04	2.501E+01
4.000E+04	5.723E+04	5.723E+00	2.120E+04	2.120E+01
5.000E+04	5.054E+04	5.054E+00	1.872E+04	1.872E+01
6.000E+04	4.588E+04	4.588E+00	1.699E+04	1.699E+01
7.000E+04	4.248E+04	4.248E+00	1.573E+04	1.573E+01
8.000E+04	3.991E+04	3.991E+00	1.478E+04	1.478E+01
9.000E+04	3.791E+04	3.791E+00	1.404E+04	1.404E+01
1.000E+05	3.631E+04	3.631E+00	1.345E+04	1.345E+01
2.000E+05	2.956E+04	2.956E+00	1.094E+04	1.094E+01
3.000E+05	2.778E+04	2.778E+00	1.029E+04	1.029E+01
4.000E+05	2.724E+04	2.724E+00	1.009E+04	1.009E+01
5.000E+05	2.713E+04	2.713E+00	1.005E+04	1.005E+01
6.000E+05	2.719E+04	2.719E+00	1.007E+04	1.007E+01
7.000E+05	2.733E+04	2.733E+00	1.012E+04	1.012E+01
8.000E+05	2.751E+04	2.751E+00	1.018E+04	1.018E+01
9.000E+05	2.771E+04	2.771E+00	1.026E+04	1.026E+01
1.000E+06	2.791E+04	2.791E+00	1.034E+04	1.034E+01

TABLE 66

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: H Z= 1 A= 1.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.656E+02	1.656E-02	6.900E+01	6.900E-02	7.527E+00	7.527E-04	3.136E+00	3.136E-03
2.000E-02	2.342E+02	2.342E-02	9.758E+01	9.758E-02	1.065E+01	1.065E-03	4.436E+00	4.436E-03
3.000E-02	2.868E+02	2.868E-02	1.195E+02	1.195E-01	1.304E+01	1.304E-03	5.432E+00	5.432E-03
4.000E-02	3.312E+02	3.312E-02	1.380E+02	1.380E-01	1.505E+01	1.505E-03	6.274E+00	6.274E-03
5.000E-02	3.702E+02	3.702E-02	1.543E+02	1.543E-01	1.683E+01	1.683E-03	7.013E+00	7.013E-03
6.000E-02	4.057E+02	4.057E-02	1.690E+02	1.690E-01	1.844E+01	1.844E-03	7.684E+00	7.684E-03
7.000E-02	4.381E+02	4.381E-02	1.826E+02	1.826E-01	1.991E+01	1.991E-03	8.298E+00	8.298E-03
8.000E-02	4.684E+02	4.684E-02	1.951E+02	1.951E-01	2.129E+01	2.129E-03	8.868E+00	8.868E-03
9.000E-02	4.968E+02	4.968E-02	2.070E+02	2.070E-01	2.258E+01	2.258E-03	9.410E+00	9.410E-03
1.000E-01	5.237E+02	5.237E-02	2.182E+02	2.182E-01	2.380E+01	2.380E-03	9.920E+00	9.920E-03
2.000E-01	7.263E+02	7.263E-02	3.026E+02	3.026E-01	3.301E+01	3.301E-03	1.375E+01	1.375E-02
3.000E-01	7.302E+02	7.302E-02	3.042E+02	3.042E-01	3.319E+01	3.319E-03	1.383E+01	1.383E-02
4.000E-01	6.796E+02	6.796E-02	2.832E+02	2.832E-01	3.089E+01	3.089E-03	1.287E+01	1.287E-02
5.000E-01	6.247E+02	6.247E-02	2.602E+02	2.602E-01	2.839E+01	2.839E-03	1.183E+01	1.183E-02
6.000E-01	5.749E+02	5.749E-02	2.396E+02	2.396E-01	2.613E+01	2.613E-03	1.089E+01	1.089E-02
7.000E-01	5.318E+02	5.318E-02	2.216E+02	2.216E-01	2.417E+01	2.417E-03	1.007E+01	1.007E-02
8.000E-01	4.946E+02	4.946E-02	2.061E+02	2.061E-01	2.248E+01	2.248E-03	9.367E+00	9.367E-03
9.000E-01	4.624E+02	4.624E-02	1.927E+02	1.927E-01	2.102E+01	2.102E-03	8.758E+00	8.758E-03
1.000E+00	4.344E+02	4.344E-02	1.810E+02	1.810E-01	1.975E+01	1.975E-03	8.229E+00	8.229E-03
2.000E+00	2.770E+02	2.770E-02	1.154E+02	1.154E-01	1.259E+01	1.259E-03	5.245E+00	5.245E-03
3.000E+00	2.081E+02	2.081E-02	8.672E+01	8.672E-02	9.459E+00	9.459E-04	3.942E+00	3.942E-03
4.000E+00	1.686E+02	1.686E-02	7.026E+01	7.026E-02	7.666E+00	7.666E-04	3.194E+00	3.194E-03
5.000E+00	1.428E+02	1.428E-02	5.949E+01	5.949E-02	6.489E+00	6.489E-04	2.704E+00	2.704E-03
6.000E+00	1.244E+02	1.244E-02	5.180E+01	5.180E-02	5.653E+00	5.653E-04	2.355E+00	2.355E-03
7.000E+00	1.105E+02	1.105E-02	4.605E+01	4.605E-02	5.022E+00	5.022E-04	2.093E+00	2.093E-03
8.000E+00	9.972E+01	9.972E-03	4.154E+01	4.154E-02	4.533E+00	4.533E-04	1.888E+00	1.888E-03
9.000E+00	9.100E+01	9.100E-03	3.792E+01	3.792E-02	4.137E+00	4.137E-04	1.724E+00	1.724E-03
1.000E+01	8.384E+01	8.384E-03	3.493E+01	3.493E-02	3.811E+00	3.811E-04	1.588E+00	1.588E-03
2.000E+01	4.856E+01	4.856E-03	2.023E+01	2.023E-02	2.207E+00	2.207E-04	9.195E-01	9.195E-04
3.000E+01	3.522E+01	3.522E-03	1.468E+01	1.468E-02	1.601E+00	1.601E-04	6.671E-01	6.671E-04
4.000E+01	2.807E+01	2.807E-03	1.170E+01	1.170E-02	1.276E+00	1.276E-04	5.316E-01	5.316E-04
5.000E+01	2.358E+01	2.358E-03	9.826E+00	9.826E-03	1.072E+00	1.072E-04	4.466E-01	4.466E-04
6.000E+01	2.048E+01	2.048E-03	8.530E+00	8.530E-03	9.307E-01	9.307E-05	3.877E-01	3.877E-04
7.000E+01	1.820E+01	1.820E-03	7.583E+00	7.583E-03	8.271E-01	8.271E-05	3.447E-01	3.447E-04
8.000E+01	1.645E+01	1.645E-03	6.855E+00	6.855E-03	7.478E-01	7.478E-05	3.116E-01	3.116E-04
9.000E+01	1.507E+01	1.507E-03	6.279E+00	6.279E-03	6.849E-01	6.849E-05	2.854E-01	2.854E-04
1.000E+02	1.395E+01	1.395E-03	5.811E+00	5.811E-03	6.339E-01	6.339E-05	2.641E-01	2.641E-04
2.000E+02	8.674E+00	8.674E-04	3.613E+00	3.613E-03	3.943E-01	3.943E-05	1.642E-01	1.642E-04
3.000E+02	6.830E+00	6.830E-04	2.846E+00	2.846E-03	3.105E-01	3.105E-05	1.294E-01	1.294E-04
4.000E+02	5.904E+00	5.904E-04	2.461E+00	2.461E-03	2.684E-01	2.684E-05	1.118E-01	1.118E-04
5.000E+02	5.356E+00	5.356E-04	2.231E+00	2.231E-03	2.434E-01	2.434E-05	1.014E-01	1.014E-04
6.000E+02	5.000E+00	5.000E-04	2.083E+00	2.083E-03	2.273E-01	2.273E-05	9.470E-02	9.470E-05
7.000E+02	4.756E+00	4.756E-04	1.982E+00	1.982E-03	2.162E-01	2.162E-05	9.009E-02	9.009E-05
8.000E+02	4.581E+00	4.581E-04	1.908E+00	1.908E-03	2.082E-01	2.082E-05	8.675E-02	8.675E-05
9.000E+02	4.447E+00	4.447E-04	1.852E+00	1.852E-03	2.021E-01	2.021E-05	8.419E-02	8.419E-05
1.000E+03	4.342E+00	4.342E-04	1.809E+00	1.809E-03	1.974E-01	1.974E-05	8.223E-02	8.223E-05
2.000E+03	4.001E+00	4.001E-04	1.667E+00	1.667E-03	1.818E-01	1.818E-05	7.578E-02	7.578E-05
3.000E+03	3.994E+00	3.994E-04	1.664E+00	1.664E-03	1.815E-01	1.815E-05	7.565E-02	7.565E-05
4.000E+03	4.042E+00	4.042E-04	1.685E+00	1.685E-03	1.837E-01	1.837E-05	7.657E-02	7.657E-05
5.000E+03	4.101E+00	4.101E-04	1.709E+00	1.709E-03	1.864E-01	1.864E-05	7.767E-02	7.767E-05
6.000E+03	4.160E+00	4.160E-04	1.733E+00	1.733E-03	1.891E-01	1.891E-05	7.877E-02	7.877E-05
7.000E+03	4.214E+00	4.214E-04	1.756E+00	1.756E-03	1.915E-01	1.915E-05	7.980E-02	7.980E-05
8.000E+03	4.265E+00	4.265E-04	1.777E+00	1.777E-03	1.938E-01	1.938E-05	8.076E-02	8.076E-05
9.000E+03	4.311E+00	4.311E-04	1.796E+00	1.796E-03	1.959E-01	1.959E-05	8.166E-02	8.166E-05
1.000E+04	4.353E+00	4.353E-04	1.814E+00	1.814E-03	1.979E-01	1.979E-05	8.245E-02	8.245E-05

TABLE 67

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: HE Z= 2 A= 4.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.332E+02	1.332E-02	5.550E+01	5.550E-02	6.055E+00	6.055E-04	2.523E+00	2.523E-03
2.000E-02	1.883E+02	1.883E-02	7.849E+01	7.849E-02	8.561E+00	8.561E-04	3.568E+00	3.568E-03
3.000E-02	2.307E+02	2.307E-02	9.612E+01	9.612E-02	1.049E+01	1.049E-03	4.369E+00	4.369E-03
4.000E-02	2.663E+02	2.663E-02	1.110E+02	1.110E-01	1.211E+01	1.211E-03	5.044E+00	5.044E-03
5.000E-02	2.978E+02	2.978E-02	1.241E+02	1.241E-01	1.354E+01	1.354E-03	5.639E+00	5.639E-03
6.000E-02	3.262E+02	3.262E-02	1.359E+02	1.359E-01	1.483E+01	1.483E-03	6.178E+00	6.178E-03
7.000E-02	3.524E+02	3.524E-02	1.469E+02	1.469E-01	1.602E+01	1.602E-03	6.676E+00	6.676E-03
8.000E-02	3.767E+02	3.767E-02	1.570E+02	1.570E-01	1.712E+01	1.712E-03	7.134E+00	7.134E-03
9.000E-02	3.995E+02	3.995E-02	1.665E+02	1.665E-01	1.816E+01	1.816E-03	7.568E+00	7.568E-03
1.000E-01	4.212E+02	4.212E-02	1.755E+02	1.755E-01	1.915E+01	1.915E-03	7.978E+00	7.978E-03
2.000E-01	5.962E+02	5.962E-02	2.484E+02	2.484E-01	2.710E+01	2.710E-03	1.129E+01	1.129E-02
3.000E-01	6.636E+02	6.636E-02	2.765E+02	2.765E-01	3.016E+01	3.016E-03	1.257E+01	1.257E-02
4.000E-01	6.501E+02	6.501E-02	2.708E+02	2.708E-01	2.955E+01	2.955E-03	1.231E+01	1.231E-02
5.000E-01	6.129E+02	6.129E-02	2.554E+02	2.554E-01	2.786E+01	2.786E-03	1.161E+01	1.161E-02
6.000E-01	5.715E+02	5.715E-02	2.381E+02	2.381E-01	2.598E+01	2.598E-03	1.082E+01	1.082E-02
7.000E-01	5.323E+02	5.323E-02	2.218E+02	2.218E-01	2.420E+01	2.420E-03	1.008E+01	1.008E-02
8.000E-01	4.959E+02	4.959E-02	2.066E+02	2.066E-01	2.254E+01	2.254E-03	9.392E+00	9.392E-03
9.000E-01	4.633E+02	4.633E-02	1.931E+02	1.931E-01	2.106E+01	2.106E-03	8.776E+00	8.776E-03
1.000E+00	4.350E+02	4.350E-02	1.813E+02	1.813E-01	1.977E+01	1.977E-03	8.239E+00	8.239E-03
2.000E+00	2.771E+02	2.771E-02	1.155E+02	1.155E-01	1.260E+01	1.260E-03	5.249E+00	5.249E-03
3.000E+00	2.082E+02	2.082E-02	8.674E+01	8.674E-02	9.463E+00	9.463E-04	3.943E+00	3.943E-03
4.000E+00	1.687E+02	1.687E-02	7.028E+01	7.028E-02	7.667E+00	7.667E-04	3.195E+00	3.195E-03
5.000E+00	1.428E+02	1.428E-02	5.950E+01	5.950E-02	6.489E+00	6.489E-04	2.704E+00	2.704E-03
6.000E+00	1.244E+02	1.244E-02	5.182E+01	5.182E-02	5.654E+00	5.654E-04	2.356E+00	2.356E-03
7.000E+00	1.106E+02	1.106E-02	4.606E+01	4.606E-02	5.026E+00	5.026E-04	2.094E+00	2.094E-03
8.000E+00	9.971E+01	9.971E-03	4.155E+01	4.155E-02	4.532E+00	4.532E-04	1.889E+00	1.889E-03
9.000E+00	9.103E+01	9.103E-03	3.793E+01	3.793E-02	4.138E+00	4.138E-04	1.724E+00	1.724E-03
1.000E+01	8.386E+01	8.386E-03	3.494E+01	3.494E-02	3.812E+00	3.812E-04	1.588E+00	1.588E-03
2.000E+01	4.857E+01	4.857E-03	2.024E+01	2.024E-02	2.208E+00	2.208E-04	9.200E-01	9.200E-04
3.000E+01	3.523E+01	3.523E-03	1.468E+01	1.468E-02	1.602E+00	1.602E-04	6.671E-01	6.671E-04
4.000E+01	2.807E+01	2.807E-03	1.170E+01	1.170E-02	1.276E+00	1.276E-04	5.316E-01	5.316E-04
5.000E+01	2.358E+01	2.358E-03	9.827E+00	9.827E-03	1.072E+00	1.072E-04	4.467E-01	4.467E-04
6.000E+01	2.048E+01	2.048E-03	8.532E+00	8.532E-03	9.307E-01	9.307E-05	3.878E-01	3.878E-04
7.000E+01	1.821E+01	1.821E-03	7.585E+00	7.585E-03	8.276E-01	8.276E-05	3.448E-01	3.448E-04
8.000E+01	1.646E+01	1.646E-03	6.857E+00	6.857E-03	7.482E-01	7.482E-05	3.117E-01	3.117E-04
9.000E+01	1.508E+01	1.508E-03	6.281E+00	6.281E-03	6.853E-01	6.853E-05	2.855E-01	2.855E-04
1.000E+02	1.395E+01	1.395E-03	5.813E+00	5.813E-03	6.341E-01	6.341E-05	2.642E-01	2.642E-04
2.000E+02	8.675E+00	8.675E-04	3.614E+00	3.614E-03	3.943E-01	3.943E-05	1.643E-01	1.643E-04
3.000E+02	6.832E+00	6.832E-04	2.847E+00	2.847E-03	3.106E-01	3.106E-05	1.294E-01	1.294E-04
4.000E+02	5.906E+00	5.906E-04	2.461E+00	2.461E-03	2.685E-01	2.685E-05	1.118E-01	1.118E-04
5.000E+02	5.357E+00	5.357E-04	2.232E+00	2.232E-03	2.435E-01	2.435E-05	1.015E-01	1.015E-04
6.000E+02	5.002E+00	5.002E-04	2.084E+00	2.084E-03	2.274E-01	2.274E-05	9.473E-02	9.473E-05
7.000E+02	4.757E+00	4.757E-04	1.982E+00	1.982E-03	2.162E-01	2.162E-05	9.010E-02	9.010E-05
8.000E+02	4.582E+00	4.582E-04	1.909E+00	1.909E-03	2.083E-01	2.083E-05	8.677E-02	8.677E-05
9.000E+02	4.448E+00	4.448E-04	1.853E+00	1.853E-03	2.022E-01	2.022E-05	8.425E-02	8.425E-05
1.000E+03	4.343E+00	4.343E-04	1.810E+00	1.810E-03	1.974E-01	1.974E-05	8.227E-02	8.227E-05
2.000E+03	4.002E+00	4.002E-04	1.667E+00	1.667E-03	1.819E-01	1.819E-05	7.579E-02	7.579E-05
3.000E+03	3.995E+00	3.995E-04	1.665E+00	1.665E-03	1.816E-01	1.816E-05	7.567E-02	7.567E-05
4.000E+03	4.043E+00	4.043E-04	1.685E+00	1.685E-03	1.838E-01	1.838E-05	7.658E-02	7.658E-05
5.000E+03	4.102E+00	4.102E-04	1.710E+00	1.710E-03	1.865E-01	1.865E-05	7.771E-02	7.771E-05
6.000E+03	4.161E+00	4.161E-04	1.734E+00	1.734E-03	1.891E-01	1.891E-05	7.881E-02	7.881E-05
7.000E+03	4.215E+00	4.215E-04	1.757E+00	1.757E-03	1.916E-01	1.916E-05	7.985E-02	7.985E-05
8.000E+03	4.266E+00	4.266E-04	1.777E+00	1.777E-03	1.939E-01	1.939E-05	8.079E-02	8.079E-05
9.000E+03	4.312E+00	4.312E-04	1.796E+00	1.796E-03	1.960E-01	1.960E-05	8.165E-02	8.165E-05
1.000E+04	4.354E+00	4.354E-04	1.814E+00	1.814E-03	1.979E-01	1.979E-05	8.245E-02	8.245E-05

TABLE 68

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: LI Z= 3 A= 6.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.162E+02	1.162E-02	4.840E+01	4.840E-02	5.282E+00	5.282E-04	2.200E+00	2.200E-03
2.000E-02	1.643E+02	1.643E-02	6.845E+01	6.845E-02	7.468E+00	7.468E-04	3.111E+00	3.111E-03
3.000E-02	2.011E+02	2.011E-02	8.382E+01	8.382E-02	9.142E+00	9.142E-04	3.810E+00	3.810E-03
4.000E-02	2.324E+02	2.324E-02	9.679E+01	9.679E-02	1.056E+01	1.056E-03	4.400E+00	4.400E-03
5.000E-02	2.597E+02	2.597E-02	1.083E+02	1.083E-01	1.181E+01	1.181E-03	4.921E+00	4.921E-03
6.000E-02	2.845E+02	2.845E-02	1.186E+02	1.186E-01	1.293E+01	1.293E-03	5.389E+00	5.389E-03
7.000E-02	3.073E+02	3.073E-02	1.281E+02	1.281E-01	1.397E+01	1.397E-03	5.821E+00	5.821E-03
8.000E-02	3.285E+02	3.285E-02	1.369E+02	1.369E-01	1.493E+01	1.493E-03	6.222E+00	6.222E-03
9.000E-02	3.485E+02	3.485E-02	1.451E+02	1.451E-01	1.584E+01	1.584E-03	6.597E+00	6.597E-03
1.000E-01	3.673E+02	3.673E-02	1.530E+02	1.530E-01	1.670E+01	1.670E-03	6.955E+00	6.955E-03
2.000E-01	5.193E+02	5.193E-02	2.164E+02	2.164E-01	2.361E+01	2.361E-03	9.837E+00	9.837E-03
3.000E-01	6.262E+02	6.262E-02	2.609E+02	2.609E-01	2.847E+01	2.847E-03	1.186E+01	1.186E-02
4.000E-01	6.702E+02	6.702E-02	2.792E+02	2.792E-01	3.046E+01	3.046E-03	1.269E+01	1.269E-02
5.000E-01	6.784E+02	6.784E-02	2.827E+02	2.827E-01	3.084E+01	3.084E-03	1.285E+01	1.285E-02
6.000E-01	6.671E+02	6.671E-02	2.780E+02	2.780E-01	3.032E+01	3.032E-03	1.264E+01	1.264E-02
7.000E-01	6.452E+02	6.452E-02	2.688E+02	2.688E-01	2.933E+01	2.933E-03	1.222E+01	1.222E-02
8.000E-01	6.181E+02	6.181E-02	2.576E+02	2.576E-01	2.810E+01	2.810E-03	1.171E+01	1.171E-02
9.000E-01	5.892E+02	5.892E-02	2.455E+02	2.455E-01	2.678E+01	2.678E-03	1.116E+01	1.116E-02
1.000E+00	5.606E+02	5.606E-02	2.336E+02	2.336E-01	2.548E+01	2.548E-03	1.062E+01	1.062E-02
2.000E+00	3.596E+02	3.596E-02	1.498E+02	1.498E-01	1.635E+01	1.635E-03	6.809E+00	6.809E-03
3.000E+00	2.702E+02	2.702E-02	1.126E+02	1.126E-01	1.228E+01	1.228E-03	5.116E+00	5.116E-03
4.000E+00	2.189E+02	2.189E-02	9.121E+01	9.121E-02	9.952E+00	9.952E-04	4.146E+00	4.146E-03
5.000E+00	1.853E+02	1.853E-02	7.722E+01	7.722E-02	8.424E+00	8.424E-04	3.510E+00	3.510E-03
6.000E+00	1.614E+02	1.614E-02	6.725E+01	6.725E-02	7.336E+00	7.336E-04	3.057E+00	3.057E-03
7.000E+00	1.435E+02	1.435E-02	5.978E+01	5.978E-02	6.523E+00	6.523E-04	2.717E+00	2.717E-03
8.000E+00	1.295E+02	1.295E-02	5.393E+01	5.393E-02	5.884E+00	5.884E-04	2.451E+00	2.451E-03
9.000E+00	1.181E+02	1.181E-02	4.923E+01	4.923E-02	5.370E+00	5.370E-04	2.238E+00	2.238E-03
1.000E+01	1.088E+02	1.088E-02	4.535E+01	4.535E-02	4.945E+00	4.945E-04	2.061E+00	2.061E-03
2.000E+01	6.303E+01	6.303E-03	2.627E+01	2.627E-02	2.865E+00	2.865E-04	1.194E+00	1.194E-03
3.000E+01	4.572E+01	4.572E-03	1.905E+01	1.905E-02	2.078E+00	2.078E-04	8.659E-01	8.659E-04
4.000E+01	3.644E+01	3.644E-03	1.518E+01	1.518E-02	1.657E+00	1.657E-04	6.901E-01	6.901E-04
5.000E+01	3.061E+01	3.061E-03	1.275E+01	1.275E-02	1.391E+00	1.391E-04	5.797E-01	5.797E-04
6.000E+01	2.657E+01	2.657E-03	1.108E+01	1.108E-02	1.208E+00	1.208E-04	5.034E-01	5.034E-04
7.000E+01	2.363E+01	2.363E-03	9.842E+00	9.842E-03	1.074E+00	1.074E-04	4.474E-01	4.474E-04
8.000E+01	2.135E+01	2.135E-03	8.899E+00	8.899E-03	9.707E-01	9.707E-05	4.045E-01	4.045E-04
9.000E+01	1.956E+01	1.956E-03	8.151E+00	8.151E-03	8.891E-01	8.891E-05	3.705E-01	3.705E-04
1.000E+02	1.810E+01	1.810E-03	7.544E+00	7.544E-03	8.229E-01	8.229E-05	3.429E-01	3.429E-04
2.000E+02	1.126E+01	1.126E-03	4.692E+00	4.692E-03	5.119E-01	5.119E-05	2.133E-01	2.133E-04
3.000E+02	8.867E+00	8.867E-04	3.695E+00	3.695E-03	4.030E-01	4.030E-05	1.679E-01	1.679E-04
4.000E+02	7.664E+00	7.664E-04	3.194E+00	3.194E-03	3.484E-01	3.484E-05	1.452E-01	1.452E-04
5.000E+02	6.953E+00	6.953E-04	2.896E+00	2.896E-03	3.160E-01	3.160E-05	1.317E-01	1.317E-04
6.000E+02	6.491E+00	6.491E-04	2.705E+00	2.705E-03	2.950E-01	2.950E-05	1.229E-01	1.229E-04
7.000E+02	6.174E+00	6.174E-04	2.573E+00	2.573E-03	2.806E-01	2.806E-05	1.170E-01	1.170E-04
8.000E+02	5.947E+00	5.947E-04	2.478E+00	2.478E-03	2.703E-01	2.703E-05	1.126E-01	1.126E-04
9.000E+02	5.772E+00	5.772E-04	2.405E+00	2.405E-03	2.624E-01	2.624E-05	1.093E-01	1.093E-04
1.000E+03	5.637E+00	5.637E-04	2.348E+00	2.348E-03	2.562E-01	2.562E-05	1.067E-01	1.067E-04
2.000E+03	5.193E+00	5.193E-04	2.164E+00	2.164E-03	2.360E-01	2.360E-05	9.838E-02	9.838E-05
3.000E+03	5.185E+00	5.185E-04	2.160E+00	2.160E-03	2.357E-01	2.357E-05	9.818E-02	9.818E-05
4.000E+03	5.247E+00	5.247E-04	2.186E+00	2.186E-03	2.385E-01	2.385E-05	9.937E-02	9.937E-05
5.000E+03	5.324E+00	5.324E-04	2.219E+00	2.219E-03	2.420E-01	2.420E-05	1.008E-01	1.008E-04
6.000E+03	5.399E+00	5.399E-04	2.250E+00	2.250E-03	2.454E-01	2.454E-05	1.023E-01	1.023E-04
7.000E+03	5.470E+00	5.470E-04	2.280E+00	2.280E-03	2.486E-01	2.486E-05	1.036E-01	1.036E-04
8.000E+03	5.536E+00	5.536E-04	2.307E+00	2.307E-03	2.516E-01	2.516E-05	1.049E-01	1.049E-04
9.000E+03	5.596E+00	5.596E-04	2.332E+00	2.332E-03	2.544E-01	2.544E-05	1.060E-01	1.060E-04
1.000E+04	5.651E+00	5.651E-04	2.355E+00	2.355E-03	2.569E-01	2.569E-05	1.070E-01	1.070E-04

TABLE 69

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: BE Z= 4 A= 9.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.344E+02	1.344E-02	5.601E+01	5.601E-02	6.109E+00	6.109E-04	2.546E+00	2.546E-03
2.000E-02	1.901E+02	1.901E-02	7.921E+01	7.921E-02	8.643E+00	8.643E-04	3.600E+00	3.600E-03
3.000E-02	2.328E+02	2.328E-02	9.701E+01	9.701E-02	1.058E+01	1.058E-03	4.409E+00	4.409E-03
4.000E-02	2.688E+02	2.688E-02	1.120E+02	1.120E-01	1.222E+01	1.222E-03	5.089E+00	5.089E-03
5.000E-02	3.006E+02	3.006E-02	1.252E+02	1.252E-01	1.366E+01	1.366E-03	5.692E+00	5.692E-03
6.000E-02	3.292E+02	3.292E-02	1.372E+02	1.372E-01	1.496E+01	1.496E-03	6.237E+00	6.237E-03
7.000E-02	3.556E+02	3.556E-02	1.482E+02	1.482E-01	1.616E+01	1.616E-03	6.735E+00	6.735E-03
8.000E-02	3.802E+02	3.802E-02	1.584E+02	1.584E-01	1.728E+01	1.728E-03	7.198E+00	7.198E-03
9.000E-02	4.032E+02	4.032E-02	1.680E+02	1.680E-01	1.833E+01	1.833E-03	7.636E+00	7.636E-03
1.000E-01	4.250E+02	4.250E-02	1.771E+02	1.771E-01	1.932E+01	1.932E-03	8.049E+00	8.049E-03
2.000E-01	6.009E+02	6.009E-02	2.504E+02	2.504E-01	2.732E+01	2.732E-03	1.138E+01	1.138E-02
3.000E-01	7.134E+02	7.134E-02	2.973E+02	2.973E-01	3.243E+01	3.243E-03	1.351E+01	1.351E-02
4.000E-01	7.438E+02	7.438E-02	3.099E+02	3.099E-01	3.381E+01	3.381E-03	1.409E+01	1.409E-02
5.000E-01	7.399E+02	7.399E-02	3.083E+02	3.083E-01	3.363E+01	3.363E-03	1.401E+01	1.401E-02
6.000E-01	7.223E+02	7.223E-02	3.009E+02	3.009E-01	3.283E+01	3.283E-03	1.368E+01	1.368E-02
7.000E-01	6.993E+02	6.993E-02	2.914E+02	2.914E-01	3.178E+01	3.178E-03	1.324E+01	1.324E-02
8.000E-01	6.746E+02	6.746E-02	2.811E+02	2.811E-01	3.066E+01	3.066E-03	1.278E+01	1.278E-02
9.000E-01	6.501E+02	6.501E-02	2.709E+02	2.709E-01	2.955E+01	2.955E-03	1.231E+01	1.231E-02
1.000E+00	6.264E+02	6.264E-02	2.610E+02	2.610E-01	2.847E+01	2.847E-03	1.186E+01	1.186E-02
2.000E+00	4.532E+02	4.532E-02	1.889E+02	1.889E-01	2.060E+01	2.060E-03	8.586E+00	8.586E-03
3.000E+00	3.556E+02	3.556E-02	1.481E+02	1.481E-01	1.617E+01	1.617E-03	6.734E+00	6.734E-03
4.000E+00	2.935E+02	2.935E-02	1.223E+02	1.223E-01	1.334E+01	1.334E-03	5.558E+00	5.558E-03
5.000E+00	2.506E+02	2.506E-02	1.044E+02	1.044E-01	1.139E+01	1.139E-03	4.745E+00	4.745E-03
6.000E+00	2.193E+02	2.193E-02	9.138E+01	9.138E-02	9.968E+00	9.968E-04	4.154E+00	4.154E-03
7.000E+00	1.954E+02	1.954E-02	8.142E+01	8.142E-02	8.883E+00	8.883E-04	3.701E+00	3.701E-03
8.000E+00	1.766E+02	1.766E-02	7.357E+01	7.357E-02	8.027E+00	8.027E-04	3.344E+00	3.344E-03
9.000E+00	1.614E+02	1.614E-02	6.722E+01	6.722E-02	7.335E+00	7.335E-04	3.056E+00	3.056E-03
1.000E+01	1.487E+02	1.487E-02	6.198E+01	6.198E-02	6.759E+00	6.759E-04	2.817E+00	2.817E-03
2.000E+01	8.629E+01	8.629E-03	3.595E+01	3.595E-02	3.922E+00	3.922E-04	1.634E+00	1.634E-03
3.000E+01	6.259E+01	6.259E-03	2.608E+01	2.608E-02	2.845E+00	2.845E-04	1.185E+00	1.185E-03
4.000E+01	4.988E+01	4.988E-03	2.078E+01	2.078E-02	2.267E+00	2.267E-04	9.446E-01	9.446E-04
5.000E+01	4.190E+01	4.190E-03	1.745E+01	1.745E-02	1.904E+00	1.904E-04	7.934E-01	7.934E-04
6.000E+01	3.638E+01	3.638E-03	1.516E+01	1.516E-02	1.653E+00	1.653E-04	6.890E-01	6.890E-04
7.000E+01	3.234E+01	3.234E-03	1.348E+01	1.348E-02	1.470E+00	1.470E-04	6.127E-01	6.127E-04
8.000E+01	2.923E+01	2.923E-03	1.218E+01	1.218E-02	1.329E+00	1.329E-04	5.538E-01	5.538E-04
9.000E+01	2.678E+01	2.678E-03	1.116E+01	1.116E-02	1.217E+00	1.217E-04	5.072E-01	5.072E-04
1.000E+02	2.479E+01	2.479E-03	1.033E+01	1.033E-02	1.127E+00	1.127E-04	4.694E-01	4.694E-04
2.000E+02	1.541E+01	1.541E-03	6.422E+00	6.422E-03	7.006E-01	7.006E-05	2.919E-01	2.919E-04
3.000E+02	1.214E+01	1.214E-03	5.058E+00	5.058E-03	5.518E-01	5.518E-05	2.299E-01	2.299E-04
4.000E+02	1.049E+01	1.049E-03	4.372E+00	4.372E-03	4.768E-01	4.768E-05	1.987E-01	1.987E-04
5.000E+02	9.518E+00	9.518E-04	3.965E+00	3.965E-03	4.326E-01	4.326E-05	1.802E-01	1.802E-04
6.000E+02	8.886E+00	8.886E-04	3.702E+00	3.702E-03	4.039E-01	4.039E-05	1.683E-01	1.683E-04
7.000E+02	8.451E+00	8.451E-04	3.521E+00	3.521E-03	3.842E-01	3.842E-05	1.601E-01	1.601E-04
8.000E+02	8.140E+00	8.140E-04	3.392E+00	3.392E-03	3.700E-01	3.700E-05	1.542E-01	1.542E-04
9.000E+02	7.901E+00	7.901E-04	3.292E+00	3.292E-03	3.592E-01	3.592E-05	1.497E-01	1.497E-04
1.000E+03	7.716E+00	7.716E-04	3.215E+00	3.215E-03	3.507E-01	3.507E-05	1.461E-01	1.461E-04
2.000E+03	7.109E+00	7.109E-04	2.962E+00	2.962E-03	3.231E-01	3.231E-05	1.346E-01	1.346E-04
3.000E+03	7.096E+00	7.096E-04	2.957E+00	2.957E-03	3.226E-01	3.226E-05	1.344E-01	1.344E-04
4.000E+03	7.184E+00	7.184E-04	2.993E+00	2.993E-03	3.265E-01	3.265E-05	1.361E-01	1.361E-04
5.000E+03	7.288E+00	7.288E-04	3.036E+00	3.036E-03	3.313E-01	3.313E-05	1.380E-01	1.380E-04
6.000E+03	7.392E+00	7.392E-04	3.080E+00	3.080E-03	3.360E-01	3.360E-05	1.400E-01	1.400E-04
7.000E+03	7.488E+00	7.488E-04	3.120E+00	3.120E-03	3.404E-01	3.404E-05	1.418E-01	1.418E-04
8.000E+03	7.578E+00	7.578E-04	3.157E+00	3.157E-03	3.445E-01	3.445E-05	1.435E-01	1.435E-04
9.000E+03	7.660E+00	7.660E-04	3.192E+00	3.192E-03	3.482E-01	3.482E-05	1.451E-01	1.451E-04
1.000E+04	7.736E+00	7.736E-04	3.223E+00	3.223E-03	3.516E-01	3.516E-05	1.465E-01	1.465E-04

TABLE 70

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: B Z= 5 A= 10.82

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.504E+02	1.504E-02	6.268E+01	6.268E-02	6.836E+00	6.836E-04	2.849E+00	2.849E-03
2.000E-02	2.128E+02	2.128E-02	8.864E+01	8.864E-02	9.671E+00	9.671E-04	4.029E+00	4.029E-03
3.000E-02	2.605E+02	2.605E-02	1.085E+02	1.085E-01	1.184E+01	1.184E-03	4.934E+00	4.934E-03
4.000E-02	3.008E+02	3.008E-02	1.254E+02	1.254E-01	1.367E+01	1.367E-03	5.700E+00	5.700E-03
5.000E-02	3.364E+02	3.364E-02	1.402E+02	1.402E-01	1.529E+01	1.529E-03	6.371E+00	6.371E-03
6.000E-02	3.684E+02	3.684E-02	1.535E+02	1.535E-01	1.675E+01	1.675E-03	6.976E+00	6.976E-03
7.000E-02	3.979E+02	3.979E-02	1.658E+02	1.658E-01	1.809E+01	1.809E-03	7.535E+00	7.535E-03
8.000E-02	4.254E+02	4.254E-02	1.772E+02	1.772E-01	1.934E+01	1.934E-03	8.056E+00	8.056E-03
9.000E-02	4.512E+02	4.512E-02	1.880E+02	1.880E-01	2.051E+01	2.051E-03	8.548E+00	8.548E-03
1.000E-01	4.756E+02	4.756E-02	1.982E+02	1.982E-01	2.162E+01	2.162E-03	9.010E+00	9.010E-03
2.000E-01	6.726E+02	6.726E-02	2.802E+02	2.802E-01	3.057E+01	3.057E-03	1.274E+01	1.274E-02
3.000E-01	8.074E+02	8.074E-02	3.364E+02	3.364E-01	3.670E+01	3.670E-03	1.529E+01	1.529E-02
4.000E-01	8.540E+02	8.540E-02	3.559E+02	3.559E-01	3.882E+01	3.882E-03	1.618E+01	1.618E-02
5.000E-01	8.595E+02	8.595E-02	3.581E+02	3.581E-01	3.907E+01	3.907E-03	1.628E+01	1.628E-02
6.000E-01	8.470E+02	8.470E-02	3.529E+02	3.529E-01	3.850E+01	3.850E-03	1.604E+01	1.604E-02
7.000E-01	8.265E+02	8.265E-02	3.444E+02	3.444E-01	3.757E+01	3.757E-03	1.566E+01	1.566E-02
8.000E-01	8.028E+02	8.028E-02	3.346E+02	3.346E-01	3.649E+01	3.649E-03	1.521E+01	1.521E-02
9.000E-01	7.781E+02	7.781E-02	3.243E+02	3.243E-01	3.537E+01	3.537E-03	1.474E+01	1.474E-02
1.000E+00	7.536E+02	7.536E-02	3.140E+02	3.140E-01	3.425E+01	3.425E-03	1.427E+01	1.427E-02
2.000E+00	5.625E+02	5.625E-02	2.344E+02	2.344E-01	2.557E+01	2.557E-03	1.065E+01	1.065E-02
3.000E+00	4.489E+02	4.489E-02	1.870E+02	1.870E-01	2.041E+01	2.041E-03	8.502E+00	8.502E-03
4.000E+00	3.746E+02	3.746E-02	1.561E+02	1.561E-01	1.703E+01	1.703E-03	7.094E+00	7.094E-03
5.000E+00	3.220E+02	3.220E-02	1.342E+02	1.342E-01	1.464E+01	1.464E-03	6.101E+00	6.101E-03
6.000E+00	2.830E+02	2.830E-02	1.179E+02	1.179E-01	1.286E+01	1.286E-03	5.359E+00	5.359E-03
7.000E+00	2.528E+02	2.528E-02	1.053E+02	1.053E-01	1.149E+01	1.149E-03	4.787E+00	4.787E-03
8.000E+00	2.288E+02	2.288E-02	9.533E+01	9.533E-02	1.040E+01	1.040E-03	4.333E+00	4.333E-03
9.000E+00	2.093E+02	2.093E-02	8.719E+01	8.719E-02	9.514E+00	9.514E-04	3.963E+00	3.963E-03
1.000E+01	1.931E+02	1.931E-02	8.045E+01	8.045E-02	8.777E+00	8.777E-04	3.657E+00	3.657E-03
2.000E+01	1.123E+02	1.123E-02	4.678E+01	4.678E-02	5.103E+00	5.103E-04	2.126E+00	2.126E-03
3.000E+01	8.146E+01	8.146E-03	3.394E+01	3.394E-02	3.703E+00	3.703E-04	1.543E+00	1.543E-03
4.000E+01	6.493E+01	6.493E-03	2.705E+01	2.705E-02	2.951E+00	2.951E-04	1.229E+00	1.229E-03
5.000E+01	5.453E+01	5.453E-03	2.272E+01	2.272E-02	2.479E+00	2.479E-04	1.033E+00	1.033E-03
6.000E+01	4.735E+01	4.735E-03	1.973E+01	1.973E-02	2.152E+00	2.152E-04	8.970E-01	8.970E-04
7.000E+01	4.209E+01	4.209E-03	1.753E+01	1.753E-02	1.913E+00	1.913E-04	7.969E-01	7.969E-04
8.000E+01	3.806E+01	3.806E-03	1.585E+01	1.585E-02	1.730E+00	1.730E-04	7.207E-01	7.207E-04
9.000E+01	3.486E+01	3.486E-03	1.452E+01	1.452E-02	1.585E+00	1.585E-04	6.601E-01	6.601E-04
1.000E+02	3.226E+01	3.226E-03	1.344E+01	1.344E-02	1.466E+00	1.466E-04	6.109E-01	6.109E-04
2.000E+02	2.006E+01	2.006E-03	8.358E+00	8.358E-03	9.119E-01	9.119E-05	3.799E-01	3.799E-04
3.000E+02	1.580E+01	1.580E-03	6.582E+00	6.582E-03	7.180E-01	7.180E-05	2.992E-01	2.992E-04
4.000E+02	1.366E+01	1.366E-03	5.690E+00	5.690E-03	6.209E-01	6.209E-05	2.586E-01	2.586E-04
5.000E+02	1.239E+01	1.239E-03	5.161E+00	5.161E-03	5.630E-01	5.630E-05	2.346E-01	2.346E-04
6.000E+02	1.157E+01	1.157E-03	4.819E+00	4.819E-03	5.258E-01	5.258E-05	2.190E-01	2.190E-04
7.000E+02	1.100E+01	1.100E-03	4.583E+00	4.583E-03	5.000E-01	5.000E-05	2.083E-01	2.083E-04
8.000E+02	1.060E+01	1.060E-03	4.414E+00	4.414E-03	4.817E-01	4.817E-05	2.007E-01	2.007E-04
9.000E+02	1.028E+01	1.028E-03	4.285E+00	4.285E-03	4.674E-01	4.674E-05	1.948E-01	1.948E-04
1.000E+03	1.004E+01	1.004E-03	4.184E+00	4.184E-03	4.563E-01	4.563E-05	1.902E-01	1.902E-04
2.000E+03	9.253E+00	9.253E-04	3.856E+00	3.856E-03	4.206E-01	4.206E-05	1.753E-01	1.753E-04
3.000E+03	9.237E+00	9.237E-04	3.849E+00	3.849E-03	4.199E-01	4.199E-05	1.749E-01	1.749E-04
4.000E+03	9.350E+00	9.350E-04	3.896E+00	3.896E-03	4.250E-01	4.250E-05	1.771E-01	1.771E-04
5.000E+03	9.485E+00	9.485E-04	3.952E+00	3.952E-03	4.312E-01	4.312E-05	1.797E-01	1.797E-04
6.000E+03	9.621E+00	9.621E-04	4.009E+00	4.009E-03	4.373E-01	4.373E-05	1.822E-01	1.822E-04
7.000E+03	9.746E+00	9.746E-04	4.061E+00	4.061E-03	4.430E-01	4.430E-05	1.846E-01	1.846E-04
8.000E+03	9.863E+00	9.863E-04	4.110E+00	4.110E-03	4.483E-01	4.483E-05	1.868E-01	1.868E-04
9.000E+03	9.970E+00	9.970E-04	4.154E+00	4.154E-03	4.532E-01	4.532E-05	1.888E-01	1.888E-04
1.000E+04	1.007E+01	1.007E-03	4.195E+00	4.195E-03	4.577E-01	4.577E-05	1.907E-01	1.907E-04

TABLE 71

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: C Z= 6 A= 12.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.701E+02	1.701E-02	7.088E+01	7.088E-02	7.732E+00	7.732E-04	3.222E+00	3.222E-03
2.000E-02	2.406E+02	2.406E-02	1.002E+02	1.002E-01	1.094E+01	1.094E-03	4.556E+00	4.556E-03
3.000E-02	2.946E+02	2.946E-02	1.228E+02	1.228E-01	1.339E+01	1.339E-03	5.581E+00	5.581E-03
4.000E-02	3.402E+02	3.402E-02	1.417E+02	1.417E-01	1.546E+01	1.546E-03	6.443E+00	6.443E-03
5.000E-02	3.804E+02	3.804E-02	1.585E+02	1.585E-01	1.729E+01	1.729E-03	7.204E+00	7.204E-03
6.000E-02	4.167E+02	4.167E-02	1.736E+02	1.736E-01	1.894E+01	1.894E-03	7.893E+00	7.893E-03
7.000E-02	4.500E+02	4.500E-02	1.875E+02	1.875E-01	2.046E+01	2.046E-03	8.523E+00	8.523E-03
8.000E-02	4.811E+02	4.811E-02	2.005E+02	2.005E-01	2.187E+01	2.187E-03	9.114E+00	9.114E-03
9.000E-02	5.103E+02	5.103E-02	2.126E+02	2.126E-01	2.320E+01	2.320E-03	9.663E+00	9.663E-03
1.000E-01	5.379E+02	5.379E-02	2.241E+02	2.241E-01	2.445E+01	2.445E-03	1.019E+01	1.019E-02
2.000E-01	7.607E+02	7.607E-02	3.169E+02	3.169E-01	3.458E+01	3.458E-03	1.441E+01	1.441E-02
3.000E-01	9.214E+02	9.214E-02	3.839E+02	3.839E-01	4.188E+01	4.188E-03	1.745E+01	1.745E-02
4.000E-01	9.864E+02	9.864E-02	4.110E+02	4.110E-01	4.483E+01	4.483E-03	1.868E+01	1.868E-02
5.000E-01	1.002E+03	1.002E-01	4.176E+02	4.176E-01	4.555E+01	4.555E-03	1.898E+01	1.898E-02
6.000E-01	9.957E+02	9.957E-02	4.148E+02	4.148E-01	4.526E+01	4.526E-03	1.886E+01	1.886E-02
7.000E-01	9.781E+02	9.781E-02	4.075E+02	4.075E-01	4.446E+01	4.446E-03	1.852E+01	1.852E-02
8.000E-01	9.556E+02	9.556E-02	3.982E+02	3.982E-01	4.344E+01	4.344E-03	1.810E+01	1.810E-02
9.000E-01	9.309E+02	9.309E-02	3.879E+02	3.879E-01	4.231E+01	4.231E-03	1.763E+01	1.763E-02
1.000E+00	9.055E+02	9.055E-02	3.773E+02	3.773E-01	4.116E+01	4.116E-03	1.715E+01	1.715E-02
2.000E+00	6.947E+02	6.947E-02	2.894E+02	2.894E-01	3.158E+01	3.158E-03	1.316E+01	1.316E-02
3.000E+00	5.626E+02	5.626E-02	2.345E+02	2.345E-01	2.557E+01	2.557E-03	1.066E+01	1.066E-02
4.000E+00	4.741E+02	4.741E-02	1.975E+02	1.975E-01	2.155E+01	2.155E-03	8.977E+00	8.977E-03
5.000E+00	4.105E+02	4.105E-02	1.711E+02	1.711E-01	1.866E+01	1.866E-03	7.776E+00	7.776E-03
6.000E+00	3.624E+02	3.624E-02	1.510E+02	1.510E-01	1.647E+01	1.647E-03	6.865E+00	6.865E-03
7.000E+00	3.249E+02	3.249E-02	1.354E+02	1.354E-01	1.477E+01	1.477E-03	6.153E+00	6.153E-03
8.000E+00	2.948E+02	2.948E-02	1.228E+02	1.228E-01	1.340E+01	1.340E-03	5.582E+00	5.582E-03
9.000E+00	2.701E+02	2.701E-02	1.125E+02	1.125E-01	1.228E+01	1.228E-03	5.114E+00	5.114E-03
1.000E+01	2.494E+02	2.494E-02	1.039E+02	1.039E-01	1.134E+01	1.134E-03	4.723E+00	4.723E-03
2.000E+01	1.455E+02	1.455E-02	6.065E+01	6.065E-02	6.614E+00	6.614E-04	2.757E+00	2.757E-03
3.000E+01	1.057E+02	1.057E-02	4.402E+01	4.402E-02	4.802E+00	4.802E-04	2.001E+00	2.001E-03
4.000E+01	8.422E+01	8.422E-03	3.509E+01	3.509E-02	3.828E+00	3.828E-04	1.595E+00	1.595E-03
5.000E+01	7.073E+01	7.073E-03	2.947E+01	2.947E-02	3.215E+00	3.215E-04	1.340E+00	1.340E-03
6.000E+01	6.143E+01	6.143E-03	2.559E+01	2.559E-02	2.792E+00	2.792E-04	1.163E+00	1.163E-03
7.000E+01	5.460E+01	5.460E-03	2.275E+01	2.275E-02	2.482E+00	2.482E-04	1.034E+00	1.034E-03
8.000E+01	4.936E+01	4.936E-03	2.057E+01	2.057E-02	2.244E+00	2.244E-04	9.350E-01	9.350E-04
9.000E+01	4.522E+01	4.522E-03	1.884E+01	1.884E-02	2.055E+00	2.055E-04	8.565E-01	8.565E-04
1.000E+02	4.185E+01	4.185E-03	1.743E+01	1.743E-02	1.902E+00	1.902E-04	7.925E-01	7.925E-04
2.000E+02	2.602E+01	2.602E-03	1.084E+01	1.084E-02	1.183E+00	1.183E-04	4.928E-01	4.928E-04
3.000E+02	2.049E+01	2.049E-03	8.538E+00	8.538E-03	9.314E-01	9.314E-05	3.881E-01	3.881E-04
4.000E+02	1.772E+01	1.772E-03	7.381E+00	7.381E-03	8.053E-01	8.053E-05	3.355E-01	3.355E-04
5.000E+02	1.607E+01	1.607E-03	6.695E+00	6.695E-03	7.304E-01	7.304E-05	3.043E-01	3.043E-04
6.000E+02	1.500E+01	1.500E-03	6.251E+00	6.251E-03	6.820E-01	6.820E-05	2.841E-01	2.841E-04
7.000E+02	1.427E+01	1.427E-03	5.946E+00	5.946E-03	6.488E-01	6.488E-05	2.703E-01	2.703E-04
8.000E+02	1.375E+01	1.375E-03	5.727E+00	5.727E-03	6.249E-01	6.249E-05	2.603E-01	2.603E-04
9.000E+02	1.334E+01	1.334E-03	5.559E+00	5.559E-03	6.065E-01	6.065E-05	2.527E-01	2.527E-04
1.000E+03	1.303E+01	1.303E-03	5.429E+00	5.429E-03	5.923E-01	5.923E-05	2.468E-01	2.468E-04
2.000E+03	1.200E+01	1.200E-03	5.001E+00	5.001E-03	5.457E-01	5.457E-05	2.273E-01	2.273E-04
3.000E+03	1.198E+01	1.198E-03	4.992E+00	4.992E-03	5.446E-01	5.446E-05	2.269E-01	2.269E-04
4.000E+03	1.213E+01	1.213E-03	5.054E+00	5.054E-03	5.514E-01	5.514E-05	2.297E-01	2.297E-04
5.000E+03	1.231E+01	1.231E-03	5.127E+00	5.127E-03	5.594E-01	5.594E-05	2.331E-01	2.331E-04
6.000E+03	1.248E+01	1.248E-03	5.200E+00	5.200E-03	5.673E-01	5.673E-05	2.363E-01	2.363E-04
7.000E+03	1.264E+01	1.264E-03	5.268E+00	5.268E-03	5.746E-01	5.746E-05	2.395E-01	2.395E-04
8.000E+03	1.279E+01	1.279E-03	5.332E+00	5.332E-03	5.814E-01	5.814E-05	2.423E-01	2.423E-04
9.000E+03	1.293E+01	1.293E-03	5.389E+00	5.389E-03	5.877E-01	5.877E-05	2.450E-01	2.450E-04
1.000E+04	1.306E+01	1.306E-03	5.442E+00	5.442E-03	5.936E-01	5.936E-05	2.474E-01	2.474E-04

TABLE 72

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: N Z= 7 A= 14.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.756E+02	1.756E-02	7.315E+01	7.315E-02	7.982E+00	7.982E-04	3.325E+00	3.325E-03
2.000E-02	2.483E+02	2.483E-02	1.034E+02	1.034E-01	1.129E+01	1.129E-03	4.701E+00	4.701E-03
3.000E-02	3.041E+02	3.041E-02	1.267E+02	1.267E-01	1.382E+01	1.382E-03	5.758E+00	5.758E-03
4.000E-02	3.511E+02	3.511E-02	1.463E+02	1.463E-01	1.596E+01	1.596E-03	6.652E+00	6.652E-03
5.000E-02	3.926E+02	3.926E-02	1.636E+02	1.636E-01	1.784E+01	1.784E-03	7.435E+00	7.435E-03
6.000E-02	4.300E+02	4.300E-02	1.792E+02	1.792E-01	1.955E+01	1.955E-03	8.147E+00	8.147E-03
7.000E-02	4.645E+02	4.645E-02	1.935E+02	1.935E-01	2.112E+01	2.112E-03	8.797E+00	8.797E-03
8.000E-02	4.966E+02	4.966E-02	2.069E+02	2.069E-01	2.257E+01	2.257E-03	9.406E+00	9.406E-03
9.000E-02	5.267E+02	5.267E-02	2.194E+02	2.194E-01	2.394E+01	2.394E-03	9.975E+00	9.975E-03
1.000E-01	5.552E+02	5.552E-02	2.313E+02	2.313E-01	2.524E+01	2.524E-03	1.051E+01	1.051E-02
2.000E-01	7.850E+02	7.850E-02	3.271E+02	3.271E-01	3.568E+01	3.568E-03	1.487E+01	1.487E-02
3.000E-01	9.549E+02	9.549E-02	3.978E+02	3.978E-01	4.341E+01	4.341E-03	1.808E+01	1.808E-02
4.000E-01	1.033E+03	1.033E-01	4.303E+02	4.303E-01	4.695E+01	4.695E-03	1.956E+01	1.956E-02
5.000E-01	1.058E+03	1.058E-01	4.409E+02	4.409E-01	4.811E+01	4.811E-03	2.004E+01	2.004E-02
6.000E-01	1.058E+03	1.058E-01	4.410E+02	4.410E-01	4.811E+01	4.811E-03	2.005E+01	2.005E-02
7.000E-01	1.046E+03	1.046E-01	4.358E+02	4.358E-01	4.756E+01	4.756E-03	1.981E+01	1.981E-02
8.000E-01	1.027E+03	1.027E-01	4.280E+02	4.280E-01	4.667E+01	4.667E-03	1.946E+01	1.946E-02
9.000E-01	1.005E+03	1.005E-01	4.188E+02	4.188E-01	4.567E+01	4.567E-03	1.904E+01	1.904E-02
1.000E+00	9.816E+02	9.816E-02	4.089E+02	4.089E-01	4.462E+01	4.462E-03	1.859E+01	1.859E-02
2.000E+00	7.717E+02	7.717E-02	3.215E+02	3.215E-01	3.508E+01	3.508E-03	1.462E+01	1.462E-02
3.000E+00	6.330E+02	6.330E-02	2.637E+02	2.637E-01	2.877E+01	2.877E-03	1.199E+01	1.199E-02
4.000E+00	5.382E+02	5.382E-02	2.242E+02	2.242E-01	2.446E+01	2.446E-03	1.019E+01	1.019E-02
5.000E+00	4.690E+02	4.690E-02	1.954E+02	1.954E-01	2.132E+01	2.132E-03	8.882E+00	8.882E-03
6.000E+00	4.162E+02	4.162E-02	1.734E+02	1.734E-01	1.892E+01	1.892E-03	7.881E+00	7.881E-03
7.000E+00	3.746E+02	3.746E-02	1.560E+02	1.560E-01	1.703E+01	1.703E-03	7.093E+00	7.093E-03
8.000E+00	3.408E+02	3.408E-02	1.420E+02	1.420E-01	1.549E+01	1.549E-03	6.454E+00	6.454E-03
9.000E+00	3.129E+02	3.129E-02	1.303E+02	1.303E-01	1.422E+01	1.422E-03	5.924E+00	5.924E-03
1.000E+01	2.894E+02	2.894E-02	1.206E+02	1.206E-01	1.315E+01	1.315E-03	5.482E+00	5.482E-03
2.000E+01	1.697E+02	1.697E-02	7.070E+01	7.070E-02	7.712E+00	7.712E-04	3.214E+00	3.214E-03
3.000E+01	1.232E+02	1.232E-02	5.137E+01	5.137E-02	5.602E+00	5.602E-04	2.335E+00	2.335E-03
4.000E+01	9.828E+01	9.828E-03	4.095E+01	4.095E-02	4.467E+00	4.467E-04	1.861E+00	1.861E-03
5.000E+01	8.255E+01	8.255E-03	3.440E+01	3.440E-02	3.752E+00	3.752E-04	1.564E+00	1.564E-03
6.000E+01	7.169E+01	7.169E-03	2.987E+01	2.987E-02	3.259E+00	3.259E-04	1.358E+00	1.358E-03
7.000E+01	6.372E+01	6.372E-03	2.655E+01	2.655E-02	2.896E+00	2.896E-04	1.207E+00	1.207E-03
8.000E+01	5.761E+01	5.761E-03	2.400E+01	2.400E-02	2.619E+00	2.619E-04	1.091E+00	1.091E-03
9.000E+01	5.277E+01	5.277E-03	2.198E+01	2.198E-02	2.399E+00	2.399E-04	9.993E-01	9.993E-04
1.000E+02	4.884E+01	4.884E-03	2.035E+01	2.035E-02	2.220E+00	2.220E-04	9.249E-01	9.249E-04
2.000E+02	3.037E+01	3.037E-03	1.265E+01	1.265E-02	1.380E+00	1.380E-04	5.750E-01	5.750E-04
3.000E+02	2.392E+01	2.392E-03	9.966E+00	9.966E-03	1.087E+00	1.087E-04	4.530E-01	4.530E-04
4.000E+02	2.067E+01	2.067E-03	8.614E+00	8.614E-03	9.397E-01	9.397E-05	3.916E-01	3.916E-04
5.000E+02	1.875E+01	1.875E-03	7.814E+00	7.814E-03	8.524E-01	8.524E-05	3.552E-01	3.552E-04
6.000E+02	1.751E+01	1.751E-03	7.295E+00	7.295E-03	7.959E-01	7.959E-05	3.316E-01	3.316E-04
7.000E+02	1.666E+01	1.666E-03	6.939E+00	6.939E-03	7.571E-01	7.571E-05	3.154E-01	3.154E-04
8.000E+02	1.604E+01	1.604E-03	6.683E+00	6.683E-03	7.292E-01	7.292E-05	3.038E-01	3.038E-04
9.000E+02	1.557E+01	1.557E-03	6.488E+00	6.488E-03	7.078E-01	7.078E-05	2.949E-01	2.949E-04
1.000E+03	1.521E+01	1.521E-03	6.336E+00	6.336E-03	6.912E-01	6.912E-05	2.880E-01	2.880E-04
2.000E+03	1.401E+01	1.401E-03	5.837E+00	5.837E-03	6.368E-01	6.368E-05	2.653E-01	2.653E-04
3.000E+03	1.398E+01	1.398E-03	5.826E+00	5.826E-03	6.356E-01	6.356E-05	2.648E-01	2.648E-04
4.000E+03	1.416E+01	1.416E-03	5.898E+00	5.898E-03	6.436E-01	6.436E-05	2.681E-01	2.681E-04
5.000E+03	1.436E+01	1.436E-03	5.984E+00	5.984E-03	6.526E-01	6.526E-05	2.720E-01	2.720E-04
6.000E+03	1.457E+01	1.457E-03	6.069E+00	6.069E-03	6.622E-01	6.622E-05	2.758E-01	2.758E-04
7.000E+03	1.475E+01	1.475E-03	6.149E+00	6.149E-03	6.706E-01	6.706E-05	2.795E-01	2.795E-04
8.000E+03	1.493E+01	1.493E-03	6.222E+00	6.222E-03	6.788E-01	6.788E-05	2.828E-01	2.828E-04
9.000E+03	1.509E+01	1.509E-03	6.289E+00	6.289E-03	6.861E-01	6.861E-05	2.859E-01	2.859E-04
1.000E+04	1.524E+01	1.524E-03	6.351E+00	6.351E-03	6.927E-01	6.927E-05	2.887E-01	2.887E-04

TABLE 73

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: O Z= 8 A= 16.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.793E+02	1.793E-02	7.471E+01	7.471E-02	8.150E+00	8.150E-04	3.396E+00	3.396E-03
2.000E-02	2.536E+02	2.536E-02	1.056E+02	1.056E-01	1.153E+01	1.153E-03	4.801E+00	4.801E-03
3.000E-02	3.106E+02	3.106E-02	1.294E+02	1.294E-01	1.412E+01	1.412E-03	5.881E+00	5.881E-03
4.000E-02	3.586E+02	3.586E-02	1.495E+02	1.495E-01	1.630E+01	1.630E-03	6.793E+00	6.793E-03
5.000E-02	4.009E+02	4.009E-02	1.670E+02	1.670E-01	1.822E+01	1.822E-03	7.591E+00	7.591E-03
6.000E-02	4.392E+02	4.392E-02	1.830E+02	1.830E-01	1.996E+01	1.996E-03	8.319E+00	8.319E-03
7.000E-02	4.744E+02	4.744E-02	1.977E+02	1.977E-01	2.156E+01	2.156E-03	8.984E+00	8.984E-03
8.000E-02	5.071E+02	5.071E-02	2.113E+02	2.113E-01	2.305E+01	2.305E-03	9.602E+00	9.602E-03
9.000E-02	5.378E+02	5.378E-02	2.241E+02	2.241E-01	2.445E+01	2.445E-03	1.019E+01	1.019E-02
1.000E-01	5.669E+02	5.669E-02	2.362E+02	2.362E-01	2.577E+01	2.577E-03	1.074E+01	1.074E-02
2.000E-01	8.017E+02	8.017E-02	3.340E+02	3.340E-01	3.644E+01	3.644E-03	1.518E+01	1.518E-02
3.000E-01	9.773E+02	9.773E-02	4.072E+02	4.072E-01	4.442E+01	4.442E-03	1.851E+01	1.851E-02
4.000E-01	1.067E+03	1.067E-01	4.445E+02	4.445E-01	4.848E+01	4.848E-03	2.021E+01	2.021E-02
5.000E-01	1.101E+03	1.101E-01	4.587E+02	4.587E-01	5.007E+01	5.007E-03	2.085E+01	2.085E-02
6.000E-01	1.108E+03	1.108E-01	4.616E+02	4.616E-01	5.037E+01	5.037E-03	2.098E+01	2.098E-02
7.000E-01	1.100E+03	1.100E-01	4.585E+02	4.585E-01	5.001E+01	5.001E-03	2.084E+01	2.084E-02
8.000E-01	1.086E+03	1.086E-01	4.523E+02	4.523E-01	4.934E+01	4.934E-03	2.056E+01	2.056E-02
9.000E-01	1.067E+03	1.067E-01	4.443E+02	4.443E-01	4.848E+01	4.848E-03	2.020E+01	2.020E-02
1.000E+00	1.045E+03	1.045E-01	4.354E+02	4.354E-01	4.751E+01	4.751E-03	1.979E+01	1.979E-02
2.000E+00	8.403E+02	8.403E-02	3.501E+02	3.501E-01	3.820E+01	3.820E-03	1.591E+01	1.591E-02
3.000E+00	6.975E+02	6.975E-02	2.906E+02	2.906E-01	3.170E+01	3.170E-03	1.321E+01	1.321E-02
4.000E+00	5.976E+02	5.976E-02	2.490E+02	2.490E-01	2.716E+01	2.716E-03	1.132E+01	1.132E-02
5.000E+00	5.240E+02	5.240E-02	2.183E+02	2.183E-01	2.382E+01	2.382E-03	9.924E+00	9.924E-03
6.000E+00	4.672E+02	4.672E-02	1.946E+02	1.946E-01	2.123E+01	2.123E-03	8.845E+00	8.845E-03
7.000E+00	4.220E+02	4.220E-02	1.758E+02	1.758E-01	1.918E+01	1.918E-03	7.991E+00	7.991E-03
8.000E+00	3.850E+02	3.850E-02	1.605E+02	1.605E-01	1.750E+01	1.750E-03	7.294E+00	7.294E-03
9.000E+00	3.543E+02	3.543E-02	1.476E+02	1.476E-01	1.611E+01	1.611E-03	6.709E+00	6.709E-03
1.000E+01	3.284E+02	3.284E-02	1.368E+02	1.368E-01	1.493E+01	1.493E-03	6.218E+00	6.218E-03
2.000E+01	1.937E+02	1.937E-02	8.072E+01	8.072E-02	8.805E+00	8.805E-04	3.669E+00	3.669E-03
3.000E+01	1.409E+02	1.409E-02	5.871E+01	5.871E-02	6.406E+00	6.406E-04	2.668E+00	2.668E-03
4.000E+01	1.124E+02	1.124E-02	4.682E+01	4.682E-02	5.108E+00	5.108E-04	2.128E+00	2.128E-03
5.000E+01	9.438E+01	9.438E-03	3.933E+01	3.933E-02	4.290E+00	4.290E-04	1.788E+00	1.788E-03
6.000E+01	8.197E+01	8.197E-03	3.416E+01	3.416E-02	3.726E+00	3.726E-04	1.553E+00	1.553E-03
7.000E+01	7.286E+01	7.286E-03	3.036E+01	3.036E-02	3.312E+00	3.312E-04	1.380E+00	1.380E-03
8.000E+01	6.588E+01	6.588E-03	2.745E+01	2.745E-02	2.994E+00	2.994E-04	1.248E+00	1.248E-03
9.000E+01	6.035E+01	6.035E-03	2.515E+01	2.515E-02	2.743E+00	2.743E-04	1.143E+00	1.143E-03
1.000E+02	5.585E+01	5.585E-03	2.327E+01	2.327E-02	2.539E+00	2.539E-04	1.058E+00	1.058E-03
2.000E+02	3.473E+01	3.473E-03	1.447E+01	1.447E-02	1.578E+00	1.578E-04	6.577E-01	6.577E-04
3.000E+02	2.735E+01	2.735E-03	1.140E+01	1.140E-02	1.243E+00	1.243E-04	5.181E-01	5.181E-04
4.000E+02	2.364E+01	2.364E-03	9.850E+00	9.850E-03	1.075E+00	1.075E-04	4.477E-01	4.477E-04
5.000E+02	2.144E+01	2.144E-03	8.935E+00	8.935E-03	9.746E-01	9.746E-05	4.061E-01	4.061E-04
6.000E+02	2.002E+01	2.002E-03	8.342E+00	8.342E-03	9.100E-01	9.100E-05	3.792E-01	3.792E-04
7.000E+02	1.904E+01	1.904E-03	7.935E+00	7.935E-03	8.655E-01	8.655E-05	3.607E-01	3.607E-04
8.000E+02	1.834E+01	1.834E-03	7.642E+00	7.642E-03	8.338E-01	8.338E-05	3.474E-01	3.474E-04
9.000E+02	1.781E+01	1.781E-03	7.418E+00	7.418E-03	8.094E-01	8.094E-05	3.372E-01	3.372E-04
1.000E+03	1.739E+01	1.739E-03	7.245E+00	7.245E-03	7.903E-01	7.903E-05	3.293E-01	3.293E-04
2.000E+03	1.602E+01	1.602E-03	6.675E+00	6.675E-03	7.281E-01	7.281E-05	3.034E-01	3.034E-04
3.000E+03	1.599E+01	1.599E-03	6.663E+00	6.663E-03	7.270E-01	7.270E-05	3.029E-01	3.029E-04
4.000E+03	1.619E+01	1.619E-03	6.744E+00	6.744E-03	7.357E-01	7.357E-05	3.066E-01	3.066E-04
5.000E+03	1.642E+01	1.642E-03	6.843E+00	6.843E-03	7.462E-01	7.462E-05	3.110E-01	3.110E-04
6.000E+03	1.666E+01	1.666E-03	6.939E+00	6.939E-03	7.571E-01	7.571E-05	3.154E-01	3.154E-04
7.000E+03	1.687E+01	1.687E-03	7.031E+00	7.031E-03	7.669E-01	7.669E-05	3.196E-01	3.196E-04
8.000E+03	1.707E+01	1.707E-03	7.115E+00	7.115E-03	7.760E-01	7.760E-05	3.234E-01	3.234E-04
9.000E+03	1.726E+01	1.726E-03	7.192E+00	7.192E-03	7.846E-01	7.846E-05	3.269E-01	3.269E-04
1.000E+04	1.743E+01	1.743E-03	7.263E+00	7.263E-03	7.923E-01	7.923E-05	3.301E-01	3.301E-04

TABLE 74

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: F Z= 9 A= 19.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.719E+02	1.719E-02	7.162E+01	7.162E-02	7.814E+00	7.814E-04	3.255E+00	3.255E-03
2.000E-02	2.431E+02	2.431E-02	1.013E+02	1.013E-01	1.105E+01	1.105E-03	4.606E+00	4.606E-03
3.000E-02	2.977E+02	2.977E-02	1.241E+02	1.241E-01	1.353E+01	1.353E-03	5.640E+00	5.640E-03
4.000E-02	3.437E+02	3.437E-02	1.432E+02	1.432E-01	1.562E+01	1.562E-03	6.511E+00	6.511E-03
5.000E-02	3.843E+02	3.843E-02	1.602E+02	1.602E-01	1.747E+01	1.747E-07	7.280E+00	7.280E-03
6.000E-02	4.210E+02	4.210E-02	1.754E+02	1.754E-01	1.914E+01	1.914E-03	7.974E+00	7.974E-03
7.000E-02	4.548E+02	4.548E-02	1.895E+02	1.895E-01	2.067E+01	2.067E-03	8.614E+00	8.614E-03
8.000E-02	4.861E+02	4.861E-02	2.025E+02	2.025E-01	2.210E+01	2.210E-03	9.206E+00	9.206E-03
9.000E-02	5.156E+02	5.156E-02	2.149E+02	2.149E-01	2.344E+01	2.344E-03	9.767E+00	9.767E-03
1.000E-01	5.435E+02	5.435E-02	2.265E+02	2.265E-01	2.471E+01	2.471E-03	1.029E+01	1.029E-02
2.000E-01	7.686E+02	7.686E-02	3.203E+02	3.203E-01	3.494E+01	3.494E-03	1.456E+01	1.456E-02
3.000E-01	9.388E+02	9.388E-02	3.912E+02	3.912E-01	4.267E+01	4.267E-03	1.778E+01	1.778E-02
4.000E-01	1.033E+03	1.033E-01	4.304E+02	4.304E-01	4.698E+01	4.698E-03	1.956E+01	1.956E-02
5.000E-01	1.072E+03	1.072E-01	4.470E+02	4.470E-01	4.875E+01	4.875E-03	2.032E+01	2.032E-02
6.000E-01	1.085E+03	1.085E-01	4.522E+02	4.522E-01	4.933E+01	4.933E-03	2.055E+01	2.055E-02
7.000E-01	1.083E+03	1.083E-01	4.513E+02	4.513E-01	4.923E+01	4.923E-03	2.051E+01	2.051E-02
8.000E-01	1.072E+03	1.072E-01	4.469E+02	4.469E-01	4.875E+01	4.875E-03	2.032E+01	2.032E-02
9.000E-01	1.057E+03	1.057E-01	4.407E+02	4.407E-01	4.806E+01	4.806E-03	2.003E+01	2.003E-02
1.000E+00	1.040E+03	1.040E-01	4.333E+02	4.333E-01	4.727E+01	4.727E-03	1.969E+01	1.969E-02
2.000E+00	8.534E+02	8.534E-02	3.555E+02	3.555E-01	3.879E+01	3.879E-03	1.616E+01	1.616E-02
3.000E+00	7.161E+02	7.161E-02	2.983E+02	2.983E-01	3.255E+01	3.255E-03	1.356E+01	1.356E-02
4.000E+00	6.180E+02	6.180E-02	2.575E+02	2.575E-01	2.809E+01	2.809E-03	1.170E+01	1.170E-02
5.000E+00	5.448E+02	5.448E-02	2.270E+02	2.270E-01	2.476E+01	2.476E-03	1.032E+01	1.032E-02
6.000E+00	4.878E+02	4.878E-02	2.032E+02	2.032E-01	2.217E+01	2.217E-03	9.238E+00	9.238E-03
7.000E+00	4.422E+02	4.422E-02	1.842E+02	1.842E-01	2.010E+01	2.010E-03	8.372E+00	8.372E-03
8.000E+00	4.047E+02	4.047E-02	1.686E+02	1.686E-01	1.839E+01	1.839E-03	7.663E+00	7.663E-03
9.000E+00	3.733E+02	3.733E-02	1.555E+02	1.555E-01	1.697E+01	1.697E-03	7.069E+00	7.069E-03
1.000E+01	3.466E+02	3.466E-02	1.444E+02	1.444E-01	1.575E+01	1.575E-03	6.564E+00	6.564E-03
2.000E+01	2.060E+02	2.060E-02	8.585E+01	8.585E-02	9.364E+00	9.364E-04	3.902E+00	3.902E-03
3.000E+01	1.501E+02	1.501E-02	6.253E+01	6.252E-02	6.822E+00	6.822E-04	2.842E+00	2.842E-03
4.000E+01	1.198E+02	1.198E-02	4.988E+01	4.988E-02	5.443E+00	5.443E-04	2.267E+00	2.267E-03
5.000E+01	1.006E+02	1.006E-02	4.192E+01	4.192E-02	4.573E+00	4.573E-04	1.905E+00	1.905E-03
6.000E+01	8.736E+01	8.736E-03	3.640E+01	3.640E-02	3.971E+00	3.971E-04	1.654E+00	1.654E-03
7.000E+01	7.765E+01	7.765E-03	3.236E+01	3.236E-02	3.530E+00	3.530E-04	1.471E+00	1.471E-03
8.000E+01	7.021E+01	7.021E-03	2.925E+01	2.925E-02	3.191E+00	3.191E-04	1.330E+00	1.330E-03
9.000E+01	6.432E+01	6.432E-03	2.680E+01	2.680E-02	2.923E+00	2.923E-04	1.218E+00	1.218E-03
1.000E+02	5.952E+01	5.952E-03	2.480E+01	2.480E-02	2.705E+00	2.705E-04	1.127E+00	1.127E-03
2.000E+02	3.702E+01	3.702E-03	1.542E+01	1.542E-02	1.683E+00	1.683E-04	7.010E-01	7.010E-04
3.000E+02	2.915E+01	2.915E-03	1.214E+01	1.214E-02	1.325E+00	1.325E-04	5.520E-01	5.520E-04
4.000E+02	2.520E+01	2.520E-03	1.050E+01	1.050E-02	1.145E+00	1.145E-04	4.772E-01	4.772E-04
5.000E+02	2.286E+01	2.286E-03	9.523E+00	9.523E-03	1.039E+00	1.039E-04	4.329E-01	4.329E-04
6.000E+02	2.134E+01	2.134E-03	8.891E+00	8.891E-03	9.701E-01	9.701E-05	4.041E-01	4.041E-04
7.000E+02	2.030E+01	2.030E-03	8.456E+00	8.456E-03	9.225E-01	9.225E-05	3.844E-01	3.844E-04
8.000E+02	1.955E+01	1.955E-03	8.145E+00	8.145E-03	8.884E-01	8.884E-05	3.702E-01	3.702E-04
9.000E+02	1.898E+01	1.898E-03	7.906E+00	7.906E-03	8.626E-01	8.626E-05	3.594E-01	3.594E-04
1.000E+03	1.853E+01	1.853E-03	7.721E+00	7.721E-03	8.424E-01	8.424E-05	3.509E-01	3.509E-04
2.000E+03	1.707E+01	1.707E-03	7.114E+00	7.114E-03	7.761E-01	7.761E-05	3.234E-01	3.233E-04
3.000E+03	1.705E+01	1.705E-03	7.102E+00	7.102E-03	7.749E-01	7.749E-05	3.228E-01	3.228E-04
4.000E+03	1.725E+01	1.725E-03	7.188E+00	7.188E-03	7.839E-01	7.839E-05	3.267E-01	3.267E-04
5.000E+03	1.751E+01	1.751E-03	7.293E+00	7.293E-03	7.958E-01	7.958E-05	3.315E-01	3.315E-04
6.000E+03	1.775E+01	1.775E-03	7.396E+00	7.396E-03	8.067E-01	8.067E-05	3.362E-01	3.362E-04
7.000E+03	1.798E+01	1.798E-03	7.493E+00	7.493E-03	8.173E-01	8.173E-05	3.406E-01	3.406E-04
8.000E+03	1.820E+01	1.820E-03	7.583E+00	7.583E-03	8.272E-01	8.272E-05	3.447E-01	3.447E-04
9.000E+03	1.840E+01	1.840E-03	7.665E+00	7.665E-03	8.362E-01	8.362E-05	3.484E-01	3.484E-04
1.000E+04	1.858E+01	1.858E-03	7.741E+00	7.741E-03	8.445E-01	8.445E-05	3.519E-01	3.519E-04

TABLE 75

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: NE Z= 10 A= 20.18

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.808E+02	1.808E-02	7.532E+01	7.532E-02	8.218E+00	8.218E-04	3.424E+00	3.424E-03
2.000E-02	2.557E+02	2.557E-02	1.065E+02	1.065E-01	1.162E+01	1.162E-03	4.842E+00	4.842E-03
3.000E-02	3.132E+02	3.132E-02	1.305E+02	1.305E-01	1.423E+01	1.423E-03	5.930E+00	5.930E-03
4.000E-02	3.616E+02	3.616E-02	1.507E+02	1.507E-01	1.643E+01	1.643E-03	6.848E+00	6.848E-03
5.000E-02	4.042E+02	4.042E-02	1.684E+02	1.684E-01	1.837E+01	1.837E-03	7.656E+00	7.656E-03
6.000E-02	4.428E+02	4.428E-02	1.845E+02	1.845E-01	2.013E+01	2.013E-03	8.387E+00	8.387E-03
7.000E-02	4.783E+02	4.783E-02	1.993E+02	1.993E-01	2.174E+01	2.174E-03	9.058E+00	9.058E-03
8.000E-02	5.113E+02	5.113E-02	2.131E+02	2.131E-01	2.324E+01	2.324E-03	9.685E+00	9.685E-03
9.000E-02	5.423E+02	5.423E-02	2.260E+02	2.260E-01	2.465E+01	2.465E-03	1.027E+01	1.027E-02
1.000E-01	5.716E+02	5.716E-02	2.382E+02	2.382E-01	2.598E+01	2.598E-03	1.083E+01	1.083E-02
2.000E-01	8.084E+02	8.084E-02	3.368E+02	3.368E-01	3.675E+01	3.675E-03	1.531E+01	1.531E-02
3.000E-01	9.891E+02	9.891E-02	4.121E+02	4.121E-01	4.496E+01	4.496E-03	1.873E+01	1.873E-02
4.000E-01	1.097E+03	1.097E-01	4.568E+02	4.568E-01	4.985E+01	4.985E-03	2.076E+01	2.076E-02
5.000E-01	1.145E+03	1.145E-01	4.771E+02	4.771E-01	5.205E+01	5.205E-03	2.169E+01	2.169E-02
6.000E-01	1.164E+03	1.164E-01	4.850E+02	4.850E-01	5.290E+01	5.290E-03	2.205E+01	2.205E-02
7.000E-01	1.167E+03	1.167E-01	4.860E+02	4.860E-01	5.304E+01	5.304E-03	2.209E+01	2.209E-02
8.000E-01	1.160E+03	1.160E-01	4.832E+02	4.832E-01	5.272E+01	5.272E-03	2.196E+01	2.196E-02
9.000E-01	1.147E+03	1.147E-01	4.779E+02	4.779E-01	5.211E+01	5.211E-03	2.172E+01	2.172E-02
1.000E+00	1.131E+03	1.131E-01	4.713E+02	4.713E-01	5.139E+01	5.139E-03	2.142E+01	2.142E-02
2.000E+00	9.459E+02	9.459E-02	3.941E+02	3.941E-01	4.300E+01	4.300E-03	1.791E+01	1.791E-02
3.000E+00	8.018E+02	8.018E-02	3.341E+02	3.341E-01	3.644E+01	3.644E-03	1.519E+01	1.519E-02
4.000E+00	6.966E+02	6.966E-02	2.902E+02	2.902E-01	3.167E+01	3.167E-03	1.319E+01	1.319E-02
5.000E+00	6.171E+02	6.171E-02	2.571E+02	2.571E-01	2.805E+01	2.805E-03	1.169E+01	1.169E-02
6.000E+00	5.547E+02	5.547E-02	2.312E+02	2.312E-01	2.522E+01	2.522E-03	1.051E+01	1.051E-02
7.000E+00	5.045E+02	5.045E-02	2.102E+02	2.102E-01	2.293E+01	2.293E-03	9.557E+00	9.557E-03
8.000E+00	4.630E+02	4.630E-02	1.929E+02	1.929E-01	2.104E+01	2.104E-03	8.768E+00	8.768E-03
9.000E+00	4.281E+02	4.281E-02	1.784E+02	1.784E-01	1.946E+01	1.946E-03	8.110E+00	8.110E-03
1.000E+01	3.984E+02	3.984E-02	1.660E+02	1.660E-01	1.811E+01	1.811E-03	7.545E+00	7.545E-03
2.000E+01	2.388E+02	2.388E-02	9.952E+01	9.952E-02	1.086E+01	1.086E-03	4.524E+00	4.524E-03
3.000E+01	1.742E+02	1.742E-02	7.260E+01	7.260E-02	7.918E+00	7.918E-04	3.300E+00	3.300E-03
4.000E+01	1.391E+02	1.391E-02	5.795E+01	5.795E-02	6.322E+00	6.322E-04	2.634E+00	2.634E-03
5.000E+01	1.169E+02	1.169E-02	4.870E+01	4.870E-02	5.313E+00	5.313E-04	2.214E+00	2.214E-03
6.000E+01	1.015E+02	1.015E-02	4.230E+01	4.230E-02	4.615E+00	4.615E-04	1.923E+00	1.923E-03
7.000E+01	9.025E+01	9.025E-03	3.760E+01	3.760E-02	4.102E+00	4.102E-04	1.709E+00	1.709E-03
8.000E+01	8.160E+01	8.160E-03	3.400E+01	3.400E-02	3.709E+00	3.709E-04	1.545E+00	1.545E-03
9.000E+01	7.475E+01	7.475E-03	3.114E+01	3.114E-02	3.398E+00	3.398E-04	1.416E+00	1.416E-03
1.000E+02	6.917E+01	6.917E-03	2.882E+01	2.882E-02	3.144E+00	3.144E-04	1.310E+00	1.310E-03
2.000E+02	4.302E+01	4.302E-03	1.792E+01	1.792E-02	1.955E+00	1.955E-04	8.147E-01	8.147E-04
3.000E+02	3.387E+01	3.387E-03	1.411E+01	1.411E-02	1.540E+00	1.540E-04	6.415E-01	6.415E-04
4.000E+02	2.929E+01	2.929E-03	1.220E+01	1.220E-02	1.331E+00	1.331E-04	5.546E-01	5.546E-04
5.000E+02	2.656E+01	2.656E-03	1.107E+01	1.107E-02	1.207E+00	1.207E-04	5.032E-01	5.032E-04
6.000E+02	2.480E+01	2.480E-03	1.034E+01	1.034E-02	1.127E+00	1.127E-04	4.698E-01	4.698E-04
7.000E+02	2.359E+01	2.359E-03	9.829E+00	9.829E-03	1.072E+00	1.072E-04	4.468E-01	4.468E-04
8.000E+02	2.272E+01	2.272E-03	9.466E+00	9.466E-03	1.033E+00	1.033E-04	4.303E-01	4.303E-04
9.000E+02	2.205E+01	2.205E-03	9.189E+00	9.189E-03	1.002E+00	1.002E-04	4.177E-01	4.177E-04
1.000E+03	2.153E+01	2.153E-03	8.973E+00	8.973E-03	9.788E-01	9.788E-05	4.079E-01	4.079E-04
2.000E+03	1.984E+01	1.984E-03	8.267E+00	8.267E-03	9.018E-01	9.018E-05	3.758E-01	3.758E-04
3.000E+03	1.981E+01	1.981E-03	8.253E+00	8.253E-03	9.004E-01	9.004E-05	3.752E-01	3.752E-04
4.000E+03	2.004E+01	2.004E-03	8.354E+00	8.354E-03	9.111E-01	9.111E-05	3.797E-01	3.797E-04
5.000E+03	2.034E+01	2.034E-03	8.476E+00	8.476E-03	9.244E-01	9.244E-05	3.853E-01	3.853E-04
6.000E+03	2.063E+01	2.063E-03	8.596E+00	8.596E-03	9.378E-01	9.378E-05	3.907E-01	3.907E-04
7.000E+03	2.090E+01	2.090E-03	8.708E+00	8.708E-03	9.501E-01	9.501E-05	3.958E-01	3.958E-04
8.000E+03	2.115E+01	2.115E-03	8.813E+00	8.813E-03	9.615E-01	9.615E-05	4.006E-01	4.006E-04
9.000E+03	2.138E+01	2.138E-03	8.908E+00	8.908E-03	9.720E-01	9.720E-05	4.049E-01	4.049E-04
1.000E+04	2.159E+01	2.159E-03	8.996E+00	8.996E-03	9.814E-01	9.814E-05	4.089E-01	4.089E-04

TABLE 76

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: NA Z= 11 A= 22.99

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.747E+02	1.747E-02	7.279E+01	7.279E-02	7.941E+00	7.941E-04	3.309E+00	3.309E-03
2.000E-02	2.471E+02	2.471E-02	1.029E+02	1.029E-01	1.123E+01	1.123E-03	4.679E+00	4.679E-03
3.000E-02	3.026E+02	3.026E-02	1.261E+02	1.261E-01	1.375E+01	1.375E-03	5.731E+00	5.731E-03
4.000E-02	3.494E+02	3.494E-02	1.455E+02	1.455E-01	1.588E+01	1.588E-03	6.616E+00	6.616E-03
5.000E-02	3.906E+02	3.906E-02	1.628E+02	1.628E-01	1.776E+01	1.776E-03	7.399E+00	7.399E-03
6.000E-02	4.279E+02	4.279E-02	1.783E+02	1.783E-01	1.945E+01	1.945E-03	8.106E+00	8.106E-03
7.000E-02	4.622E+02	4.622E-02	1.926E+02	1.926E-01	2.101E+01	2.101E-03	8.756E+00	8.756E-03
8.000E-02	4.942E+02	4.942E-02	2.059E+02	2.059E-01	2.246E+01	2.246E-03	9.361E+00	9.361E-03
9.000E-02	5.241E+02	5.241E-02	2.184E+02	2.184E-01	2.382E+01	2.382E-03	9.925E+00	9.925E-03
1.000E-01	5.525E+02	5.525E-02	2.301E+02	2.301E-01	2.511E+01	2.511E-03	1.046E+01	1.046E-02
2.000E-01	7.812E+02	7.812E-02	3.255E+02	3.255E-01	3.551E+01	3.551E-03	1.480E+01	1.480E-02
3.000E-01	9.575E+02	9.575E-02	3.989E+02	3.989E-01	4.352E+01	4.352E-03	1.813E+01	1.813E-02
4.000E-01	1.068E+03	1.068E-01	4.451E+02	4.451E-01	4.854E+01	4.854E-03	2.023E+01	2.023E-02
5.000E-01	1.121E+03	1.121E-01	4.673E+02	4.673E-01	5.097E+01	5.097E-03	2.124E+01	2.124E-02
6.000E-01	1.145E+03	1.145E-01	4.771E+02	4.771E-01	5.207E+01	5.207E-03	2.169E+01	2.169E-02
7.000E-01	1.152E+03	1.152E-01	4.799E+02	4.799E-01	5.237E+01	5.237E-03	2.181E+01	2.181E-02
8.000E-01	1.148E+03	1.148E-01	4.787E+02	4.787E-01	5.220E+01	5.220E-03	2.176E+01	2.176E-02
9.000E-01	1.139E+03	1.139E-01	4.749E+02	4.749E-01	5.179E+01	5.179E-03	2.159E+01	2.159E-02
1.000E+00	1.127E+03	1.127E-01	4.695E+02	4.695E-01	5.122E+01	5.122E-03	2.134E+01	2.134E-02
2.000E+00	9.589E+02	9.589E-02	3.996E+02	3.996E-01	4.359E+01	4.359E-03	1.816E+01	1.816E-02
3.000E+00	8.208E+02	8.208E-02	3.420E+02	3.420E-01	3.731E+01	3.731E-03	1.554E+01	1.554E-02
4.000E+00	7.176E+02	7.176E-02	2.990E+02	2.990E-01	3.262E+01	3.262E-03	1.359E+01	1.359E-02
5.000E+00	6.386E+02	6.386E-02	2.661E+02	2.661E-01	2.903E+01	2.903E-03	1.210E+01	1.210E-02
6.000E+00	5.762E+02	5.762E-02	2.401E+02	2.401E-01	2.619E+01	2.619E-03	1.091E+01	1.091E-02
7.000E+00	5.257E+02	5.257E-02	2.190E+02	2.190E-01	2.390E+01	2.390E-03	9.955E+00	9.955E-03
8.000E+00	4.836E+02	4.836E-02	2.015E+02	2.015E-01	2.198E+01	2.198E-03	9.160E+00	9.160E-03
9.000E+00	4.482E+02	4.482E-02	1.867E+02	1.867E-01	2.037E+01	2.037E-03	8.488E+00	8.488E-03
1.000E+01	4.179E+02	4.179E-02	1.741E+02	1.741E-01	1.900E+01	1.900E-03	7.914E+00	7.914E-03
2.000E+01	2.528E+02	2.528E-02	1.054E+02	1.054E-01	1.149E+01	1.149E-03	4.791E+00	4.791E-03
3.000E+01	1.848E+02	1.848E-02	7.701E+01	7.701E-02	8.402E+00	8.402E-04	3.500E+00	3.500E-03
4.000E+01	1.477E+02	1.477E-02	6.152E+01	6.152E-02	6.711E+00	6.711E-04	2.796E+00	2.796E-03
5.000E+01	1.242E+02	1.242E-02	5.172E+01	5.172E-02	5.644E+00	5.644E-04	2.351E+00	2.351E-03
6.000E+01	1.078E+02	1.078E-02	4.492E+01	4.492E-02	4.902E+00	4.902E-04	2.042E+00	2.042E-03
7.000E+01	9.586E+01	9.586E-03	3.994E+01	3.994E-02	4.357E+00	4.357E-04	1.816E+00	1.816E-03
8.000E+01	8.667E+01	8.667E-03	3.612E+01	3.612E-02	3.940E+00	3.940E-04	1.642E+00	1.642E-03
9.000E+01	7.939E+01	7.939E-03	3.308E+01	3.308E-02	3.609E+00	3.609E-04	1.504E+00	1.504E-03
1.000E+02	7.347E+01	7.347E-03	3.062E+01	3.062E-02	3.340E+00	3.340E-04	1.392E+00	1.392E-03
2.000E+02	4.569E+01	4.569E-03	1.904E+01	1.904E-02	2.077E+00	2.077E-04	8.656E-01	8.656E-04
3.000E+02	3.598E+01	3.598E-03	1.500E+01	1.500E-02	1.636E+00	1.636E-04	6.816E-01	6.816E-04
4.000E+02	3.111E+01	3.111E-03	1.296E+01	1.296E-02	1.414E+00	1.414E-04	5.889E-01	5.889E-04
5.000E+02	2.822E+01	2.822E-03	1.176E+01	1.176E-02	1.283E+00	1.283E-04	5.344E-01	5.344E-04
6.000E+02	2.635E+01	2.635E-03	1.098E+01	1.098E-02	1.198E+00	1.198E-04	4.989E-01	4.989E-04
7.000E+02	2.505E+01	2.505E-03	1.044E+01	1.044E-02	1.139E+00	1.139E-04	4.744E-01	4.744E-04
8.000E+02	2.413E+01	2.413E-03	1.005E+01	1.005E-02	1.097E+00	1.097E-04	4.570E-01	4.570E-04
9.000E+02	2.343E+01	2.343E-03	9.762E+00	9.762E-03	1.065E+00	1.065E-04	4.437E-01	4.437E-04
1.000E+03	2.288E+01	2.288E-03	9.531E+00	9.531E-03	1.040E+00	1.040E-04	4.332E-01	4.332E-04
2.000E+03	2.107E+01	2.107E-03	8.782E+00	8.782E-03	9.579E-01	9.579E-05	3.992E-01	3.992E-04
3.000E+03	2.104E+01	2.104E-03	8.767E+00	8.767E-03	9.564E-01	9.564E-05	3.985E-01	3.985E-04
4.000E+03	2.130E+01	2.130E-03	8.873E+00	8.873E-03	9.681E-01	9.681E-05	4.033E-01	4.033E-04
5.000E+03	2.161E+01	2.161E-03	9.002E+00	9.002E-03	9.821E-01	9.821E-05	4.092E-01	4.092E-04
6.000E+03	2.191E+01	2.191E-03	9.131E+00	9.131E-03	9.961E-01	9.961E-05	4.150E-01	4.150E-04
7.000E+03	2.220E+01	2.220E-03	9.250E+00	9.250E-03	1.009E+00	1.009E-04	4.204E-01	4.204E-04
8.000E+03	2.247E+01	2.247E-03	9.361E+00	9.361E-03	1.021E+00	1.021E-04	4.255E-01	4.255E-04
9.000E+03	2.271E+01	2.271E-03	9.462E+00	9.462E-03	1.032E+00	1.032E-04	4.301E-01	4.301E-04
1.000E+04	2.293E+01	2.293E-03	9.556E+00	9.556E-03	1.042E+00	1.042E-04	4.344E-01	4.344E-04

TABLE 77

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: MG Z= 12 A= 24.32

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.801E+02	1.801E-02	7.504E+01	7.504E-02	8.186E+00	8.186E-04	3.411E+00	3.411E-03
2.000E-02	2.547E+02	2.547E-02	1.061E+02	1.061E-01	1.158E+01	1.158E-03	4.824E+00	4.824E-03
3.000E-02	3.120E+02	3.120E-02	1.300E+02	1.300E-01	1.418E+01	1.418E-03	5.908E+00	5.908E-03
4.000E-02	3.602E+02	3.602E-02	1.501E+02	1.501E-01	1.637E+01	1.637E-03	6.821E+00	6.821E-03
5.000E-02	4.027E+02	4.027E-02	1.678E+02	1.678E-01	1.831E+01	1.831E-03	7.626E+00	7.626E-03
6.000E-02	4.412E+02	4.412E-02	1.838E+02	1.838E-01	2.005E+01	2.005E-03	8.355E+00	8.355E-03
7.000E-02	4.765E+02	4.765E-02	1.986E+02	1.986E-01	2.166E+01	2.166E-03	9.026E+00	9.026E-03
8.000E-02	5.094E+02	5.094E-02	2.123E+02	2.123E-01	2.316E+01	2.316E-03	9.648E+00	9.648E-03
9.000E-02	5.403E+02	5.403E-02	2.251E+02	2.251E-01	2.456E+01	2.456E-03	1.023E+01	1.023E-02
1.000E-01	5.696E+02	5.696E-02	2.373E+02	2.373E-01	2.589E+01	2.589E-03	1.079E+01	1.079E-02
2.000E-01	8.054E+02	8.054E-02	3.356E+02	3.356E-01	3.661E+01	3.661E-03	1.525E+01	1.525E-02
3.000E-01	9.873E+02	9.873E-02	4.112E+02	4.112E-01	4.488E+01	4.488E-03	1.869E+01	1.869E-02
4.000E-01	1.107E+03	1.107E-01	4.612E+02	4.612E-01	5.031E+01	5.031E-03	2.097E+01	2.097E-02
5.000E-01	1.168E+03	1.168E-01	4.865E+02	4.865E-01	5.308E+01	5.308E-03	2.212E+01	2.212E-02
6.000E-01	1.197E+03	1.197E-01	4.987E+02	4.987E-01	5.441E+01	5.441E-03	2.267E+01	2.267E-02
7.000E-01	1.208E+03	1.208E-01	5.034E+02	5.034E-01	5.492E+01	5.492E-03	2.288E+01	2.288E-02
8.000E-01	1.208E+03	1.208E-01	5.036E+02	5.036E-01	5.493E+01	5.493E-03	2.289E+01	2.289E-02
9.000E-01	1.202E+03	1.202E-01	5.009E+02	5.009E-01	5.465E+01	5.465E-03	2.277E+01	2.277E-02
1.000E+00	1.192E+03	1.192E-01	4.966E+02	4.966E-01	5.417E+01	5.417E-03	2.257E+01	2.257E-02
2.000E+00	1.031E+03	1.031E-01	4.295E+02	4.295E-01	4.686E+01	4.686E-03	1.952E+01	1.952E-02
3.000E+00	8.903E+02	8.903E-02	3.710E+02	3.710E-01	4.047E+01	4.047E-03	1.686E+01	1.686E-02
4.000E+00	7.831E+02	7.831E-02	3.263E+02	3.263E-01	3.559E+01	3.559E-03	1.483E+01	1.483E-02
5.000E+00	6.999E+02	6.999E-02	2.917E+02	2.917E-01	3.181E+01	3.181E-03	1.326E+01	1.326E-02
6.000E+00	6.337E+02	6.337E-02	2.640E+02	2.640E-01	2.880E+01	2.880E-03	1.200E+01	1.200E-02
7.000E+00	5.797E+02	5.797E-02	2.416E+02	2.416E-01	2.635E+01	2.635E-03	1.098E+01	1.098E-02
8.000E+00	5.346E+02	5.346E-02	2.228E+02	2.228E-01	2.430E+01	2.430E-03	1.013E+01	1.013E-02
9.000E+00	4.965E+02	4.965E-02	2.069E+02	2.069E-01	2.257E+01	2.257E-03	9.405E+00	9.405E-03
1.000E+01	4.638E+02	4.638E-02	1.932E+02	1.932E-01	2.108E+01	2.108E-03	8.782E+00	8.782E-03
2.000E+01	2.834E+02	2.834E-02	1.181E+02	1.181E-01	1.288E+01	1.288E-03	5.367E+00	5.367E-03
3.000E+01	2.076E+02	2.076E-02	8.650E+01	8.650E-02	9.435E+00	9.435E-04	3.932E+00	3.932E-03
4.000E+01	1.660E+02	1.660E-02	6.916E+01	6.916E-02	7.545E+00	7.545E-04	3.144E+00	3.144E-03
5.000E+01	1.396E+02	1.396E-02	5.817E+01	5.817E-02	6.345E+00	6.345E-04	2.644E+00	2.644E-03
6.000E+01	1.213E+02	1.213E-02	5.053E+01	5.053E-02	5.513E+00	5.513E-04	2.297E+00	2.297E-03
7.000E+01	1.078E+02	1.078E-02	4.493E+01	4.493E-02	4.901E+00	4.901E-04	2.042E+00	2.042E-03
8.000E+01	9.751E+01	9.751E-03	4.062E+01	4.062E-02	4.432E+00	4.432E-04	1.846E+00	1.846E-03
9.000E+01	8.932E+01	8.932E-03	3.721E+01	3.721E-02	4.060E+00	4.060E-04	1.691E+00	1.691E-03
1.000E+02	8.266E+01	8.266E-03	3.444E+01	3.444E-02	3.757E+00	3.757E-04	1.565E+00	1.565E-03
2.000E+02	5.141E+01	5.141E-03	2.142E+01	2.142E-02	2.337E+00	2.337E-04	9.734E-01	9.734E-04
3.000E+02	4.048E+01	4.048E-03	1.687E+01	1.687E-02	1.840E+00	1.840E-04	7.668E-01	7.668E-04
4.000E+02	3.500E+01	3.500E-03	1.458E+01	1.458E-02	1.591E+00	1.591E-04	6.627E-01	6.627E-04
5.000E+02	3.175E+01	3.175E-03	1.323E+01	1.323E-02	1.443E+00	1.443E-04	6.014E-01	6.014E-04
6.000E+02	2.964E+01	2.964E-03	1.235E+01	1.235E-02	1.347E+00	1.347E-04	5.613E-01	5.613E-04
7.000E+02	2.818E+01	2.818E-03	1.175E+01	1.175E-02	1.281E+00	1.281E-04	5.340E-01	5.340E-04
8.000E+02	2.715E+01	2.715E-03	1.131E+01	1.131E-02	1.234E+00	1.234E-04	5.143E-01	5.143E-04
9.000E+02	2.635E+01	2.635E-03	1.098E+01	1.098E-02	1.198E+00	1.198E-04	4.992E-01	4.992E-04
1.000E+03	2.573E+01	2.573E-03	1.072E+01	1.072E-02	1.170E+00	1.170E-04	4.873E-01	4.873E-04
2.000E+03	2.371E+01	2.371E-03	9.880E+00	9.880E-03	1.078E+00	1.078E-04	4.491E-01	4.491E-04
3.000E+03	2.367E+01	2.367E-03	9.863E+00	9.863E-03	1.076E+00	1.076E-04	4.483E-01	4.483E-04
4.000E+03	2.396E+01	2.396E-03	9.985E+00	9.985E-03	1.089E+00	1.089E-04	4.539E-01	4.539E-04
5.000E+03	2.431E+01	2.431E-03	1.013E+01	1.013E-02	1.105E+00	1.105E-04	4.604E-01	4.604E-04
6.000E+03	2.465E+01	2.465E-03	1.028E+01	1.028E-02	1.121E+00	1.121E-04	4.671E-01	4.671E-04
7.000E+03	2.498E+01	2.498E-03	1.041E+01	1.041E-02	1.135E+00	1.135E-04	4.732E-01	4.732E-04
8.000E+03	2.528E+01	2.528E-03	1.053E+01	1.053E-02	1.149E+00	1.149E-04	4.786E-01	4.786E-04
9.000E+03	2.555E+01	2.555E-03	1.064E+01	1.064E-02	1.161E+00	1.161E-04	4.837E-01	4.837E-04
1.000E+04	2.580E+01	2.580E-03	1.075E+01	1.075E-02	1.173E+00	1.173E-04	4.886E-01	4.886E-04

TABLE 78

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AL Z= 13 A= 26.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.752E+02	1.752E-02	7.300E+01	7.300E-02	7.964E+00	7.964E-04	3.318E+00	3.318E-03
2.000E-02	2.478E+02	2.478E-02	1.032E+02	1.032E-01	1.126E+01	1.126E-03	4.692E+00	4.692E-03
3.000E-02	3.035E+02	3.035E-02	1.265E+02	1.265E-01	1.379E+01	1.379E-03	5.749E+00	5.749E-03
4.000E-02	3.504E+02	3.504E-02	1.460E+02	1.460E-01	1.593E+01	1.593E-03	6.639E+00	6.639E-03
5.000E-02	3.918E+02	3.918E-02	1.632E+02	1.632E-01	1.781E+01	1.781E-03	7.419E+00	7.419E-03
6.000E-02	4.292E+02	4.292E-02	1.788E+02	1.788E-01	1.951E+01	1.951E-03	8.128E+00	8.128E-03
7.000E-02	4.635E+02	4.635E-02	1.931E+02	1.931E-01	2.107E+01	2.107E-03	8.779E+00	8.779E-03
8.000E-02	4.956E+02	4.956E-02	2.064E+02	2.064E-01	2.253E+01	2.253E-03	9.384E+00	9.384E-03
9.000E-02	5.256E+02	5.256E-02	2.190E+02	2.190E-01	2.389E+01	2.389E-03	9.956E+00	9.956E-03
1.000E-01	5.540E+02	5.540E-02	2.309E+02	2.309E-01	2.518E+01	2.518E-03	1.049E+01	1.049E-02
2.000E-01	7.834E+02	7.834E-02	3.264E+02	3.264E-01	3.561E+01	3.561E-03	1.484E+01	1.484E-02
3.000E-01	9.600E+02	9.600E-02	4.000E+02	4.000E-01	4.364E+01	4.364E-03	1.818E+01	1.818E-02
4.000E-01	1.082E+03	1.082E-01	4.507E+02	4.507E-01	4.917E+01	4.917E-03	2.049E+01	2.049E-02
5.000E-01	1.146E+03	1.146E-01	4.776E+02	4.776E-01	5.210E+01	5.210E-03	2.171E+01	2.171E-02
6.000E-01	1.179E+03	1.179E-01	4.913E+02	4.913E-01	5.358E+01	5.358E-03	2.233E+01	2.233E-02
7.000E-01	1.194E+03	1.194E-01	4.976E+02	4.976E-01	5.428E+01	5.428E-03	2.262E+01	2.262E-02
8.000E-01	1.198E+03	1.198E-01	4.991E+02	4.991E-01	5.443E+01	5.443E-03	2.269E+01	2.269E-02
9.000E-01	1.195E+03	1.195E-01	4.978E+02	4.978E-01	5.430E+01	5.430E-03	2.263E+01	2.263E-02
1.000E+00	1.187E+03	1.187E-01	4.945E+02	4.945E-01	5.395E+01	5.395E-03	2.248E+01	2.248E-02
2.000E+00	1.043E+03	1.043E-01	4.342E+02	4.342E-01	4.740E+01	4.740E-03	1.974E+01	1.974E-02
3.000E+00	9.077E+02	9.077E-02	3.783E+02	3.783E-01	4.126E+01	4.126E-03	1.719E+01	1.719E-02
4.000E+00	8.030E+02	8.030E-02	3.346E+02	3.346E-01	3.650E+01	3.650E-03	1.521E+01	1.521E-02
5.000E+00	7.207E+02	7.207E-02	3.003E+02	3.003E-01	3.276E+01	3.276E-03	1.365E+01	1.365E-02
6.000E+00	6.546E+02	6.546E-02	2.728E+02	2.728E-01	2.976E+01	2.976E-03	1.240E+01	1.240E-02
7.000E+00	6.005E+02	6.005E-02	2.502E+02	2.502E-01	2.730E+01	2.730E-03	1.137E+01	1.137E-02
8.000E+00	5.551E+02	5.551E-02	2.312E+02	2.312E-01	2.523E+01	2.523E-03	1.051E+01	1.051E-02
9.000E+00	5.165E+02	5.165E-02	2.152E+02	2.152E-01	2.348E+01	2.348E-03	9.782E+00	9.782E-03
1.000E+01	4.833E+02	4.833E-02	2.014E+02	2.014E-01	2.197E+01	2.197E-03	9.155E+00	9.155E-03
2.000E+01	2.981E+02	2.981E-02	1.242E+02	1.242E-01	1.355E+01	1.355E-03	5.644E+00	5.644E-03
3.000E+01	2.190E+02	2.190E-02	9.128E+01	9.128E-02	9.956E+00	9.956E-04	4.149E+00	4.149E-03
4.000E+01	1.753E+02	1.753E-02	7.304E+01	7.304E-02	7.966E+00	7.966E-04	3.320E+00	3.320E-03
5.000E+01	1.475E+02	1.475E-02	6.145E+01	6.145E-02	6.705E+00	6.705E-04	2.793E+00	2.793E-03
6.000E+01	1.282E+02	1.282E-02	5.341E+01	5.341E-02	5.828E+00	5.828E-04	2.428E+00	2.428E-03
7.000E+01	1.140E+02	1.140E-02	4.749E+01	4.749E-02	5.181E+00	5.181E-04	2.159E+00	2.159E-03
8.000E+01	1.030E+02	1.030E-02	4.294E+01	4.294E-02	4.684E+00	4.684E-04	1.952E+00	1.952E-03
9.000E+01	9.442E+01	9.442E-03	3.934E+01	3.934E-02	4.292E+00	4.292E-04	1.788E+00	1.788E-03
1.000E+02	8.738E+01	8.738E-03	3.641E+01	3.641E-02	3.972E+00	3.972E-04	1.655E+00	1.655E-03
2.000E+02	5.434E+01	5.434E-03	2.264E+01	2.264E-02	2.470E+00	2.470E-04	1.029E+00	1.029E-03
3.000E+02	4.280E+01	4.280E-03	1.784E+01	1.784E-02	1.945E+00	1.945E-04	8.107E-01	8.107E-04
4.000E+02	3.699E+01	3.699E-03	1.541E+01	1.541E-02	1.681E+00	1.681E-04	7.005E-01	7.005E-04
5.000E+02	3.356E+01	3.356E-03	1.399E+01	1.399E-02	1.525E+00	1.525E-04	6.358E-01	6.358E-04
6.000E+02	3.133E+01	3.133E-03	1.305E+01	1.305E-02	1.424E+00	1.424E-04	5.933E-01	5.933E-04
7.000E+02	2.980E+01	2.980E-03	1.241E+01	1.241E-02	1.355E+00	1.355E-04	5.643E-01	5.643E-04
8.000E+02	2.870E+01	2.870E-03	1.196E+01	1.196E-02	1.304E+00	1.304E-04	5.436E-01	5.436E-04
9.000E+02	2.786E+01	2.786E-03	1.161E+01	1.161E-02	1.266E+00	1.266E-04	5.277E-01	5.277E-04
1.000E+03	2.721E+01	2.721E-03	1.133E+01	1.133E-02	1.237E+00	1.237E-04	5.152E-01	5.152E-04
2.000E+03	2.507E+01	2.507E-03	1.045E+01	1.045E-02	1.139E+00	1.139E-04	4.749E-01	4.749E-04
3.000E+03	2.502E+01	2.502E-03	1.043E+01	1.043E-02	1.137E+00	1.137E-04	4.741E-01	4.741E-04
4.000E+03	2.533E+01	2.533E-03	1.055E+01	1.055E-02	1.151E+00	1.151E-04	4.796E-01	4.796E-04
5.000E+03	2.570E+01	2.570E-03	1.071E+01	1.071E-02	1.168E+00	1.168E-04	4.867E-01	4.867E-04
6.000E+03	2.606E+01	2.606E-03	1.086E+01	1.086E-02	1.184E+00	1.184E-04	4.935E-01	4.935E-04
7.000E+03	2.640E+01	2.640E-03	1.100E+01	1.100E-02	1.200E+00	1.200E-04	5.002E-01	5.002E-04
8.000E+03	2.672E+01	2.672E-03	1.113E+01	1.113E-02	1.214E+00	1.214E-04	5.060E-01	5.060E-04
9.000E+03	2.701E+01	2.701E-03	1.125E+01	1.125E-02	1.228E+00	1.228E-04	5.116E-01	5.116E-04
1.000E+04	2.728E+01	2.728E-03	1.137E+01	1.137E-02	1.240E+00	1.240E-04	5.168E-01	5.168E-04

TABLE 79

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: SI Z= 14 A= 28.09

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.804E+02	1.804E-02	7.516E+01	7.516E-02	8.200E+00	8.200E-04	3.416E+00	3.416E-03
2.000E-02	2.551E+02	2.551E-02	1.063E+02	1.063E-01	1.160E+01	1.160E-03	4.833E+00	4.833E-03
3.000E-02	3.125E+02	3.125E-02	1.302E+02	1.302E-01	1.420E+01	1.420E-03	5.917E+00	5.917E-03
4.000E-02	3.608E+02	3.608E-02	1.504E+02	1.504E-01	1.640E+01	1.640E-03	6.834E+00	6.834E-03
5.000E-02	4.033E+02	4.033E-02	1.681E+02	1.681E-01	1.833E+01	1.833E-03	7.640E+00	7.640E-03
6.000E-02	4.419E+02	4.419E-02	1.841E+02	1.841E-01	2.009E+01	2.009E-03	8.369E+00	8.369E-03
7.000E-02	4.772E+02	4.772E-02	1.989E+02	1.989E-01	2.169E+01	2.169E-03	9.039E+00	9.039E-03
8.000E-02	5.102E+02	5.102E-02	2.126E+02	2.126E-01	2.319E+01	2.319E-03	9.662E+00	9.662E-03
9.000E-02	5.411E+02	5.411E-02	2.255E+02	2.255E-01	2.460E+01	2.460E-03	1.025E+01	1.025E-02
1.000E-01	5.704E+02	5.704E-02	2.377E+02	2.377E-01	2.593E+01	2.593E-03	1.080E+01	1.080E-02
2.000E-01	8.066E+02	8.066E-02	3.361E+02	3.361E-01	3.667E+01	3.667E-03	1.528E+01	1.528E-02
3.000E-01	9.881E+02	9.881E-02	4.118E+02	4.118E-01	4.491E+01	4.491E-03	1.872E+01	1.872E-02
4.000E-01	1.119E+03	1.119E-01	4.661E+02	4.661E-01	5.085E+01	5.085E-03	2.119E+01	2.119E-02
5.000E-01	1.190E+03	1.190E-01	4.957E+02	4.957E-01	5.408E+01	5.408E-03	2.253E+01	2.253E-02
6.000E-01	1.228E+03	1.228E-01	5.118E+02	5.118E-01	5.584E+01	5.584E-03	2.327E+01	2.327E-02
7.000E-01	1.247E+03	1.247E-01	5.199E+02	5.199E-01	5.670E+01	5.670E-03	2.363E+01	2.363E-02
8.000E-01	1.254E+03	1.254E-01	5.229E+02	5.229E-01	5.702E+01	5.702E-03	2.377E+01	2.377E-02
9.000E-01	1.254E+03	1.254E-01	5.227E+02	5.227E-01	5.702E+01	5.702E-03	2.376E+01	2.376E-02
1.000E+00	1.249E+03	1.249E-01	5.203E+02	5.203E-01	5.677E+01	5.677E-03	2.365E+01	2.365E-02
2.000E+00	1.112E+03	1.112E-01	4.634E+02	4.634E-01	5.054E+01	5.054E-03	2.106E+01	2.106E-02
3.000E+00	9.767E+02	9.767E-02	4.069E+02	4.069E-01	4.440E+01	4.440E-03	1.850E+01	1.850E-02
4.000E+00	8.685E+02	8.685E-02	3.619E+02	3.619E-01	3.948E+01	3.948E-03	1.645E+01	1.645E-02
5.000E+00	7.826E+02	7.826E-02	3.261E+02	3.261E-01	3.557E+01	3.557E-03	1.482E+01	1.482E-02
6.000E+00	7.131E+02	7.131E-02	2.971E+02	2.971E-01	3.241E+01	3.241E-03	1.350E+01	1.350E-02
7.000E+00	6.557E+02	6.557E-02	2.732E+02	2.732E-01	2.980E+01	2.980E-03	1.242E+01	1.242E-02
8.000E+00	6.074E+02	6.074E-02	2.531E+02	2.531E-01	2.761E+01	2.761E-03	1.150E+01	1.150E-02
9.000E+00	5.663E+02	5.663E-02	2.360E+02	2.360E-01	2.574E+01	2.574E-03	1.073E+01	1.073E-02
1.000E+01	5.307E+02	5.307E-02	2.211E+02	2.211E-01	2.412E+01	2.412E-03	1.005E+01	1.005E-02
2.000E+01	3.305E+02	3.305E-02	1.377E+02	1.377E-01	1.502E+01	1.502E-03	6.261E+00	6.261E-03
3.000E+01	2.436E+02	2.436E-02	1.015E+02	1.015E-01	1.107E+01	1.107E-03	4.614E+00	4.614E-03
4.000E+01	1.952E+02	1.952E-02	8.133E+01	8.133E-02	8.872E+00	8.872E-04	3.697E+00	3.697E-03
5.000E+01	1.643E+02	1.643E-02	6.847E+01	6.847E-02	7.469E+00	7.469E-04	3.112E+00	3.112E-03
6.000E+01	1.429E+02	1.429E-02	5.951E+01	5.951E-02	6.493E+00	6.493E-04	2.705E+00	2.705E-03
7.000E+01	1.271E+02	1.271E-02	5.293E+01	5.293E-02	5.775E+00	5.775E-04	2.406E+00	2.406E-03
8.000E+01	1.149E+02	1.149E-02	4.786E+01	4.786E-02	5.222E+00	5.222E-04	2.176E+00	2.176E-03
9.000E+01	1.052E+02	1.052E-02	4.385E+01	4.385E-02	4.783E+00	4.783E-04	1.993E+00	1.993E-03
1.000E+02	9.739E+01	9.739E-03	4.058E+01	4.058E-02	4.427E+00	4.427E-04	1.845E+00	1.845E-03
2.000E+02	6.058E+01	6.058E-03	2.524E+01	2.524E-02	2.754E+00	2.754E-04	1.147E+00	1.147E-03
3.000E+02	4.771E+01	4.771E-03	1.988E+01	1.988E-02	2.168E+00	2.168E-04	9.036E-01	9.036E-04
4.000E+02	4.124E+01	4.124E-03	1.718E+01	1.718E-02	1.875E+00	1.875E-04	7.811E-01	7.811E-04
5.000E+02	3.741E+01	3.741E-03	1.559E+01	1.559E-02	1.701E+00	1.701E-04	7.084E-01	7.084E-04
6.000E+02	3.493E+01	3.493E-03	1.455E+01	1.455E-02	1.588E+00	1.588E-04	6.616E-01	6.616E-04
7.000E+02	3.321E+01	3.321E-03	1.384E+01	1.384E-02	1.510E+00	1.510E-04	6.291E-01	6.291E-04
8.000E+02	3.199E+01	3.199E-03	1.333E+01	1.333E-02	1.454E+00	1.454E-04	6.060E-01	6.060E-04
9.000E+02	3.106E+01	3.106E-03	1.294E+01	1.294E-02	1.412E+00	1.412E-04	5.882E-01	5.882E-04
1.000E+03	3.033E+01	3.033E-03	1.263E+01	1.263E-02	1.378E+00	1.378E-04	5.742E-01	5.742E-04
2.000E+03	2.794E+01	2.794E-03	1.164E+01	1.164E-02	1.270E+00	1.270E-04	5.293E-01	5.293E-04
3.000E+03	2.789E+01	2.789E-03	1.162E+01	1.162E-02	1.268E+00	1.268E-04	5.283E-01	5.283E-04
4.000E+03	2.824E+01	2.824E-03	1.176E+01	1.176E-02	1.283E+00	1.283E-04	5.347E-01	5.347E-04
5.000E+03	2.865E+01	2.865E-03	1.194E+01	1.194E-02	1.302E+00	1.302E-04	5.426E-01	5.426E-04
6.000E+03	2.905E+01	2.905E-03	1.210E+01	1.210E-02	1.320E+00	1.320E-04	5.500E-01	5.500E-04
7.000E+03	2.943E+01	2.943E-03	1.226E+01	1.226E-02	1.338E+00	1.338E-04	5.573E-01	5.573E-04
8.000E+03	2.978E+01	2.978E-03	1.241E+01	1.241E-02	1.354E+00	1.354E-04	5.641E-01	5.641E-04
9.000E+03	3.011E+01	3.011E-03	1.255E+01	1.255E-02	1.369E+00	1.369E-04	5.704E-01	5.704E-04
1.000E+04	3.041E+01	3.041E-03	1.267E+01	1.267E-02	1.382E+00	1.382E-04	5.759E-01	5.759E-04

TABLE 80

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: P Z= 15 A= 30.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.740E+02	1.740E-02	7.250E+01	7.250E-02	7.909E+00	7.909E-04	3.295E+00	3.295E-03
2.000E-02	2.461E+02	2.461E-02	1.025E+02	1.025E-01	1.119E+01	1.119E-03	4.660E+00	4.660E-03
3.000E-02	3.014E+02	3.014E-02	1.256E+02	1.256E-01	1.370E+01	1.370E-03	5.708E+00	5.708E-03
4.000E-02	3.480E+02	3.480E-02	1.450E+02	1.450E-01	1.582E+01	1.582E-03	6.593E+00	6.593E-03
5.000E-02	3.891E+02	3.891E-02	1.621E+02	1.621E-01	1.768E+01	1.768E-03	7.369E+00	7.369E-03
6.000E-02	4.262E+02	4.262E-02	1.776E+02	1.776E-01	1.937E+01	1.937E-03	8.074E+00	8.074E-03
7.000E-02	4.604E+02	4.604E-02	1.918E+02	1.918E-01	2.093E+01	2.093E-03	8.719E+00	8.719E-03
8.000E-02	4.922E+02	4.922E-02	2.050E+02	2.050E-01	2.237E+01	2.237E-03	9.320E+00	9.320E-03
9.000E-02	5.220E+02	5.220E-02	2.175E+02	2.175E-01	2.373E+01	2.373E-03	9.884E+00	9.884E-03
1.000E-01	5.502E+02	5.502E-02	2.293E+02	2.293E-01	2.501E+01	2.501E-03	1.042E+01	1.042E-02
2.000E-01	7.781E+02	7.781E-02	3.242E+02	3.242E-01	3.537E+01	3.537E-03	1.473E+01	1.473E-02
3.000E-01	9.531E+02	9.531E-02	3.971E+02	3.971E-01	4.332E+01	4.332E-03	1.805E+01	1.805E-02
4.000E-01	1.083E+03	1.083E-01	4.514E+02	4.514E-01	4.925E+01	4.925E-03	2.052E+01	2.052E-02
5.000E-01	1.156E+03	1.156E-01	4.820E+02	4.820E-01	5.256E+01	5.256E-03	2.191E+01	2.191E-02
6.000E-01	1.198E+03	1.198E-01	4.992E+02	4.992E-01	5.447E+01	5.447E-03	2.269E+01	2.269E-02
7.000E-01	1.221E+03	1.221E-01	5.084E+02	5.084E-01	5.549E+01	5.549E-03	2.311E+01	2.311E-02
8.000E-01	1.231E+03	1.231E-01	5.126E+02	5.126E-01	5.594E+01	5.594E-03	2.330E+01	2.330E-02
9.000E-01	1.232E+03	1.232E-01	5.135E+02	5.135E-01	5.602E+01	5.602E-03	2.334E+01	2.334E-02
1.000E+00	1.229E+03	1.229E-01	5.122E+02	5.122E-01	5.587E+01	5.587E-03	2.328E+01	2.328E-02
2.000E+00	1.110E+03	1.110E-01	4.623E+02	4.623E-01	5.045E+01	5.045E-03	2.102E+01	2.102E-02
3.000E+00	9.817E+02	9.817E-02	4.090E+02	4.090E-01	4.462E+01	4.462E-03	1.859E+01	1.859E-02
4.000E+00	8.776E+02	8.776E-02	3.656E+02	3.656E-01	3.989E+01	3.989E-03	1.662E+01	1.662E-02
5.000E+00	7.938E+02	7.938E-02	3.308E+02	3.308E-01	3.608E+01	3.608E-03	1.504E+01	1.504E-02
6.000E+00	7.254E+02	7.254E-02	3.022E+02	3.022E-01	3.297E+01	3.297E-03	1.374E+01	1.374E-02
7.000E+00	6.686E+02	6.686E-02	2.786E+02	2.786E-01	3.039E+01	3.039E-03	1.266E+01	1.266E-02
8.000E+00	6.206E+02	6.206E-02	2.586E+02	2.586E-01	2.821E+01	2.821E-03	1.175E+01	1.175E-02
9.000E+00	5.797E+02	5.797E-02	2.415E+02	2.415E-01	2.635E+01	2.635E-03	1.098E+01	1.098E-02
1.000E+01	5.441E+02	5.441E-02	2.267E+02	2.267E-01	2.473E+01	2.473E-03	1.030E+01	1.030E-02
2.000E+01	3.420E+02	3.420E-02	1.425E+02	1.425E-01	1.554E+01	1.554E-03	6.479E+00	6.479E-03
3.000E+01	2.530E+02	2.530E-02	1.054E+02	1.054E-01	1.150E+01	1.150E-03	4.792E+00	4.792E-03
4.000E+01	2.030E+02	2.030E-02	8.456E+01	8.456E-02	9.225E+00	9.225E-04	3.844E+00	3.844E-03
5.000E+01	1.709E+02	1.709E-02	7.122E+01	7.122E-02	7.769E+00	7.769E-04	3.237E+00	3.237E-03
6.000E+01	1.487E+02	1.487E-02	6.193E+01	6.193E-02	6.758E+00	6.758E-04	2.815E+00	2.815E-03
7.000E+01	1.322E+02	1.322E-02	5.509E+01	5.509E-02	6.010E+00	6.010E-04	2.504E+00	2.504E-03
8.000E+01	1.196E+02	1.196E-02	4.982E+01	4.982E-02	5.435E+00	5.435E-04	2.265E+00	2.265E-03
9.000E+01	1.096E+02	1.096E-02	4.564E+01	4.564E-02	4.980E+00	4.980E-04	2.075E+00	2.075E-03
1.000E+02	1.014E+02	1.014E-02	4.225E+01	4.225E-02	4.609E+00	4.609E-04	1.920E+00	1.920E-03
2.000E+02	6.307E+01	6.307E-03	2.628E+01	2.628E-02	2.867E+00	2.867E-04	1.195E+00	1.195E-03
3.000E+02	4.966E+01	4.966E-03	2.070E+01	2.070E-02	2.257E+00	2.257E-04	9.407E-01	9.407E-04
4.000E+02	4.293E+01	4.293E-03	1.789E+01	1.789E-02	1.952E+00	1.952E-04	8.131E-01	8.131E-04
5.000E+02	3.894E+01	3.894E-03	1.623E+01	1.623E-02	1.770E+00	1.770E-04	7.375E-01	7.375E-04
6.000E+02	3.636E+01	3.636E-03	1.515E+01	1.515E-02	1.653E+00	1.653E-04	6.886E-01	6.886E-04
7.000E+02	3.458E+01	3.458E-03	1.441E+01	1.441E-02	1.572E+00	1.572E-04	6.548E-01	6.548E-04
8.000E+02	3.330E+01	3.330E-03	1.388E+01	1.388E-02	1.514E+00	1.514E-04	6.308E-01	6.308E-04
9.000E+02	3.233E+01	3.233E-03	1.348E+01	1.348E-02	1.470E+00	1.470E-04	6.125E-01	6.125E-04
1.000E+03	3.157E+01	3.157E-03	1.316E+01	1.316E-02	1.435E+00	1.435E-04	5.980E-01	5.980E-04
2.000E+03	2.909E+01	2.909E-03	1.212E+01	1.212E-02	1.322E+00	1.322E-04	5.511E-01	5.511E-04
3.000E+03	2.904E+01	2.904E-03	1.210E+01	1.210E-02	1.320E+00	1.320E-04	5.501E-01	5.501E-04
4.000E+03	2.939E+01	2.939E-03	1.224E+01	1.224E-02	1.336E+00	1.336E-04	5.565E-01	5.565E-04
5.000E+03	2.982E+01	2.982E-03	1.243E+01	1.243E-02	1.356E+00	1.356E-04	5.649E-01	5.649E-04
6.000E+03	3.024E+01	3.024E-03	1.260E+01	1.260E-02	1.375E+00	1.375E-04	5.728E-01	5.728E-04
7.000E+03	3.064E+01	3.064E-03	1.277E+01	1.277E-02	1.393E+00	1.393E-04	5.802E-01	5.802E-04
8.000E+03	3.101E+01	3.101E-03	1.292E+01	1.292E-02	1.409E+00	1.409E-04	5.874E-01	5.874E-04
9.000E+03	3.134E+01	3.134E-03	1.306E+01	1.306E-02	1.425E+00	1.425E-04	5.936E-01	5.936E-04
1.000E+04	3.165E+01	3.165E-03	1.319E+01	1.319E-02	1.439E+00	1.439E-04	5.995E-01	5.995E-04

TABLE 81

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: S Z= 16 A= 32.07

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.777E+02	1.777E-02	7.406E+01	7.406E-02	8.077E+00	8.077E-04	3.366E+00	3.366E-03
2.000E-02	2.514E+02	2.514E-02	1.047E+02	1.047E-01	1.143E+01	1.143E-03	4.761E+00	4.761E-03
3.000E-02	3.079E+02	3.079E-02	1.283E+02	1.283E-01	1.399E+01	1.399E-03	5.831E+00	5.831E-03
4.000E-02	3.554E+02	3.554E-02	1.482E+02	1.482E-01	1.616E+01	1.616E-03	6.734E+00	6.734E-03
5.000E-02	3.975E+02	3.975E-02	1.656E+02	1.656E-01	1.807E+01	1.807E-03	7.528E+00	7.528E-03
6.000E-02	4.354E+02	4.354E-02	1.814E+02	1.814E-01	1.979E+01	1.979E-03	8.247E+00	8.247E-03
7.000E-02	4.703E+02	4.703E-02	1.960E+02	1.960E-01	2.138E+01	2.138E-03	8.907E+00	8.907E-03
8.000E-02	5.027E+02	5.027E-02	2.094E+02	2.094E-01	2.285E+01	2.285E-03	9.520E+00	9.520E-03
9.000E-02	5.332E+02	5.332E-02	2.221E+02	2.221E-01	2.423E+01	2.423E-03	1.010E+01	1.010E-02
1.000E-01	5.620E+02	5.620E-02	2.341E+02	2.341E-01	2.555E+01	2.555E-03	1.064E+01	1.064E-02
2.000E-01	7.948E+02	7.948E-02	3.312E+02	3.312E-01	3.613E+01	3.613E-03	1.505E+01	1.505E-02
3.000E-01	9.734E+02	9.734E-02	4.056E+02	4.056E-01	4.424E+01	4.424E-03	1.844E+01	1.844E-02
4.000E-01	1.111E+03	1.111E-01	4.628E+02	4.628E-01	5.048E+01	5.048E-03	2.104E+01	2.104E-02
5.000E-01	1.191E+03	1.191E-01	4.960E+02	4.960E-01	5.412E+01	5.412E-03	2.254E+01	2.254E-02
6.000E-01	1.236E+03	1.236E-01	5.152E+02	5.152E-01	5.618E+01	5.618E-03	2.342E+01	2.342E-02
7.000E-01	1.263E+03	1.263E-01	5.261E+02	5.261E-01	5.740E+01	5.740E-03	2.391E+01	2.391E-02
8.000E-01	1.276E+03	1.276E-01	5.316E+02	5.316E-01	5.799E+01	5.799E-03	2.416E+01	2.416E-02
9.000E-01	1.281E+03	1.281E-01	5.337E+02	5.337E-01	5.822E+01	5.822E-03	2.426E+01	2.426E-02
1.000E+00	1.280E+03	1.280E-01	5.333E+02	5.333E-01	5.818E+01	5.818E-03	2.424E+01	2.424E-02
2.000E+00	1.169E+03	1.169E-01	4.874E+02	4.874E-01	5.316E+01	5.316E-03	2.215E+01	2.215E-02
3.000E+00	1.042E+03	1.042E-01	4.344E+02	4.344E-01	4.738E+01	4.738E-03	1.974E+01	1.974E-02
4.000E+00	9.364E+02	9.364E-02	3.902E+02	3.902E-01	4.257E+01	4.257E-03	1.774E+01	1.774E-02
5.000E+00	8.501E+02	8.501E-02	3.542E+02	3.542E-01	3.864E+01	3.864E-03	1.610E+01	1.610E-02
6.000E+00	7.790E+02	7.790E-02	3.246E+02	3.246E-01	3.541E+01	3.541E-03	1.476E+01	1.476E-02
7.000E+00	7.198E+02	7.198E-02	2.999E+02	2.999E-01	3.272E+01	3.272E-03	1.363E+01	1.363E-02
8.000E+00	6.695E+02	6.695E-02	2.789E+02	2.789E-01	3.043E+01	3.043E-03	1.268E+01	1.268E-02
9.000E+00	6.263E+02	6.263E-02	2.609E+02	2.609E-01	2.847E+01	2.847E-03	1.186E+01	1.186E-02
1.000E+01	5.887E+02	5.887E-02	2.453E+02	2.453E-01	2.676E+01	2.676E-03	1.115E+01	1.115E-02
2.000E+01	3.734E+02	3.734E-02	1.556E+02	1.556E-01	1.697E+01	1.697E-03	7.074E+00	7.074E-03
3.000E+01	2.772E+02	2.772E-02	1.155E+02	1.155E-01	1.260E+01	1.260E-03	5.249E+00	5.249E-03
4.000E+01	2.227E+02	2.227E-02	9.279E+01	9.279E-02	1.012E+01	1.012E-03	4.218E+00	4.218E-03
5.000E+01	1.876E+02	1.876E-02	7.820E+01	7.820E-02	8.529E+00	8.529E-04	3.554E+00	3.554E-03
6.000E+01	1.632E+02	1.632E-02	6.802E+01	6.802E-02	7.419E+00	7.419E-04	3.092E+00	3.092E-03
7.000E+01	1.452E+02	1.452E-02	6.052E+01	6.052E-02	6.600E+00	6.600E-04	2.751E+00	2.751E-03
8.000E+01	1.314E+02	1.314E-02	5.475E+01	5.475E-02	5.973E+00	5.973E-04	2.488E+00	2.488E-03
9.000E+01	1.204E+02	1.204E-02	5.016E+01	5.016E-02	5.471E+00	5.471E-04	2.280E+00	2.280E-03
1.000E+02	1.114E+02	1.114E-02	4.642E+01	4.642E-02	5.066E+00	5.066E-04	2.110E+00	2.110E-03
2.000E+02	6.931E+01	6.931E-03	2.888E+01	2.888E-02	3.150E+00	3.150E-04	1.313E+00	1.313E-03
3.000E+02	5.459E+01	5.459E-03	2.274E+01	2.274E-02	2.481E+00	2.481E-04	1.034E+00	1.034E-03
4.000E+02	4.719E+01	4.719E-03	1.966E+01	1.966E-02	2.145E+00	2.145E-04	8.938E-01	8.938E-04
5.000E+02	4.280E+01	4.280E-03	1.784E+01	1.784E-02	1.946E+00	1.946E-04	8.107E-01	8.107E-04
6.000E+02	3.996E+01	3.996E-03	1.665E+01	1.665E-02	1.816E+00	1.816E-04	7.569E-01	7.569E-04
7.000E+02	3.800E+01	3.800E-03	1.584E+01	1.584E-02	1.727E+00	1.727E-04	7.200E-01	7.200E-04
8.000E+02	3.661E+01	3.661E-03	1.525E+01	1.525E-02	1.664E+00	1.664E-04	6.934E-01	6.934E-04
9.000E+02	3.554E+01	3.554E-03	1.480E+01	1.480E-02	1.615E+00	1.615E-04	6.729E-01	6.729E-04
1.000E+03	3.470E+01	3.470E-03	1.446E+01	1.446E-02	1.577E+00	1.577E-04	6.571E-01	6.571E-04
2.000E+03	3.197E+01	3.197E-03	1.332E+01	1.332E-02	1.453E+00	1.453E-04	6.056E-01	6.056E-04
3.000E+03	3.192E+01	3.192E-03	1.330E+01	1.330E-02	1.451E+00	1.451E-04	6.046E-01	6.046E-04
4.000E+03	3.231E+01	3.231E-03	1.346E+01	1.346E-02	1.468E+00	1.468E-04	6.117E-01	6.117E-04
5.000E+03	3.277E+01	3.277E-03	1.366E+01	1.366E-02	1.490E+00	1.490E-04	6.208E-01	6.208E-04
6.000E+03	3.324E+01	3.324E-03	1.385E+01	1.385E-02	1.511E+00	1.511E-04	6.294E-01	6.294E-04
7.000E+03	3.368E+01	3.368E-03	1.403E+01	1.403E-02	1.531E+00	1.531E-04	6.377E-01	6.377E-04
8.000E+03	3.408E+01	3.408E-03	1.420E+01	1.420E-02	1.549E+00	1.549E-04	6.454E-01	6.454E-04
9.000E+03	3.445E+01	3.445E-03	1.435E+01	1.435E-02	1.566E+00	1.566E-04	6.524E-01	6.524E-04
1.000E+04	3.479E+01	3.479E-03	1.450E+01	1.450E-02	1.581E+00	1.581E-04	6.591E-01	6.591E-04

TABLE 82

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CL Z= 17 A= 35.46

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.691E+02	1.691E-02	7.047E+01	7.047E-02	7.686E+00	7.686E-04	3.203E+00	3.203E-03
2.000E-02	2.392E+02	2.392E-02	9.967E+01	9.967E-02	1.087E+01	1.087E-03	4.530E+00	4.530E-03
3.000E-02	2.929E+02	2.929E-02	1.221E+02	1.221E-01	1.331E+01	1.331E-03	5.550E+00	5.550E-03
4.000E-02	3.382E+02	3.382E-02	1.409E+02	1.409E-01	1.537E+01	1.537E-03	6.406E+00	6.406E-03
5.000E-02	3.782E+02	3.782E-02	1.576E+02	1.576E-01	1.719E+01	1.719E-03	7.162E+00	7.162E-03
6.000E-02	4.142E+02	4.142E-02	1.726E+02	1.726E-01	1.883E+01	1.883E-03	7.847E+00	7.847E-03
7.000E-02	4.474E+02	4.474E-02	1.864E+02	1.864E-01	2.034E+01	2.034E-03	8.472E+00	8.472E-03
8.000E-02	4.783E+02	4.783E-02	1.993E+02	1.993E-01	2.174E+01	2.174E-03	9.060E+00	9.060E-03
9.000E-02	5.073E+02	5.073E-02	2.114E+02	2.114E-01	2.306E+01	2.306E-03	9.609E+00	9.609E-03
1.000E-01	5.348E+02	5.348E-02	2.228E+02	2.228E-01	2.431E+01	2.431E-03	1.013E+01	1.013E-02
2.000E-01	7.562E+02	7.562E-02	3.151E+02	3.151E-01	3.437E+01	3.437E-03	1.432E+01	1.432E-02
3.000E-01	9.261E+02	9.261E-02	3.858E+02	3.858E-01	4.209E+01	4.209E-03	1.754E+01	1.754E-02
4.000E-01	1.060E+03	1.060E-01	4.420E+02	4.420E-01	4.820E+01	4.820E-03	2.009E+01	2.009E-02
5.000E-01	1.141E+03	1.141E-01	4.752E+02	4.752E-01	5.185E+01	5.185E-03	2.160E+01	2.160E-02
6.000E-01	1.188E+03	1.188E-01	4.951E+02	4.951E-01	5.399E+01	5.399E-03	2.250E+01	2.250E-02
7.000E-01	1.216E+03	1.216E-01	5.067E+02	5.067E-01	5.528E+01	5.528E-03	2.303E+01	2.303E-02
8.000E-01	1.232E+03	1.232E-01	5.132E+02	5.132E-01	5.600E+01	5.600E-03	2.333E+01	2.333E-02
9.000E-01	1.239E+03	1.239E-01	5.161E+02	5.161E-01	5.631E+01	5.631E-03	2.346E+01	2.346E-02
1.000E+00	1.240E+03	1.240E-01	5.166E+02	5.166E-01	5.636E+01	5.636E-03	2.348E+01	2.348E-02
2.000E+00	1.147E+03	1.147E-01	4.777E+02	4.777E-01	5.212E+01	5.212E-03	2.171E+01	2.171E-02
3.000E+00	1.029E+03	1.029E-01	4.286E+02	4.286E-01	4.677E+01	4.677E-03	1.948E+01	1.948E-02
4.000E+00	9.286E+02	9.286E-02	3.870E+02	3.870E-01	4.221E+01	4.221E-03	1.759E+01	1.759E-02
5.000E+00	8.459E+02	8.459E-02	3.525E+02	3.525E-01	3.845E+01	3.845E-03	1.602E+01	1.602E-02
6.000E+00	7.774E+02	7.774E-02	3.239E+02	3.239E-01	3.534E+01	3.534E-03	1.472E+01	1.472E-02
7.000E+00	7.198E+02	7.198E-02	2.999E+02	2.999E-01	3.272E+01	3.272E-03	1.363E+01	1.363E-02
8.000E+00	6.707E+02	6.707E-02	2.795E+02	2.795E-01	3.048E+01	3.048E-03	1.270E+01	1.270E-02
9.000E+00	6.284E+02	6.284E-02	2.618E+02	2.618E-01	2.856E+01	2.856E-03	1.190E+01	1.190E-02
1.000E+01	5.915E+02	5.915E-02	2.465E+02	2.465E-01	2.689E+01	2.689E-03	1.120E+01	1.120E-02
2.000E+01	3.784E+02	3.784E-02	1.577E+02	1.577E-01	1.720E+01	1.720E-03	7.169E+00	7.169E-03
3.000E+01	2.821E+02	2.821E-02	1.176E+02	1.176E-01	1.282E+01	1.282E-03	5.345E+00	5.345E-03
4.000E+01	2.270E+02	2.270E-02	9.457E+01	9.457E-02	1.032E+01	1.032E-03	4.299E+00	4.299E-03
5.000E+01	1.914E+02	1.914E-02	7.975E+01	7.975E-02	8.702E+00	8.702E-04	3.625E+00	3.625E-03
6.000E+01	1.665E+02	1.665E-02	6.940E+01	6.940E-02	7.569E+00	7.569E-04	3.155E+00	3.155E-03
7.000E+01	1.482E+02	1.482E-02	6.176E+01	6.176E-02	6.735E+00	6.735E-04	2.807E+00	2.807E-03
8.000E+01	1.341E+02	1.341E-02	5.587E+01	5.587E-02	6.095E+00	6.095E-04	2.540E+00	2.540E-03
9.000E+01	1.229E+02	1.229E-02	5.120E+01	5.120E-02	5.586E+00	5.586E-04	2.327E+00	2.327E-03
1.000E+02	1.137E+02	1.137E-02	4.739E+01	4.739E-02	5.170E+00	5.170E-04	2.154E+00	2.154E-03
2.000E+02	7.076E+01	7.076E-03	2.948E+01	2.948E-02	3.217E+00	3.217E-04	1.340E+00	1.340E-03
3.000E+02	5.573E+01	5.573E-03	2.322E+01	2.322E-02	2.533E+00	2.533E-04	1.055E+00	1.055E-03
4.000E+02	4.817E+01	4.817E-03	2.007E+01	2.007E-02	2.190E+00	2.190E-04	9.123E-01	9.123E-04
5.000E+02	4.370E+01	4.370E-03	1.821E+01	1.821E-02	1.986E+00	1.986E-04	8.277E-01	8.277E-04
6.000E+02	4.080E+01	4.080E-03	1.700E+01	1.700E-02	1.854E+00	1.854E-04	7.726E-01	7.726E-04
7.000E+02	3.880E+01	3.880E-03	1.617E+01	1.617E-02	1.764E+00	1.764E-04	7.351E-01	7.351E-04
8.000E+02	3.738E+01	3.738E-03	1.558E+01	1.558E-02	1.699E+00	1.699E-04	7.081E-01	7.081E-04
9.000E+02	3.628E+01	3.628E-03	1.512E+01	1.512E-02	1.649E+00	1.649E-04	6.872E-01	6.872E-04
1.000E+03	3.543E+01	3.543E-03	1.476E+01	1.476E-02	1.610E+00	1.610E-04	6.710E-01	6.710E-04
2.000E+03	3.264E+01	3.264E-03	1.360E+01	1.360E-02	1.484E+00	1.484E-04	6.182E-01	6.182E-04
3.000E+03	3.259E+01	3.259E-03	1.357E+01	1.357E-02	1.481E+00	1.481E-04	6.170E-01	6.170E-04
4.000E+03	3.298E+01	3.298E-03	1.374E+01	1.374E-02	1.499E+00	1.499E-04	6.244E-01	6.244E-04
5.000E+03	3.346E+01	3.346E-03	1.395E+01	1.395E-02	1.521E+00	1.521E-04	6.340E-01	6.340E-04
6.000E+03	3.393E+01	3.393E-03	1.414E+01	1.414E-02	1.542E+00	1.542E-04	6.425E-01	6.425E-04
7.000E+03	3.438E+01	3.438E-03	1.432E+01	1.432E-02	1.563E+00	1.563E-04	6.511E-01	6.511E-04
8.000E+03	3.479E+01	3.479E-03	1.450E+01	1.450E-02	1.582E+00	1.582E-04	6.591E-01	6.591E-04
9.000E+03	3.517E+01	3.517E-03	1.465E+01	1.465E-02	1.598E+00	1.598E-04	6.661E-01	6.661E-04
1.000E+04	3.552E+01	3.552E-03	1.480E+01	1.480E-02	1.615E+00	1.615E-04	6.727E-01	6.727E-04

TABLE 83

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AR Z= 18 A= 39.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.575E+02	1.575E-02	6.562E+01	6.562E-02	7.159E+00	7.159E-04	2.983E+00	2.983E-03
2.000E-02	2.228E+02	2.228E-02	9.282E+01	9.282E-02	1.013E+01	1.013E-03	4.219E+00	4.219E-03
3.000E-02	2.728E+02	2.728E-02	1.136E+02	1.136E-01	1.240E+01	1.240E-03	5.165E+00	5.165E-03
4.000E-02	3.149E+02	3.149E-02	1.312E+02	1.312E-01	1.432E+01	1.432E-03	5.964E+00	5.964E-03
5.000E-02	3.522E+02	3.522E-02	1.467E+02	1.467E-01	1.601E+01	1.601E-03	6.669E+00	6.669E-03
6.000E-02	3.858E+02	3.858E-02	1.608E+02	1.608E-01	1.754E+01	1.754E-03	7.307E+00	7.307E-03
7.000E-02	4.166E+02	4.166E-02	1.736E+02	1.736E-01	1.894E+01	1.894E-03	7.892E+00	7.892E-03
8.000E-02	4.455E+02	4.455E-02	1.856E+02	1.856E-01	2.025E+01	2.025E-03	8.435E+00	8.435E-03
9.000E-02	4.725E+02	4.725E-02	1.969E+02	1.969E-01	2.148E+01	2.148E-03	8.949E+00	8.949E-03
1.000E-01	4.980E+02	4.980E-02	2.075E+02	2.075E-01	2.264E+01	2.264E-03	9.432E+00	9.432E-03
2.000E-01	7.043E+02	7.043E-02	2.934E+02	2.934E-01	3.201E+01	3.201E-03	1.334E+01	1.334E-02
3.000E-01	8.624E+02	8.624E-02	3.593E+02	3.593E-01	3.920E+01	3.920E-03	1.633E+01	1.633E-02
4.000E-01	9.891E+02	9.891E-02	4.123E+02	4.123E-01	4.496E+01	4.496E-03	1.874E+01	1.874E-02
5.000E-01	1.068E+03	1.068E-01	4.448E+02	4.448E-01	4.853E+01	4.853E-03	2.022E+01	2.022E-02
6.000E-01	1.115E+03	1.115E-01	4.646E+02	4.646E-01	5.070E+01	5.070E-03	2.112E+01	2.112E-02
7.000E-01	1.144E+03	1.144E-01	4.767E+02	4.767E-01	5.201E+01	5.201E-03	2.167E+01	2.167E-02
8.000E-01	1.160E+03	1.160E-01	4.837E+02	4.837E-01	5.275E+01	5.275E-03	2.198E+01	2.198E-02
9.000E-01	1.169E+03	1.169E-01	4.873E+02	4.873E-01	5.316E+01	5.316E-03	2.215E+01	2.215E-02
1.000E+00	1.173E+03	1.173E-01	4.887E+02	4.887E-01	5.331E+01	5.331E-03	2.221E+01	2.221E-02
2.000E+00	1.097E+03	1.097E-01	4.569E+02	4.569E-01	4.985E+01	4.985E-03	2.077E+01	2.077E-02
3.000E+00	9.902E+02	9.902E-02	4.126E+02	4.126E-01	4.501E+01	4.501E-03	1.875E+01	1.875E-02
4.000E+00	8.979E+02	8.979E-02	3.741E+02	3.741E-01	4.081E+01	4.081E-03	1.701E+01	1.701E-02
5.000E+00	8.207E+02	8.207E-02	3.420E+02	3.420E-01	3.731E+01	3.731E-03	1.554E+01	1.554E-02
6.000E+00	7.562E+02	7.562E-02	3.151E+02	3.151E-01	3.437E+01	3.437E-03	1.432E+01	1.432E-02
7.000E+00	7.017E+02	7.017E-02	2.924E+02	2.924E-01	3.190E+01	3.190E-03	1.329E+01	1.329E-02
8.000E+00	6.550E+02	6.550E-02	2.729E+02	2.729E-01	2.977E+01	2.977E-03	1.240E+01	1.240E-02
9.000E+00	6.146E+02	6.146E-02	2.561E+02	2.561E-01	2.794E+01	2.794E-03	1.164E+01	1.164E-02
1.000E+01	5.793E+02	5.793E-02	2.414E+02	2.414E-01	2.633E+01	2.633E-03	1.097E+01	1.097E-02
2.000E+01	3.738E+02	3.738E-02	1.557E+02	1.557E-01	1.699E+01	1.699E-03	7.079E+00	7.079E-03
3.000E+01	2.797E+02	2.797E-02	1.166E+02	1.166E-01	1.271E+01	1.271E-03	5.299E+00	5.299E-03
4.000E+01	2.254E+02	2.254E-02	9.392E+01	9.392E-02	1.024E+01	1.024E-03	4.269E+00	4.269E-03
5.000E+01	1.903E+02	1.903E-02	7.928E+01	7.928E-02	8.649E+00	8.649E-04	3.604E+00	3.604E-03
6.000E+01	1.656E+02	1.656E-02	6.901E+01	6.901E-02	7.528E+00	7.528E-04	3.137E+00	3.137E-03
7.000E+01	1.474E+02	1.474E-02	6.142E+01	6.142E-02	6.699E+00	6.699E-04	2.792E+00	2.792E-03
8.000E+01	1.334E+02	1.334E-02	5.558E+01	5.558E-02	6.063E+00	6.063E-04	2.527E+00	2.527E-03
9.000E+01	1.223E+02	1.223E-02	5.094E+01	5.094E-02	5.558E+00	5.558E-04	2.316E+00	2.316E-03
1.000E+02	1.132E+02	1.132E-02	4.716E+01	4.716E-02	5.146E+00	5.146E-04	2.144E+00	2.144E-03
2.000E+02	7.042E+01	7.042E-03	2.934E+01	2.934E-02	3.201E+00	3.201E-04	1.334E+00	1.334E-03
3.000E+02	5.546E+01	5.546E-03	2.311E+01	2.311E-02	2.521E+00	2.521E-04	1.050E+00	1.050E-03
4.000E+02	4.794E+01	4.794E-03	1.998E+01	1.998E-02	2.179E+00	2.179E-04	9.081E-01	9.081E-04
5.000E+02	4.349E+01	4.349E-03	1.812E+01	1.812E-02	1.977E+00	1.977E-04	8.236E-01	8.236E-04
6.000E+02	4.060E+01	4.060E-03	1.691E+01	1.691E-02	1.845E+00	1.845E-04	7.688E-01	7.688E-04
7.000E+02	3.862E+01	3.862E-03	1.609E+01	1.609E-02	1.755E+00	1.755E-04	7.315E-01	7.315E-04
8.000E+02	3.719E+01	3.719E-03	1.550E+01	1.550E-02	1.691E+00	1.691E-04	7.044E-01	7.044E-04
9.000E+02	3.610E+01	3.610E-03	1.504E+01	1.504E-02	1.641E+00	1.641E-04	6.838E-01	6.838E-04
1.000E+03	3.526E+01	3.526E-03	1.469E+01	1.469E-02	1.603E+00	1.603E-04	6.678E-01	6.678E-04
2.000E+03	3.248E+01	3.248E-03	1.353E+01	1.353E-02	1.476E+00	1.476E-04	6.151E-01	6.151E-04
3.000E+03	3.243E+01	3.243E-03	1.351E+01	1.351E-02	1.474E+00	1.474E-04	6.141E-01	6.141E-04
4.000E+03	3.282E+01	3.282E-03	1.368E+01	1.368E-02	1.492E+00	1.492E-04	6.218E-01	6.218E-04
5.000E+03	3.330E+01	3.330E-03	1.388E+01	1.388E-02	1.514E+00	1.514E-04	6.308E-01	6.308E-04
6.000E+03	3.377E+01	3.377E-03	1.407E+01	1.407E-02	1.535E+00	1.535E-04	6.395E-01	6.395E-04
7.000E+03	3.422E+01	3.422E-03	1.426E+01	1.426E-02	1.555E+00	1.555E-04	6.483E-01	6.483E-04
8.000E+03	3.463E+01	3.463E-03	1.443E+01	1.443E-02	1.574E+00	1.574E-04	6.558E-01	6.558E-04
9.000E+03	3.501E+01	3.501E-03	1.458E+01	1.458E-02	1.591E+00	1.591E-04	6.629E-01	6.629E-04
1.000E+04	3.535E+01	3.535E-03	1.473E+01	1.473E-02	1.607E+00	1.607E-04	6.695E-01	6.695E-04

TABLE 84

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: K Z= 19 A= 39.10

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.682E+02	1.682E-02	7.010E+01	7.010E-02	7.645E+00	7.645E-04	3.186E+00	3.186E-03
2.000E-02	2.379E+02	2.379E-02	9.913E+01	9.913E-02	1.081E+01	1.081E-03	4.506E+00	4.506E-03
3.000E-02	2.913E+02	2.913E-02	1.214E+02	1.214E-01	1.324E+01	1.324E-03	5.518E+00	5.518E-03
4.000E-02	3.365E+02	3.365E-02	1.402E+02	1.402E-01	1.530E+01	1.530E-03	6.374E+00	6.374E-03
5.000E-02	3.762E+02	3.762E-02	1.568E+02	1.568E-01	1.710E+01	1.710E-03	7.126E+00	7.126E-03
6.000E-02	4.120E+02	4.120E-02	1.717E+02	1.717E-01	1.873E+01	1.873E-03	7.806E+00	7.806E-03
7.000E-02	4.451E+02	4.451E-02	1.855E+02	1.855E-01	2.023E+01	2.023E-03	8.431E+00	8.431E-03
8.000E-02	4.758E+02	4.758E-02	1.982E+02	1.982E-01	2.163E+01	2.163E-03	9.009E+00	9.009E-03
9.000E-02	5.046E+02	5.046E-02	2.103E+02	2.103E-01	2.294E+01	2.294E-03	9.559E+00	9.559E-03
1.000E-01	5.319E+02	5.319E-02	2.217E+02	2.217E-01	2.418E+01	2.418E-03	1.008E+01	1.008E-02
2.000E-01	7.522E+02	7.522E-02	3.134E+02	3.134E-01	3.419E+01	3.419E-03	1.425E+01	1.425E-02
3.000E-01	9.212E+02	9.212E-02	3.838E+02	3.838E-01	4.187E+01	4.187E-03	1.745E+01	1.745E-02
4.000E-01	1.058E+03	1.058E-01	4.409E+02	4.409E-01	4.809E+01	4.809E-03	2.004E+01	2.004E-02
5.000E-01	1.145E+03	1.145E-01	4.772E+02	4.772E-01	5.205E+01	5.205E-03	2.169E+01	2.169E-02
6.000E-01	1.200E+03	1.200E-01	4.997E+02	4.997E-01	5.453E+01	5.453E-03	2.272E+01	2.272E-02
7.000E-01	1.233E+03	1.233E-01	5.138E+02	5.138E-01	5.605E+01	5.605E-03	2.335E+01	2.335E-02
8.000E-01	1.253E+03	1.253E-01	5.223E+02	5.223E-01	5.697E+01	5.697E-03	2.374E+01	2.374E-02
9.000E-01	1.265E+03	1.265E-01	5.272E+02	5.272E-01	5.751E+01	5.751E-03	2.396E+01	2.396E-02
1.000E+00	1.271E+03	1.271E-01	5.294E+02	5.294E-01	5.777E+01	5.777E-03	2.407E+01	2.407E-02
2.000E+00	1.201E+03	1.201E-01	5.002E+02	5.002E-01	5.458E+01	5.458E-03	2.273E+01	2.273E-02
3.000E+00	1.091E+03	1.091E-01	4.546E+02	4.546E-01	4.958E+01	4.958E-03	2.066E+01	2.066E-02
4.000E+00	9.938E+02	9.938E-02	4.140E+02	4.140E-01	4.517E+01	4.517E-03	1.882E+01	1.882E-02
5.000E+00	9.110E+02	9.110E-02	3.796E+02	3.796E-01	4.141E+01	4.141E-03	1.725E+01	1.725E-02
6.000E+00	8.415E+02	8.415E-02	3.506E+02	3.506E-01	3.825E+01	3.825E-03	1.594E+01	1.594E-02
7.000E+00	7.825E+02	7.825E-02	3.260E+02	3.260E-01	3.557E+01	3.557E-03	1.482E+01	1.482E-02
8.000E+00	7.316E+02	7.316E-02	3.048E+02	3.048E-01	3.326E+01	3.326E-03	1.386E+01	1.386E-02
9.000E+00	6.876E+02	6.876E-02	2.865E+02	2.865E-01	3.125E+01	3.125E-03	1.302E+01	1.302E-02
1.000E+01	6.489E+02	6.489E-02	2.704E+02	2.704E-01	2.950E+01	2.950E-03	1.229E+01	1.229E-02
2.000E+01	4.221E+02	4.221E-02	1.759E+02	1.759E-01	1.919E+01	1.919E-03	7.996E+00	7.996E-03
3.000E+01	3.170E+02	3.170E-02	1.320E+02	1.320E-01	1.441E+01	1.441E-03	6.002E+00	6.002E-03
4.000E+01	2.560E+02	2.560E-02	1.067E+02	1.067E-01	1.164E+01	1.164E-03	4.851E+00	4.851E-03
5.000E+01	2.163E+02	2.163E-02	9.011E+01	9.011E-02	9.832E+00	9.832E-04	4.096E+00	4.096E-03
6.000E+01	1.884E+02	1.884E-02	7.849E+01	7.849E-02	8.563E+00	8.563E-04	3.568E+00	3.568E-03
7.000E+01	1.677E+02	1.677E-02	6.988E+01	6.988E-02	7.623E+00	7.623E-04	3.176E+00	3.176E-03
8.000E+01	1.518E+02	1.518E-02	6.324E+01	6.324E-02	6.900E+00	6.900E-04	2.875E+00	2.875E-03
9.000E+01	1.391E+02	1.391E-02	5.797E+01	5.797E-02	6.325E+00	6.325E-04	2.635E+00	2.635E-03
1.000E+02	1.288E+02	1.288E-02	5.367E+01	5.367E-02	5.855E+00	5.855E-04	2.439E+00	2.439E-03
2.000E+02	8.016E+01	8.016E-03	3.340E+01	3.340E-02	3.644E+00	3.644E-04	1.518E+00	1.518E-03
3.000E+02	6.313E+01	6.313E-03	2.630E+01	2.630E-02	2.869E+00	2.869E-04	1.196E+00	1.196E-03
4.000E+02	5.456E+01	5.456E-03	2.274E+01	2.274E-02	2.480E+00	2.480E-04	1.034E+00	1.034E-03
5.000E+02	4.950E+01	4.950E-03	2.063E+01	2.063E-02	2.250E+00	2.250E-04	9.375E-01	9.375E-04
6.000E+02	4.621E+01	4.621E-03	1.926E+01	1.926E-02	2.101E+00	2.101E-04	8.753E-01	8.753E-04
7.000E+02	4.395E+01	4.395E-03	1.832E+01	1.832E-02	1.998E+00	1.998E-04	8.325E-01	8.325E-04
8.000E+02	4.234E+01	4.234E-03	1.764E+01	1.764E-02	1.924E+00	1.924E-04	8.017E-01	8.017E-04
9.000E+02	4.109E+01	4.109E-03	1.712E+01	1.712E-02	1.868E+00	1.868E-04	7.783E-01	7.783E-04
1.000E+03	4.013E+01	4.013E-03	1.672E+01	1.672E-02	1.824E+00	1.824E-04	7.600E-01	7.600E-04
2.000E+03	3.697E+01	3.697E-03	1.541E+01	1.541E-02	1.680E+00	1.680E-04	7.003E-01	7.003E-04
3.000E+03	3.691E+01	3.691E-03	1.538E+01	1.538E-02	1.678E+00	1.678E-04	6.993E-01	6.993E-04
4.000E+03	3.736E+01	3.736E-03	1.556E+01	1.556E-02	1.698E+00	1.698E-04	7.074E-01	7.074E-04
5.000E+03	3.790E+01	3.790E-03	1.580E+01	1.580E-02	1.723E+00	1.723E-04	7.181E-01	7.181E-04
6.000E+03	3.844E+01	3.844E-03	1.602E+01	1.602E-02	1.747E+00	1.747E-04	7.280E-01	7.280E-04
7.000E+03	3.894E+01	3.894E-03	1.623E+01	1.623E-02	1.770E+00	1.770E-04	7.377E-01	7.377E-04
8.000E+03	3.941E+01	3.941E-03	1.642E+01	1.642E-02	1.791E+00	1.791E-04	7.463E-01	7.463E-04
9.000E+03	3.984E+01	3.984E-03	1.660E+01	1.660E-02	1.811E+00	1.811E-04	7.545E-01	7.545E-04
1.000E+04	4.023E+01	4.023E-03	1.676E+01	1.676E-02	1.829E+00	1.829E-04	7.618E-01	7.618E-04

TABLE 85

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CA Z= 20 A= 40.08

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.710E+02	1.710E-02	7.126E+01	7.126E-02	7.773E+00	7.773E-04	3.239E+00	3.239E-03
2.000E-02	2.419E+02	2.419E-02	1.008E+02	1.008E-01	1.100E+01	1.100E-03	4.583E+00	4.583E-03
3.000E-02	2.962E+02	2.962E-02	1.234E+02	1.234E-01	1.346E+01	1.346E-03	5.609E+00	5.609E-03
4.000E-02	3.420E+02	3.420E-02	1.425E+02	1.425E-01	1.555E+01	1.555E-03	6.479E+00	6.479E-03
5.000E-02	3.824E+02	3.824E-02	1.593E+02	1.593E-01	1.738E+01	1.738E-03	7.240E+00	7.240E-03
6.000E-02	4.189E+02	4.189E-02	1.745E+02	1.745E-01	1.904E+01	1.904E-03	7.933E+00	7.933E-03
7.000E-02	4.525E+02	4.525E-02	1.885E+02	1.885E-01	2.057E+01	2.057E-03	8.568E+00	8.568E-03
8.000E-02	4.837E+02	4.837E-02	2.015E+02	2.015E-01	2.199E+01	2.199E-03	9.160E+00	9.160E-03
9.000E-02	5.130E+02	5.130E-02	2.138E+02	2.138E-01	2.332E+01	2.332E-03	9.717E+00	9.717E-03
1.000E-01	5.408E+02	5.408E-02	2.254E+02	2.254E-01	2.458E+01	2.458E-03	1.024E+01	1.024E-02
2.000E-01	7.647E+02	7.647E-02	3.187E+02	3.187E-01	3.476E+01	3.476E-03	1.448E+01	1.448E-02
3.000E-01	9.364E+02	9.364E-02	3.902E+02	3.902E-01	4.257E+01	4.257E-03	1.774E+01	1.774E-02
4.000E-01	1.077E+03	1.077E-01	4.487E+02	4.487E-01	4.896E+01	4.896E-03	2.040E+01	2.040E-02
5.000E-01	1.169E+03	1.169E-01	4.871E+02	4.871E-01	5.314E+01	5.314E-03	2.214E+01	2.214E-02
6.000E-01	1.228E+03	1.228E-01	5.114E+02	5.114E-01	5.580E+01	5.580E-03	2.324E+01	2.324E-02
7.000E-01	1.264E+03	1.264E-01	5.268E+02	5.268E-01	5.747E+01	5.747E-03	2.394E+01	2.394E-02
8.000E-01	1.288E+03	1.288E-01	5.366E+02	5.366E-01	5.853E+01	5.853E-03	2.439E+01	2.439E-02
9.000E-01	1.302E+03	1.302E-01	5.424E+02	5.424E-01	5.918E+01	5.918E-03	2.466E+01	2.466E-02
1.000E+00	1.310E+03	1.310E-01	5.455E+02	5.455E-01	5.953E+01	5.953E-03	2.480E+01	2.480E-02
2.000E+00	1.249E+03	1.249E-01	5.205E+02	5.205E-01	5.678E+01	5.678E-03	2.366E+01	2.366E-02
3.000E+00	1.142E+03	1.142E-01	4.758E+02	4.758E-01	5.190E+01	5.190E-03	2.163E+01	2.163E-02
4.000E+00	1.045E+03	1.045E-01	4.351E+02	4.351E-01	4.748E+01	4.748E-03	1.978E+01	1.978E-02
5.000E+00	9.606E+02	9.606E-02	4.003E+02	4.003E-01	4.366E+01	4.366E-03	1.819E+01	1.819E-02
6.000E+00	8.894E+02	8.894E-02	3.706E+02	3.706E-01	4.043E+01	4.043E-03	1.685E+01	1.685E-02
7.000E+00	8.287E+02	8.287E-02	3.453E+02	3.453E-01	3.767E+01	3.767E-03	1.569E+01	1.569E-02
8.000E+00	7.761E+02	7.761E-02	3.234E+02	3.234E-01	3.528E+01	3.528E-03	1.470E+01	1.470E-02
9.000E+00	7.304E+02	7.304E-02	3.043E+02	3.043E-01	3.320E+01	3.320E-03	1.383E+01	1.383E-02
1.000E+01	6.902E+02	6.902E-02	2.876E+02	2.876E-01	3.137E+01	3.137E-03	1.307E+01	1.307E-02
2.000E+01	4.523E+02	4.523E-02	1.885E+02	1.885E-01	2.056E+01	2.056E-03	8.567E+00	8.567E-03
3.000E+01	3.411E+02	3.411E-02	1.422E+02	1.422E-01	1.551E+01	1.551E-03	6.463E+00	6.463E-03
4.000E+01	2.760E+02	2.760E-02	1.150E+02	1.150E-01	1.255E+01	1.255E-03	5.227E+00	5.227E-03
5.000E+01	2.334E+02	2.334E-02	9.728E+01	9.728E-02	1.061E+01	1.061E-03	4.422E+00	4.422E-03
6.000E+01	2.034E+02	2.034E-02	8.475E+01	8.475E-02	9.247E+00	9.247E-04	3.852E+00	3.852E-03
7.000E+01	1.812E+02	1.812E-02	7.548E+01	7.548E-02	8.236E+00	8.236E-04	3.431E+00	3.431E-03
8.000E+01	1.640E+02	1.640E-02	6.833E+01	6.833E-02	7.456E+00	7.456E-04	3.106E+00	3.106E-03
9.000E+01	1.504E+02	1.504E-02	6.264E+01	6.264E-02	6.834E+00	6.834E-04	2.847E+00	2.847E-03
1.000E+02	1.392E+02	1.392E-02	5.800E+01	5.800E-02	6.326E+00	6.326E-04	2.636E+00	2.636E-03
2.000E+02	8.665E+01	8.665E-03	3.610E+01	3.610E-02	3.939E+00	3.939E-04	1.641E+00	1.641E-03
3.000E+02	6.824E+01	6.824E-03	2.843E+01	2.843E-02	3.102E+00	3.102E-04	1.292E+00	1.292E-03
4.000E+02	5.899E+01	5.899E-03	2.458E+01	2.458E-02	2.681E+00	2.681E-04	1.117E+00	1.117E-03
5.000E+02	5.351E+01	5.351E-03	2.230E+01	2.230E-02	2.432E+00	2.432E-04	1.013E+00	1.013E-03
6.000E+02	4.996E+01	4.996E-03	2.081E+01	2.081E-02	2.271E+00	2.271E-04	9.461E-01	9.461E-04
7.000E+02	4.751E+01	4.751E-03	1.980E+01	1.980E-02	2.160E+00	2.160E-04	8.999E-01	8.999E-04
8.000E+02	4.576E+01	4.576E-03	1.907E+01	1.907E-02	2.080E+00	2.080E-04	8.669E-01	8.669E-04
9.000E+02	4.442E+01	4.442E-03	1.851E+01	1.851E-02	2.019E+00	2.019E-04	8.416E-01	8.416E-04
1.000E+03	4.338E+01	4.338E-03	1.808E+01	1.808E-02	1.972E+00	1.972E-04	8.216E-01	8.216E-04
2.000E+03	3.997E+01	3.997E-03	1.666E+01	1.666E-02	1.817E+00	1.817E-04	7.571E-01	7.571E-04
3.000E+03	3.990E+01	3.990E-03	1.663E+01	1.663E-02	1.813E+00	1.813E-04	7.558E-01	7.558E-04
4.000E+03	4.038E+01	4.038E-03	1.682E+01	1.682E-02	1.836E+00	1.836E-04	7.647E-01	7.647E-04
5.000E+03	4.097E+01	4.097E-03	1.707E+01	1.707E-02	1.862E+00	1.862E-04	7.758E-01	7.758E-04
6.000E+03	4.155E+01	4.155E-03	1.732E+01	1.732E-02	1.889E+00	1.889E-04	7.871E-01	7.871E-04
7.000E+03	4.210E+01	4.210E-03	1.754E+01	1.754E-02	1.914E+00	1.914E-04	7.972E-01	7.972E-04
8.000E+03	4.260E+01	4.260E-03	1.776E+01	1.776E-02	1.936E+00	1.936E-04	8.071E-01	8.071E-04
9.000E+03	4.306E+01	4.306E-03	1.794E+01	1.794E-02	1.957E+00	1.957E-04	8.156E-01	8.156E-04
1.000E+04	4.349E+01	4.349E-03	1.812E+01	1.812E-02	1.977E+00	1.977E-04	8.236E-01	8.236E-04

TABLE 86

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: SC Z= 21 A= 44.96

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.584E+02	1.584E-02	6.600E+01	6.600E-02	7.200E+00	7.200E-04	3.000E+00	3.000E-03
2.000E-02	2.240E+02	2.240E-02	9.334E+01	9.334E-02	1.018E+01	1.018E-03	4.243E+00	4.243E-03
3.000E-02	2.743E+02	2.743E-02	1.143E+02	1.143E-01	1.247E+01	1.247E-03	5.196E+00	5.196E-03
4.000E-02	3.168E+02	3.168E-02	1.320E+02	1.320E-01	1.440E+01	1.440E-03	6.001E+00	6.001E-03
5.000E-02	3.541E+02	3.541E-02	1.476E+02	1.476E-01	1.610E+01	1.610E-03	6.708E+00	6.708E-03
6.000E-02	3.880E+02	3.880E-02	1.617E+02	1.617E-01	1.764E+01	1.764E-03	7.348E+00	7.348E-03
7.000E-02	4.191E+02	4.191E-02	1.746E+02	1.746E-01	1.905E+01	1.905E-03	7.938E+00	7.938E-03
8.000E-02	4.480E+02	4.480E-02	1.867E+02	1.867E-01	2.036E+01	2.036E-03	8.485E+00	8.485E-03
9.000E-02	4.751E+02	4.751E-02	1.980E+02	1.980E-01	2.160E+01	2.160E-03	8.999E+00	8.999E-03
1.000E-01	5.009E+02	5.009E-02	2.087E+02	2.087E-01	2.277E+01	2.277E-03	9.485E+00	9.485E-03
2.000E-01	7.083E+02	7.083E-02	2.951E+02	2.951E-01	3.220E+01	3.220E-03	1.341E+01	1.341E-02
3.000E-01	8.674E+02	8.674E-02	3.614E+02	3.614E-01	3.943E+01	3.943E-03	1.643E+01	1.643E-02
4.000E-01	9.989E+02	9.989E-02	4.161E+02	4.161E-01	4.540E+01	4.540E-03	1.891E+01	1.891E-02
5.000E-01	1.087E+03	1.087E-01	4.529E+02	4.529E-01	4.939E+01	4.939E-03	2.059E+01	2.059E-02
6.000E-01	1.144E+03	1.144E-01	4.766E+02	4.766E-01	5.199E+01	5.199E-03	2.166E+01	2.166E-02
7.000E-01	1.181E+03	1.181E-01	4.920E+02	4.920E-01	5.369E+01	5.369E-03	2.236E+01	2.236E-02
8.000E-01	1.205E+03	1.205E-01	5.019E+02	5.019E-01	5.476E+01	5.476E-03	2.281E+01	2.281E-02
9.000E-01	1.219E+03	1.219E-01	5.081E+02	5.081E-01	5.543E+01	5.543E-03	2.310E+01	2.310E-02
1.000E+00	1.228E+03	1.228E-01	5.118E+02	5.118E-01	5.583E+01	5.583E-03	2.326E+01	2.326E-02
2.000E+00	1.183E+03	1.183E-01	4.929E+02	4.929E-01	5.376E+01	5.376E-03	2.240E+01	2.240E-02
3.000E+00	1.088E+03	1.088E-01	4.532E+02	4.532E-01	4.945E+01	4.945E-03	2.060E+01	2.060E-02
4.000E+00	9.983E+02	9.983E-02	4.160E+02	4.160E-01	4.538E+01	4.538E-03	1.891E+01	1.891E-02
5.000E+00	9.212E+02	9.212E-02	3.839E+02	3.839E-01	4.187E+01	4.187E-03	1.745E+01	1.745E-02
6.000E+00	8.550E+02	8.550E-02	3.562E+02	3.562E-01	3.886E+01	3.886E-03	1.619E+01	1.619E-02
7.000E+00	7.981E+02	7.981E-02	3.325E+02	3.325E-01	3.628E+01	3.628E-03	1.511E+01	1.511E-02
8.000E+00	7.487E+02	7.487E-02	3.120E+02	3.120E-01	3.403E+01	3.403E-03	1.418E+01	1.418E-02
9.000E+00	7.056E+02	7.056E-02	2.940E+02	2.940E-01	3.207E+01	3.207E-03	1.336E+01	1.336E-02
1.000E+01	6.676E+02	6.676E-02	2.781E+02	2.781E-01	3.035E+01	3.035E-03	1.264E+01	1.264E-02
2.000E+01	4.408E+02	4.408E-02	1.837E+02	1.837E-01	2.004E+01	2.004E-03	8.350E+00	8.350E-03
3.000E+01	3.337E+02	3.337E-02	1.391E+02	1.391E-01	1.517E+01	1.517E-03	6.321E+00	6.321E-03
4.000E+01	2.705E+02	2.705E-02	1.127E+02	1.127E-01	1.230E+01	1.230E-03	5.123E+00	5.123E-03
5.000E+01	2.291E+02	2.291E-02	9.544E+01	9.544E-02	1.041E+01	1.041E-03	4.338E+00	4.338E-03
6.000E+01	1.997E+02	1.997E-02	8.321E+01	8.321E-02	9.078E+00	9.078E-04	3.782E+00	3.782E-03
7.000E+01	1.779E+02	1.779E-02	7.413E+01	7.413E-02	8.087E+00	8.087E-04	3.370E+00	3.370E-03
8.000E+01	1.610E+02	1.610E-02	6.711E+01	6.711E-02	7.320E+00	7.320E-04	3.051E+00	3.051E-03
9.000E+01	1.477E+02	1.477E-02	6.153E+01	6.153E-02	6.715E+00	6.715E-04	2.797E+00	2.797E-03
1.000E+02	1.368E+02	1.368E-02	5.698E+01	5.698E-02	6.217E+00	6.217E-04	2.590E+00	2.590E-03
2.000E+02	8.515E+01	8.515E-03	3.548E+01	3.548E-02	3.871E+00	3.871E-04	1.613E+00	1.613E-03
3.000E+02	6.706E+01	6.706E-03	2.795E+01	2.795E-02	3.048E+00	3.048E-04	1.270E+00	1.270E-03
4.000E+02	5.797E+01	5.797E-03	2.416E+01	2.416E-02	2.635E+00	2.635E-04	1.098E+00	1.098E-03
5.000E+02	5.259E+01	5.259E-03	2.191E+01	2.191E-02	2.390E+00	2.390E-04	9.960E-01	9.960E-04
6.000E+02	4.910E+01	4.910E-03	2.046E+01	2.046E-02	2.232E+00	2.232E-04	9.299E-01	9.299E-04
7.000E+02	4.670E+01	4.670E-03	1.946E+01	1.946E-02	2.123E+00	2.123E-04	8.844E-01	8.844E-04
8.000E+02	4.498E+01	4.498E-03	1.874E+01	1.874E-02	2.044E+00	2.044E-04	8.518E-01	8.518E-04
9.000E+02	4.366E+01	4.366E-03	1.819E+01	1.819E-02	1.984E+00	1.984E-04	8.268E-01	8.268E-04
1.000E+03	4.263E+01	4.263E-03	1.776E+01	1.776E-02	1.938E+00	1.938E-04	8.074E-01	8.074E-04
2.000E+03	3.928E+01	3.928E-03	1.636E+01	1.636E-02	1.785E+00	1.785E-04	7.438E-01	7.438E-04
3.000E+03	3.922E+01	3.922E-03	1.634E+01	1.634E-02	1.783E+00	1.783E-04	7.425E-01	7.425E-04
4.000E+03	3.969E+01	3.969E-03	1.653E+01	1.653E-02	1.804E+00	1.804E-04	7.515E-01	7.515E-04
5.000E+03	4.027E+01	4.027E-03	1.678E+01	1.678E-02	1.831E+00	1.831E-04	7.626E-01	7.626E-04
6.000E+03	4.084E+01	4.084E-03	1.702E+01	1.702E-02	1.856E+00	1.856E-04	7.735E-01	7.735E-04
7.000E+03	4.138E+01	4.138E-03	1.724E+01	1.724E-02	1.881E+00	1.881E-04	7.834E-01	7.834E-04
8.000E+03	4.187E+01	4.187E-03	1.744E+01	1.744E-02	1.903E+00	1.903E-04	7.929E-01	7.929E-04
9.000E+03	4.233E+01	4.233E-03	1.763E+01	1.763E-02	1.924E+00	1.924E-04	8.015E-01	8.015E-04
1.000E+04	4.274E+01	4.274E-03	1.781E+01	1.781E-02	1.943E+00	1.943E-04	8.095E-01	8.095E-04

TABLE 87

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: TI Z= 22 A= 47.90

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.541E+02	1.541E-02	6.419E+01	6.419E-02	7.005E+00	7.005E-04	2.918E+00	2.918E-03
2.000E-02	2.179E+02	2.179E-02	9.078E+01	9.078E-02	9.903E+00	9.903E-04	4.127E+00	4.127E-03
3.000E-02	2.668E+02	2.668E-02	1.111E+02	1.111E-01	1.213E+01	1.213E-03	5.051E+00	5.051E-03
4.000E-02	3.081E+02	3.081E-02	1.284E+02	1.284E-01	1.401E+01	1.401E-03	5.837E+00	5.837E-03
5.000E-02	3.444E+02	3.444E-02	1.435E+02	1.435E-01	1.566E+01	1.566E-03	6.521E+00	6.521E-03
6.000E-02	3.773E+02	3.773E-02	1.573E+02	1.573E-01	1.715E+01	1.715E-03	7.149E+00	7.149E-03
7.000E-02	4.076E+02	4.076E-02	1.698E+02	1.698E-01	1.853E+01	1.853E-03	7.718E+00	7.718E-03
8.000E-02	4.358E+02	4.358E-02	1.815E+02	1.815E-01	1.981E+01	1.981E-03	8.252E+00	8.252E-03
9.000E-02	4.621E+02	4.621E-02	1.925E+02	1.925E-01	2.101E+01	2.101E-03	8.751E+00	8.751E-03
1.000E-01	4.872E+02	4.872E-02	2.030E+02	2.030E-01	2.214E+01	2.214E-03	9.226E+00	9.226E-03
2.000E-01	6.888E+02	6.888E-02	2.870E+02	2.870E-01	3.131E+01	3.131E-03	1.305E+01	1.305E-02
3.000E-01	8.436E+02	8.436E-02	3.515E+02	3.515E-01	3.835E+01	3.835E-03	1.598E+01	1.598E-02
4.000E-01	9.722E+02	9.722E-02	4.051E+02	4.051E-01	4.419E+01	4.419E-03	1.842E+01	1.842E-02
5.000E-01	1.062E+03	1.062E-01	4.422E+02	4.422E-01	4.826E+01	4.826E-03	2.010E+01	2.010E-02
6.000E-01	1.119E+03	1.119E-01	4.664E+02	4.664E-01	5.088E+01	5.088E-03	2.120E+01	2.120E-02
7.000E-01	1.158E+03	1.158E-01	4.823E+02	4.823E-01	5.263E+01	5.263E-03	2.192E+01	2.192E-02
8.000E-01	1.183E+03	1.183E-01	4.929E+02	4.929E-01	5.378E+01	5.378E-03	2.240E+01	2.240E-02
9.000E-01	1.199E+03	1.199E-01	4.997E+02	4.997E-01	5.450E+01	5.450E-03	2.272E+01	2.272E-02
1.000E+00	1.209E+03	1.209E-01	5.039E+02	5.039E-01	5.496E+01	5.496E-03	2.290E+01	2.290E-02
2.000E+00	1.175E+03	1.175E-01	4.897E+02	4.897E-01	5.343E+01	5.343E-03	2.226E+01	2.226E-02
3.000E+00	1.087E+03	1.087E-01	4.527E+02	4.527E-01	4.939E+01	4.939E-03	2.058E+01	2.058E-02
4.000E+00	1.001E+03	1.001E-01	4.171E+02	4.171E-01	4.550E+01	4.550E-03	1.896E+01	1.896E-02
5.000E+00	9.262E+02	9.262E-02	3.859E+02	3.859E-01	4.210E+01	4.210E-03	1.754E+01	1.754E-02
6.000E+00	8.616E+02	8.616E-02	3.590E+02	3.590E-01	3.916E+01	3.916E-03	1.632E+01	1.632E-02
7.000E+00	8.058E+02	8.058E-02	3.357E+02	3.357E-01	3.663E+01	3.663E-03	1.526E+01	1.526E-02
8.000E+00	7.571E+02	7.571E-02	3.154E+02	3.154E-01	3.441E+01	3.441E-03	1.434E+01	1.434E-02
9.000E+00	7.144E+02	7.144E-02	2.977E+02	2.977E-01	3.247E+01	3.247E-03	1.353E+01	1.353E-02
1.000E+01	6.767E+02	6.767E-02	2.820E+02	2.820E-01	3.076E+01	3.076E-03	1.282E+01	1.282E-02
2.000E+01	4.501E+02	4.501E-02	1.875E+02	1.875E-01	2.046E+01	2.046E-03	8.523E+00	8.523E-03
3.000E+01	3.420E+02	3.420E-02	1.425E+02	1.425E-01	1.555E+01	1.555E-03	6.476E+00	6.476E-03
4.000E+01	2.778E+02	2.778E-02	1.158E+02	1.158E-01	1.263E+01	1.263E-03	5.263E+00	5.263E-03
5.000E+01	2.355E+02	2.355E-02	9.812E+01	9.812E-02	1.070E+01	1.070E-03	4.460E+00	4.460E-03
6.000E+01	2.054E+02	2.054E-02	8.562E+01	8.562E-02	9.338E+00	9.338E-04	3.892E+00	3.892E-03
7.000E+01	1.831E+02	1.831E-02	7.630E+01	7.630E-02	8.322E+00	8.322E-04	3.468E+00	3.468E-03
8.000E+01	1.658E+02	1.658E-02	6.909E+01	6.909E-02	7.537E+00	7.537E-04	3.141E+00	3.141E-03
9.000E+01	1.521E+02	1.521E-02	6.336E+01	6.336E-02	6.912E+00	6.912E-04	2.880E+00	2.880E-03
1.000E+02	1.408E+02	1.408E-02	5.868E+01	5.868E-02	6.400E+00	6.400E-04	2.667E+00	2.667E-03
2.000E+02	8.772E+01	8.772E-03	3.655E+01	3.655E-02	3.987E+00	3.987E-04	1.662E+00	1.662E-03
3.000E+02	6.908E+01	6.908E-03	2.878E+01	2.878E-02	3.140E+00	3.140E-04	1.308E+00	1.308E-03
4.000E+02	5.972E+01	5.972E-03	2.488E+01	2.488E-02	2.715E+00	2.715E-04	1.131E+00	1.131E-03
5.000E+02	5.417E+01	5.417E-03	2.257E+01	2.257E-02	2.462E+00	2.462E-04	1.026E+00	1.026E-03
6.000E+02	5.058E+01	5.058E-03	2.108E+01	2.108E-02	2.299E+00	2.299E-04	9.581E-01	9.581E-04
7.000E+02	4.811E+01	4.811E-03	2.004E+01	2.004E-02	2.187E+00	2.187E-04	9.111E-01	9.111E-04
8.000E+02	4.633E+01	4.633E-03	1.930E+01	1.930E-02	2.106E+00	2.106E-04	8.774E-01	8.774E-04
9.000E+02	4.498E+01	4.498E-03	1.874E+01	1.874E-02	2.044E+00	2.044E-04	8.517E-01	8.517E-04
1.000E+03	4.392E+01	4.392E-03	1.830E+01	1.830E-02	1.996E+00	1.996E-04	8.316E-01	8.316E-04
2.000E+03	4.046E+01	4.046E-03	1.686E+01	1.686E-02	1.839E+00	1.839E-04	7.665E-01	7.665E-04
3.000E+03	4.040E+01	4.040E-03	1.683E+01	1.683E-02	1.836E+00	1.836E-04	7.652E-01	7.652E-04
4.000E+03	4.088E+01	4.088E-03	1.704E+01	1.704E-02	1.858E+00	1.858E-04	7.745E-01	7.745E-04
5.000E+03	4.148E+01	4.148E-03	1.729E+01	1.729E-02	1.886E+00	1.886E-04	7.858E-01	7.858E-04
6.000E+03	4.207E+01	4.207E-03	1.753E+01	1.753E-02	1.912E+00	1.912E-04	7.967E-01	7.967E-04
7.000E+03	4.262E+01	4.262E-03	1.776E+01	1.776E-02	1.937E+00	1.937E-04	8.073E-01	8.073E-04
8.000E+03	4.314E+01	4.314E-03	1.797E+01	1.797E-02	1.961E+00	1.961E-04	8.170E-01	8.170E-04
9.000E+03	4.360E+01	4.360E-03	1.816E+01	1.816E-02	1.982E+00	1.982E-04	8.256E-01	8.256E-04
1.000E+04	4.403E+01	4.403E-03	1.835E+01	1.835E-02	2.001E+00	2.001E-04	8.341E-01	8.341E-04

TABLE 88

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: V Z= 23 A= 50.95

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.497E+02	1.497E-02	6.239E+01	6.239E-02	6.805E+00	6.805E-04	2.836E+00	2.836E-03
2.000E-02	2.118E+02	2.118E-02	8.823E+01	8.823E-02	9.626E+00	9.626E-04	4.010E+00	4.010E-03
3.000E-02	2.593E+02	2.593E-02	1.080E+02	1.080E-01	1.179E+01	1.179E-03	4.911E+00	4.911E-03
4.000E-02	2.994E+02	2.994E-02	1.248E+02	1.248E-01	1.361E+01	1.361E-03	5.673E+00	5.673E-03
5.000E-02	3.348E+02	3.348E-02	1.395E+02	1.395E-01	1.522E+01	1.522E-03	6.341E+00	6.341E-03
6.000E-02	3.667E+02	3.667E-02	1.528E+02	1.528E-01	1.667E+01	1.667E-03	6.945E+00	6.945E-03
7.000E-02	3.961E+02	3.961E-02	1.651E+02	1.651E-01	1.801E+01	1.801E-03	7.503E+00	7.503E-03
8.000E-02	4.235E+02	4.235E-02	1.764E+02	1.764E-01	1.925E+01	1.925E-03	8.019E+00	8.019E-03
9.000E-02	4.491E+02	4.491E-02	1.872E+02	1.872E-01	2.041E+01	2.041E-03	8.507E+00	8.507E-03
1.000E-01	4.735E+02	4.735E-02	1.973E+02	1.973E-01	2.152E+01	2.152E-03	8.969E+00	8.969E-03
2.000E-01	6.695E+02	6.695E-02	2.790E+02	2.790E-01	3.043E+01	3.043E-03	1.268E+01	1.268E-02
3.000E-01	8.200E+02	8.200E-02	3.416E+02	3.416E-01	3.727E+01	3.727E-03	1.553E+01	1.553E-02
4.000E-01	9.459E+02	9.459E-02	3.941E+02	3.941E-01	4.299E+01	4.299E-03	1.791E+01	1.791E-02
5.000E-01	1.035E+03	1.035E-01	4.313E+02	4.313E-01	4.704E+01	4.704E-03	1.961E+01	1.961E-02
6.000E-01	1.094E+03	1.094E-01	4.558E+02	4.558E-01	4.973E+01	4.973E-03	2.072E+01	2.072E-02
7.000E-01	1.134E+03	1.134E-01	4.723E+02	4.723E-01	5.152E+01	5.152E-03	2.147E+01	2.147E-02
8.000E-01	1.160E+03	1.160E-01	4.833E+02	4.833E-01	5.275E+01	5.275E-03	2.197E+01	2.197E-02
9.000E-01	1.178E+03	1.178E-01	4.907E+02	4.907E-01	5.356E+01	5.356E-03	2.230E+01	2.230E-02
1.000E+00	1.189E+03	1.189E-01	4.955E+02	4.955E-01	5.406E+01	5.406E-03	2.252E+01	2.252E-02
2.000E+00	1.165E+03	1.165E-01	4.856E+02	4.856E-01	5.296E+01	5.296E-03	2.207E+01	2.207E-02
3.000E+00	1.083E+03	1.083E-01	4.512E+02	4.512E-01	4.924E+01	4.924E-03	2.051E+01	2.051E-02
4.000E+00	1.002E+03	1.002E-01	4.173E+02	4.173E-01	4.552E+01	4.552E-03	1.897E+01	1.897E-02
5.000E+00	9.292E+02	9.292E-02	3.872E+02	3.872E-01	4.224E+01	4.224E-03	1.760E+01	1.760E-02
6.000E+00	8.664E+02	8.664E-02	3.610E+02	3.610E-01	3.938E+01	3.938E-03	1.641E+01	1.641E-02
7.000E+00	8.117E+02	8.117E-02	3.382E+02	3.382E-01	3.689E+01	3.689E-03	1.537E+01	1.537E-02
8.000E+00	7.638E+02	7.638E-02	3.182E+02	3.182E-01	3.472E+01	3.472E-03	1.447E+01	1.447E-02
9.000E+00	7.217E+02	7.217E-02	3.007E+02	3.007E-01	3.280E+01	3.280E-03	1.367E+01	1.367E-02
1.000E+01	6.843E+02	6.843E-02	2.851E+02	2.851E-01	3.110E+01	3.110E-03	1.296E+01	1.296E-02
2.000E+01	4.583E+02	4.583E-02	1.909E+02	1.909E-01	2.083E+01	2.083E-03	8.677E+00	8.677E-03
3.000E+01	3.495E+02	3.495E-02	1.456E+02	1.456E-01	1.589E+01	1.589E-03	6.617E+00	6.617E-03
4.000E+01	2.846E+02	2.846E-02	1.186E+02	1.186E-01	1.294E+01	1.294E-03	5.390E+00	5.390E-03
5.000E+01	2.415E+02	2.415E-02	1.006E+02	1.006E-01	1.098E+01	1.098E-03	4.573E+00	4.573E-03
6.000E+01	2.109E+02	2.109E-02	8.785E+01	8.785E-02	9.584E+00	9.584E-04	3.993E+00	3.993E-03
7.000E+01	1.879E+02	1.879E-02	7.833E+01	7.833E-02	8.543E+00	8.543E-04	3.561E+00	3.561E-03
8.000E+01	1.703E+02	1.703E-02	7.095E+01	7.095E-02	7.741E+00	7.741E-04	3.225E+00	3.225E-03
9.000E+01	1.562E+02	1.562E-02	6.508E+01	6.508E-02	7.100E+00	7.100E-04	2.958E+00	2.958E-03
1.000E+02	1.446E+02	1.446E-02	6.027E+01	6.027E-02	6.574E+00	6.574E-04	2.740E+00	2.740E-03
2.000E+02	9.014E+01	9.014E-03	3.755E+01	3.755E-02	4.097E+00	4.097E-04	1.707E+00	1.707E-03
3.000E+02	7.098E+01	7.098E-03	2.958E+01	2.958E-02	3.227E+00	3.227E-04	1.344E+00	1.344E-03
4.000E+02	6.136E+01	6.136E-03	2.557E+01	2.557E-02	2.789E+00	2.789E-04	1.162E+00	1.162E-03
5.000E+02	5.566E+01	5.566E-03	2.319E+01	2.319E-02	2.530E+00	2.530E-04	1.054E+00	1.054E-03
6.000E+02	5.197E+01	5.197E-03	2.165E+01	2.165E-02	2.362E+00	2.362E-04	9.843E-01	9.843E-04
7.000E+02	4.943E+01	4.943E-03	2.060E+01	2.060E-02	2.247E+00	2.247E-04	9.363E-01	9.363E-04
8.000E+02	4.761E+01	4.761E-03	1.984E+01	1.984E-02	2.164E+00	2.164E-04	9.018E-01	9.018E-04
9.000E+02	4.621E+01	4.621E-03	1.926E+01	1.926E-02	2.101E+00	2.101E-04	8.753E-01	8.753E-04
1.000E+03	4.513E+01	4.513E-03	1.880E+01	1.880E-02	2.051E+00	2.051E-04	8.546E-01	8.546E-04
2.000E+03	4.158E+01	4.158E-03	1.732E+01	1.732E-02	1.890E+00	1.890E-04	7.875E-01	7.875E-04
3.000E+03	4.151E+01	4.151E-03	1.730E+01	1.730E-02	1.887E+00	1.887E-04	7.862E-01	7.862E-04
4.000E+03	4.201E+01	4.201E-03	1.751E+01	1.751E-02	1.910E+00	1.910E-04	7.959E-01	7.959E-04
5.000E+03	4.262E+01	4.262E-03	1.776E+01	1.776E-02	1.937E+00	1.937E-04	8.071E-01	8.071E-04
6.000E+03	4.324E+01	4.324E-03	1.801E+01	1.801E-02	1.965E+00	1.965E-04	8.187E-01	8.187E-04
7.000E+03	4.380E+01	4.380E-03	1.825E+01	1.825E-02	1.991E+00	1.991E-04	8.296E-01	8.296E-04
8.000E+03	4.432E+01	4.432E-03	1.847E+01	1.847E-02	2.015E+00	2.015E-04	8.394E-01	8.394E-04
9.000E+03	4.480E+01	4.480E-03	1.867E+01	1.867E-02	2.037E+00	2.037E-04	8.484E-01	8.484E-04
1.000E+04	4.524E+01	4.524E-03	1.885E+01	1.885E-02	2.056E+00	2.056E-04	8.568E-01	8.568E-04

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TABLE 89

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CR Z= 24 A= 52.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.513E+02	1.513E-02	6.305E+01	6.305E-02	6.877E+00	6.877E-04	2.866E+00	2.866E-03
2.000E-02	2.140E+02	2.140E-02	8.917E+01	8.917E-02	9.726E+00	9.726E-04	4.053E+00	4.053E-03
3.000E-02	2.621E+02	2.621E-02	1.092E+02	1.092E-01	1.191E+01	1.191E-03	4.965E+00	4.965E-03
4.000E-02	3.026E+02	3.026E-02	1.261E+02	1.261E-01	1.376E+01	1.376E-03	5.732E+00	5.732E-03
5.000E-02	3.383E+02	3.383E-02	1.410E+02	1.410E-01	1.538E+01	1.538E-03	6.407E+00	6.407E-03
6.000E-02	3.706E+02	3.706E-02	1.545E+02	1.545E-01	1.685E+01	1.685E-03	7.022E+00	7.022E-03
7.000E-02	4.004E+02	4.004E-02	1.668E+02	1.668E-01	1.820E+01	1.820E-03	7.581E+00	7.581E-03
8.000E-02	4.280E+02	4.280E-02	1.783E+02	1.783E-01	1.946E+01	1.946E-03	8.106E+00	8.106E-03
9.000E-02	4.539E+02	4.539E-02	1.891E+02	1.891E-01	2.063E+01	2.063E-03	8.598E+00	8.598E-03
1.000E-01	4.785E+02	4.785E-02	1.994E+02	1.994E-01	2.175E+01	2.175E-03	9.062E+00	9.062E-03
2.000E-01	6.767E+02	6.767E-02	2.819E+02	2.819E-01	3.076E+01	3.076E-03	1.281E+01	1.281E-02
3.000E-01	8.287E+02	8.287E-02	3.453E+02	3.453E-01	3.767E+01	3.767E-03	1.570E+01	1.570E-02
4.000E-01	9.570E+02	9.570E-02	3.987E+02	3.987E-01	4.350E+01	4.350E-03	1.812E+01	1.812E-02
5.000E-01	1.050E+03	1.050E-01	4.375E+02	4.375E-01	4.772E+01	4.772E-03	1.989E+01	1.989E-02
6.000E-01	1.112E+03	1.112E-01	4.633E+02	4.633E-01	5.053E+01	5.053E-03	2.106E+01	2.106E-02
7.000E-01	1.154E+03	1.154E-01	4.808E+02	4.808E-01	5.244E+01	5.244E-03	2.185E+01	2.185E-02
8.000E-01	1.183E+03	1.183E-01	4.927E+02	4.927E-01	5.377E+01	5.377E-03	2.240E+01	2.240E-02
9.000E-01	1.202E+03	1.202E-01	5.009E+02	5.009E-01	5.465E+01	5.465E-03	2.277E+01	2.277E-02
1.000E+00	1.215E+03	1.215E-01	5.064E+02	5.064E-01	5.523E+01	5.523E-03	2.302E+01	2.302E-02
2.000E+00	1.201E+03	1.201E-01	5.004E+02	5.004E-01	5.457E+01	5.457E-03	2.274E+01	2.274E-02
3.000E+00	1.121E+03	1.121E-01	4.672E+02	4.672E-01	5.096E+01	5.096E-03	2.123E+01	2.123E-02
4.000E+00	1.041E+03	1.041E-01	4.336E+02	4.336E-01	4.730E+01	4.730E-03	1.971E+01	1.971E-02
5.000E+00	9.680E+02	9.680E-02	4.033E+02	4.033E-01	4.400E+01	4.400E-03	1.833E+01	1.833E-02
6.000E+00	9.044E+02	9.044E-02	3.768E+02	3.768E-01	4.111E+01	4.111E-03	1.713E+01	1.713E-02
7.000E+00	8.488E+02	8.488E-02	3.536E+02	3.536E-01	3.858E+01	3.858E-03	1.607E+01	1.607E-02
8.000E+00	8.000E+02	8.000E-02	3.333E+02	3.333E-01	3.636E+01	3.636E-03	1.515E+01	1.515E-02
9.000E+00	7.568E+02	7.568E-02	3.153E+02	3.153E-01	3.440E+01	3.440E-03	1.433E+01	1.433E-02
1.000E+01	7.184E+02	7.184E-02	2.993E+02	2.993E-01	3.265E+01	3.265E-03	1.360E+01	1.360E-02
2.000E+01	4.843E+02	4.843E-02	2.018E+02	2.018E-01	2.202E+01	2.202E-03	9.172E+00	9.172E-03
3.000E+01	3.707E+02	3.707E-02	1.544E+02	1.544E-01	1.685E+01	1.685E-03	7.018E+00	7.018E-03
4.000E+01	3.025E+02	3.025E-02	1.261E+02	1.261E-01	1.375E+01	1.375E-03	5.730E+00	5.730E-03
5.000E+01	2.570E+02	2.570E-02	1.071E+02	1.071E-01	1.168E+01	1.168E-03	4.867E+00	4.867E-03
6.000E+01	2.246E+02	2.246E-02	9.357E+01	9.357E-02	1.021E+01	1.021E-03	4.253E+00	4.253E-03
7.000E+01	2.003E+02	2.003E-02	8.347E+01	8.347E-02	9.107E+00	9.107E-04	3.794E+00	3.794E-03
8.000E+01	1.815E+02	1.815E-02	7.563E+01	7.563E-02	8.252E+00	8.252E-04	3.438E+00	3.438E-03
9.000E+01	1.665E+02	1.665E-02	6.938E+01	6.938E-02	7.568E+00	7.568E-04	3.153E+00	3.153E-03
1.000E+02	1.542E+02	1.542E-02	6.426E+01	6.426E-02	7.010E+00	7.010E-04	2.921E+00	2.921E-03
2.000E+02	9.613E+01	9.613E-03	4.006E+01	4.006E-02	4.370E+00	4.370E-04	1.821E+00	1.821E-03
3.000E+02	7.571E+01	7.571E-03	3.155E+01	3.155E-02	3.442E+00	3.442E-04	1.434E+00	1.434E-03
4.000E+02	6.545E+01	6.545E-03	2.727E+01	2.727E-02	2.975E+00	2.975E-04	1.240E+00	1.240E-03
5.000E+02	5.937E+01	5.937E-03	2.474E+01	2.474E-02	2.699E+00	2.699E-04	1.125E+00	1.125E-03
6.000E+02	5.543E+01	5.543E-03	2.310E+01	2.310E-02	2.520E+00	2.520E-04	1.050E+00	1.050E-03
7.000E+02	5.272E+01	5.272E-03	2.197E+01	2.197E-02	2.396E+00	2.396E-04	9.986E-01	9.986E-04
8.000E+02	5.078E+01	5.078E-03	2.116E+01	2.116E-02	2.308E+00	2.308E-04	9.620E-01	9.620E-04
9.000E+02	4.930E+01	4.930E-03	2.054E+01	2.054E-02	2.241E+00	2.241E-04	9.337E-01	9.337E-04
1.000E+03	4.814E+01	4.814E-03	2.006E+01	2.006E-02	2.188E+00	2.188E-04	9.117E-01	9.117E-04
2.000E+03	4.435E+01	4.435E-03	1.848E+01	1.848E-02	2.016E+00	2.016E-04	8.400E-01	8.400E-04
3.000E+03	4.427E+01	4.427E-03	1.845E+01	1.845E-02	2.012E+00	2.012E-04	8.386E-01	8.386E-04
4.000E+03	4.481E+01	4.481E-03	1.867E+01	1.867E-02	2.037E+00	2.037E-04	8.487E-01	8.487E-04
5.000E+03	4.546E+01	4.546E-03	1.895E+01	1.895E-02	2.066E+00	2.066E-04	8.612E-01	8.612E-04
6.000E+03	4.612E+01	4.612E-03	1.921E+01	1.921E-02	2.096E+00	2.096E-04	8.734E-01	8.734E-04
7.000E+03	4.672E+01	4.672E-03	1.946E+01	1.946E-02	2.124E+00	2.124E-04	8.848E-01	8.848E-04
8.000E+03	4.727E+01	4.727E-03	1.969E+01	1.969E-02	2.149E+00	2.149E-04	8.952E-01	8.952E-04
9.000E+03	4.778E+01	4.778E-03	1.991E+01	1.991E-02	2.172E+00	2.172E-04	9.050E-01	9.050E-04
1.000E+04	4.826E+01	4.826E-03	2.011E+01	2.011E-02	2.194E+00	2.194E-04	9.141E-01	9.141E-04

TABLE 90

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: MN Z= 25 A= 54.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.476E+02	1.476E-02	6.150E+01	6.150E-02	6.709E+00	6.709E-04	2.795E+00	2.795E-03
2.000E-02	2.088E+02	2.088E-02	8.698E+01	8.698E-02	9.489E+00	9.489E-04	3.954E+00	3.954E-03
3.000E-02	2.557E+02	2.557E-02	1.065E+02	1.065E-01	1.162E+01	1.162E-03	4.843E+00	4.843E-03
4.000E-02	2.952E+02	2.952E-02	1.230E+02	1.230E-01	1.342E+01	1.342E-03	5.591E+00	5.591E-03
5.000E-02	3.300E+02	3.300E-02	1.375E+02	1.375E-01	1.500E+01	1.500E-03	6.251E+00	6.251E-03
6.000E-02	3.615E+02	3.615E-02	1.507E+02	1.507E-01	1.643E+01	1.643E-03	6.849E+00	6.849E-03
7.000E-02	3.905E+02	3.905E-02	1.628E+02	1.628E-01	1.775E+01	1.775E-03	7.398E+00	7.398E-03
8.000E-02	4.175E+02	4.175E-02	1.739E+02	1.739E-01	1.898E+01	1.898E-03	7.905E+00	7.905E-03
9.000E-02	4.428E+02	4.428E-02	1.845E+02	1.845E-01	2.013E+01	2.013E-03	8.385E+00	8.385E-03
1.000E-01	4.667E+02	4.667E-02	1.945E+02	1.945E-01	2.121E+01	2.121E-03	8.840E+00	8.840E-03
2.000E-01	6.601E+02	6.601E-02	2.750E+02	2.750E-01	3.000E+01	3.000E-03	1.250E+01	1.250E-02
3.000E-01	8.083E+02	8.083E-02	3.368E+02	3.368E-01	3.674E+01	3.674E-03	1.531E+01	1.531E-02
4.000E-01	9.339E+02	9.339E-02	3.891E+02	3.891E-01	4.245E+01	4.245E-03	1.769E+01	1.769E-02
5.000E-01	1.027E+03	1.027E-01	4.279E+02	4.279E-01	4.667E+01	4.667E-03	1.945E+01	1.945E-02
6.000E-01	1.090E+03	1.090E-01	4.540E+02	4.540E-01	4.954E+01	4.954E-03	2.064E+01	2.064E-02
7.000E-01	1.133E+03	1.133E-01	4.718E+02	4.718E-01	5.149E+01	5.149E-03	2.145E+01	2.145E-02
8.000E-01	1.163E+03	1.163E-01	4.844E+02	4.844E-01	5.284E+01	5.284E-03	2.202E+01	2.202E-02
9.000E-01	1.183E+03	1.183E-01	4.931E+02	4.931E-01	5.379E+01	5.379E-03	2.241E+01	2.241E-02
1.000E+00	1.198E+03	1.198E-01	4.990E+02	4.990E-01	5.445E+01	5.445E-03	2.268E+01	2.268E-02
2.000E+00	1.192E+03	1.192E-01	4.968E+02	4.968E-01	5.420E+01	5.420E-03	2.258E+01	2.258E-02
3.000E+00	1.119E+03	1.119E-01	4.661E+02	4.661E-01	5.086E+01	5.086E-03	2.119E+01	2.119E-02
4.000E+00	1.041E+03	1.041E-01	4.340E+02	4.340E-01	4.733E+01	4.733E-03	1.973E+01	1.973E-02
5.000E+00	9.715E+02	9.715E-02	4.048E+02	4.048E-01	4.416E+01	4.416E-03	1.840E+01	1.840E-02
6.000E+00	9.095E+02	9.095E-02	3.789E+02	3.789E-01	4.134E+01	4.134E-03	1.722E+01	1.722E-02
7.000E+00	8.550E+02	8.550E-02	3.562E+02	3.562E-01	3.886E+01	3.886E-03	1.619E+01	1.619E-02
8.000E+00	8.069E+02	8.069E-02	3.362E+02	3.362E-01	3.668E+01	3.668E-03	1.528E+01	1.528E-02
9.000E+00	7.643E+02	7.643E-02	3.185E+02	3.185E-01	3.474E+01	3.474E-03	1.448E+01	1.448E-02
1.000E+01	7.264E+02	7.264E-02	3.027E+02	3.027E-01	3.302E+01	3.302E-03	1.376E+01	1.376E-02
2.000E+01	4.928E+02	4.928E-02	2.054E+02	2.054E-01	2.240E+01	2.240E-03	9.335E+00	9.335E-03
3.000E+01	3.785E+02	3.785E-02	1.577E+02	1.577E-01	1.721E+01	1.721E-03	7.169E+00	7.169E-03
4.000E+01	3.095E+02	3.095E-02	1.290E+02	1.290E-01	1.407E+01	1.407E-03	5.862E+00	5.862E-03
5.000E+01	2.634E+02	2.634E-02	1.098E+02	1.098E-01	1.197E+01	1.197E-03	4.989E+00	4.989E-03
6.000E+01	2.303E+02	2.303E-02	9.596E+01	9.596E-02	1.047E+01	1.047E-03	4.362E+00	4.362E-03
7.000E+01	2.055E+02	2.055E-02	8.564E+01	8.564E-02	9.341E+00	9.341E-04	3.893E+00	3.893E-03
8.000E+01	1.863E+02	1.863E-02	7.762E+01	7.762E-02	8.469E+00	8.469E-04	3.528E+00	3.528E-03
9.000E+01	1.709E+02	1.709E-02	7.121E+01	7.121E-02	7.770E+00	7.770E-04	3.237E+00	3.237E-03
1.000E+02	1.583E+02	1.583E-02	6.598E+01	6.598E-02	7.198E+00	7.198E-04	2.999E+00	2.999E-03
2.000E+02	9.875E+01	9.875E-03	4.115E+01	4.115E-02	4.489E+00	4.489E-04	1.870E+00	1.870E-03
3.000E+02	7.778E+01	7.778E-03	3.241E+01	3.241E-02	3.535E+00	3.535E-04	1.473E+00	1.473E-03
4.000E+02	6.723E+01	6.723E-03	2.801E+01	2.801E-02	3.056E+00	3.056E-04	1.273E+00	1.273E-03
5.000E+02	6.098E+01	6.098E-03	2.541E+01	2.541E-02	2.772E+00	2.772E-04	1.155E+00	1.155E-03
6.000E+02	5.694E+01	5.694E-03	2.372E+01	2.372E-02	2.588E+00	2.588E-04	1.078E+00	1.078E-03
7.000E+02	5.415E+01	5.415E-03	2.257E+01	2.257E-02	2.462E+00	2.462E-04	1.026E+00	1.026E-03
8.000E+02	5.216E+01	5.216E-03	2.174E+01	2.174E-02	2.371E+00	2.371E-04	9.881E-01	9.881E-04
9.000E+02	5.064E+01	5.064E-03	2.110E+01	2.110E-02	2.302E+00	2.302E-04	9.591E-01	9.591E-04
1.000E+03	4.944E+01	4.944E-03	2.060E+01	2.060E-02	2.247E+00	2.247E-04	9.365E-01	9.365E-04
2.000E+03	4.555E+01	4.555E-03	1.898E+01	1.898E-02	2.071E+00	2.071E-04	8.627E-01	8.627E-04
3.000E+03	4.548E+01	4.548E-03	1.895E+01	1.895E-02	2.067E+00	2.067E-04	8.613E-01	8.613E-04
4.000E+03	4.603E+01	4.603E-03	1.918E+01	1.918E-02	2.092E+00	2.092E-04	8.719E-01	8.719E-04
5.000E+03	4.670E+01	4.670E-03	1.946E+01	1.946E-02	2.123E+00	2.123E-04	8.844E-01	8.844E-04
6.000E+03	4.737E+01	4.737E-03	1.974E+01	1.974E-02	2.153E+00	2.153E-04	8.972E-01	8.972E-04
7.000E+03	4.799E+01	4.799E-03	2.000E+01	2.000E-02	2.181E+00	2.181E-04	9.091E-01	9.091E-04
8.000E+03	4.856E+01	4.856E-03	2.023E+01	2.023E-02	2.207E+00	2.207E-04	9.198E-01	9.198E-04
9.000E+03	4.909E+01	4.909E-03	2.045E+01	2.045E-02	2.231E+00	2.231E-04	9.296E-01	9.296E-04
1.000E+04	4.957E+01	4.957E-03	2.066E+01	2.066E-02	2.253E+00	2.253E-04	9.391E-01	9.391E-04

TABLE 91

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: FE Z= 26 A= 55.84

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.495E+02	1.495E-02	6.228E+01	6.228E-02	6.795E+00	6.795E-04	2.831E+00	2.831E-03
2.000E-02	2.114E+02	2.114E-02	8.809E+01	8.809E-02	9.607E+00	9.607E-04	4.004E+00	4.004E-03
3.000E-02	2.589E+02	2.589E-02	1.078E+02	1.078E-01	1.177E+01	1.177E-03	4.902E+00	4.902E-03
4.000E-02	2.989E+02	2.989E-02	1.246E+02	1.246E-01	1.359E+01	1.359E-03	5.663E+00	5.663E-03
5.000E-02	3.342E+02	3.342E-02	1.393E+02	1.393E-01	1.519E+01	1.519E-03	6.332E+00	6.332E-03
6.000E-02	3.661E+02	3.661E-02	1.526E+02	1.526E-01	1.664E+01	1.664E-03	6.936E+00	6.936E-03
7.000E-02	3.955E+02	3.955E-02	1.648E+02	1.648E-01	1.798E+01	1.798E-03	7.489E+00	7.489E-03
8.000E-02	4.228E+02	4.228E-02	1.761E+02	1.761E-01	1.922E+01	1.922E-03	8.006E+00	8.006E-03
9.000E-02	4.484E+02	4.484E-02	1.869E+02	1.869E-01	2.038E+01	2.038E-03	8.493E+00	8.493E-03
1.000E-01	4.727E+02	4.727E-02	1.969E+02	1.969E-01	2.149E+01	2.149E-03	8.952E+00	8.952E-03
2.000E-01	6.684E+02	6.684E-02	2.785E+02	2.785E-01	3.038E+01	3.038E-03	1.266E+01	1.266E-02
3.000E-01	8.186E+02	8.186E-02	3.411E+02	3.411E-01	3.721E+01	3.721E-03	1.551E+01	1.551E-02
4.000E-01	9.456E+02	9.456E-02	3.940E+02	3.940E-01	4.298E+01	4.298E-03	1.791E+01	1.791E-02
5.000E-01	1.042E+03	1.042E-01	4.342E+02	4.342E-01	4.738E+01	4.738E-03	1.973E+01	1.973E-02
6.000E-01	1.107E+03	1.107E-01	4.614E+02	4.614E-01	5.032E+01	5.032E-03	2.097E+01	2.097E-02
7.000E-01	1.153E+03	1.153E-01	4.804E+02	4.804E-01	5.241E+01	5.241E-03	2.184E+01	2.184E-02
8.000E-01	1.185E+03	1.185E-01	4.938E+02	4.938E-01	5.387E+01	5.387E-03	2.244E+01	2.244E-02
9.000E-01	1.208E+03	1.208E-01	5.032E+02	5.032E-01	5.489E+01	5.489E-03	2.287E+01	2.287E-02
1.000E+00	1.223E+03	1.223E-01	5.098E+02	5.098E-01	5.561E+01	5.561E-03	2.317E+01	2.317E-02
2.000E+00	1.227E+03	1.227E-01	5.114E+02	5.114E-01	5.577E+01	5.577E-03	2.324E+01	2.324E-02
3.000E+00	1.156E+03	1.156E-01	4.819E+02	4.819E-01	5.255E+01	5.255E-03	2.190E+01	2.190E-02
4.000E+00	1.080E+03	1.080E-01	4.501E+02	4.501E-01	4.911E+01	4.911E-03	2.046E+01	2.046E-02
5.000E+00	1.010E+03	1.010E-01	4.209E+02	4.209E-01	4.590E+01	4.590E-03	1.913E+01	1.913E-02
6.000E+00	9.477E+02	9.477E-02	3.949E+02	3.949E-01	4.308E+01	4.308E-03	1.795E+01	1.795E-02
7.000E+00	8.923E+02	8.923E-02	3.718E+02	3.718E-01	4.056E+01	4.056E-03	1.690E+01	1.690E-02
8.000E+00	8.433E+02	8.433E-02	3.513E+02	3.513E-01	3.833E+01	3.833E-03	1.597E+01	1.597E-02
9.000E+00	7.997E+02	7.997E-02	3.332E+02	3.332E-01	3.635E+01	3.635E-03	1.515E+01	1.515E-02
1.000E+01	7.608E+02	7.608E-02	3.170E+02	3.170E-01	3.458E+01	3.458E-03	1.441E+01	1.441E-02
2.000E+01	5.194E+02	5.194E-02	2.165E+02	2.165E-01	2.361E+01	2.361E-03	9.839E+00	9.839E-03
3.000E+01	4.003E+02	4.003E-02	1.667E+02	1.667E-01	1.819E+01	1.819E-03	7.579E+00	7.579E-03
4.000E+01	3.281E+02	3.281E-02	1.367E+02	1.367E-01	1.491E+01	1.491E-03	6.215E+00	6.215E-03
5.000E+01	2.795E+02	2.795E-02	1.165E+02	1.165E-01	1.270E+01	1.270E-03	5.293E+00	5.293E-03
6.000E+01	2.446E+02	2.446E-02	1.019E+02	1.019E-01	1.112E+01	1.112E-03	4.632E+00	4.632E-03
7.000E+01	2.184E+02	2.184E-02	9.101E+01	9.101E-02	9.927E+00	9.927E-04	4.137E+00	4.137E-03
8.000E+01	1.981E+02	1.981E-02	8.252E+01	8.252E-02	9.003E+00	9.003E-04	3.751E+00	3.751E-03
9.000E+01	1.817E+02	1.817E-02	7.572E+01	7.572E-02	8.261E+00	8.261E-04	3.442E+00	3.442E-03
1.000E+02	1.684E+02	1.684E-02	7.017E+01	7.017E-02	7.653E+00	7.653E-04	3.189E+00	3.189E-03
2.000E+02	1.050E+02	1.050E-02	4.378E+01	4.378E-02	4.774E+00	4.774E-04	1.990E+00	1.990E-03
3.000E+02	8.275E+01	8.275E-03	3.448E+01	3.448E-02	3.761E+00	3.761E-04	1.567E+00	1.567E-03
4.000E+02	7.154E+01	7.154E-03	2.981E+01	2.981E-02	3.252E+00	3.252E-04	1.355E+00	1.355E-03
5.000E+02	6.489E+01	6.489E-03	2.704E+01	2.704E-02	2.950E+00	2.950E-04	1.229E+00	1.229E-03
6.000E+02	6.058E+01	6.058E-03	2.524E+01	2.524E-02	2.754E+00	2.754E-04	1.147E+00	1.147E-03
7.000E+02	5.762E+01	5.762E-03	2.401E+01	2.401E-02	2.619E+00	2.619E-04	1.091E+00	1.091E-03
8.000E+02	5.550E+01	5.550E-03	2.312E+01	2.312E-02	2.523E+00	2.523E-04	1.051E+00	1.051E-03
9.000E+02	5.388E+01	5.388E-03	2.245E+01	2.245E-02	2.449E+00	2.449E-04	1.020E+00	1.020E-03
1.000E+03	5.261E+01	5.261E-03	2.192E+01	2.192E-02	2.392E+00	2.392E-04	9.964E-01	9.964E-04
2.000E+03	4.848E+01	4.848E-03	2.020E+01	2.020E-02	2.203E+00	2.203E-04	9.180E-01	9.180E-04
3.000E+03	4.838E+01	4.838E-03	2.016E+01	2.016E-02	2.199E+00	2.199E-04	9.164E-01	9.164E-04
4.000E+03	4.897E+01	4.897E-03	2.040E+01	2.040E-02	2.226E+00	2.226E-04	9.274E-01	9.274E-04
5.000E+03	4.969E+01	4.969E-03	2.071E+01	2.071E-02	2.259E+00	2.259E-04	9.412E-01	9.412E-04
6.000E+03	5.040E+01	5.040E-03	2.100E+01	2.100E-02	2.291E+00	2.291E-04	9.546E-01	9.546E-04
7.000E+03	5.105E+01	5.105E-03	2.128E+01	2.128E-02	2.321E+00	2.321E-04	9.671E-01	9.671E-04
8.000E+03	5.167E+01	5.167E-03	2.153E+01	2.153E-02	2.349E+00	2.349E-04	9.788E-01	9.788E-04
9.000E+03	5.223E+01	5.223E-03	2.176E+01	2.176E-02	2.374E+00	2.374E-04	9.893E-01	9.893E-04
1.000E+04	5.275E+01	5.275E-03	2.198E+01	2.198E-02	2.398E+00	2.398E-04	9.991E-01	9.991E-04

TABLE 92

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CO Z= 27 A= 58.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.456E+02	1.456E-02	6.066E+01	6.066E-02	6.618E+00	6.618E-04	2.757E+00	2.757E-03
2.000E-02	2.060E+02	2.060E-02	8.580E+01	8.580E-02	9.362E+00	9.362E-04	3.900E+00	3.900E-03
3.000E-02	2.522E+02	2.522E-02	1.050E+02	1.050E-01	1.146E+01	1.146E-03	4.775E+00	4.775E-03
4.000E-02	2.912E+02	2.912E-02	1.213E+02	1.213E-01	1.324E+01	1.324E-03	5.513E+00	5.513E-03
5.000E-02	3.255E+02	3.255E-02	1.357E+02	1.357E-01	1.480E+01	1.480E-03	6.167E+00	6.167E-03
6.000E-02	3.567E+02	3.567E-02	1.486E+02	1.486E-01	1.621E+01	1.621E-03	6.754E+00	6.754E-03
7.000E-02	3.852E+02	3.852E-02	1.605E+02	1.605E-01	1.751E+01	1.751E-03	7.298E+00	7.298E-03
8.000E-02	4.118E+02	4.118E-02	1.716E+02	1.716E-01	1.872E+01	1.872E-03	7.800E+00	7.800E-03
9.000E-02	4.368E+02	4.368E-02	1.820E+02	1.820E-01	1.985E+01	1.985E-03	8.272E+00	8.272E-03
1.000E-01	4.604E+02	4.604E-02	1.918E+02	1.918E-01	2.093E+01	2.093E-03	8.720E+00	8.720E-03
2.000E-01	6.510E+02	6.510E-02	2.712E+02	2.712E-01	2.959E+01	2.959E-03	1.233E+01	1.233E-02
3.000E-01	7.973E+02	7.973E-02	3.323E+02	3.323E-01	3.624E+01	3.624E-03	1.510E+01	1.510E-02
4.000E-01	9.210E+02	9.210E-02	3.837E+02	3.837E-01	4.186E+01	4.186E-03	1.744E+01	1.744E-02
5.000E-01	1.017E+03	1.017E-01	4.237E+02	4.237E-01	4.621E+01	4.621E-03	1.926E+01	1.926E-02
6.000E-01	1.082E+03	1.082E-01	4.510E+02	4.510E-01	4.918E+01	4.918E-03	2.050E+01	2.050E-02
7.000E-01	1.129E+03	1.129E-01	4.702E+02	4.702E-01	5.131E+01	5.131E-03	2.137E+01	2.137E-02
8.000E-01	1.162E+03	1.162E-01	4.839E+02	4.839E-01	5.281E+01	5.281E-03	2.200E+01	2.200E-02
9.000E-01	1.185E+03	1.185E-01	4.938E+02	4.938E-01	5.387E+01	5.387E-03	2.244E+01	2.244E-02
1.000E+00	1.202E+03	1.202E-01	5.008E+02	5.008E-01	5.463E+01	5.463E-03	2.276E+01	2.276E-02
2.000E+00	1.214E+03	1.214E-01	5.059E+02	5.059E-01	5.517E+01	5.517E-03	2.299E+01	2.299E-02
3.000E+00	1.149E+03	1.149E-01	4.787E+02	4.787E-01	5.221E+01	5.221E-03	2.176E+01	2.176E-02
4.000E+00	1.077E+03	1.077E-01	4.486E+02	4.486E-01	4.895E+01	4.895E-03	2.039E+01	2.039E-02
5.000E+00	1.009E+03	1.009E-01	4.204E+02	4.204E-01	4.585E+01	4.585E-03	1.911E+01	1.911E-02
6.000E+00	9.485E+02	9.485E-02	3.952E+02	3.952E-01	4.311E+01	4.311E-03	1.796E+01	1.796E-02
7.000E+00	8.946E+02	8.946E-02	3.727E+02	3.727E-01	4.066E+01	4.066E-03	1.694E+01	1.694E-02
8.000E+00	8.465E+02	8.465E-02	3.527E+02	3.527E-01	3.848E+01	3.848E-03	1.603E+01	1.603E-02
9.000E+00	8.037E+02	8.037E-02	3.349E+02	3.349E-01	3.653E+01	3.653E-03	1.522E+01	1.522E-02
1.000E+01	7.654E+02	7.654E-02	3.189E+02	3.189E-01	3.479E+01	3.479E-03	1.450E+01	1.450E-02
2.000E+01	5.257E+02	5.257E-02	2.191E+02	2.191E-01	2.390E+01	2.390E-03	9.958E+00	9.958E-03
3.000E+01	4.065E+02	4.065E-02	1.693E+02	1.693E-01	1.848E+01	1.848E-03	7.698E+00	7.698E-03
4.000E+01	3.339E+02	3.339E-02	1.391E+02	1.391E-01	1.518E+01	1.518E-03	6.324E+00	6.324E-03
5.000E+01	2.849E+02	2.849E-02	1.187E+02	1.187E-01	1.295E+01	1.295E-03	5.395E+00	5.395E-03
6.000E+01	2.495E+02	2.495E-02	1.039E+02	1.039E-01	1.134E+01	1.134E-03	4.723E+00	4.723E-03
7.000E+01	2.229E+02	2.229E-02	9.288E+01	9.288E-02	1.013E+01	1.013E-03	4.222E+00	4.222E-03
8.000E+01	2.021E+02	2.021E-02	8.424E+01	8.424E-02	9.188E+00	9.188E-04	3.829E+00	3.829E-03
9.000E+01	1.856E+02	1.856E-02	7.732E+01	7.732E-02	8.435E+00	8.435E-04	3.514E+00	3.514E-03
1.000E+02	1.720E+02	1.720E-02	7.166E+01	7.166E-02	7.817E+00	7.817E-04	3.257E+00	3.257E-03
2.000E+02	1.074E+02	1.074E-02	4.473E+01	4.473E-02	4.880E+00	4.880E-04	2.033E+00	2.033E-03
3.000E+02	8.457E+01	8.457E-03	3.523E+01	3.523E-02	3.844E+00	3.844E-04	1.601E+00	1.601E-03
4.000E+02	7.310E+01	7.310E-03	3.046E+01	3.046E-02	3.323E+00	3.323E-04	1.384E+00	1.384E-03
5.000E+02	6.631E+01	6.631E-03	2.763E+01	2.763E-02	3.014E+00	3.014E-04	1.256E+00	1.256E-03
6.000E+02	6.191E+01	6.191E-03	2.580E+01	2.580E-02	2.814E+00	2.814E-04	1.173E+00	1.173E-03
7.000E+02	5.888E+01	5.888E-03	2.454E+01	2.454E-02	2.677E+00	2.677E-04	1.115E+00	1.115E-03
8.000E+02	5.671E+01	5.671E-03	2.363E+01	2.363E-02	2.578E+00	2.578E-04	1.074E+00	1.074E-03
9.000E+02	5.505E+01	5.505E-03	2.293E+01	2.293E-02	2.502E+00	2.502E-04	1.042E+00	1.042E-03
1.000E+03	5.376E+01	5.376E-03	2.240E+01	2.240E-02	2.444E+00	2.444E-04	1.018E+00	1.018E-03
2.000E+03	4.953E+01	4.953E-03	2.064E+01	2.064E-02	2.252E+00	2.252E-04	9.380E-01	9.380E-04
3.000E+03	4.944E+01	4.944E-03	2.060E+01	2.060E-02	2.247E+00	2.247E-04	9.364E-01	9.364E-04
4.000E+03	5.005E+01	5.005E-03	2.085E+01	2.085E-02	2.275E+00	2.275E-04	9.480E-01	9.480E-04
5.000E+03	5.078E+01	5.078E-03	2.116E+01	2.116E-02	2.308E+00	2.308E-04	9.616E-01	9.616E-04
6.000E+03	5.150E+01	5.150E-03	2.146E+01	2.146E-02	2.341E+00	2.341E-04	9.755E-01	9.755E-04
7.000E+03	5.218E+01	5.218E-03	2.174E+01	2.174E-02	2.372E+00	2.372E-04	9.880E-01	9.880E-04
8.000E+03	5.280E+01	5.280E-03	2.200E+01	2.200E-02	2.400E+00	2.400E-04	9.998E-01	9.998E-04
9.000E+03	5.337E+01	5.337E-03	2.224E+01	2.224E-02	2.426E+00	2.426E-04	1.011E+00	1.011E-03
1.000E+04	5.390E+01	5.390E-03	2.246E+01	2.246E-02	2.450E+00	2.450E-04	1.021E+00	1.021E-03

TABLE 93

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: NI Z= 28 A= 58.71

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.500E+02	1.500E-02	6.251E+01	6.251E-02	6.818E+00	6.818E-04	2.841E+00	2.841E-03
2.000E-02	2.122E+02	2.122E-02	8.841E+01	8.841E-02	9.644E+00	9.644E-04	4.019E+00	4.019E-03
3.000E-02	2.598E+02	2.598E-02	1.082E+02	1.082E-01	1.181E+01	1.181E-03	4.920E+00	4.920E-03
4.000E-02	3.000E+02	3.000E-02	1.250E+02	1.250E-01	1.364E+01	1.364E-03	5.682E+00	5.682E-03
5.000E-02	3.355E+02	3.355E-02	1.398E+02	1.398E-01	1.525E+01	1.525E-03	6.353E+00	6.353E-03
6.000E-02	3.675E+02	3.675E-02	1.531E+02	1.531E-01	1.671E+01	1.671E-03	6.958E+00	6.958E-03
7.000E-02	3.969E+02	3.969E-02	1.654E+02	1.654E-01	1.804E+01	1.804E-03	7.517E+00	7.517E-03
8.000E-02	4.243E+02	4.243E-02	1.768E+02	1.768E-01	1.929E+01	1.929E-03	8.038E+00	8.038E-03
9.000E-02	4.501E+02	4.501E-02	1.876E+02	1.876E-01	2.046E+01	2.046E-03	8.525E+00	8.525E-03
1.000E-01	4.745E+02	4.745E-02	1.977E+02	1.977E-01	2.157E+01	2.157E-03	8.987E+00	8.987E-03
2.000E-01	6.709E+02	6.709E-02	2.795E+02	2.795E-01	3.050E+01	3.050E-03	1.271E+01	1.271E-02
3.000E-01	8.216E+02	8.216E-02	3.424E+02	3.424E-01	3.735E+01	3.735E-03	1.556E+01	1.556E-02
4.000E-01	9.490E+02	9.490E-02	3.954E+02	3.954E-01	4.314E+01	4.314E-03	1.797E+01	1.797E-02
5.000E-01	1.050E+03	1.050E-01	4.373E+02	4.373E-01	4.771E+01	4.771E-03	1.988E+01	1.988E-02
6.000E-01	1.119E+03	1.119E-01	4.663E+02	4.663E-01	5.086E+01	5.086E-03	2.119E+01	2.119E-02
7.000E-01	1.168E+03	1.168E-01	4.869E+02	4.869E-01	5.310E+01	5.310E-03	2.213E+01	2.213E-02
8.000E-01	1.204E+03	1.204E-01	5.017E+02	5.017E-01	5.472E+01	5.472E-03	2.281E+01	2.281E-02
9.000E-01	1.230E+03	1.230E-01	5.125E+02	5.125E-01	5.590E+01	5.590E-03	2.330E+01	2.330E-02
1.000E+00	1.249E+03	1.249E-01	5.203E+02	5.203E-01	5.677E+01	5.677E-03	2.365E+01	2.365E-02
2.000E+00	1.270E+03	1.270E-01	5.290E+02	5.290E-01	5.772E+01	5.772E-03	2.405E+01	2.405E-02
3.000E+00	1.207E+03	1.207E-01	5.028E+02	5.028E-01	5.485E+01	5.485E-03	2.285E+01	2.285E-02
4.000E+00	1.134E+03	1.134E-01	4.726E+02	4.726E-01	5.153E+01	5.153E-03	2.148E+01	2.148E-02
5.000E+00	1.066E+03	1.066E-01	4.439E+02	4.439E-01	4.844E+01	4.844E-03	2.018E+01	2.018E-02
6.000E+00	1.003E+03	1.003E-01	4.180E+02	4.180E-01	4.560E+01	4.560E-03	1.900E+01	1.900E-02
7.000E+00	9.477E+02	9.477E-02	3.949E+02	3.949E-01	4.308E+01	4.308E-03	1.795E+01	1.795E-02
8.000E+00	8.980E+02	8.980E-02	3.742E+02	3.742E-01	4.082E+01	4.082E-03	1.701E+01	1.701E-02
9.000E+00	8.536E+02	8.536E-02	3.556E+02	3.556E-01	3.880E+01	3.880E-03	1.616E+01	1.616E-02
1.000E+01	8.136E+02	8.136E-02	3.390E+02	3.390E-01	3.698E+01	3.698E-03	1.541E+01	1.541E-02
2.000E+01	5.622E+02	5.622E-02	2.343E+02	2.343E-01	2.555E+01	2.555E-03	1.065E+01	1.065E-02
3.000E+01	4.360E+02	4.360E-02	1.817E+02	1.817E-01	1.982E+01	1.982E-03	8.259E+00	8.259E-03
4.000E+01	3.589E+02	3.589E-02	1.495E+02	1.495E-01	1.631E+01	1.631E-03	6.796E+00	6.796E-03
5.000E+01	3.067E+02	3.067E-02	1.278E+02	1.278E-01	1.394E+01	1.394E-03	5.808E+00	5.808E-03
6.000E+01	2.688E+02	2.688E-02	1.120E+02	1.120E-01	1.222E+01	1.222E-03	5.093E+00	5.093E-03
7.000E+01	2.403E+02	2.403E-02	1.001E+02	1.001E-01	1.092E+01	1.092E-03	4.552E+00	4.552E-03
8.000E+01	2.181E+02	2.181E-02	9.085E+01	9.085E-02	9.912E+00	9.912E-04	4.129E+00	4.129E-03
9.000E+01	2.002E+02	2.002E-02	8.341E+01	8.341E-02	9.100E+00	9.100E-04	3.792E+00	3.792E-03
1.000E+02	1.856E+02	1.856E-02	7.732E+01	7.732E-02	8.436E+00	8.436E-04	3.514E+00	3.514E-03
2.000E+02	1.159E+02	1.159E-02	4.829E+01	4.829E-02	5.269E+00	5.269E-04	2.195E+00	2.195E-03
3.000E+02	9.130E+01	9.130E-03	3.804E+01	3.804E-02	4.150E+00	4.150E-04	1.729E+00	1.729E-03
4.000E+02	7.893E+01	7.893E-03	3.288E+01	3.288E-02	3.588E+00	3.588E-04	1.495E+00	1.495E-03
5.000E+02	7.159E+01	7.159E-03	2.983E+01	2.983E-02	3.254E+00	3.254E-04	1.356E+00	1.356E-03
6.000E+02	6.683E+01	6.683E-03	2.785E+01	2.785E-02	3.038E+00	3.038E-04	1.266E+00	1.266E-03
7.000E+02	6.357E+01	6.357E-03	2.649E+01	2.649E-02	2.890E+00	2.890E-04	1.204E+00	1.204E-03
8.000E+02	6.123E+01	6.123E-03	2.551E+01	2.551E-02	2.783E+00	2.783E-04	1.160E+00	1.160E-03
9.000E+02	5.944E+01	5.944E-03	2.477E+01	2.477E-02	2.702E+00	2.702E-04	1.126E+00	1.126E-03
1.000E+03	5.804E+01	5.804E-03	2.418E+01	2.418E-02	2.638E+00	2.638E-04	1.099E+00	1.099E-03
2.000E+03	5.347E+01	5.347E-03	2.228E+01	2.228E-02	2.431E+00	2.431E-04	1.013E+00	1.013E-03
3.000E+03	5.339E+01	5.339E-03	2.224E+01	2.224E-02	2.427E+00	2.427E-04	1.011E+00	1.011E-03
4.000E+03	5.404E+01	5.404E-03	2.251E+01	2.251E-02	2.456E+00	2.456E-04	1.023E+00	1.023E-03
5.000E+03	5.482E+01	5.482E-03	2.285E+01	2.285E-02	2.492E+00	2.492E-04	1.038E+00	1.038E-03
6.000E+03	5.560E+01	5.560E-03	2.317E+01	2.317E-02	2.527E+00	2.527E-04	1.053E+00	1.053E-03
7.000E+03	5.633E+01	5.633E-03	2.347E+01	2.347E-02	2.560E+00	2.560E-04	1.067E+00	1.067E-03
8.000E+03	5.700E+01	5.700E-03	2.375E+01	2.375E-02	2.591E+00	2.591E-04	1.080E+00	1.080E-03
9.000E+03	5.762E+01	5.762E-03	2.401E+01	2.401E-02	2.619E+00	2.619E-04	1.091E+00	1.091E-03
1.000E+04	5.819E+01	5.819E-03	2.425E+01	2.425E-02	2.645E+00	2.645E-04	1.102E+00	1.102E-03

TABLE 94

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: KR Z= 36 A= 83.80

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.250E+02	1.250E-02	5.210E+01	5.210E-02	5.682E+00	5.682E-04	2.368E+00	2.368E-03
2.000E-02	1.768E+02	1.768E-02	7.369E+01	7.369E-02	8.037E+00	8.037E-04	3.350E+00	3.350E-03
3.000E-02	2.166E+02	2.166E-02	9.024E+01	9.024E-02	9.845E+00	9.845E-04	4.102E+00	4.102E-03
4.000E-02	2.501E+02	2.501E-02	1.042E+02	1.042E-01	1.137E+01	1.137E-03	4.739E+00	4.739E-03
5.000E-02	2.796E+02	2.796E-02	1.165E+02	1.165E-01	1.271E+01	1.271E-03	5.297E+00	5.297E-03
6.000E-02	3.063E+02	3.063E-02	1.276E+02	1.276E-01	1.392E+01	1.392E-03	5.802E+00	5.802E-03
7.000E-02	3.308E+02	3.308E-02	1.378E+02	1.378E-01	1.504E+01	1.504E-03	6.264E+00	6.264E-03
8.000E-02	3.537E+02	3.537E-02	1.473E+02	1.473E-01	1.608E+01	1.608E-03	6.697E+00	6.697E-03
9.000E-02	3.751E+02	3.751E-02	1.563E+02	1.563E-01	1.705E+01	1.705E-03	7.103E+00	7.103E-03
1.000E-01	3.954E+02	3.954E-02	1.648E+02	1.648E-01	1.797E+01	1.797E-03	7.489E+00	7.489E-03
2.000E-01	5.592E+02	5.592E-02	2.330E+02	2.330E-01	2.542E+01	2.542E-03	1.059E+01	1.059E-02
3.000E-01	6.848E+02	6.848E-02	2.853E+02	2.853E-01	3.113E+01	3.113E-03	1.297E+01	1.297E-02
4.000E-01	7.906E+02	7.906E-02	3.294E+02	3.294E-01	3.594E+01	3.594E-03	1.497E+01	1.497E-02
5.000E-01	8.827E+02	8.827E-02	3.678E+02	3.678E-01	4.012E+01	4.012E-03	1.672E+01	1.672E-02
6.000E-01	9.521E+02	9.521E-02	3.967E+02	3.967E-01	4.328E+01	4.328E-03	1.803E+01	1.803E-02
7.000E-01	1.004E+03	1.004E-01	4.182E+02	4.182E-01	4.561E+01	4.561E-03	1.901E+01	1.901E-02
8.000E-01	1.043E+03	1.043E-01	4.346E+02	4.346E-01	4.739E+01	4.739E-03	1.975E+01	1.975E-02
9.000E-01	1.073E+03	1.073E-01	4.471E+02	4.471E-01	4.878E+01	4.878E-03	2.032E+01	2.032E-02
1.000E+00	1.097E+03	1.097E-01	4.569E+02	4.569E-01	4.985E+01	4.985E-03	2.077E+01	2.077E-02
2.000E+00	1.166E+03	1.166E-01	4.860E+02	4.860E-01	5.301E+01	5.301E-03	2.209E+01	2.209E-02
3.000E+00	1.139E+03	1.139E-01	4.749E+02	4.749E-01	5.179E+01	5.179E-03	2.158E+01	2.158E-02
4.000E+00	1.093E+03	1.093E-01	4.555E+02	4.555E-01	4.969E+01	4.969E-03	2.070E+01	2.070E-02
5.000E+00	1.044E+03	1.044E-01	4.347E+02	4.347E-01	4.744E+01	4.744E-03	1.976E+01	1.976E-02
6.000E+00	9.954E+02	9.954E-02	4.147E+02	4.147E-01	4.524E+01	4.524E-03	1.885E+01	1.885E-02
7.000E+00	9.502E+02	9.502E-02	3.959E+02	3.959E-01	4.319E+01	4.319E-03	1.800E+01	1.800E-02
8.000E+00	9.089E+02	9.089E-02	3.787E+02	3.787E-01	4.131E+01	4.131E-03	1.721E+01	1.721E-02
9.000E+00	8.709E+02	8.709E-02	3.628E+02	3.628E-01	3.958E+01	3.958E-03	1.649E+01	1.649E-02
1.000E+01	8.359E+02	8.359E-02	3.483E+02	3.483E-01	3.800E+01	3.800E-03	1.583E+01	1.583E-02
2.000E+01	6.027E+02	6.027E-02	2.512E+02	2.512E-01	2.739E+01	2.739E-03	1.142E+01	1.142E-02
3.000E+01	4.781E+02	4.781E-02	1.992E+02	1.992E-01	2.173E+01	2.173E-03	9.054E+00	9.054E-03
4.000E+01	3.996E+02	3.996E-02	1.665E+02	1.665E-01	1.816E+01	1.816E-03	7.568E+00	7.568E-03
5.000E+01	3.451E+02	3.451E-02	1.438E+02	1.438E-01	1.569E+01	1.569E-03	6.536E+00	6.536E-03
6.000E+01	3.050E+02	3.050E-02	1.271E+02	1.271E-01	1.386E+01	1.386E-03	5.776E+00	5.776E-03
7.000E+01	2.740E+02	2.740E-02	1.142E+02	1.142E-01	1.246E+01	1.246E-03	5.189E+00	5.189E-03
8.000E+01	2.496E+02	2.496E-02	1.040E+02	1.040E-01	1.135E+01	1.135E-03	4.726E+00	4.726E-03
9.000E+01	2.298E+02	2.298E-02	9.575E+01	9.575E-02	1.045E+01	1.045E-03	4.352E+00	4.352E-03
1.000E+02	2.134E+02	2.134E-02	8.893E+01	8.893E-02	9.702E+00	9.702E-04	4.042E+00	4.042E-03
2.000E+02	1.341E+02	1.341E-02	5.586E+01	5.586E-02	6.094E+00	6.094E-04	2.539E+00	2.539E-03
3.000E+02	1.057E+02	1.057E-02	4.404E+01	4.404E-02	4.805E+00	4.805E-04	2.002E+00	2.002E-03
4.000E+02	9.140E+01	9.140E-03	3.808E+01	3.808E-02	4.155E+00	4.155E-04	1.731E+00	1.731E-03
5.000E+02	8.291E+01	8.291E-03	3.454E+01	3.454E-02	3.769E+00	3.769E-04	1.570E+00	1.570E-03
6.000E+02	7.741E+01	7.741E-03	3.226E+01	3.226E-02	3.519E+00	3.519E-04	1.466E+00	1.466E-03
7.000E+02	7.362E+01	7.362E-03	3.068E+01	3.068E-02	3.346E+00	3.346E-04	1.395E+00	1.395E-03
8.000E+02	7.091E+01	7.091E-03	2.955E+01	2.955E-02	3.223E+00	3.223E-04	1.343E+00	1.343E-03
9.000E+02	6.884E+01	6.884E-03	2.868E+01	2.868E-02	3.129E+00	3.129E-04	1.304E+00	1.304E-03
1.000E+03	6.723E+01	6.723E-03	2.801E+01	2.801E-02	3.056E+00	3.056E-04	1.273E+00	1.273E-03
2.000E+03	6.194E+01	6.194E-03	2.581E+01	2.581E-02	2.815E+00	2.815E-04	1.173E+00	1.173E-03
3.000E+03	6.183E+01	6.183E-03	2.576E+01	2.576E-02	2.810E+00	2.810E-04	1.171E+00	1.171E-03
4.000E+03	6.258E+01	6.258E-03	2.607E+01	2.607E-02	2.845E+00	2.845E-04	1.185E+00	1.185E-03
5.000E+03	6.349E+01	6.349E-03	2.646E+01	2.646E-02	2.886E+00	2.886E-04	1.203E+00	1.203E-03
6.000E+03	6.440E+01	6.440E-03	2.683E+01	2.683E-02	2.927E+00	2.927E-04	1.220E+00	1.220E-03
7.000E+03	6.523E+01	6.523E-03	2.719E+01	2.719E-02	2.965E+00	2.965E-04	1.236E+00	1.236E-03
8.000E+03	6.602E+01	6.602E-03	2.751E+01	2.751E-02	3.001E+00	3.001E-04	1.250E+00	1.250E-03
9.000E+03	6.673E+01	6.673E-03	2.780E+01	2.780E-02	3.033E+00	3.033E-04	1.264E+00	1.264E-03
1.000E+04	6.739E+01	6.739E-03	2.808E+01	2.808E-02	3.063E+00	3.063E-04	1.276E+00	1.276E-03

TABLE 95

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AG Z= 47 A= 107.87

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	1.161E+02	1.161E-02	4.839E+01	4.839E-02	5.277E+00	5.277E-04	2.200E+00	2.200E-03
2.000E-02	1.643E+02	1.643E-02	6.844E+01	6.844E-02	7.468E+00	7.468E-04	3.111E+00	3.111E-03
3.000E-02	2.011E+02	2.011E-02	8.381E+01	8.381E-02	9.142E+00	9.142E-04	3.810E+00	3.810E-03
4.000E-02	2.322E+02	2.322E-02	9.678E+01	9.678E-02	1.056E+01	1.056E-03	4.399E+00	4.399E-03
5.000E-02	2.597E+02	2.597E-02	1.083E+02	1.083E-01	1.181E+01	1.181E-03	4.921E+00	4.921E-03
6.000E-02	2.845E+02	2.845E-02	1.186E+02	1.186E-01	1.293E+01	1.293E-03	5.389E+00	5.389E-03
7.000E-02	3.073E+02	3.073E-02	1.281E+02	1.281E-01	1.397E+01	1.397E-03	5.821E+00	5.821E-03
8.000E-02	3.285E+02	3.285E-02	1.369E+02	1.369E-01	1.493E+01	1.493E-03	6.222E+00	6.222E-03
9.000E-02	3.484E+02	3.484E-02	1.451E+02	1.451E-01	1.584E+01	1.584E-03	6.597E+00	6.597E-03
1.000E-01	3.673E+02	3.673E-02	1.530E+02	1.530E-01	1.669E+01	1.669E-03	6.955E+00	6.955E-03
2.000E-01	5.194E+02	5.194E-02	2.164E+02	2.164E-01	2.361E+01	2.361E-03	9.837E+00	9.837E-03
3.000E-01	6.360E+02	6.360E-02	2.650E+02	2.650E-01	2.891E+01	2.891E-03	1.205E+01	1.205E-02
4.000E-01	7.343E+02	7.343E-02	3.059E+02	3.059E-01	3.338E+01	3.338E-03	1.391E+01	1.391E-02
5.000E-01	8.212E+02	8.212E-02	3.422E+02	3.422E-01	3.733E+01	3.733E-03	1.555E+01	1.555E-02
6.000E-01	8.958E+02	8.958E-02	3.733E+02	3.733E-01	4.072E+01	4.072E-03	1.697E+01	1.697E-02
7.000E-01	9.533E+02	9.533E-02	3.972E+02	3.972E-01	4.333E+01	4.333E-03	1.805E+01	1.805E-02
8.000E-01	9.987E+02	9.987E-02	4.161E+02	4.161E-01	4.539E+01	4.539E-03	1.891E+01	1.891E-02
9.000E-01	1.035E+03	1.035E-01	4.313E+02	4.313E-01	4.705E+01	4.705E-03	1.961E+01	1.961E-02
1.000E+00	1.065E+03	1.065E-01	4.437E+02	4.437E-01	4.839E+01	4.839E-03	2.017E+01	2.017E-02
2.000E+00	1.184E+03	1.184E-01	4.932E+02	4.932E-01	5.381E+01	5.381E-03	2.242E+01	2.242E-02
3.000E+00	1.189E+03	1.189E-01	4.952E+02	4.952E-01	5.403E+01	5.403E-03	2.251E+01	2.251E-02
4.000E+00	1.163E+03	1.163E-01	4.848E+02	4.848E-01	5.285E+01	5.285E-03	2.203E+01	2.203E-02
5.000E+00	1.128E+03	1.128E-01	4.702E+02	4.702E-01	5.129E+01	5.129E-03	2.137E+01	2.137E-02
6.000E+00	1.091E+03	1.091E-01	4.545E+02	4.545E-01	4.958E+01	4.958E-03	2.066E+01	2.066E-02
7.000E+00	1.053E+03	1.053E-01	4.391E+02	4.391E-01	4.788E+01	4.788E-03	1.996E+01	1.996E-02
8.000E+00	1.017E+03	1.017E-01	4.241E+02	4.241E-01	4.624E+01	4.624E-03	1.928E+01	1.928E-02
9.000E+00	9.836E+02	9.836E-02	4.099E+02	4.099E-01	4.471E+01	4.471E-03	1.863E+01	1.863E-02
1.000E+01	9.515E+02	9.515E-02	3.965E+02	3.965E-01	4.325E+01	4.325E-03	1.802E+01	1.802E-02
2.000E+01	7.197E+02	7.197E-02	2.998E+02	2.998E-01	3.272E+01	3.272E-03	1.363E+01	1.363E-02
3.000E+01	5.854E+02	5.854E-02	2.439E+02	2.439E-01	2.661E+01	2.661E-03	1.109E+01	1.109E-02
4.000E+01	4.975E+02	4.975E-02	2.073E+02	2.073E-01	2.261E+01	2.261E-03	9.424E+00	9.424E-03
5.000E+01	4.352E+02	4.352E-02	1.813E+02	1.813E-01	1.978E+01	1.978E-03	8.242E+00	8.242E-03
6.000E+01	3.884E+02	3.884E-02	1.618E+02	1.618E-01	1.766E+01	1.766E-03	7.356E+00	7.356E-03
7.000E+01	3.519E+02	3.519E-02	1.466E+02	1.466E-01	1.600E+01	1.600E-03	6.663E+00	6.663E-03
8.000E+01	3.225E+02	3.225E-02	1.344E+02	1.344E-01	1.466E+01	1.466E-03	6.108E+00	6.108E-03
9.000E+01	2.983E+02	2.983E-02	1.243E+02	1.243E-01	1.356E+01	1.356E-03	5.650E+00	5.650E-03
1.000E+02	2.781E+02	2.781E-02	1.159E+02	1.159E-01	1.264E+01	1.264E-03	5.268E+00	5.268E-03
2.000E+02	1.770E+02	1.770E-02	7.373E+01	7.373E-02	8.044E+00	8.044E-04	3.351E+00	3.351E-03
3.000E+02	1.399E+02	1.399E-02	5.827E+01	5.827E-02	6.358E+00	6.358E-04	2.649E+00	2.649E-03
4.000E+02	1.210E+02	1.210E-02	5.041E+01	5.041E-02	5.499E+00	5.499E-04	2.292E+00	2.292E-03
5.000E+02	1.098E+02	1.098E-02	4.574E+01	4.574E-02	4.991E+00	4.991E-04	2.079E+00	2.079E-03
6.000E+02	1.025E+02	1.025E-02	4.271E+01	4.271E-02	4.660E+00	4.660E-04	1.941E+00	1.941E-03
7.000E+02	9.751E+01	9.751E-03	4.062E+01	4.062E-02	4.432E+00	4.432E-04	1.846E+00	1.846E-03
8.000E+02	9.390E+01	9.390E-03	3.912E+01	3.912E-02	4.268E+00	4.268E-04	1.778E+00	1.778E-03
9.000E+02	9.115E+01	9.115E-03	3.798E+01	3.798E-02	4.143E+00	4.143E-04	1.726E+00	1.726E-03
1.000E+03	8.901E+01	8.901E-03	3.709E+01	3.709E-02	4.046E+00	4.046E-04	1.686E+00	1.686E-03
2.000E+03	8.201E+01	8.201E-03	3.417E+01	3.417E-02	3.728E+00	3.728E-04	1.553E+00	1.553E-03
3.000E+03	8.187E+01	8.187E-03	3.411E+01	3.411E-02	3.721E+00	3.721E-04	1.551E+00	1.551E-03
4.000E+03	8.287E+01	8.287E-03	3.453E+01	3.453E-02	3.767E+00	3.767E-04	1.569E+00	1.569E-03
5.000E+03	8.408E+01	8.408E-03	3.503E+01	3.503E-02	3.822E+00	3.822E-04	1.592E+00	1.592E-03
6.000E+03	8.527E+01	8.527E-03	3.553E+01	3.553E-02	3.876E+00	3.876E-04	1.615E+00	1.615E-03
7.000E+03	8.639E+01	8.639E-03	3.600E+01	3.600E-02	3.927E+00	3.927E-04	1.636E+00	1.636E-03
8.000E+03	8.742E+01	8.742E-03	3.642E+01	3.642E-02	3.974E+00	3.974E-04	1.656E+00	1.656E-03
9.000E+03	8.837E+01	8.837E-03	3.682E+01	3.682E-02	4.017E+00	4.017E-04	1.674E+00	1.674E-03
1.000E+04	8.924E+01	8.924E-03	3.718E+01	3.718E-02	4.056E+00	4.056E-04	1.690E+00	1.690E-03

TABLE 96

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AU Z= 79 A= 197.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)	(PC/N*CM)	(PC/N*UM)	(PC*SQCM/N*G)	(PC*SQCM/N*MG)
1.000E-02	8.924E+01	8.924E-03	3.719E+01	3.719E-02	4.056E+00	4.056E-04	1.690E+00	1.690E-03
2.000E-02	1.263E+02	1.263E-02	5.259E+01	5.259E-02	5.739E+00	5.739E-04	2.390E+00	2.390E-03
3.000E-02	1.546E+02	1.546E-02	6.441E+01	6.441E-02	7.027E+00	7.027E-04	2.928E+00	2.928E-03
4.000E-02	1.785E+02	1.785E-02	7.437E+01	7.437E-02	8.115E+00	8.115E-04	3.380E+00	3.380E-03
5.000E-02	1.995E+02	1.995E-02	8.314E+01	8.314E-02	9.069E+00	9.069E-04	3.779E+00	3.779E-03
6.000E-02	2.186E+02	2.186E-02	9.109E+01	9.109E-02	9.938E+00	9.938E-04	4.140E+00	4.140E-03
7.000E-02	2.361E+02	2.361E-02	9.838E+01	9.838E-02	1.073E+01	1.073E-03	4.472E+00	4.472E-03
8.000E-02	2.524E+02	2.524E-02	1.052E+02	1.052E-01	1.147E+01	1.147E-03	4.781E+00	4.781E-03
9.000E-02	2.677E+02	2.677E-02	1.116E+02	1.116E-01	1.217E+01	1.217E-03	5.071E+00	5.071E-03
1.000E-01	2.822E+02	2.822E-02	1.176E+02	1.176E-01	1.283E+01	1.283E-03	5.344E+00	5.344E-03
2.000E-01	3.991E+02	3.991E-02	1.662E+02	1.662E-01	1.814E+01	1.814E-03	7.557E+00	7.557E-03
3.000E-01	4.887E+02	4.887E-02	2.037E+02	2.037E-01	2.221E+01	2.221E-03	9.257E+00	9.257E-03
4.000E-01	5.643E+02	5.643E-02	2.351E+02	2.351E-01	2.565E+01	2.565E-03	1.069E+01	1.069E-02
5.000E-01	6.308E+02	6.308E-02	2.629E+02	2.629E-01	2.867E+01	2.867E-03	1.195E+01	1.195E-02
6.000E-01	6.909E+02	6.909E-02	2.879E+02	2.879E-01	3.141E+01	3.141E-03	1.308E+01	1.308E-02
7.000E-01	7.463E+02	7.463E-02	3.109E+02	3.109E-01	3.392E+01	3.392E-03	1.413E+01	1.413E-02
8.000E-01	7.934E+02	7.934E-02	3.305E+02	3.305E-01	3.606E+01	3.606E-03	1.502E+01	1.502E-02
9.000E-01	8.326E+02	8.326E-02	3.469E+02	3.469E-01	3.784E+01	3.784E-03	1.577E+01	1.577E-02
1.000E+00	8.661E+02	8.661E-02	3.608E+02	3.608E-01	3.937E+01	3.937E-03	1.640E+01	1.640E-02
2.000E+00	1.037E+03	1.037E-01	4.322E+02	4.322E-01	4.713E+01	4.713E-03	1.965E+01	1.965E-02
3.000E+00	1.091E+03	1.091E-01	4.547E+02	4.547E-01	4.961E+01	4.961E-03	2.067E+01	2.067E-02
4.000E+00	1.106E+03	1.106E-01	4.608E+02	4.608E-01	5.028E+01	5.028E-03	2.094E+01	2.094E-02
5.000E+00	1.103E+03	1.103E-01	4.597E+02	4.597E-01	5.014E+01	5.014E-03	2.090E+01	2.090E-02
6.000E+00	1.093E+03	1.093E-01	4.552E+02	4.552E-01	4.966E+01	4.966E-03	2.069E+01	2.069E-02
7.000E+00	1.077E+03	1.077E-01	4.487E+02	4.487E-01	4.894E+01	4.894E-03	2.040E+01	2.040E-02
8.000E+00	1.060E+03	1.060E-01	4.414E+02	4.414E-01	4.816E+01	4.816E-03	2.006E+01	2.006E-02
9.000E+00	1.040E+03	1.040E-01	4.336E+02	4.336E-01	4.729E+01	4.729E-03	1.971E+01	1.971E-02
1.000E+01	1.021E+03	1.021E-01	4.256E+02	4.256E-01	4.641E+01	4.641E-03	1.935E+01	1.935E-02
2.000E+01	8.510E+02	8.510E-02	3.546E+02	3.546E-01	3.868E+01	3.868E-03	1.612E+01	1.612E-02
3.000E+01	7.301E+02	7.301E-02	3.042E+02	3.042E-01	3.319E+01	3.319E-03	1.383E+01	1.383E-02
4.000E+01	6.431E+02	6.431E-02	2.679E+02	2.679E-01	2.923E+01	2.923E-03	1.218E+01	1.218E-02
5.000E+01	5.774E+02	5.774E-02	2.406E+02	2.406E-01	2.625E+01	2.625E-03	1.094E+01	1.094E-02
6.000E+01	5.261E+02	5.261E-02	2.193E+02	2.193E-01	2.392E+01	2.392E-03	9.967E+00	9.967E-03
7.000E+01	4.849E+02	4.849E-02	2.020E+02	2.020E-01	2.204E+01	2.204E-03	9.183E+00	9.183E-03
8.000E+01	4.510E+02	4.510E-02	1.880E+02	1.880E-01	2.050E+01	2.050E-03	8.544E+00	8.544E-03
9.000E+01	4.225E+02	4.225E-02	1.761E+02	1.761E-01	1.921E+01	1.921E-03	8.005E+00	8.005E-03
1.000E+02	3.982E+02	3.982E-02	1.660E+02	1.660E-01	1.810E+01	1.810E-03	7.544E+00	7.544E-03
2.000E+02	2.676E+02	2.676E-02	1.115E+02	1.115E-01	1.216E+01	1.216E-03	5.069E+00	5.069E-03
3.000E+02	2.144E+02	2.144E-02	8.935E+01	8.935E-02	9.746E+00	9.746E-04	4.061E+00	4.061E-03
4.000E+02	1.864E+02	1.864E-02	7.766E+01	7.766E-02	8.471E+00	8.471E-04	3.530E+00	3.530E-03
5.000E+02	1.695E+02	1.695E-02	7.061E+01	7.061E-02	7.705E+00	7.705E-04	3.210E+00	3.210E-03
6.000E+02	1.584E+02	1.584E-02	6.600E+01	6.600E-02	7.200E+00	7.200E-04	3.000E+00	3.000E-03
7.000E+02	1.507E+02	1.507E-02	6.281E+01	6.281E-02	6.850E+00	6.850E-04	2.855E+00	2.855E-03
8.000E+02	1.452E+02	1.452E-02	6.051E+01	6.051E-02	6.602E+00	6.602E-04	2.751E+00	2.751E-03
9.000E+02	1.410E+02	1.410E-02	5.875E+01	5.875E-02	6.410E+00	6.410E-04	2.671E+00	2.671E-03
1.000E+03	1.377E+02	1.377E-02	5.738E+01	5.738E-02	6.260E+00	6.260E-04	2.608E+00	2.608E-03
2.000E+03	1.269E+02	1.269E-02	5.287E+01	5.287E-02	5.768E+00	5.768E-04	2.403E+00	2.403E-03
3.000E+03	1.267E+02	1.267E-02	5.278E+01	5.278E-02	5.759E+00	5.759E-04	2.399E+00	2.399E-03
4.000E+03	1.282E+02	1.282E-02	5.342E+01	5.342E-02	5.829E+00	5.829E-04	2.428E+00	2.428E-03
5.000E+03	1.301E+02	1.301E-02	5.420E+01	5.420E-02	5.913E+00	5.913E-04	2.464E+00	2.464E-03
6.000E+03	1.319E+02	1.319E-02	5.497E+01	5.497E-02	5.998E+00	5.998E-04	2.499E+00	2.499E-03
7.000E+03	1.337E+02	1.337E-02	5.569E+01	5.569E-02	6.075E+00	6.075E-04	2.531E+00	2.531E-03
8.000E+03	1.352E+02	1.352E-02	5.636E+01	5.636E-02	6.147E+00	6.147E-04	2.562E+00	2.562E-03
9.000E+03	1.367E+02	1.367E-02	5.697E+01	5.697E-02	6.214E+00	6.214E-04	2.590E+00	2.590E-03
1.000E+04	1.381E+02	1.381E-02	5.753E+01	5.753E-02	6.277E+00	6.277E-04	2.615E+00	2.615E-03

TABLE 97

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: H Z= 1 A= 1.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E-02	2.343E+02	2.343E-02	9.763E+01	9.763E-02	1.065E+01	1.065E-03	4.438E+00	4.438E-03
3.000E-02	2.870E+02	2.870E-02	1.195E+02	1.195E-01	1.305E+01	1.305E-03	5.434E+00	5.434E-03
4.000E-02	3.313E+02	3.313E-02	1.381E+02	1.381E-01	1.506E+01	1.506E-03	6.275E+00	6.275E-03
5.000E-02	3.705E+02	3.705E-02	1.544E+02	1.544E-01	1.684E+01	1.684E-03	7.017E+00	7.017E-03
6.000E-02	4.059E+02	4.059E-02	1.691E+02	1.691E-01	1.845E+01	1.845E-03	7.685E+00	7.685E-03
7.000E-02	4.383E+02	4.383E-02	1.827E+02	1.827E-01	1.992E+01	1.992E-03	8.304E+00	8.304E-03
8.000E-02	4.685E+02	4.685E-02	1.952E+02	1.952E-01	2.130E+01	2.130E-03	8.873E+00	8.873E-03
9.000E-02	4.970E+02	4.970E-02	2.071E+02	2.071E-01	2.259E+01	2.259E-03	9.414E+00	9.414E-03
1.000E-01	5.239E+02	5.239E-02	2.183E+02	2.183E-01	2.381E+01	2.381E-03	9.924E+00	9.924E-03
2.000E-01	7.269E+02	7.269E-02	3.028E+02	3.028E-01	3.304E+01	3.304E-03	1.376E+01	1.376E-02
3.000E-01	7.310E+02	7.310E-02	3.046E+02	3.046E-01	3.323E+01	3.323E-03	1.384E+01	1.384E-02
4.000E-01	6.805E+02	6.805E-02	2.835E+02	2.835E-01	3.093E+01	3.093E-03	1.289E+01	1.289E-02
5.000E-01	6.255E+02	6.255E-02	2.606E+02	2.606E-01	2.843E+01	2.843E-03	1.185E+01	1.185E-02
6.000E-01	5.758E+02	5.758E-02	2.399E+02	2.399E-01	2.617E+01	2.617E-03	1.090E+01	1.090E-02
7.000E-01	5.326E+02	5.326E-02	2.219E+02	2.219E-01	2.421E+01	2.421E-03	1.009E+01	1.009E-02
8.000E-01	4.954E+02	4.954E-02	2.064E+02	2.064E-01	2.252E+01	2.252E-03	9.381E+00	9.381E-03
9.000E-01	4.632E+02	4.632E-02	1.930E+02	1.930E-01	2.106E+01	2.106E-03	8.772E+00	8.772E-03
1.000E+00	4.352E+02	4.352E-02	1.814E+02	1.814E-01	1.978E+01	1.978E-03	8.243E+00	8.243E-03
2.000E+00	2.775E+02	2.775E-02	1.157E+02	1.157E-01	1.261E+01	1.261E-03	5.257E+00	5.257E-03
3.000E+00	2.084E+02	2.084E-02	8.686E+01	8.686E-02	9.475E+00	9.475E-04	3.948E+00	3.948E-03
4.000E+00	1.690E+02	1.690E-02	7.040E+01	7.040E-02	7.681E+00	7.681E-04	3.200E+00	3.200E-03
5.000E+00	1.430E+02	1.430E-02	5.958E+01	5.958E-02	6.498E+00	6.498E-04	2.708E+00	2.708E-03
6.000E+00	1.246E+02	1.246E-02	5.190E+01	5.190E-02	5.662E+00	5.662E-04	2.359E+00	2.359E-03
7.000E+00	1.107E+02	1.107E-02	4.612E+01	4.612E-02	5.031E+00	5.031E-04	2.097E+00	2.097E-03
8.000E+00	9.990E+01	9.990E-03	4.162E+01	4.162E-02	4.541E+00	4.541E-04	1.892E+00	1.892E-03
9.000E+00	9.117E+01	9.117E-03	3.799E+01	3.799E-02	4.144E+00	4.144E-04	1.727E+00	1.727E-03
1.000E+01	8.400E+01	8.400E-03	3.500E+01	3.500E-02	3.818E+00	3.818E-04	1.591E+00	1.591E-03
2.000E+01	4.865E+01	4.865E-03	2.027E+01	2.027E-02	2.211E+00	2.211E-04	9.212E-01	9.212E-04
3.000E+01	3.528E+01	3.528E-03	1.470E+01	1.470E-02	1.604E+00	1.604E-04	6.681E-01	6.681E-04
4.000E+01	2.812E+01	2.812E-03	1.172E+01	1.172E-02	1.278E+00	1.278E-04	5.325E-01	5.325E-04
5.000E+01	2.362E+01	2.362E-03	9.842E+00	9.842E-03	1.074E+00	1.074E-04	4.474E-01	4.474E-04
6.000E+01	2.051E+01	2.051E-03	8.546E+00	8.546E-03	9.323E-01	9.323E-05	3.884E-01	3.884E-04
7.000E+01	1.823E+01	1.823E-03	7.596E+00	7.596E-03	8.286E-01	8.286E-05	3.453E-01	3.453E-04
8.000E+01	1.648E+01	1.648E-03	6.867E+00	6.867E-03	7.493E-01	7.493E-05	3.122E-01	3.121E-04
9.000E+01	1.510E+01	1.510E-03	6.291E+00	6.291E-03	6.863E-01	6.863E-05	2.859E-01	2.859E-04
1.000E+02	1.397E+01	1.397E-03	5.822E+00	5.822E-03	6.350E-01	6.350E-05	2.646E-01	2.646E-04
2.000E+02	8.687E+00	8.687E-04	3.619E+00	3.619E-03	3.949E-01	3.949E-05	1.645E-01	1.645E-04
3.000E+02	6.841E+00	6.841E-04	2.851E+00	2.851E-03	3.110E-01	3.110E-05	1.296E-01	1.296E-04
4.000E+02	5.913E+00	5.913E-04	2.464E+00	2.464E-03	2.688E-01	2.688E-05	1.120E-01	1.120E-04
5.000E+02	5.363E+00	5.363E-04	2.234E+00	2.234E-03	2.438E-01	2.438E-05	1.016E-01	1.016E-04
6.000E+02	5.007E+00	5.007E-04	2.086E+00	2.086E-03	2.276E-01	2.276E-05	9.483E-02	9.483E-05
7.000E+02	4.762E+00	4.762E-04	1.985E+00	1.985E-03	2.165E-01	2.165E-05	9.020E-02	9.020E-05
8.000E+02	4.586E+00	4.586E-04	1.911E+00	1.911E-03	2.085E-01	2.085E-05	8.686E-02	8.686E-05
9.000E+02	4.452E+00	4.452E-04	1.855E+00	1.855E-03	2.024E-01	2.024E-05	8.430E-02	8.430E-05
1.000E+03	4.347E+00	4.347E-04	1.811E+00	1.811E-03	1.976E-01	1.976E-05	8.234E-02	8.234E-05
2.000E+03	4.005E+00	4.005E-04	1.668E+00	1.668E-03	1.820E-01	1.820E-05	7.584E-02	7.584E-05
3.000E+03	3.998E+00	3.998E-04	1.665E+00	1.665E-03	1.817E-01	1.817E-05	7.570E-02	7.570E-05
4.000E+03	4.046E+00	4.046E-04	1.686E+00	1.686E-03	1.839E-01	1.839E-05	7.662E-02	7.662E-05
5.000E+03	4.105E+00	4.105E-04	1.711E+00	1.711E-03	1.866E-01	1.866E-05	7.775E-02	7.775E-05
6.000E+03	4.164E+00	4.164E-04	1.735E+00	1.735E-03	1.893E-01	1.893E-05	7.885E-02	7.885E-05
7.000E+03	4.217E+00	4.217E-04	1.757E+00	1.757E-03	1.917E-01	1.917E-05	7.988E-02	7.988E-05
8.000E+03	4.268E+00	4.268E-04	1.779E+00	1.779E-03	1.940E-01	1.940E-05	8.084E-02	8.084E-05
9.000E+03	4.315E+00	4.315E-04	1.798E+00	1.798E-03	1.961E-01	1.961E-05	8.174E-02	8.174E-05
1.000E+04	4.358E+00	4.358E-04	1.816E+00	1.816E-03	1.981E-01	1.981E-05	8.254E-02	8.254E-05

TABLE 98

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: HE Z= 2 A= 4.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
5.000E-02	5.959E+02	5.959E-02	2.483E+02	2.483E-01	2.709E+01	2.709E-03	1.129E+01	1.129E-02
6.000E-02	6.527E+02	6.527E-02	2.720E+02	2.720E-01	2.967E+01	2.967E-03	1.236E+01	1.236E-02
7.000E-02	7.050E+02	7.050E-02	2.937E+02	2.937E-01	3.205E+01	3.205E-03	1.335E+01	1.335E-02
8.000E-02	7.537E+02	7.537E-02	3.141E+02	3.141E-01	3.426E+01	3.426E-03	1.428E+01	1.428E-02
9.000E-02	7.994E+02	7.994E-02	3.331E+02	3.331E-01	3.634E+01	3.634E-03	1.514E+01	1.514E-02
1.000E-01	8.426E+02	8.426E-02	3.511E+02	3.511E-01	3.830E+01	3.830E-03	1.596E+01	1.596E-02
2.000E-01	1.191E+03	1.191E-01	4.965E+02	4.965E-01	5.415E+01	5.415E-03	2.257E+01	2.257E-02
3.000E-01	1.460E+03	1.460E-01	6.082E+02	6.082E-01	6.634E+01	6.634E-03	2.764E+01	2.764E-02
4.000E-01	1.685E+03	1.685E-01	7.022E+02	7.022E-01	7.660E+01	7.660E-03	3.192E+01	3.192E-02
5.000E-01	1.884E+03	1.884E-01	7.851E+02	7.851E-01	8.563E+01	8.563E-03	3.569E+01	3.569E-02
6.000E-01	2.064E+03	2.064E-01	8.601E+02	8.601E-01	9.383E+01	9.383E-03	3.909E+01	3.909E-02
7.000E-01	2.228E+03	2.228E-01	9.286E+02	9.286E-01	1.013E+02	1.013E-02	4.221E+01	4.221E-02
8.000E-01	2.386E+03	2.386E-01	9.939E+02	9.939E-01	1.085E+02	1.085E-02	4.518E+01	4.518E-02
9.000E-01	2.510E+03	2.510E-01	1.045E+03	1.045E+00	1.141E+02	1.141E-02	4.751E+01	4.751E-02
1.000E+00	2.588E+03	2.588E-01	1.078E+03	1.078E+00	1.176E+02	1.176E-02	4.901E+01	4.901E-02
2.000E+00	2.454E+03	2.454E-01	1.023E+03	1.023E+00	1.115E+02	1.115E-02	4.649E+01	4.649E-02
3.000E+00	2.057E+03	2.057E-01	8.574E+02	8.574E-01	9.351E+01	9.351E-03	3.897E+01	3.897E-02
4.000E+00	1.743E+03	1.743E-01	7.261E+02	7.261E-01	7.921E+01	7.921E-03	3.300E+01	3.300E-02
5.000E+00	1.516E+03	1.516E-01	6.319E+02	6.319E-01	6.893E+01	6.893E-03	2.872E+01	2.872E-02
6.000E+00	1.347E+03	1.347E-01	5.615E+02	5.615E-01	6.124E+01	6.124E-03	2.552E+01	2.552E-02
7.000E+00	1.215E+03	1.215E-01	5.066E+02	5.066E-01	5.525E+01	5.525E-03	2.303E+01	2.303E-02
8.000E+00	1.110E+03	1.110E-01	4.625E+02	4.625E-01	5.047E+01	5.047E-03	2.102E+01	2.102E-02
9.000E+00	1.023E+03	1.023E-01	4.262E+02	4.262E-01	4.651E+01	4.651E-03	1.937E+01	1.937E-02
1.000E+01	9.495E+02	9.495E-02	3.956E+02	3.956E-01	4.316E+01	4.316E-03	1.798E+01	1.798E-02
2.000E+01	5.719E+02	5.719E-02	2.382E+02	2.382E-01	2.599E+01	2.599E-03	1.083E+01	1.083E-02
3.000E+01	4.199E+02	4.199E-02	1.749E+02	1.749E-01	1.908E+01	1.908E-03	7.950E+00	7.950E-03
4.000E+01	3.359E+02	3.359E-02	1.400E+02	1.400E-01	1.527E+01	1.527E-03	6.363E+00	6.363E-03
5.000E+01	2.820E+02	2.820E-02	1.175E+02	1.175E-01	1.282E+01	1.282E-03	5.339E+00	5.339E-03
6.000E+01	2.443E+02	2.443E-02	1.018E+02	1.018E-01	1.110E+01	1.110E-03	4.626E+00	4.626E-03
7.000E+01	2.163E+02	2.163E-02	9.011E+01	9.011E-02	9.833E+00	9.833E-04	4.096E+00	4.096E-03
8.000E+01	1.945E+02	1.945E-02	8.108E+01	8.108E-02	8.843E+00	8.843E-04	3.685E+00	3.685E-03
9.000E+01	1.772E+02	1.772E-02	7.385E+01	7.385E-02	8.055E+00	8.055E-04	3.357E+00	3.357E-03
1.000E+02	1.630E+02	1.630E-02	6.793E+01	6.793E-02	7.410E+00	7.410E-04	3.088E+00	3.088E-03
2.000E+02	9.444E+01	9.444E-03	3.936E+01	3.936E-02	4.293E+00	4.293E-04	1.789E+00	1.789E-03
3.000E+02	6.919E+01	6.919E-03	2.883E+01	2.883E-02	3.145E+00	3.145E-04	1.310E+00	1.310E-03
4.000E+02	5.588E+01	5.588E-03	2.328E+01	2.328E-02	2.540E+00	2.540E-04	1.058E+00	1.058E-03
5.000E+02	4.761E+01	4.761E-03	1.984E+01	1.984E-02	2.164E+00	2.164E-04	9.017E-01	9.017E-04
6.000E+02	4.196E+01	4.196E-03	1.749E+01	1.749E-02	1.907E+00	1.907E-04	7.948E-01	7.948E-04
7.000E+02	3.786E+01	3.786E-03	1.577E+01	1.577E-02	1.721E+00	1.721E-04	7.170E-01	7.170E-04
8.000E+02	3.474E+01	3.474E-03	1.448E+01	1.448E-02	1.579E+00	1.579E-04	6.580E-01	6.580E-04
9.000E+02	3.230E+01	3.230E-03	1.346E+01	1.346E-02	1.468E+00	1.468E-04	6.116E-01	6.116E-04
1.000E+03	3.033E+01	3.033E-03	1.263E+01	1.263E-02	1.379E+00	1.379E-04	5.742E-01	5.742E-04
2.000E+03	2.145E+01	2.145E-03	8.938E+00	8.938E-03	9.750E-01	9.750E-05	4.063E-01	4.063E-04
3.000E+03	1.867E+01	1.867E-03	7.779E+00	7.779E-03	8.486E-01	8.486E-05	3.536E-01	3.536E-04
4.000E+03	1.739E+01	1.739E-03	7.246E+00	7.246E-03	7.904E-01	7.904E-05	3.294E-01	3.294E-04
5.000E+03	1.672E+01	1.672E-03	6.964E+00	6.964E-03	7.600E-01	7.600E-05	3.165E-01	3.165E-04
6.000E+03	1.634E+01	1.634E-03	6.809E+00	6.809E-03	7.426E-01	7.426E-05	3.095E-01	3.095E-04
7.000E+03	1.613E+01	1.613E-03	6.722E+00	6.722E-03	7.331E-01	7.331E-05	3.055E-01	3.055E-04
8.000E+03	1.602E+01	1.602E-03	6.675E+00	6.675E-03	7.281E-01	7.281E-05	3.034E-01	3.034E-04
9.000E+03	1.597E+01	1.597E-03	6.652E+00	6.652E-03	7.260E-01	7.260E-05	3.024E-01	3.024E-04
1.000E+04	1.595E+01	1.595E-03	6.647E+00	6.647E-03	7.250E-01	7.250E-05	3.021E-01	3.021E-04
2.000E+04	1.642E+01	1.642E-03	6.843E+00	6.842E-03	7.462E-01	7.462E-05	3.110E-01	3.110E-04
3.000E+04	1.697E+01	1.697E-03	7.073E+00	7.073E-03	7.714E-01	7.714E-05	3.215E-01	3.215E-04
4.000E+04	1.743E+01	1.743E-03	7.262E+00	7.262E-03	7.922E-01	7.922E-05	3.301E-01	3.301E-04

TABLE 99

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: LI Z= 3 A= 6.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
7.000E-02	8.095E+02	8.095E-02	3.373E+02	3.373E-01	3.680E+01	3.680E-03	1.533E+01	1.533E-02
8.000E-02	8.655E+02	8.655E-02	3.606E+02	3.606E-01	3.934E+01	3.934E-03	1.639E+01	1.639E-02
9.000E-02	9.180E+02	9.180E-02	3.825E+02	3.825E-01	4.173E+01	4.173E-03	1.739E+01	1.739E-02
1.000E-01	9.677E+02	9.677E-02	4.032E+02	4.032E-01	4.399E+01	4.399E-03	1.833E+01	1.833E-02
2.000E-01	1.368E+03	1.368E-01	5.702E+02	5.702E-01	6.220E+01	6.220E-03	2.592E+01	2.592E-02
3.000E-01	1.675E+03	1.675E-01	6.984E+02	6.984E-01	7.616E+01	7.616E-03	3.174E+01	3.174E-02
4.000E-01	1.936E+03	1.936E-01	8.063E+02	8.063E-01	8.798E+01	8.798E-03	3.665E+01	3.665E-02
5.000E-01	2.164E+03	2.164E-01	9.015E+02	9.015E-01	9.834E+01	9.834E-03	4.098E+01	4.098E-02
6.000E-01	2.370E+03	2.370E-01	9.874E+02	9.874E-01	1.077E+02	1.077E-02	4.488E+01	4.488E-02
7.000E-01	2.560E+03	2.560E-01	1.067E+03	1.067E+00	1.163E+02	1.163E-02	4.849E+01	4.849E-02
8.000E-01	2.737E+03	2.737E-01	1.141E+03	1.141E+00	1.244E+02	1.244E-02	5.185E+01	5.185E-02
9.000E-01	2.903E+03	2.903E-01	1.210E+03	1.210E+00	1.320E+02	1.320E-02	5.499E+01	5.499E-02
1.000E+00	3.060E+03	3.060E-01	1.275E+03	1.275E+00	1.391E+02	1.391E-02	5.795E+01	5.795E-02
2.000E+00	4.285E+03	4.285E-01	1.786E+03	1.786E+00	1.948E+02	1.948E-02	8.116E+01	8.116E-02
3.000E+00	4.690E+03	4.690E-01	1.954E+03	1.954E+00	2.132E+02	2.132E-02	8.881E+01	8.881E-02
4.000E+00	4.657E+03	4.657E-01	1.941E+03	1.941E+00	2.117E+02	2.117E-02	8.821E+01	8.821E-02
5.000E+00	4.441E+03	4.441E-01	1.850E+03	1.850E+00	2.019E+02	2.019E-02	8.409E+01	8.409E-02
6.000E+00	4.161E+03	4.161E-01	1.734E+03	1.734E+00	1.891E+02	1.891E-02	7.880E+01	7.880E-02
7.000E+00	3.874E+03	3.874E-01	1.614E+03	1.614E+00	1.761E+02	1.761E-02	7.336E+01	7.336E-02
8.000E+00	3.594E+03	3.594E-01	1.497E+03	1.497E+00	1.634E+02	1.634E-02	6.806E+01	6.806E-02
9.000E+00	3.331E+03	3.331E-01	1.388E+03	1.388E+00	1.514E+02	1.514E-02	6.309E+01	6.309E-02
1.000E+01	3.111E+03	3.111E-01	1.297E+03	1.297E+00	1.414E+02	1.414E-02	5.893E+01	5.893E-02
2.000E+01	1.930E+03	1.930E-01	8.040E+02	8.040E-01	8.771E+01	8.771E-03	3.654E+01	3.654E-02
3.000E+01	1.434E+03	1.434E-01	5.975E+02	5.975E-01	6.519E+01	6.519E-03	2.716E+01	2.716E-02
4.000E+01	1.154E+03	1.154E-01	4.812E+02	4.812E-01	5.248E+01	5.248E-03	2.187E+01	2.187E-02
5.000E+01	9.739E+02	9.739E-02	4.058E+02	4.058E-01	4.427E+01	4.427E-03	1.845E+01	1.845E-02
6.000E+01	8.459E+02	8.459E-02	3.524E+02	3.524E-01	3.845E+01	3.845E-03	1.602E+01	1.602E-02
7.000E+01	7.502E+02	7.502E-02	3.126E+02	3.126E-01	3.410E+01	3.410E-03	1.421E+01	1.421E-02
8.000E+01	6.759E+02	6.759E-02	2.816E+02	2.816E-01	3.072E+01	3.072E-03	1.280E+01	1.280E-02
9.000E+01	6.161E+02	6.161E-02	2.567E+02	2.567E-01	2.800E+01	2.800E-03	1.167E+01	1.167E-02
1.000E+02	5.669E+02	5.669E-02	2.362E+02	2.362E-01	2.577E+01	2.577E-03	1.074E+01	1.074E-02
2.000E+02	3.275E+02	3.275E-02	1.365E+02	1.365E-01	1.489E+01	1.489E-03	6.202E+00	6.202E-03
3.000E+02	2.379E+02	2.379E-02	9.917E+01	9.917E-02	1.082E+01	1.082E-03	4.508E+00	4.508E-03
4.000E+02	1.903E+02	1.903E-02	7.928E+01	7.928E-02	8.650E+00	8.650E-04	3.604E+00	3.604E-03
5.000E+02	1.604E+02	1.604E-02	6.682E+01	6.682E-02	7.289E+00	7.289E-04	3.037E+00	3.037E-03
6.000E+02	1.399E+02	1.399E-02	5.828E+01	5.828E-02	6.359E+00	6.359E-04	2.649E+00	2.649E-03
7.000E+02	1.249E+02	1.249E-02	5.203E+01	5.203E-02	5.676E+00	5.676E-04	2.365E+00	2.365E-03
8.000E+02	1.134E+02	1.134E-02	4.725E+01	4.725E-02	5.155E+00	5.155E-04	2.148E+00	2.148E-03
9.000E+02	1.044E+02	1.044E-02	4.348E+01	4.348E-02	4.744E+00	4.744E-04	1.976E+00	1.976E-03
1.000E+03	9.698E+01	9.698E-03	4.042E+01	4.042E-02	4.408E+00	4.408E-04	1.837E+00	1.837E-03
2.000E+03	6.290E+01	6.290E-03	2.621E+01	2.621E-02	2.859E+00	2.859E-04	1.191E+00	1.191E-03
3.000E+03	5.133E+01	5.133E-03	2.139E+01	2.139E-02	2.333E+00	2.333E-04	9.721E-01	9.721E-04
4.000E+03	4.570E+01	4.570E-03	1.904E+01	1.904E-02	2.077E+00	2.077E-04	8.655E-01	8.655E-04
5.000E+03	4.248E+01	4.248E-03	1.770E+01	1.770E-02	1.931E+00	1.931E-04	8.045E-01	8.045E-04
6.000E+03	4.045E+01	4.045E-03	1.685E+01	1.685E-02	1.839E+00	1.839E-04	7.661E-01	7.661E-04
7.000E+03	3.905E+01	3.905E-03	1.627E+01	1.627E-02	1.775E+00	1.775E-04	7.395E-01	7.395E-04
8.000E+03	3.809E+01	3.809E-03	1.587E+01	1.587E-02	1.731E+00	1.731E-04	7.213E-01	7.213E-04
9.000E+03	3.741E+01	3.741E-03	1.558E+01	1.558E-02	1.701E+00	1.701E-04	7.084E-01	7.084E-04
1.000E+04	3.692E+01	3.692E-03	1.539E+01	1.539E-02	1.678E+00	1.678E-04	6.993E-01	6.993E-04
2.000E+04	3.595E+01	3.595E-03	1.498E+01	1.498E-02	1.634E+00	1.634E-04	6.809E-01	6.809E-04
3.000E+04	3.659E+01	3.659E-03	1.524E+01	1.524E-02	1.663E+00	1.663E-04	6.928E-01	6.928E-04
4.000E+04	3.735E+01	3.735E-03	1.556E+01	1.556E-02	1.698E+00	1.698E-04	7.074E-01	7.074E-04
5.000E+04	3.807E+01	3.807E-03	1.586E+01	1.586E-02	1.730E+00	1.730E-04	7.208E-01	7.208E-04
6.000E+04	3.869E+01	3.869E-03	1.612E+01	1.612E-02	1.759E+00	1.759E-04	7.327E-01	7.327E-04

TABLE 100

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: BE Z= 4 A= 9.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
1.000E-01	1.276E+03	1.276E-01	5.316E+02	5.316E-01	5.799E+01	5.799E-03	2.416E+01	2.416E-02
2.000E-01	1.805E+03	1.805E-01	7.519E+02	7.519E-01	8.204E+01	8.204E-03	3.418E+01	3.418E-02
3.000E-01	2.210E+03	2.210E-01	9.210E+02	9.210E-01	1.005E+02	1.005E-02	4.186E+01	4.186E-02
4.000E-01	2.552E+03	2.552E-01	1.063E+03	1.063E+00	1.160E+02	1.160E-02	4.833E+01	4.833E-02
5.000E-01	2.853E+03	2.853E-01	1.189E+03	1.189E+00	1.297E+02	1.297E-02	5.403E+01	5.403E-02
6.000E-01	3.126E+03	3.126E-01	1.303E+03	1.303E+00	1.421E+02	1.421E-02	5.921E+01	5.921E-02
7.000E-01	3.376E+03	3.376E-01	1.407E+03	1.407E+00	1.534E+02	1.534E-02	6.396E+01	6.396E-02
8.000E-01	3.609E+03	3.609E-01	1.504E+03	1.504E+00	1.640E+02	1.640E-02	6.835E+01	6.835E-02
9.000E-01	3.828E+03	3.828E-01	1.595E+03	1.595E+00	1.740E+02	1.740E-02	7.248E+01	7.248E-02
1.000E+00	4.035E+03	4.035E-01	1.681E+03	1.681E+00	1.834E+02	1.834E-02	7.641E+01	7.641E-02
2.000E+00	5.710E+03	5.710E-01	2.379E+03	2.379E+00	2.596E+02	2.596E-02	1.081E+02	1.081E-01
3.000E+00	6.574E+03	6.574E-01	2.739E+03	2.739E+00	2.988E+02	2.988E-02	1.245E+02	1.245E-01
4.000E+00	6.711E+03	6.711E-01	2.797E+03	2.797E+00	3.051E+02	3.051E-02	1.271E+02	1.271E-01
5.000E+00	6.591E+03	6.591E-01	2.746E+03	2.746E+00	2.996E+02	2.996E-02	1.248E+02	1.248E-01
6.000E+00	6.377E+03	6.377E-01	2.657E+03	2.657E+00	2.899E+02	2.899E-02	1.208E+02	1.208E-01
7.000E+00	6.133E+03	6.133E-01	2.555E+03	2.555E+00	2.788E+02	2.788E-02	1.162E+02	1.162E-01
8.000E+00	5.887E+03	5.887E-01	2.453E+03	2.453E+00	2.676E+02	2.676E-02	1.115E+02	1.115E-01
9.000E+00	5.649E+03	5.649E-01	2.354E+03	2.354E+00	2.568E+02	2.568E-02	1.070E+02	1.070E-01
1.000E+01	5.424E+03	5.424E-01	2.260E+03	2.260E+00	2.466E+02	2.466E-02	1.027E+02	1.027E-01
2.000E+01	3.853E+03	3.853E-01	1.605E+03	1.605E+00	1.751E+02	1.751E-02	7.295E+01	7.295E-02
3.000E+01	2.995E+03	2.995E-01	1.248E+03	1.248E+00	1.362E+02	1.362E-02	5.671E+01	5.671E-02
4.000E+01	2.460E+03	2.460E-01	1.025E+03	1.025E+00	1.118E+02	1.118E-02	4.659E+01	4.659E-02
5.000E+01	2.094E+03	2.094E-01	8.725E+02	8.725E-01	9.520E+01	9.520E-03	3.966E+01	3.966E-02
6.000E+01	1.829E+03	1.829E-01	7.621E+02	7.621E-01	8.312E+01	8.312E-03	3.464E+01	3.464E-02
7.000E+01	1.628E+03	1.628E-01	6.782E+02	6.782E-01	7.398E+01	7.398E-03	3.083E+01	3.083E-02
8.000E+01	1.470E+03	1.470E-01	6.124E+02	6.124E-01	6.680E+01	6.680E-03	2.784E+01	2.784E-02
9.000E+01	1.342E+03	1.342E-01	5.592E+02	5.592E-01	6.102E+01	6.102E-03	2.542E+01	2.542E-02
1.000E+02	1.237E+03	1.237E-01	5.153E+02	5.153E-01	5.622E+01	5.622E-03	2.342E+01	2.342E-02
2.000E+02	7.163E+02	7.163E-02	2.985E+02	2.985E-01	3.256E+01	3.256E-03	1.357E+01	1.357E-02
3.000E+02	5.196E+02	5.196E-02	2.165E+02	2.165E-01	2.362E+01	2.362E-03	9.840E+00	9.840E-03
4.000E+02	4.145E+02	4.145E-02	1.726E+02	1.726E-01	1.884E+01	1.884E-03	7.847E+00	7.847E-03
5.000E+02	3.484E+02	3.484E-02	1.451E+02	1.451E-01	1.583E+01	1.583E-03	6.597E+00	6.597E-03
6.000E+02	3.028E+02	3.028E-02	1.262E+02	1.262E-01	1.376E+01	1.376E-03	5.734E+00	5.734E-03
7.000E+02	2.694E+02	2.694E-02	1.123E+02	1.123E-01	1.225E+01	1.225E-03	5.103E+00	5.103E-03
8.000E+02	2.438E+02	2.438E-02	1.016E+02	1.016E-01	1.108E+01	1.108E-03	4.619E+00	4.619E-03
9.000E+02	2.236E+02	2.236E-02	9.317E+01	9.317E-02	1.016E+01	1.016E-03	4.235E+00	4.235E-03
1.000E+03	2.072E+02	2.072E-02	8.634E+01	8.634E-02	9.419E+00	9.419E-04	3.925E+00	3.925E-03
2.000E+03	1.303E+02	1.303E-02	5.427E+01	5.427E-02	5.922E+00	5.922E-04	2.467E+00	2.467E-03
3.000E+03	1.036E+02	1.036E-02	4.314E+01	4.314E-02	4.708E+00	4.708E-04	1.961E+00	1.961E-03
4.000E+03	9.020E+01	9.020E-03	3.758E+01	3.758E-02	4.100E+00	4.100E-04	1.708E+00	1.708E-03
5.000E+03	8.239E+01	8.239E-03	3.433E+01	3.433E-02	3.745E+00	3.745E-04	1.560E+00	1.560E-03
6.000E+03	7.737E+01	7.737E-03	3.223E+01	3.223E-02	3.517E+00	3.517E-04	1.465E+00	1.465E-03
7.000E+03	7.394E+01	7.394E-03	3.081E+01	3.081E-02	3.361E+00	3.361E-04	1.401E+00	1.401E-03
8.000E+03	7.146E+01	7.146E-03	2.977E+01	2.977E-02	3.248E+00	3.248E-04	1.353E+00	1.353E-03
9.000E+03	6.956E+01	6.956E-03	2.899E+01	2.899E-02	3.162E+00	3.162E-04	1.318E+00	1.318E-03
1.000E+04	6.816E+01	6.816E-03	2.840E+01	2.840E-02	3.098E+00	3.098E-04	1.291E+00	1.291E-03
2.000E+04	6.388E+01	6.388E-03	2.662E+01	2.662E-02	2.904E+00	2.904E-04	1.210E+00	1.210E-03
3.000E+04	6.418E+01	6.418E-03	2.675E+01	2.675E-02	2.917E+00	2.917E-04	1.216E+00	1.216E-03
4.000E+04	6.515E+01	6.515E-03	2.715E+01	2.715E-02	2.961E+00	2.961E-04	1.234E+00	1.234E-03
5.000E+04	6.621E+01	6.621E-03	2.758E+01	2.758E-02	3.009E+00	3.009E-04	1.254E+00	1.254E-03
6.000E+04	6.720E+01	6.720E-03	2.800E+01	2.800E-02	3.055E+00	3.055E-04	1.273E+00	1.273E-03
7.000E+04	6.811E+01	6.811E-03	2.838E+01	2.838E-02	3.096E+00	3.096E-04	1.290E+00	1.290E-03
8.000E+04	6.895E+01	6.895E-03	2.873E+01	2.873E-02	3.134E+00	3.134E-04	1.306E+00	1.306E-03
9.000E+04	6.971E+01	6.971E-03	2.905E+01	2.905E-02	3.169E+00	3.169E-04	1.320E+00	1.320E-03

TABLE 101

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: B Z= 5 A= 10.82

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E-01	2.213E+03	2.213E-01	9.221E+02	9.221E-01	1.006E+02	1.006E-02	4.191E+01	4.191E-02
3.000E-01	2.710E+03	2.710E-01	1.129E+03	1.129E+00	1.232E+02	1.232E-02	5.133E+01	5.133E-02
4.000E-01	3.129E+03	3.129E-01	1.304E+03	1.304E+00	1.422E+02	1.422E-02	5.928E+01	5.928E-02
5.000E-01	3.499E+03	3.499E-01	1.458E+03	1.458E+00	1.591E+02	1.591E-02	6.628E+01	6.628E-02
6.000E-01	3.832E+03	3.832E-01	1.597E+03	1.597E+00	1.742E+02	1.742E-02	7.261E+01	7.261E-02
7.000E-01	4.140E+03	4.140E-01	1.725E+03	1.725E+00	1.882E+02	1.882E-02	7.842E+01	7.842E-02
8.000E-01	4.426E+03	4.426E-01	1.844E+03	1.844E+00	2.012E+02	2.012E-02	8.382E+01	8.382E-02
9.000E-01	4.694E+03	4.694E-01	1.956E+03	1.956E+00	2.134E+02	2.134E-02	8.889E+01	8.889E-02
1.000E+00	4.948E+03	4.948E-01	2.062E+03	2.062E+00	2.249E+02	2.249E-02	9.372E+01	9.372E-02
2.000E+00	6.996E+03	6.996E-01	2.916E+03	2.916E+00	3.180E+02	3.180E-02	1.325E+02	1.325E-01
3.000E+00	8.503E+03	8.503E-01	3.543E+03	3.543E+00	3.865E+02	3.865E-02	1.611E+02	1.611E-01
4.000E+00	9.153E+03	9.153E-01	3.814E+03	3.814E+00	4.160E+02	4.160E-02	1.733E+02	1.733E-01
5.000E+00	9.309E+03	9.309E-01	3.879E+03	3.879E+00	4.232E+02	4.232E-02	1.763E+02	1.763E-01
6.000E+00	9.241E+03	9.241E-01	3.850E+03	3.850E+00	4.200E+02	4.200E-02	1.750E+02	1.750E-01
7.000E+00	9.067E+03	9.067E-01	3.779E+03	3.779E+00	4.122E+02	4.122E-02	1.718E+02	1.718E-01
8.000E+00	8.845E+03	8.845E-01	3.685E+03	3.685E+00	4.020E+02	4.020E-02	1.675E+02	1.675E-01
9.000E+00	8.602E+03	8.602E-01	3.584E+03	3.584E+00	3.910E+02	3.910E-02	1.629E+02	1.629E-01
1.000E+01	8.354E+03	8.354E-01	3.481E+03	3.481E+00	3.797E+02	3.797E-02	1.582E+02	1.582E-01
2.000E+01	6.333E+03	6.333E-01	2.639E+03	2.639E+00	2.879E+02	2.879E-02	1.199E+02	1.199E-01
3.000E+01	5.089E+03	5.089E-01	2.120E+03	2.120E+00	2.313E+02	2.313E-02	9.638E+01	9.638E-02
4.000E+01	4.266E+03	4.266E-01	1.778E+03	1.778E+00	1.939E+02	1.939E-02	8.081E+01	8.081E-02
5.000E+01	3.679E+03	3.679E-01	1.532E+03	1.532E+00	1.672E+02	1.672E-02	6.966E+01	6.966E-02
6.000E+01	3.240E+03	3.240E-01	1.350E+03	1.350E+00	1.473E+02	1.473E-02	6.137E+01	6.137E-02
7.000E+01	2.898E+03	2.898E-01	1.207E+03	1.207E+00	1.317E+02	1.317E-02	5.488E+01	5.488E-02
8.000E+01	2.626E+03	2.626E-01	1.095E+03	1.095E+00	1.193E+02	1.193E-02	4.975E+01	4.975E-02
9.000E+01	2.404E+03	2.404E-01	1.002E+03	1.002E+00	1.093E+02	1.093E-02	4.554E+01	4.554E-02
1.000E+02	2.219E+03	2.219E-01	9.245E+02	9.245E-01	1.009E+02	1.009E-02	4.202E+01	4.202E-02
2.000E+02	1.293E+03	1.293E-01	5.387E+02	5.387E-01	5.877E+01	5.877E-03	2.449E+01	2.449E-02
3.000E+02	9.380E+02	9.380E-02	3.908E+02	3.908E-01	4.264E+01	4.264E-03	1.776E+01	1.776E-02
4.000E+02	7.474E+02	7.474E-02	3.114E+02	3.114E-01	3.397E+01	3.397E-03	1.415E+01	1.415E-02
5.000E+02	6.274E+02	6.274E-02	2.614E+02	2.614E-01	2.852E+01	2.852E-03	1.188E+01	1.188E-02
6.000E+02	5.444E+02	5.444E-02	2.269E+02	2.269E-01	2.475E+01	2.475E-03	1.031E+01	1.031E-02
7.000E+02	4.836E+02	4.836E-02	2.015E+02	2.015E-01	2.198E+01	2.198E-03	9.159E+00	9.159E-03
8.000E+02	4.369E+02	4.369E-02	1.821E+02	1.821E-01	1.986E+01	1.986E-03	8.276E+00	8.276E-03
9.000E+02	3.999E+02	3.999E-02	1.666E+02	1.666E-01	1.818E+01	1.818E-03	7.574E+00	7.574E-03
1.000E+03	3.699E+02	3.699E-02	1.541E+02	1.541E-01	1.681E+01	1.681E-03	7.004E+00	7.004E-03
2.000E+03	2.283E+02	2.283E-02	9.512E+01	9.512E-02	1.038E+01	1.038E-03	4.324E+00	4.324E-03
3.000E+03	1.785E+02	1.785E-02	7.440E+01	7.440E-02	8.115E+00	8.115E-04	3.382E+00	3.382E-03
4.000E+03	1.534E+02	1.534E-02	6.393E+01	6.393E-02	6.974E+00	6.974E-04	2.906E+00	2.906E-03
5.000E+03	1.385E+02	1.385E-02	5.771E+01	5.771E-02	6.298E+00	6.298E-04	2.623E+00	2.623E-03
6.000E+03	1.288E+02	1.288E-02	5.365E+01	5.365E-02	5.853E+00	5.853E-04	2.439E+00	2.439E-03
7.000E+03	1.220E+02	1.220E-02	5.083E+01	5.083E-02	5.545E+00	5.545E-04	2.310E+00	2.310E-03
8.000E+03	1.171E+02	1.171E-02	4.880E+01	4.880E-02	5.323E+00	5.323E-04	2.218E+00	2.218E-03
9.000E+03	1.135E+02	1.135E-02	4.728E+01	4.728E-02	5.159E+00	5.159E-04	2.149E+00	2.149E-03
1.000E+04	1.106E+02	1.106E-02	4.607E+01	4.607E-02	5.028E+00	5.028E-04	2.094E+00	2.094E-03
2.000E+04	1.005E+02	1.005E-02	4.187E+01	4.187E-02	4.566E+00	4.566E-04	1.903E+00	1.903E-03
3.000E+04	9.977E+01	9.977E-03	4.158E+01	4.158E-02	4.535E+00	4.535E-04	1.890E+00	1.890E-03
4.000E+04	1.008E+02	1.008E-02	4.198E+01	4.198E-02	4.580E+00	4.580E-04	1.908E+00	1.908E-03
5.000E+04	1.021E+02	1.021E-02	4.253E+01	4.253E-02	4.641E+00	4.641E-04	1.933E+00	1.933E-03
6.000E+04	1.034E+02	1.034E-02	4.310E+01	4.310E-02	4.701E+00	4.701E-04	1.959E+00	1.959E-03
7.000E+04	1.047E+02	1.047E-02	4.364E+01	4.364E-02	4.759E+00	4.759E-04	1.984E+00	1.984E-03
8.000E+04	1.060E+02	1.060E-02	4.415E+01	4.415E-02	4.816E+00	4.816E-04	2.007E+00	2.007E-03
9.000E+04	1.071E+02	1.071E-02	4.462E+01	4.462E-02	4.870E+00	4.870E-04	2.028E+00	2.028E-03
1.000E+05	1.082E+02	1.082E-02	4.505E+01	4.505E-02	4.917E+00	4.917E-04	2.048E+00	2.048E-03

TABLE 102

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: C Z= 6 A= 12.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E-01	2.637E+03	2.637E-01	1.098E+03	1.098E+00	1.199E+02	1.199E-02	4.992E+01	4.992E-02
3.000E-01	3.230E+03	3.230E-01	1.346E+03	1.346E+00	1.468E+02	1.468E-02	6.118E+01	6.118E-02
4.000E-01	3.729E+03	3.729E-01	1.553E+03	1.553E+00	1.695E+02	1.695E-02	7.060E+01	7.060E-02
5.000E-01	4.169E+03	4.169E-01	1.737E+03	1.737E+00	1.895E+02	1.895E-02	7.897E+01	7.897E-02
6.000E-01	4.567E+03	4.567E-01	1.902E+03	1.902E+00	2.076E+02	2.076E-02	8.648E+01	8.648E-02
7.000E-01	4.932E+03	4.932E-01	2.055E+03	2.055E+00	2.242E+02	2.242E-02	9.343E+01	9.343E-02
8.000E-01	5.273E+03	5.273E-01	2.197E+03	2.197E+00	2.397E+02	2.397E-02	9.987E+01	9.987E-02
9.000E-01	5.593E+03	5.593E-01	2.330E+03	2.330E+00	2.542E+02	2.542E-02	1.059E+02	1.059E-01
1.000E+00	5.896E+03	5.896E-01	2.456E+03	2.456E+00	2.680E+02	2.680E-02	1.117E+02	1.117E-01
2.000E+00	8.335E+03	8.335E-01	3.473E+03	3.473E+00	3.789E+02	3.789E-02	1.579E+02	1.579E-01
3.000E+00	1.022E+04	1.022E+00	4.256E+03	4.256E+00	4.645E+02	4.645E-02	1.934E+02	1.934E-01
4.000E+00	1.141E+04	1.141E+00	4.758E+03	4.758E+00	5.188E+02	5.188E-02	2.163E+02	2.163E-01
5.000E+00	1.191E+04	1.191E+00	4.961E+03	4.961E+00	5.413E+02	5.413E-02	2.255E+02	2.255E-01
6.000E+00	1.204E+04	1.204E+00	5.016E+03	5.016E+00	5.473E+02	5.473E-02	2.280E+02	2.280E-01
7.000E+00	1.198E+04	1.198E+00	4.994E+03	4.994E+00	5.446E+02	5.446E-02	2.270E+02	2.270E-01
8.000E+00	1.183E+04	1.183E+00	4.929E+03	4.929E+00	5.376E+02	5.376E-02	2.240E+02	2.240E-01
9.000E+00	1.163E+04	1.163E+00	4.841E+03	4.841E+00	5.284E+02	5.284E-02	2.201E+02	2.201E-01
1.000E+01	1.139E+04	1.139E+00	4.743E+03	4.743E+00	5.176E+02	5.176E-02	2.156E+02	2.156E-01
2.000E+01	9.064E+03	9.064E-01	3.776E+03	3.776E+00	4.120E+02	4.120E-02	1.717E+02	1.717E-01
3.000E+01	7.467E+03	7.467E-01	3.111E+03	3.111E+00	3.394E+02	3.394E-02	1.414E+02	1.414E-01
4.000E+01	6.362E+03	6.362E-01	2.651E+03	2.651E+00	2.892E+02	2.892E-02	1.205E+02	1.205E-01
5.000E+01	5.553E+03	5.553E-01	2.314E+03	2.314E+00	2.524E+02	2.524E-02	1.052E+02	1.052E-01
6.000E+01	4.932E+03	4.932E-01	2.055E+03	2.055E+00	2.242E+02	2.242E-02	9.342E+01	9.342E-02
7.000E+01	4.442E+03	4.441E-01	1.851E+03	1.851E+00	2.019E+02	2.019E-02	8.412E+01	8.412E-02
8.000E+01	4.043E+03	4.043E-01	1.685E+03	1.685E+00	1.838E+02	1.838E-02	7.660E+01	7.660E-02
9.000E+01	3.715E+03	3.715E-01	1.548E+03	1.548E+00	1.689E+02	1.689E-02	7.036E+01	7.036E-02
1.000E+02	3.437E+03	3.437E-01	1.432E+03	1.432E+00	1.562E+02	1.562E-02	6.510E+01	6.510E-02
2.000E+02	2.019E+03	2.019E-01	8.414E+02	8.414E-01	9.179E+01	9.179E-03	3.825E+01	3.825E-02
3.000E+02	1.467E+03	1.467E-01	6.112E+02	6.112E-01	6.667E+01	6.667E-03	2.778E+01	2.778E-02
4.000E+02	1.169E+03	1.169E-01	4.869E+02	4.869E-01	5.311E+01	5.311E-03	2.213E+01	2.213E-02
5.000E+02	9.801E+02	9.801E-02	4.084E+02	4.084E-01	4.455E+01	4.455E-03	1.857E+01	1.857E-02
6.000E+02	8.502E+02	8.502E-02	3.542E+02	3.542E-01	3.864E+01	3.864E-03	1.610E+01	1.610E-02
7.000E+02	7.545E+02	7.545E-02	3.143E+02	3.143E-01	3.429E+01	3.429E-03	1.429E+01	1.429E-02
8.000E+02	6.811E+02	6.811E-02	2.838E+02	2.838E-01	3.096E+01	3.096E-03	1.290E+01	1.290E-02
9.000E+02	6.228E+02	6.228E-02	2.595E+02	2.595E-01	2.831E+01	2.831E-03	1.180E+01	1.180E-02
1.000E+03	5.754E+02	5.754E-02	2.398E+02	2.398E-01	2.615E+01	2.615E-03	1.090E+01	1.090E-02
2.000E+03	3.520E+02	3.520E-02	1.466E+02	1.466E-01	1.600E+01	1.600E-03	6.664E+00	6.664E-03
3.000E+03	2.730E+02	2.730E-02	1.137E+02	1.137E-01	1.241E+01	1.241E-03	5.170E+00	5.170E-03
4.000E+03	2.329E+02	2.329E-02	9.705E+01	9.705E-02	1.059E+01	1.059E-03	4.411E+00	4.411E-03
5.000E+03	2.088E+02	2.088E-02	8.703E+01	8.703E-02	9.492E+00	9.492E-04	3.956E+00	3.956E-03
6.000E+03	1.931E+02	1.931E-02	8.045E+01	8.045E-02	8.776E+00	8.776E-04	3.657E+00	3.657E-03
7.000E+03	1.820E+02	1.820E-02	7.586E+01	7.586E-02	8.273E+00	8.273E-04	3.448E+00	3.448E-03
8.000E+03	1.740E+02	1.740E-02	7.252E+01	7.252E-02	7.911E+00	7.911E-04	3.296E+00	3.296E-03
9.000E+03	1.681E+02	1.681E-02	7.001E+01	7.001E-02	7.640E+00	7.640E-04	3.182E+00	3.182E-03
1.000E+04	1.634E+02	1.634E-02	6.807E+01	6.807E-02	7.425E+00	7.425E-04	3.094E+00	3.094E-03
2.000E+04	1.457E+02	1.457E-02	6.070E+01	6.070E-02	6.621E+00	6.621E-04	2.759E+00	2.759E-03
3.000E+04	1.436E+02	1.436E-02	5.982E+01	5.982E-02	6.527E+00	6.527E-04	2.719E+00	2.719E-03
4.000E+04	1.444E+02	1.444E-02	6.017E+01	6.017E-02	6.565E+00	6.565E-04	2.735E+00	2.735E-03
5.000E+04	1.460E+02	1.460E-02	6.084E+01	6.084E-02	6.636E+00	6.636E-04	2.765E+00	2.765E-03
6.000E+04	1.478E+02	1.478E-02	6.158E+01	6.158E-02	6.717E+00	6.717E-04	2.799E+00	2.799E-03
7.000E+04	1.496E+02	1.496E-02	6.231E+01	6.231E-02	6.798E+00	6.798E-04	2.832E+00	2.832E-03
8.000E+04	1.512E+02	1.512E-02	6.300E+01	6.300E-02	6.873E+00	6.873E-04	2.864E+00	2.864E-03
9.000E+04	1.527E+02	1.527E-02	6.366E+01	6.366E-02	6.942E+00	6.942E-04	2.894E+00	2.894E-03
1.000E+05	1.542E+02	1.542E-02	6.427E+01	6.427E-02	7.011E+00	7.011E-04	2.921E+00	2.921E-03

TABLE 103

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: N Z= 7 A= 14.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E-01	2.939E+03	2.939E-01	1.225E+03	1.225E+00	1.336E+02	1.336E-02	5.567E+01	5.567E-02
3.000E-01	3.599E+03	3.599E-01	1.499E+03	1.499E+00	1.636E+02	1.636E-02	6.815E+01	6.815E-02
4.000E-01	4.156E+03	4.156E-01	1.732E+03	1.732E+00	1.889E+02	1.889E-02	7.872E+01	7.872E-02
5.000E-01	4.646E+03	4.646E-01	1.936E+03	1.936E+00	2.112E+02	2.112E-02	8.799E+01	8.799E-02
6.000E-01	5.090E+03	5.090E-01	2.121E+03	2.121E+00	2.314E+02	2.314E-02	9.639E+01	9.639E-02
7.000E-01	5.498E+03	5.498E-01	2.291E+03	2.291E+00	2.499E+02	2.499E-02	1.041E+02	1.041E-01
8.000E-01	5.878E+03	5.878E-01	2.448E+03	2.448E+00	2.672E+02	2.672E-02	1.113E+02	1.113E-01
9.000E-01	6.234E+03	6.234E-01	2.597E+03	2.597E+00	2.834E+02	2.834E-02	1.181E+02	1.181E-01
1.000E+00	6.570E+03	6.570E-01	2.738E+03	2.738E+00	2.986E+02	2.986E-02	1.244E+02	1.244E-01
2.000E+00	9.291E+03	9.291E-01	3.871E+03	3.871E+00	4.223E+02	4.223E-02	1.760E+02	1.760E-01
3.000E+00	1.138E+04	1.138E+00	4.741E+03	4.741E+00	5.172E+02	5.172E-02	2.155E+02	2.155E-01
4.000E+00	1.311E+04	1.311E+00	5.464E+03	5.464E+00	5.959E+02	5.959E-02	2.484E+02	2.484E-01
5.000E+00	1.412E+04	1.412E+00	5.884E+03	5.884E+00	6.419E+02	6.419E-02	2.675E+02	2.675E-01
6.000E+00	1.462E+04	1.462E+00	6.092E+03	6.092E+00	6.644E+02	6.644E-02	2.769E+02	2.769E-01
7.000E+00	1.483E+04	1.483E+00	6.177E+03	6.177E+00	6.740E+02	6.740E-02	2.808E+02	2.808E-01
8.000E+00	1.485E+04	1.485E+00	6.187E+03	6.187E+00	6.752E+02	6.752E-02	2.812E+02	2.812E-01
9.000E+00	1.477E+04	1.477E+00	6.153E+03	6.153E+00	6.714E+02	6.714E-02	2.797E+02	2.797E-01
1.000E+01	1.462E+04	1.462E+00	6.092E+03	6.092E+00	6.644E+02	6.644E-02	2.769E+02	2.769E-01
2.000E+01	1.236E+04	1.236E+00	5.151E+03	5.151E+00	5.620E+02	5.620E-02	2.341E+02	2.341E-01
3.000E+01	1.048E+04	1.048E+00	4.368E+03	4.368E+00	4.764E+02	4.764E-02	1.986E+02	1.986E-01
4.000E+01	9.102E+03	9.102E-01	3.793E+03	3.793E+00	4.137E+02	4.137E-02	1.724E+02	1.724E-01
5.000E+01	8.056E+03	8.056E-01	3.357E+03	3.357E+00	3.662E+02	3.662E-02	1.526E+02	1.526E-01
6.000E+01	7.235E+03	7.235E-01	3.014E+03	3.014E+00	3.288E+02	3.288E-02	1.370E+02	1.370E-01
7.000E+01	6.572E+03	6.572E-01	2.738E+03	2.738E+00	2.987E+02	2.987E-02	1.245E+02	1.245E-01
8.000E+01	6.026E+03	6.026E-01	2.510E+03	2.510E+00	2.739E+02	2.739E-02	1.141E+02	1.141E-01
9.000E+01	5.567E+03	5.567E-01	2.319E+03	2.319E+00	2.530E+02	2.530E-02	1.054E+02	1.054E-01
1.000E+02	5.176E+03	5.176E-01	2.157E+03	2.157E+00	2.353E+02	2.353E-02	9.802E+01	9.802E-02
2.000E+02	3.093E+03	3.093E-01	1.288E+03	1.288E+00	1.406E+02	1.406E-02	5.855E+01	5.855E-02
3.000E+02	2.253E+03	2.253E-01	9.386E+02	9.386E-01	1.024E+02	1.024E-02	4.266E+01	4.266E-02
4.000E+02	1.796E+03	1.796E-01	7.480E+02	7.480E-01	8.162E+01	8.162E-03	3.400E+01	3.400E-02
5.000E+02	1.505E+03	1.505E-01	6.274E+02	6.274E-01	6.842E+01	6.842E-03	2.852E+01	2.852E-02
6.000E+02	1.305E+03	1.305E-01	5.436E+02	5.436E-01	5.931E+01	5.931E-03	2.471E+01	2.471E-02
7.000E+02	1.157E+03	1.157E-01	4.820E+02	4.820E-01	5.259E+01	5.259E-03	2.191E+01	2.191E-02
8.000E+02	1.043E+03	1.043E-01	4.346E+02	4.346E-01	4.742E+01	4.742E-03	1.976E+01	1.976E-02
9.000E+02	9.528E+02	9.528E-02	3.971E+02	3.971E-01	4.331E+01	4.331E-03	1.805E+01	1.805E-02
1.000E+03	8.794E+02	8.794E-02	3.665E+02	3.665E-01	3.997E+01	3.997E-03	1.666E+01	1.666E-02
2.000E+03	5.315E+02	5.315E-02	2.214E+02	2.214E-01	2.416E+01	2.416E-03	1.006E+01	1.006E-02
3.000E+03	4.077E+02	4.077E-02	1.699E+02	1.699E-01	1.853E+01	1.853E-03	7.722E+00	7.722E-03
4.000E+03	3.443E+02	3.443E-02	1.435E+02	1.435E-01	1.565E+01	1.565E-03	6.521E+00	6.521E-03
5.000E+03	3.060E+02	3.060E-02	1.275E+02	1.275E-01	1.391E+01	1.391E-03	5.794E+00	5.794E-03
6.000E+03	2.806E+02	2.806E-02	1.169E+02	1.169E-01	1.276E+01	1.276E-03	5.316E+00	5.316E-03
7.000E+03	2.628E+02	2.628E-02	1.094E+02	1.094E-01	1.195E+01	1.195E-03	4.975E+00	4.975E-03
8.000E+03	2.496E+02	2.496E-02	1.040E+02	1.040E-01	1.135E+01	1.135E-03	4.729E+00	4.728E-03
9.000E+03	2.397E+02	2.397E-02	9.990E+01	9.990E-02	1.089E+01	1.089E-03	4.541E+00	4.541E-03
1.000E+04	2.319E+02	2.319E-02	9.664E+01	9.664E-02	1.054E+01	1.054E-03	4.393E+00	4.393E-03
2.000E+04	2.013E+02	2.013E-02	8.385E+01	8.385E-02	9.149E+00	9.149E-04	3.811E+00	3.811E-03
3.000E+04	1.958E+02	1.958E-02	8.158E+01	8.158E-02	8.900E+00	8.900E-04	3.708E+00	3.708E-03
4.000E+04	1.957E+02	1.957E-02	8.153E+01	8.153E-02	8.894E+00	8.894E-04	3.706E+00	3.706E-03
5.000E+04	1.971E+02	1.971E-02	8.214E+01	8.214E-02	8.959E+00	8.959E-04	3.733E+00	3.733E-03
6.000E+04	1.991E+02	1.991E-02	8.295E+01	8.295E-02	9.048E+00	9.048E-04	3.771E+00	3.771E-03
7.000E+04	2.012E+02	2.012E-02	8.381E+01	8.381E-02	9.143E+00	9.143E-04	3.810E+00	3.810E-03
8.000E+04	2.032E+02	2.032E-02	8.467E+01	8.467E-02	9.235E+00	9.235E-04	3.849E+00	3.849E-03
9.000E+04	2.052E+02	2.052E-02	8.550E+01	8.550E-02	9.327E+00	9.327E-04	3.886E+00	3.886E-03
1.000E+05	2.071E+02	2.071E-02	8.627E+01	8.627E-02	9.413E+00	9.413E-04	3.922E+00	3.922E-03

TABLE 104

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: O Z= 8 A= 16.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E-01	3.208E+03	3.208E-01	1.336E+03	1.336E+00	1.458E+02	1.458E-02	6.074E+01	6.074E-02
3.000E-01	3.929E+03	3.929E-01	1.637E+03	1.637E+00	1.786E+02	1.786E-02	7.440E+01	7.440E-02
4.000E-01	4.536E+03	4.536E-01	1.890E+03	1.890E+00	2.062E+02	2.062E-02	8.593E+01	8.593E-02
5.000E-01	5.071E+03	5.071E-01	2.113E+03	2.113E+00	2.305E+02	2.305E-02	9.603E+01	9.603E-02
6.000E-01	5.556E+03	5.556E-01	2.315E+03	2.315E+00	2.525E+02	2.525E-02	1.052E+02	1.052E-01
7.000E-01	6.000E+03	6.000E-01	2.500E+03	2.500E+00	2.727E+02	2.727E-02	1.136E+02	1.136E-01
8.000E-01	6.415E+03	6.415E-01	2.672E+03	2.672E+00	2.916E+02	2.916E-02	1.215E+02	1.215E-01
9.000E-01	6.804E+03	6.804E-01	2.835E+03	2.835E+00	3.093E+02	3.093E-02	1.289E+02	1.289E-01
1.000E+00	7.172E+03	7.172E-01	2.988E+03	2.988E+00	3.260E+02	3.260E-02	1.358E+02	1.358E-01
2.000E+00	1.014E+04	1.014E+00	4.225E+03	4.225E+00	4.610E+02	4.610E-02	1.920E+02	1.920E-01
3.000E+00	1.243E+04	1.243E+00	5.175E+03	5.175E+00	5.648E+02	5.648E-02	2.352E+02	2.352E-01
4.000E+00	1.435E+04	1.435E+00	5.977E+03	5.977E+00	6.522E+02	6.522E-02	2.717E+02	2.717E-01
5.000E+00	1.589E+04	1.589E+00	6.623E+03	6.623E+00	7.222E+02	7.222E-02	3.010E+02	3.010E-01
6.000E+00	1.682E+04	1.682E+00	7.009E+03	7.009E+00	7.646E+02	7.646E-02	3.186E+02	3.186E-01
7.000E+00	1.735E+04	1.735E+00	7.227E+03	7.227E+00	7.885E+02	7.885E-02	3.285E+02	3.285E-01
8.000E+00	1.761E+04	1.761E+00	7.339E+03	7.339E+00	8.005E+02	8.005E-02	3.336E+02	3.336E-01
9.000E+00	1.772E+04	1.772E+00	7.383E+03	7.383E+00	8.056E+02	8.056E-02	3.356E+02	3.356E-01
1.000E+01	1.771E+04	1.771E+00	7.380E+03	7.380E+00	8.052E+02	8.052E-02	3.355E+02	3.355E-01
2.000E+01	1.583E+04	1.583E+00	6.597E+03	6.597E+00	7.196E+02	7.196E-02	2.999E+02	2.999E-01
3.000E+01	1.380E+04	1.380E+00	5.750E+03	5.750E+00	6.272E+02	6.272E-02	2.614E+02	2.614E-01
4.000E+01	1.220E+04	1.220E+00	5.080E+03	5.080E+00	5.544E+02	5.544E-02	2.309E+02	2.309E-01
5.000E+01	1.092E+04	1.092E+00	4.554E+03	4.554E+00	4.966E+02	4.966E-02	2.070E+02	2.070E-01
6.000E+01	9.914E+03	9.914E-01	4.130E+03	4.130E+00	4.506E+02	4.506E-02	1.877E+02	1.877E-01
7.000E+01	9.080E+03	9.080E-01	3.784E+03	3.784E+00	4.127E+02	4.127E-02	1.720E+02	1.720E-01
8.000E+01	8.383E+03	8.383E-01	3.493E+03	3.493E+00	3.811E+02	3.811E-02	1.588E+02	1.588E-01
9.000E+01	7.790E+03	7.790E-01	3.246E+03	3.246E+00	3.541E+02	3.541E-02	1.475E+02	1.475E-01
1.000E+02	7.278E+03	7.278E-01	3.033E+03	3.033E+00	3.308E+02	3.308E-02	1.378E+02	1.378E-01
2.000E+02	4.452E+03	4.452E-01	1.855E+03	1.855E+00	2.024E+02	2.024E-02	8.431E+01	8.431E-02
3.000E+02	3.260E+03	3.260E-01	1.358E+03	1.358E+00	1.482E+02	1.482E-02	6.173E+01	6.173E-02
4.000E+02	2.602E+03	2.602E-01	1.084E+03	1.084E+00	1.183E+02	1.183E-02	4.928E+01	4.928E-02
5.000E+02	2.184E+03	2.184E-01	9.095E+02	9.095E-01	9.925E+01	9.925E-03	4.134E+01	4.134E-02
6.000E+02	1.892E+03	1.892E-01	7.881E+02	7.881E-01	8.599E+01	8.599E-03	3.582E+01	3.582E-02
7.000E+02	1.676E+03	1.676E-01	6.983E+02	6.983E-01	7.620E+01	7.620E-03	3.174E+01	3.174E-02
8.000E+02	1.511E+03	1.511E-01	6.293E+02	6.293E-01	6.867E+01	6.867E-03	2.860E+01	2.860E-02
9.000E+02	1.379E+03	1.379E-01	5.744E+02	5.744E-01	6.266E+01	6.266E-03	2.611E+01	2.611E-02
1.000E+03	1.271E+03	1.271E-01	5.296E+02	5.296E-01	5.776E+01	5.776E-03	2.407E+01	2.407E-02
2.000E+03	7.615E+02	7.615E-02	3.173E+02	3.173E-01	3.461E+01	3.461E-03	1.442E+01	1.442E-02
3.000E+03	5.789E+02	5.789E-02	2.413E+02	2.413E-01	2.632E+01	2.632E-03	1.097E+01	1.097E-02
4.000E+03	4.851E+02	4.851E-02	2.021E+02	2.021E-01	2.205E+01	2.205E-03	9.187E+00	9.187E-03
5.000E+03	4.281E+02	4.281E-02	1.784E+02	1.784E-01	1.946E+01	1.946E-03	8.110E+00	8.110E-03
6.000E+03	3.901E+02	3.901E-02	1.625E+02	1.625E-01	1.773E+01	1.773E-03	7.386E+00	7.386E-03
7.000E+03	3.631E+02	3.631E-02	1.513E+02	1.513E-01	1.650E+01	1.650E-03	6.877E+00	6.877E-03
8.000E+03	3.431E+02	3.431E-02	1.430E+02	1.430E-01	1.559E+01	1.559E-03	6.500E+00	6.500E-03
9.000E+03	3.278E+02	3.278E-02	1.366E+02	1.366E-01	1.490E+01	1.490E-03	6.209E+00	6.209E-03
1.000E+04	3.159E+02	3.159E-02	1.316E+02	1.316E-01	1.436E+01	1.436E-03	5.983E+00	5.983E-03
2.000E+04	2.674E+02	2.674E-02	1.114E+02	1.114E-01	1.215E+01	1.215E-03	5.064E+00	5.064E-03
3.000E+04	2.570E+02	2.570E-02	1.071E+02	1.071E-01	1.168E+01	1.168E-03	4.868E+00	4.868E-03
4.000E+04	2.552E+02	2.552E-02	1.063E+02	1.063E-01	1.160E+01	1.160E-03	4.832E+00	4.832E-03
5.000E+04	2.562E+02	2.562E-02	1.067E+02	1.067E-01	1.164E+01	1.164E-03	4.850E+00	4.850E-03
6.000E+04	2.581E+02	2.581E-02	1.075E+02	1.075E-01	1.173E+01	1.173E-03	4.887E+00	4.887E-03
7.000E+04	2.603E+02	2.603E-02	1.085E+02	1.085E-01	1.183E+01	1.183E-03	4.933E+00	4.933E-03
8.000E+04	2.628E+02	2.628E-02	1.095E+02	1.095E-01	1.194E+01	1.194E-03	4.976E+00	4.976E-03
9.000E+04	2.651E+02	2.651E-02	1.105E+02	1.105E-01	1.205E+01	1.205E-03	5.023E+00	5.023E-03
1.000E+05	2.674E+02	2.674E-02	1.114E+02	1.114E-01	1.215E+01	1.215E-03	5.064E+00	5.064E-03

TABLE 105

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: F Z= 9 A= 19.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
	**********	**********	********** LET DATA IN UNITS OF:	**********	**********	**********	**********	**********
2.000E-01	3.350E+03	3.350E-01	1.396E+03	1.396E+00	1.523E+02	1.523E-02	6.345E+01	6.345E-02
3.000E-01	4.104E+03	4.104E-01	1.710E+03	1.710E+00	1.865E+02	1.865E-02	7.772E+01	7.772E-02
4.000E-01	4.739E+03	4.739E-01	1.974E+03	1.974E+00	2.154E+02	2.154E-02	8.975E+01	8.975E-02
5.000E-01	5.298E+03	5.298E-01	2.208E+03	2.208E+00	2.408E+02	2.408E-02	1.003E+02	1.003E-01
6.000E-01	5.803E+03	5.803E-01	2.418E+03	2.418E+00	2.638E+02	2.638E-02	1.099E+02	1.099E-01
7.000E-01	6.268E+03	6.268E-01	2.612E+03	2.612E+00	2.849E+02	2.849E-02	1.187E+02	1.187E-01
8.000E-01	6.701E+03	6.701E-01	2.792E+03	2.792E+00	3.046E+02	3.046E-02	1.269E+02	1.269E-01
9.000E-01	7.108E+03	7.108E-01	2.961E+03	2.961E+00	3.231E+02	3.231E-02	1.346E+02	1.346E-01
1.000E+00	7.492E+03	7.492E-01	3.122E+03	3.122E+00	3.405E+02	3.405E-02	1.419E+02	1.419E-01
2.000E+00	1.060E+04	1.060E+00	4.415E+03	4.415E+00	4.818E+02	4.818E-02	2.007E+02	2.007E-01
3.000E+00	1.298E+04	1.298E+00	5.407E+03	5.407E+00	5.898E+02	5.898E-02	2.458E+02	2.458E-01
4.000E+00	1.498E+04	1.498E+00	6.243E+03	6.243E+00	6.808E+02	6.808E-02	2.838E+02	2.838E-01
5.000E+00	1.676E+04	1.676E+00	6.981E+03	6.981E+00	7.617E+02	7.617E-02	3.173E+02	3.173E-01
6.000E+00	1.823E+04	1.823E+00	7.596E+03	7.596E+00	8.286E+02	8.286E-02	3.453E+02	3.453E-01
7.000E+00	1.921E+04	1.921E+00	8.005E+03	8.005E+00	8.733E+02	8.733E-02	3.639E+02	3.639E-01
8.000E+00	1.985E+04	1.985E+00	8.270E+03	8.270E+00	9.023E+02	9.023E-02	3.759E+02	3.759E-01
9.000E+00	2.025E+04	2.025E+00	8.437E+03	8.437E+00	9.205E+02	9.205E-02	3.835E+02	3.835E-01
1.000E+01	2.049E+04	2.049E+00	8.535E+03	8.535E+00	9.312E+02	9.312E-02	3.880E+02	3.880E-01
2.000E+01	1.957E+04	1.957E+00	8.154E+03	8.154E+00	8.894E+02	8.894E-02	3.706E+02	3.706E-01
3.000E+01	1.762E+04	1.762E+00	7.341E+03	7.341E+00	8.010E+02	8.010E-02	3.337E+02	3.337E-01
4.000E+01	1.589E+04	1.589E+00	6.623E+03	6.623E+00	7.224E+02	7.224E-02	3.011E+02	3.011E-01
5.000E+01	1.446E+04	1.446E+00	6.025E+03	6.025E+00	6.571E+02	6.571E-02	2.739E+02	2.739E-01
6.000E+01	1.327E+04	1.327E+00	5.529E+03	5.529E+00	6.031E+02	6.031E-02	2.513E+02	2.513E-01
7.000E+01	1.227E+04	1.227E+00	5.112E+03	5.112E+00	5.578E+02	5.578E-02	2.324E+02	2.324E-01
8.000E+01	1.142E+04	1.142E+00	4.756E+03	4.756E+00	5.190E+02	5.190E-02	2.162E+02	2.162E-01
9.000E+01	1.068E+04	1.068E+00	4.450E+03	4.450E+00	4.856E+02	4.856E-02	2.023E+02	2.023E-01
1.000E+02	1.004E+04	1.004E+00	4.183E+03	4.183E+00	4.565E+02	4.565E-02	1.901E+02	1.901E-01
2.000E+02	6.348E+03	6.348E-01	2.645E+03	2.645E+00	2.886E+02	2.886E-02	1.202E+02	1.202E-01
3.000E+02	4.698E+03	4.698E-01	1.957E+03	1.957E+00	2.135E+02	2.135E-02	8.896E+01	8.896E-02
4.000E+02	3.762E+03	3.762E-01	1.567E+03	1.567E+00	1.710E+02	1.710E-02	7.124E+01	7.124E-02
5.000E+02	3.160E+03	3.160E-01	1.316E+03	1.316E+00	1.436E+02	1.436E-02	5.984E+01	5.984E-02
6.000E+02	2.738E+03	2.738E-01	1.141E+03	1.141E+00	1.245E+02	1.245E-02	5.187E+01	5.187E-02
7.000E+02	2.426E+03	2.426E-01	1.011E+03	1.011E+00	1.103E+02	1.103E-02	4.594E+01	4.594E-02
8.000E+02	2.185E+03	2.185E-01	9.106E+02	9.106E-01	9.932E+01	9.932E-03	4.139E+01	4.139E-02
9.000E+02	1.994E+03	1.994E-01	8.305E+02	8.305E-01	9.062E+01	9.062E-03	3.775E+01	3.775E-02
1.000E+03	1.837E+03	1.837E-01	7.653E+02	7.653E-01	8.349E+01	8.349E-03	3.479E+01	3.479E-02
2.000E+03	1.090E+03	1.090E-01	4.539E+02	4.539E-01	4.953E+01	4.953E-03	2.063E+01	2.063E-02
3.000E+03	8.204E+02	8.204E-02	3.418E+02	3.418E-01	3.729E+01	3.729E-03	1.554E+01	1.554E-02
4.000E+03	6.811E+02	6.811E-02	2.838E+02	2.838E-01	3.096E+01	3.096E-03	1.290E+01	1.290E-02
5.000E+03	5.959E+02	5.959E-02	2.483E+02	2.483E-01	2.709E+01	2.709E-03	1.129E+01	1.129E-02
6.000E+03	5.388E+02	5.388E-02	2.245E+02	2.245E-01	2.449E+01	2.449E-03	1.020E+01	1.020E-02
7.000E+03	4.980E+02	4.980E-02	2.075E+02	2.075E-01	2.264E+01	2.264E-03	9.432E+00	9.432E-03
8.000E+03	4.676E+02	4.676E-02	1.948E+02	1.948E-01	2.125E+01	2.125E-03	8.855E+00	8.855E-03
9.000E+03	4.440E+02	4.440E-02	1.850E+02	1.850E-01	2.018E+01	2.018E-03	8.409E+00	8.409E-03
1.000E+04	4.255E+02	4.255E-02	1.773E+02	1.773E-01	1.934E+01	1.934E-03	8.058E+00	8.058E-03
2.000E+04	3.484E+02	3.484E-02	1.452E+02	1.452E-01	1.584E+01	1.584E-03	6.600E+00	6.600E-03
3.000E+04	3.293E+02	3.293E-02	1.372E+02	1.372E-01	1.497E+01	1.497E-03	6.235E+00	6.235E-03
4.000E+04	3.238E+02	3.238E-02	1.349E+02	1.349E-01	1.472E+01	1.472E-03	6.133E+00	6.133E-03
5.000E+04	3.231E+02	3.231E-02	1.346E+02	1.346E-01	1.468E+01	1.468E-03	6.119E+00	6.119E-03
6.000E+04	3.243E+02	3.243E-02	1.352E+02	1.352E-01	1.474E+01	1.474E-03	6.144E+00	6.144E-03
7.000E+04	3.264E+02	3.264E-02	1.360E+02	1.360E-01	1.483E+01	1.483E-03	6.182E+00	6.182E-03
8.000E+04	3.288E+02	3.288E-02	1.370E+02	1.370E-01	1.494E+01	1.494E-03	6.227E+00	6.227E-03
9.000E+04	3.313E+02	3.313E-02	1.380E+02	1.380E-01	1.506E+01	1.506E-03	6.275E+00	6.275E-03
1.000E+05	3.338E+02	3.338E-02	1.391E+02	1.391E-01	1.517E+01	1.517E-03	6.323E+00	6.323E-03

TABLE 106

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: NE Z= 10 A= 20.18

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
3.000E-01	4.448E+03	4.448E-01	1.853E+03	1.853E+00	2.022E+02	2.022E-02	8.423E+01	8.423E-02
4.000E-01	5.137E+03	5.137E-01	2.140E+03	2.140E+00	2.335E+02	2.335E-02	9.726E+01	9.726E-02
5.000E-01	5.743E+03	5.743E-01	2.393E+03	2.393E+00	2.610E+02	2.610E-02	1.088E+02	1.088E-01
6.000E-01	6.291E+03	6.291E-01	2.621E+03	2.621E+00	2.860E+02	2.860E-02	1.192E+02	1.192E-01
7.000E-01	6.795E+03	6.795E-01	2.831E+03	2.831E+00	3.089E+02	3.089E-02	1.287E+02	1.287E-01
8.000E-01	7.264E+03	7.264E-01	3.026E+03	3.026E+00	3.302E+02	3.302E-02	1.376E+02	1.376E-01
9.000E-01	7.704E+03	7.704E-01	3.210E+03	3.210E+00	3.502E+02	3.502E-02	1.459E+02	1.459E-01
1.000E+00	8.121E+03	8.121E-01	3.384E+03	3.384E+00	3.692E+02	3.692E-02	1.538E+02	1.538E-01
2.000E+00	1.149E+04	1.149E+00	4.785E+03	4.785E+00	5.222E+02	5.222E-02	2.175E+02	2.175E-01
3.000E+00	1.406E+04	1.406E+00	5.861E+03	5.861E+00	6.391E+02	6.391E-02	2.664E+02	2.664E-01
4.000E+00	1.624E+04	1.624E+00	6.767E+03	6.767E+00	7.383E+02	7.383E-02	3.076E+02	3.076E-01
5.000E+00	1.816E+04	1.816E+00	7.566E+03	7.566E+00	8.254E+02	8.254E-02	3.439E+02	3.439E-01
6.000E+00	1.988E+04	1.988E+00	8.282E+03	8.282E+00	9.034E+02	9.034E-02	3.764E+02	3.764E-01
7.000E+00	2.120E+04	2.120E+00	8.830E+03	8.830E+00	9.635E+02	9.635E-02	4.014E+02	4.014E-01
8.000E+00	2.208E+04	2.208E+00	9.198E+03	9.198E+00	1.004E+03	1.004E-01	4.181E+02	4.181E-01
9.000E+00	2.269E+04	2.269E+00	9.451E+03	9.451E+00	1.031E+03	1.031E-01	4.296E+02	4.296E-01
1.000E+01	2.309E+04	2.309E+00	9.618E+03	9.618E+00	1.049E+03	1.049E-01	4.372E+02	4.372E-01
2.000E+01	2.286E+04	2.286E+00	9.524E+03	9.524E+00	1.039E+03	1.039E-01	4.329E+02	4.329E-01
3.000E+01	2.097E+04	2.097E+00	8.737E+03	8.737E+00	9.532E+02	9.532E-02	3.971E+02	3.971E-01
4.000E+01	1.916E+04	1.916E+00	7.981E+03	7.981E+00	8.707E+02	8.707E-02	3.628E+02	3.628E-01
5.000E+01	1.758E+04	1.758E+00	7.326E+03	7.326E+00	7.991E+02	7.991E-02	3.330E+02	3.330E-01
6.000E+01	1.625E+04	1.625E+00	6.771E+03	6.771E+00	7.385E+02	7.385E-02	3.078E+02	3.078E-01
7.000E+01	1.511E+04	1.511E+00	6.295E+03	6.295E+00	6.867E+02	6.867E-02	2.861E+02	2.861E-01
8.000E+01	1.412E+04	1.412E+00	5.886E+03	5.886E+00	6.420E+02	6.420E-02	2.675E+02	2.675E-01
9.000E+01	1.327E+04	1.327E+00	5.529E+03	5.529E+00	6.030E+02	6.030E-02	2.513E+02	2.513E-01
1.000E+02	1.252E+04	1.252E+00	5.214E+03	5.214E+00	5.690E+02	5.690E-02	2.370E+02	2.370E-01
2.000E+02	8.090E+03	8.090E-01	3.371E+03	3.371E+00	3.677E+02	3.677E-02	1.532E+02	1.532E-01
3.000E+02	6.041E+03	6.041E-01	2.517E+03	2.517E+00	2.746E+02	2.746E-02	1.144E+02	1.144E-01
4.000E+02	4.855E+03	4.855E-01	2.022E+03	2.022E+00	2.207E+02	2.207E-02	9.193E+01	9.193E-02
5.000E+02	4.083E+03	4.083E-01	1.701E+03	1.701E+00	1.856E+02	1.856E-02	7.733E+01	7.733E-02
6.000E+02	3.541E+03	3.541E-01	1.476E+03	1.476E+00	1.610E+02	1.610E-02	6.709E+01	6.709E-02
7.000E+02	3.138E+03	3.138E-01	1.308E+03	1.308E+00	1.426E+02	1.426E-02	5.944E+01	5.944E-02
8.000E+02	2.828E+03	2.828E-01	1.178E+03	1.178E+00	1.285E+02	1.285E-02	5.355E+01	5.355E-02
9.000E+02	2.579E+03	2.579E-01	1.075E+03	1.075E+00	1.172E+02	1.172E-02	4.884E+01	4.884E-02
1.000E+03	2.376E+03	2.376E-01	9.898E+02	9.898E-01	1.080E+02	1.080E-02	4.499E+01	4.499E-02
2.000E+03	1.405E+03	1.405E-01	5.856E+02	5.856E-01	6.388E+01	6.388E-03	2.662E+01	2.662E-02
3.000E+03	1.055E+03	1.055E-01	4.396E+02	4.396E-01	4.795E+01	4.795E-03	1.998E+01	1.998E-02
4.000E+03	8.733E+02	8.733E-02	3.639E+02	3.639E-01	3.970E+01	3.970E-03	1.654E+01	1.654E-02
5.000E+03	7.620E+02	7.620E-02	3.175E+02	3.175E-01	3.464E+01	3.464E-03	1.443E+01	1.443E-02
6.000E+03	6.872E+02	6.872E-02	2.863E+02	2.863E-01	3.123E+01	3.123E-03	1.302E+01	1.302E-02
7.000E+03	6.336E+02	6.336E-02	2.640E+02	2.640E-01	2.880E+01	2.880E-03	1.200E+01	1.200E-02
8.000E+03	5.935E+02	5.935E-02	2.473E+02	2.473E-01	2.698E+01	2.698E-03	1.124E+01	1.124E-02
9.000E+03	5.626E+02	5.626E-02	2.344E+02	2.344E-01	2.557E+01	2.557E-03	1.066E+01	1.066E-02
1.000E+04	5.381E+02	5.381E-02	2.242E+02	2.242E-01	2.446E+01	2.446E-03	1.019E+01	1.019E-02
2.000E+04	4.355E+02	4.355E-02	1.814E+02	1.814E-01	1.979E+01	1.979E-03	8.247E+00	8.247E-03
3.000E+04	4.089E+02	4.089E-02	1.704E+02	1.704E-01	1.858E+01	1.858E-03	7.745E+00	7.745E-03
4.000E+04	4.006E+02	4.006E-02	1.669E+02	1.669E-01	1.821E+01	1.821E-03	7.586E+00	7.586E-03
5.000E+04	3.988E+02	3.988E-02	1.662E+02	1.662E-01	1.813E+01	1.813E-03	7.555E+00	7.555E-03
6.000E+04	3.997E+02	3.997E-02	1.665E+02	1.665E-01	1.817E+01	1.817E-03	7.569E+00	7.569E-03
7.000E+04	4.017E+02	4.017E-02	1.674E+02	1.674E-01	1.826E+01	1.826E-03	7.609E+00	7.609E-03
8.000E+04	4.044E+02	4.044E-02	1.685E+02	1.685E-01	1.838E+01	1.838E-03	7.658E+00	7.658E-03
9.000E+04	4.074E+02	4.074E-02	1.697E+02	1.697E-01	1.852E+01	1.852E-03	7.715E+00	7.715E-03
1.000E+05	4.102E+02	4.102E-02	1.710E+02	1.710E-01	1.865E+01	1.865E-03	7.771E+00	7.771E-03
2.000E+05	4.354E+02	4.354E-02	1.814E+02	1.814E-01	1.979E+01	1.979E-03	8.248E+00	8.248E-03

TABLE 107

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: NA Z= 11 A= 22.99

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
3.000E-01	4.588E+03	4.588E-01	1.912E+03	1.912E+00	2.086E+02	2.086E-02	8.691E+01	8.691E-02
4.000E-01	5.298E+03	5.298E-01	2.207E+03	2.207E+00	2.408E+02	2.408E-02	1.003E+02	1.003E-01
5.000E-01	5.923E+03	5.923E-01	2.468E+03	2.468E+00	2.692E+02	2.692E-02	1.122E+02	1.122E-01
6.000E-01	6.489E+03	6.489E-01	2.703E+03	2.703E+00	2.949E+02	2.949E-02	1.229E+02	1.229E-01
7.000E-01	7.009E+03	7.009E-01	2.920E+03	2.920E+00	3.186E+02	3.186E-02	1.327E+02	1.327E-01
8.000E-01	7.493E+03	7.493E-01	3.122E+03	3.122E+00	3.406E+02	3.406E-02	1.419E+02	1.419E-01
9.000E-01	7.947E+03	7.947E-01	3.311E+03	3.311E+00	3.612E+02	3.612E-02	1.505E+02	1.505E-01
1.000E+00	8.377E+03	8.377E-01	3.490E+03	3.490E+00	3.808E+02	3.808E-02	1.586E+02	1.586E-01
2.000E+00	1.185E+04	1.185E+00	4.936E+03	4.936E+00	5.385E+02	5.385E-02	2.244E+02	2.244E-01
3.000E+00	1.451E+04	1.451E+00	6.045E+03	6.045E+00	6.595E+02	6.595E-02	2.748E+02	2.748E-01
4.000E+00	1.675E+04	1.675E+00	6.980E+03	6.980E+00	7.614E+02	7.614E-02	3.173E+02	3.173E-01
5.000E+00	1.873E+04	1.873E+00	7.804E+03	7.804E+00	8.515E+02	8.515E-02	3.547E+02	3.547E-01
6.000E+00	2.052E+04	2.052E+00	8.546E+03	8.546E+00	9.325E+02	9.325E-02	3.885E+02	3.885E-01
7.000E+00	2.217E+04	2.217E+00	9.239E+03	9.239E+00	1.008E+03	1.008E-01	4.199E+02	4.199E-01
8.000E+00	2.347E+04	2.347E+00	9.782E+03	9.782E+00	1.067E+03	1.067E-01	4.446E+02	4.446E-01
9.000E+00	2.441E+04	2.441E+00	1.017E+04	1.017E+01	1.110E+03	1.110E-01	4.623E+02	4.623E-01
1.000E+01	2.510E+04	2.510E+00	1.046E+04	1.046E+01	1.141E+03	1.141E-01	4.755E+02	4.755E-01
2.000E+01	2.628E+04	2.628E+00	1.095E+04	1.095E+01	1.195E+03	1.195E-01	4.975E+02	4.975E-01
3.000E+01	2.477E+04	2.477E+00	1.032E+04	1.032E+01	1.126E+03	1.126E-01	4.693E+02	4.693E-01
4.000E+01	2.303E+04	2.303E+00	9.597E+03	9.597E+00	1.047E+03	1.047E-01	4.362E+02	4.362E-01
5.000E+01	2.143E+04	2.143E+00	8.928E+03	8.928E+00	9.739E+02	9.739E-02	4.058E+02	4.058E-01
6.000E+01	2.000E+04	2.000E+00	8.334E+03	8.334E+00	9.093E+02	9.093E-02	3.788E+02	3.788E-01
7.000E+01	1.875E+04	1.875E+00	7.812E+03	7.812E+00	8.521E+02	8.521E-02	3.551E+02	3.551E-01
8.000E+01	1.765E+04	1.765E+00	7.353E+03	7.353E+00	8.024E+02	8.024E-02	3.342E+02	3.342E-01
9.000E+01	1.668E+04	1.668E+00	6.949E+03	6.949E+00	7.581E+02	7.581E-02	3.159E+02	3.159E-01
1.000E+02	1.581E+04	1.581E+00	6.590E+03	6.590E+00	7.188E+02	7.188E-02	2.995E+02	2.995E-01
2.000E+02	1.054E+04	1.054E+00	4.390E+03	4.390E+00	4.789E+02	4.789E-02	1.995E+02	1.995E-01
3.000E+02	7.983E+03	7.983E-01	3.326E+03	3.326E+00	3.628E+02	3.628E-02	1.512E+02	1.512E-01
4.000E+02	6.461E+03	6.461E-01	2.691E+03	2.691E+00	2.937E+02	2.937E-02	1.223E+02	1.223E-01
5.000E+02	5.453E+03	5.453E-01	2.272E+03	2.272E+00	2.478E+02	2.478E-02	1.033E+02	1.033E-01
6.000E+02	4.736E+03	4.736E-01	1.973E+03	1.973E+00	2.153E+02	2.153E-02	8.968E+01	8.968E-02
7.000E+02	4.200E+03	4.200E-01	1.750E+03	1.750E+00	1.909E+02	1.909E-02	7.954E+01	7.954E-02
8.000E+02	3.785E+03	3.785E-01	1.577E+03	1.577E+00	1.720E+02	1.720E-02	7.167E+01	7.167E-02
9.000E+02	3.452E+03	3.452E-01	1.439E+03	1.439E+00	1.569E+02	1.569E-02	6.540E+01	6.540E-02
1.000E+03	3.180E+03	3.180E-01	1.325E+03	1.325E+00	1.446E+02	1.446E-02	6.025E+01	6.025E-02
2.000E+03	1.872E+03	1.872E-01	7.799E+02	7.799E-01	8.509E+01	8.509E-03	3.545E+01	3.545E-02
3.000E+03	1.397E+03	1.397E-01	5.820E+02	5.820E-01	6.350E+01	6.350E-03	2.645E+01	2.645E-02
4.000E+03	1.149E+03	1.149E-01	4.788E+02	4.788E-01	5.223E+01	5.223E-03	2.177E+01	2.177E-02
5.000E+03	9.969E+02	9.969E-02	4.154E+02	4.154E-01	4.531E+01	4.531E-03	1.888E+01	1.888E-02
6.000E+03	8.946E+02	8.946E-02	3.727E+02	3.727E-01	4.066E+01	4.066E-03	1.694E+01	1.694E-02
7.000E+03	8.207E+02	8.207E-02	3.419E+02	3.419E-01	3.731E+01	3.731E-03	1.554E+01	1.554E-02
8.000E+03	7.654E+02	7.654E-02	3.189E+02	3.189E-01	3.479E+01	3.479E-03	1.450E+01	1.450E-02
9.000E+03	7.224E+02	7.224E-02	3.010E+02	3.010E-01	3.284E+01	3.284E-03	1.368E+01	1.368E-02
1.000E+04	6.883E+02	6.883E-02	2.867E+02	2.867E-01	3.128E+01	3.128E-03	1.303E+01	1.303E-02
2.000E+04	5.431E+02	5.431E-02	2.263E+02	2.263E-01	2.469E+01	2.469E-03	1.029E+01	1.029E-02
3.000E+04	5.024E+02	5.024E-02	2.094E+02	2.094E-01	2.284E+01	2.284E-03	9.516E+00	9.516E-03
4.000E+04	4.881E+02	4.881E-02	2.034E+02	2.034E-01	2.219E+01	2.219E-03	9.245E+00	9.245E-03
5.000E+04	4.834E+02	4.834E-02	2.014E+02	2.014E-01	2.197E+01	2.197E-03	9.156E+00	9.156E-03
6.000E+04	4.827E+02	4.827E-02	2.011E+02	2.011E-01	2.194E+01	2.194E-03	9.142E+00	9.142E-03
7.000E+04	4.839E+02	4.839E-02	2.017E+02	2.017E-01	2.200E+01	2.200E-03	9.166E+00	9.166E-03
8.000E+04	4.863E+02	4.863E-02	2.026E+02	2.026E-01	2.210E+01	2.210E-03	9.210E+00	9.210E-03
9.000E+04	4.891E+02	4.891E-02	2.038E+02	2.038E-01	2.223E+01	2.223E-03	9.264E+00	9.264E-03
1.000E+05	4.921E+02	4.921E-02	2.050E+02	2.050E-01	2.237E+01	2.237E-03	9.320E+00	9.320E-03
2.000E+05	5.205E+02	5.205E-02	2.169E+02	2.169E-01	2.366E+01	2.366E-03	9.858E+00	9.858E-03

TABLE 108

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: MG Z= 12 A= 24.32

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
3.000E-01	4.865E+03	4.865E-01	2.027E+03	2.027E+00	2.211E+02	2.211E-02	9.215E+01	9.215E-02
4.000E-01	5.618E+03	5.618E-01	2.341E+03	2.341E+00	2.553E+02	2.553E-02	1.064E+02	1.064E-01
5.000E-01	6.281E+03	6.281E-01	2.617E+03	2.617E+00	2.855E+02	2.855E-02	1.190E+02	1.190E-01
6.000E-01	6.880E+03	6.880E-01	2.867E+03	2.867E+00	3.127E+02	3.127E-02	1.303E+02	1.303E-01
7.000E-01	7.432E+03	7.432E-01	3.096E+03	3.096E+00	3.378E+02	3.378E-02	1.407E+02	1.407E-01
8.000E-01	7.945E+03	7.945E-01	3.310E+03	3.310E+00	3.611E+02	3.611E-02	1.504E+02	1.504E-01
9.000E-01	8.426E+03	8.426E-01	3.511E+03	3.511E+00	3.830E+02	3.830E-02	1.596E+02	1.596E-01
1.000E+00	8.881E+03	8.881E-01	3.700E+03	3.700E+00	4.037E+02	4.037E-02	1.682E+02	1.682E-01
2.000E+00	1.256E+04	1.256E+00	5.233E+03	5.233E+00	5.707E+02	5.707E-02	2.378E+02	2.378E-01
3.000E+00	1.539E+04	1.539E+00	6.410E+03	6.410E+00	6.994E+02	6.994E-02	2.913E+02	2.913E-01
4.000E+00	1.777E+04	1.777E+00	7.401E+03	7.401E+00	8.076E+02	8.076E-02	3.364E+02	3.364E-01
5.000E+00	1.986E+04	1.986E+00	8.274E+03	8.274E+00	9.027E+02	9.027E-02	3.761E+02	3.761E-01
6.000E+00	2.175E+04	2.175E+00	9.063E+03	9.063E+00	9.887E+02	9.887E-02	4.119E+02	4.119E-01
7.000E+00	2.350E+04	2.350E+00	9.794E+03	9.794E+00	1.068E+03	1.068E-01	4.452E+02	4.452E-01
8.000E+00	2.506E+04	2.506E+00	1.044E+04	1.044E+01	1.139E+03	1.139E-01	4.747E+02	4.747E-01
9.000E+00	2.625E+04	2.625E+00	1.093E+04	1.093E+01	1.193E+03	1.193E-01	4.970E+02	4.970E-01
1.000E+01	2.714E+04	2.714E+00	1.131E+04	1.131E+01	1.234E+03	1.234E-01	5.139E+02	5.139E-01
2.000E+01	2.937E+04	2.937E+00	1.223E+04	1.223E+01	1.335E+03	1.335E-01	5.561E+02	5.561E-01
3.000E+01	2.817E+04	2.817E+00	1.174E+04	1.174E+01	1.280E+03	1.280E-01	5.337E+02	5.337E-01
4.000E+01	2.649E+04	2.649E+00	1.104E+04	1.104E+01	1.204E+03	1.204E-01	5.016E+02	5.016E-01
5.000E+01	2.486E+04	2.486E+00	1.036E+04	1.036E+01	1.130E+03	1.130E-01	4.708E+02	4.708E-01
6.000E+01	2.336E+04	2.336E+00	9.734E+03	9.734E+00	1.062E+03	1.062E-01	4.424E+02	4.424E-01
7.000E+01	2.202E+04	2.202E+00	9.175E+03	9.175E+00	1.001E+03	1.001E-01	4.171E+02	4.171E-01
8.000E+01	2.082E+04	2.082E+00	8.676E+03	8.676E+00	9.463E+02	9.463E-02	3.944E+02	3.944E-01
9.000E+01	1.975E+04	1.975E+00	8.230E+03	8.230E+00	8.979E+02	8.979E-02	3.741E+02	3.741E-01
1.000E+02	1.880E+04	1.880E+00	7.831E+03	7.831E+00	8.544E+02	8.544E-02	3.559E+02	3.559E-01
2.000E+02	1.278E+04	1.278E+00	5.326E+03	5.326E+00	5.809E+02	5.809E-02	2.421E+02	2.421E-01
3.000E+02	9.786E+03	9.786E-01	4.078E+03	4.078E+00	4.448E+02	4.448E-02	1.854E+02	1.854E-01
4.000E+02	7.970E+03	7.970E-01	3.321E+03	3.321E+00	3.623E+02	3.623E-02	1.509E+02	1.509E-01
5.000E+02	6.749E+03	6.749E-01	2.812E+03	2.812E+00	3.068E+02	3.068E-02	1.278E+02	1.278E-01
6.000E+02	5.872E+03	5.872E-01	2.447E+03	2.447E+00	2.669E+02	2.669E-02	1.112E+02	1.112E-01
7.000E+02	5.214E+03	5.214E-01	2.172E+03	2.172E+00	2.370E+02	2.370E-02	9.874E+01	9.874E-02
8.000E+02	4.700E+03	4.700E-01	1.958E+03	1.958E+00	2.136E+02	2.136E-02	8.902E+01	8.902E-02
9.000E+02	4.289E+03	4.289E-01	1.787E+03	1.787E+00	1.949E+02	1.949E-02	8.122E+01	8.122E-02
1.000E+03	3.952E+03	3.952E-01	1.646E+03	1.646E+00	1.796E+02	1.796E-02	7.482E+01	7.482E-02
2.000E+03	2.323E+03	2.323E-01	9.678E+02	9.678E-01	1.056E+02	1.056E-02	4.399E+01	4.399E-02
3.000E+03	1.729E+03	1.729E-01	7.205E+02	7.205E-01	7.860E+01	7.860E-03	3.275E+01	3.275E-02
4.000E+03	1.419E+03	1.419E-01	5.913E+02	5.913E-01	6.451E+01	6.451E-03	2.688E+01	2.688E-02
5.000E+03	1.229E+03	1.229E-01	5.120E+02	5.120E-01	5.587E+01	5.587E-03	2.327E+01	2.327E-02
6.000E+03	1.099E+03	1.099E-01	4.583E+02	4.583E-01	4.998E+01	4.998E-03	2.083E+01	2.083E-02
7.000E+03	1.007E+03	1.007E-01	4.196E+02	4.196E-01	4.577E+01	4.577E-03	1.907E+01	1.907E-02
8.000E+03	9.376E+02	9.376E-02	3.906E+02	3.906E-01	4.262E+01	4.262E-03	1.775E+01	1.775E-02
9.000E+03	8.834E+02	8.834E-02	3.680E+02	3.680E-01	4.015E+01	4.015E-03	1.673E+01	1.673E-02
1.000E+04	8.402E+02	8.402E-02	3.501E+02	3.501E-01	3.819E+01	3.819E-03	1.591E+01	1.591E-02
2.000E+04	6.556E+02	6.556E-02	2.732E+02	2.732E-01	2.980E+01	2.980E-03	1.242E+01	1.242E-02
3.000E+04	6.028E+02	6.028E-02	2.512E+02	2.512E-01	2.740E+01	2.740E-03	1.142E+01	1.142E-02
4.000E+04	5.834E+02	5.834E-02	2.431E+02	2.431E-01	2.652E+01	2.652E-03	1.105E+01	1.105E-02
5.000E+04	5.761E+02	5.761E-02	2.400E+02	2.400E-01	2.619E+01	2.619E-03	1.091E+01	1.091E-02
6.000E+04	5.743E+02	5.743E-02	2.393E+02	2.393E-01	2.610E+01	2.610E-03	1.088E+01	1.088E-02
7.000E+04	5.752E+02	5.752E-02	2.396E+02	2.396E-01	2.614E+01	2.614E-03	1.089E+01	1.089E-02
8.000E+04	5.774E+02	5.774E-02	2.405E+02	2.405E-01	2.624E+01	2.624E-03	1.093E+01	1.093E-02
9.000E+04	5.803E+02	5.803E-02	2.418E+02	2.418E-01	2.638E+01	2.638E-03	1.099E+01	1.099E-02
1.000E+05	5.836E+02	5.836E-02	2.432E+02	2.432E-01	2.653E+01	2.653E-03	1.105E+01	1.105E-02
2.000E+05	6.163E+02	6.163E-02	2.568E+02	2.568E-01	2.801E+01	2.801E-03	1.167E+01	1.167E-02

TABLE 109

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AL Z= 13 A= 26.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
3.000E-01	4.986E+03	4.986E-01	2.077E+03	2.077E+00	2.266E+02	2.266E-02	9.443E+01	9.443E-02
4.000E-01	5.758E+03	5.758E-01	2.399E+03	2.399E+00	2.617E+02	2.617E-02	1.091E+02	1.091E-01
5.000E-01	6.437E+03	6.437E-01	2.682E+03	2.682E+00	2.926E+02	2.926E-02	1.219E+02	1.219E-01
6.000E-01	7.052E+03	7.052E-01	2.938E+03	2.938E+00	3.205E+02	3.205E-02	1.335E+02	1.335E-01
7.000E-01	7.617E+03	7.617E-01	3.174E+03	3.174E+00	3.462E+02	3.462E-02	1.443E+02	1.443E-01
8.000E-01	8.143E+03	8.143E-01	3.393E+03	3.393E+00	3.702E+02	3.702E-02	1.542E+02	1.542E-01
9.000E-01	8.638E+03	8.638E-01	3.598E+03	3.598E+00	3.926E+02	3.926E-02	1.636E+02	1.636E-01
1.000E+00	9.104E+03	9.104E-01	3.793E+03	3.793E+00	4.138E+02	4.138E-02	1.724E+02	1.724E-01
2.000E+00	1.287E+04	1.287E+00	5.364E+03	5.364E+00	5.851E+02	5.851E-02	2.438E+02	2.438E-01
3.000E+00	1.577E+04	1.577E+00	6.570E+03	6.570E+00	7.168E+02	7.168E-02	2.986E+02	2.986E-01
4.000E+00	1.820E+04	1.820E+00	7.586E+03	7.586E+00	8.274E+02	8.274E-02	3.448E+02	3.448E-01
5.000E+00	2.036E+04	2.036E+00	8.481E+03	8.481E+00	9.253E+02	9.253E-02	3.855E+02	3.855E-01
6.000E+00	2.230E+04	2.230E+00	9.290E+03	9.290E+00	1.014E+03	1.014E-01	4.223E+02	4.223E-01
7.000E+00	2.408E+04	2.408E+00	1.003E+04	1.003E+01	1.095E+03	1.095E-01	4.560E+02	4.560E-01
8.000E+00	2.576E+04	2.576E+00	1.073E+04	1.073E+01	1.171E+03	1.171E-01	4.877E+02	4.877E-01
9.000E+00	2.725E+04	2.725E+00	1.135E+04	1.135E+01	1.239E+03	1.239E-01	5.160E+02	5.160E-01
1.000E+01	2.844E+04	2.844E+00	1.185E+04	1.185E+01	1.293E+03	1.293E-01	5.386E+02	5.386E-01
2.000E+01	3.231E+04	3.231E+00	1.346E+04	1.346E+01	1.469E+03	1.469E-01	6.118E+02	6.118E-01
3.000E+01	3.171E+04	3.171E+00	1.321E+04	1.321E+01	1.441E+03	1.441E-01	6.005E+02	6.005E-01
4.000E+01	3.029E+04	3.029E+00	1.262E+04	1.262E+01	1.377E+03	1.377E-01	5.735E+02	5.735E-01
5.000E+01	2.875E+04	2.875E+00	1.198E+04	1.198E+01	1.307E+03	1.307E-01	5.446E+02	5.446E-01
6.000E+01	2.727E+04	2.727E+00	1.135E+04	1.135E+01	1.239E+03	1.239E-01	5.161E+02	5.161E-01
7.000E+01	2.589E+04	2.589E+00	1.079E+04	1.079E+01	1.177E+03	1.177E-01	4.905E+02	4.905E-01
8.000E+01	2.463E+04	2.463E+00	1.026E+04	1.026E+01	1.120E+03	1.120E-01	4.664E+02	4.664E-01
9.000E+01	2.348E+04	2.348E+00	9.786E+03	9.786E+00	1.067E+03	1.067E-01	4.448E+02	4.448E-01
1.000E+02	2.244E+04	2.244E+00	9.350E+03	9.350E+00	1.020E+03	1.020E-01	4.250E+02	4.250E-01
2.000E+02	1.569E+04	1.569E+00	6.537E+03	6.537E+00	7.131E+02	7.131E-02	2.971E+02	2.971E-01
3.000E+02	1.218E+04	1.218E+00	5.077E+03	5.077E+00	5.537E+02	5.537E-02	2.308E+02	2.308E-01
4.000E+02	1.001E+04	1.001E+00	4.170E+03	4.170E+00	4.550E+02	4.550E-02	1.896E+02	1.896E-01
5.000E+02	8.521E+03	8.521E-01	3.551E+03	3.551E+00	3.873E+02	3.873E-02	1.614E+02	1.614E-01
6.000E+02	7.439E+03	7.439E-01	3.099E+03	3.099E+00	3.381E+02	3.381E-02	1.409E+02	1.409E-01
7.000E+02	6.616E+03	6.616E-01	2.757E+03	2.757E+00	3.007E+02	3.007E-02	1.253E+02	1.253E-01
8.000E+02	5.971E+03	5.971E-01	2.488E+03	2.488E+00	2.714E+02	2.714E-02	1.131E+02	1.131E-01
9.000E+02	5.452E+03	5.452E-01	2.271E+03	2.271E+00	2.478E+02	2.478E-02	1.032E+02	1.032E-01
1.000E+03	5.025E+03	5.025E-01	2.093E+03	2.093E+00	2.284E+02	2.284E-02	9.514E+01	9.514E-02
2.000E+03	2.949E+03	2.949E-01	1.229E+03	1.229E+00	1.340E+02	1.340E-02	5.586E+01	5.586E-02
3.000E+03	2.187E+03	2.187E-01	9.108E+02	9.108E-01	9.939E+01	9.939E-03	4.140E+01	4.140E-02
4.000E+03	1.787E+03	1.787E-01	7.446E+02	7.446E-01	8.122E+01	8.122E-03	3.384E+01	3.384E-02
5.000E+03	1.541E+03	1.541E-01	6.422E+02	6.422E-01	7.007E+01	7.007E-03	2.919E+01	2.919E-02
6.000E+03	1.375E+03	1.375E-01	5.727E+02	5.727E-01	6.249E+01	6.249E-03	2.603E+01	2.603E-02
7.000E+03	1.255E+03	1.255E-01	5.225E+02	5.225E-01	5.703E+01	5.703E-03	2.375E+01	2.375E-02
8.000E+03	1.163E+03	1.163E-01	4.848E+02	4.848E-01	5.288E+01	5.288E-03	2.203E+01	2.203E-02
9.000E+03	1.093E+03	1.093E-01	4.553E+02	4.553E-01	4.966E+01	4.966E-03	2.070E+01	2.070E-02
1.000E+04	1.037E+03	1.037E-01	4.318E+02	4.318E-01	4.713E+01	4.713E-03	1.963E+01	1.963E-02
2.000E+04	7.914E+02	7.914E-02	3.298E+02	3.298E-01	3.597E+01	3.597E-03	1.499E+01	1.499E-02
3.000E+04	7.198E+02	7.198E-02	2.999E+02	2.999E-01	3.272E+01	3.272E-03	1.363E+01	1.363E-02
4.000E+04	6.913E+02	6.913E-02	2.880E+02	2.880E-01	3.142E+01	3.142E-03	1.309E+01	1.309E-02
5.000E+04	6.792E+02	6.792E-02	2.830E+02	2.830E-01	3.087E+01	3.087E-03	1.286E+01	1.286E-02
6.000E+04	6.748E+02	6.748E-02	2.811E+02	2.811E-01	3.067E+01	3.067E-03	1.278E+01	1.278E-02
7.000E+04	6.741E+02	6.741E-02	2.808E+02	2.808E-01	3.064E+01	3.064E-03	1.277E+01	1.277E-02
8.000E+04	6.754E+02	6.754E-02	2.815E+02	2.815E-01	3.070E+01	3.070E-03	1.279E+01	1.279E-02
9.000E+04	6.780E+02	6.780E-02	2.825E+02	2.825E-01	3.082E+01	3.082E-03	1.284E+01	1.284E-02
1.000E+05	6.811E+02	6.811E-02	2.838E+02	2.838E-01	3.096E+01	3.096E-03	1.290E+01	1.290E-02
2.000E+05	7.165E+02	7.165E-02	2.986E+02	2.986E-01	3.257E+01	3.257E-03	1.357E+01	1.357E-02

TABLE 110

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: SI Z= 14 A= 28.09

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
3.000E-01	5.235E+03	5.235E-01	2.181E+03	2.181E+00	2.380E+02	2.380E-02	9.914E+01	9.914E-02
4.000E-01	6.047E+03	6.047E-01	2.519E+03	2.519E+00	2.749E+02	2.749E-02	1.145E+02	1.145E-01
5.000E-01	6.761E+03	6.761E-01	2.817E+03	2.817E+00	3.073E+02	3.073E-02	1.280E+02	1.280E-01
6.000E-01	7.405E+03	7.405E-01	3.085E+03	3.085E+00	3.366E+02	3.366E-02	1.402E+02	1.402E-01
7.000E-01	7.999E+03	7.999E-01	3.333E+03	3.333E+00	3.636E+02	3.636E-02	1.515E+02	1.515E-01
8.000E-01	8.551E+03	8.551E-01	3.563E+03	3.563E+00	3.887E+02	3.887E-02	1.620E+02	1.620E-01
9.000E-01	9.069E+03	9.069E-01	3.779E+03	3.779E+00	4.122E+02	4.122E-02	1.718E+02	1.718E-01
1.000E+00	9.561E+03	9.561E-01	3.983E+03	3.983E+00	4.346E+02	4.346E-02	1.811E+02	1.811E-01
2.000E+00	1.352E+04	1.352E+00	5.634E+03	5.634E+00	6.147E+02	6.147E-02	2.561E+02	2.561E-01
3.000E+00	1.656E+04	1.656E+00	6.899E+03	6.899E+00	7.529E+02	7.529E-02	3.136E+02	3.136E-01
4.000E+00	1.912E+04	1.912E+00	7.966E+03	7.966E+00	8.689E+02	8.689E-02	3.621E+02	3.621E-01
5.000E+00	2.137E+04	2.137E+00	8.907E+03	8.907E+00	9.716E+02	9.716E-02	4.048E+02	4.048E-01
6.000E+00	2.342E+04	2.342E+00	9.756E+03	9.756E+00	1.064E+03	1.064E-01	4.435E+02	4.435E-01
7.000E+00	2.529E+04	2.529E+00	1.054E+04	1.054E+01	1.149E+03	1.149E-01	4.791E+02	4.791E-01
8.000E+00	2.705E+04	2.705E+00	1.127E+04	1.127E+01	1.229E+03	1.229E-01	5.122E+02	5.122E-01
9.000E+00	2.867E+04	2.867E+00	1.195E+04	1.195E+01	1.303E+03	1.303E-01	5.430E+02	5.430E-01
1.000E+01	3.006E+04	3.006E+00	1.253E+04	1.253E+01	1.367E+03	1.367E-01	5.694E+02	5.694E-01
2.000E+01	3.508E+04	3.508E+00	1.462E+04	1.462E+01	1.595E+03	1.595E-01	6.644E+02	6.644E-01
3.000E+01	3.492E+04	3.492E+00	1.454E+04	1.454E+01	1.587E+03	1.587E-01	6.611E+02	6.611E-01
4.000E+01	3.367E+04	3.367E+00	1.403E+04	1.403E+01	1.530E+03	1.530E-01	6.375E+02	6.375E-01
5.000E+01	3.217E+04	3.217E+00	1.340E+04	1.340E+01	1.462E+03	1.462E-01	6.093E+02	6.093E-01
6.000E+01	3.068E+04	3.068E+00	1.279E+04	1.279E+01	1.395E+03	1.395E-01	5.812E+02	5.812E-01
7.000E+01	2.927E+04	2.927E+00	1.219E+04	1.219E+01	1.330E+03	1.330E-01	5.542E+02	5.542E-01
8.000E+01	2.796E+04	2.796E+00	1.165E+04	1.165E+01	1.271E+03	1.271E-01	5.296E+02	5.296E-01
9.000E+01	2.675E+04	2.675E+00	1.115E+04	1.115E+01	1.216E+03	1.216E-01	5.066E+02	5.066E-01
1.000E+02	2.564E+04	2.564E+00	1.068E+04	1.068E+01	1.166E+03	1.166E-01	4.855E+02	4.855E-01
2.000E+02	1.825E+04	1.825E+00	7.603E+03	7.603E+00	8.294E+02	8.294E-02	3.456E+02	3.456E-01
3.000E+02	1.430E+04	1.430E+00	5.959E+03	5.959E+00	6.501E+02	6.501E-02	2.709E+02	2.709E-01
4.000E+02	1.182E+04	1.182E+00	4.925E+03	4.925E+00	5.373E+02	5.373E-02	2.239E+02	2.239E-01
5.000E+02	1.010E+04	1.010E+00	4.211E+03	4.211E+00	4.593E+02	4.593E-02	1.914E+02	1.914E-01
6.000E+02	8.846E+03	8.846E-01	3.686E+03	3.686E+00	4.021E+02	4.021E-02	1.675E+02	1.675E-01
7.000E+02	7.882E+03	7.882E-01	3.285E+03	3.285E+00	3.583E+02	3.583E-02	1.493E+02	1.493E-01
8.000E+02	7.122E+03	7.122E-01	2.967E+03	2.967E+00	3.237E+02	3.237E-02	1.349E+02	1.349E-01
9.000E+02	6.507E+03	6.507E-01	2.711E+03	2.711E+00	2.958E+02	2.958E-02	1.232E+02	1.232E-01
1.000E+03	5.999E+03	5.999E-01	2.499E+03	2.499E+00	2.727E+02	2.727E-02	1.136E+02	1.136E-01
2.000E+03	3.522E+03	3.522E-01	1.468E+03	1.468E+00	1.601E+02	1.601E-02	6.671E+01	6.671E-02
3.000E+03	2.608E+03	2.608E-01	1.087E+03	1.087E+00	1.186E+02	1.186E-02	4.942E+01	4.942E-02
4.000E+03	2.130E+03	2.130E-01	8.872E+02	8.872E-01	9.680E+01	9.680E-03	4.033E+01	4.033E-02
5.000E+03	1.834E+03	1.834E-01	7.640E+02	7.640E-01	8.336E+01	8.336E-03	3.473E+01	3.473E-02
6.000E+03	1.633E+03	1.633E-01	6.805E+02	6.805E-01	7.425E+01	7.425E-03	3.093E+01	3.093E-02
7.000E+03	1.488E+03	1.488E-01	6.202E+02	6.202E-01	6.764E+01	6.764E-03	2.819E+01	2.819E-02
8.000E+03	1.379E+03	1.379E-01	5.746E+02	5.746E-01	6.268E+01	6.268E-03	2.612E+01	2.612E-02
9.000E+03	1.294E+03	1.294E-01	5.391E+02	5.391E-01	5.882E+01	5.882E-03	2.450E+01	2.450E-02
1.000E+04	1.226E+03	1.226E-01	5.107E+02	5.107E-01	5.573E+01	5.573E-03	2.321E+01	2.321E-02
2.000E+04	9.284E+02	9.284E-02	3.869E+02	3.869E-01	4.220E+01	4.220E-03	1.758E+01	1.758E-02
3.000E+04	8.409E+02	8.409E-02	3.504E+02	3.504E-01	3.822E+01	3.822E-03	1.593E+01	1.593E-02
4.000E+04	8.051E+02	8.051E-02	3.355E+02	3.355E-01	3.660E+01	3.660E-03	1.525E+01	1.525E-02
5.000E+04	7.896E+02	7.896E-02	3.290E+02	3.290E-01	3.589E+01	3.589E-03	1.495E+01	1.495E-02
6.000E+04	7.832E+02	7.832E-02	3.264E+02	3.264E-01	3.560E+01	3.560E-03	1.484E+01	1.484E-02
7.000E+04	7.817E+02	7.817E-02	3.257E+02	3.257E-01	3.553E+01	3.553E-03	1.480E+01	1.480E-02
8.000E+04	7.826E+02	7.826E-02	3.261E+02	3.261E-01	3.557E+01	3.557E-03	1.482E+01	1.482E-02
9.000E+04	7.851E+02	7.851E-02	3.271E+02	3.271E-01	3.568E+01	3.568E-03	1.487E+01	1.487E-02
1.000E+05	7.884E+02	7.884E-02	3.285E+02	3.285E-01	3.583E+01	3.584E-03	1.493E+01	1.493E-02
2.000E+05	8.280E+02	8.280E-02	3.450E+02	3.450E-01	3.764E+01	3.764E-03	1.568E+01	1.568E-02

TABLE 111

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: P Z= 15 A= 30.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
4.000E-01	6.125E+03	6.125E-01	2.552E+03	2.552E+00	2.784E+02	2.784E-02	1.160E+02	1.160E-01
5.000E-01	6.848E+03	6.848E-01	2.853E+03	2.853E+00	3.113E+02	3.113E-02	1.297E+02	1.297E-01
6.000E-01	7.501E+03	7.501E-01	3.125E+03	3.125E+00	3.410E+02	3.410E-02	1.421E+02	1.421E-01
7.000E-01	8.103E+03	8.103E-01	3.376E+03	3.376E+00	3.683E+02	3.683E-02	1.535E+02	1.535E-01
8.000E-01	8.662E+03	8.662E-01	3.609E+03	3.609E+00	3.937E+02	3.937E-02	1.640E+02	1.640E-01
9.000E-01	9.187E+03	9.187E-01	3.828E+03	3.828E+00	4.176E+02	4.176E-02	1.740E+02	1.740E-01
1.000E+00	9.686E+03	9.686E-01	4.035E+03	4.035E+00	4.403E+02	4.403E-02	1.834E+02	1.834E-01
2.000E+00	1.370E+04	1.370E+00	5.706E+03	5.706E+00	6.226E+02	6.226E-02	2.594E+02	2.594E-01
3.000E+00	1.678E+04	1.678E+00	6.989E+03	6.989E+00	7.625E+02	7.625E-02	3.177E+02	3.177E-01
4.000E+00	1.937E+04	1.937E+00	8.069E+03	8.069E+00	8.803E+02	8.803E-02	3.668E+02	3.668E-01
5.000E+00	2.165E+04	2.165E+00	9.023E+03	9.023E+00	9.840E+02	9.840E-02	4.101E+02	4.101E-01
6.000E+00	2.372E+04	2.372E+00	9.881E+03	9.881E+00	1.078E+03	1.078E-01	4.491E+02	4.491E-01
7.000E+00	2.562E+04	2.562E+00	1.067E+04	1.067E+01	1.164E+03	1.164E-01	4.852E+02	4.852E-01
8.000E+00	2.738E+04	2.738E+00	1.141E+04	1.141E+01	1.245E+03	1.245E-01	5.187E+02	5.187E-01
9.000E+00	2.905E+04	2.905E+00	1.210E+04	1.210E+01	1.320E+03	1.320E-01	5.501E+02	5.501E-01
1.000E+01	3.061E+04	3.061E+00	1.276E+04	1.276E+01	1.391E+03	1.391E-01	5.799E+02	5.799E-01
2.000E+01	3.748E+04	3.748E+00	1.562E+04	1.562E+01	1.704E+03	1.704E-01	7.098E+02	7.098E-01
3.000E+01	3.812E+04	3.812E+00	1.588E+04	1.588E+01	1.733E+03	1.733E-01	7.220E+02	7.220E-01
4.000E+01	3.729E+04	3.729E+00	1.553E+04	1.553E+01	1.695E+03	1.695E-01	7.060E+02	7.060E-01
5.000E+01	3.601E+04	3.601E+00	1.501E+04	1.501E+01	1.637E+03	1.637E-01	6.822E+02	6.822E-01
6.000E+01	3.464E+04	3.464E+00	1.443E+04	1.443E+01	1.574E+03	1.574E-01	6.561E+02	6.561E-01
7.000E+01	3.328E+04	3.328E+00	1.386E+04	1.386E+01	1.513E+03	1.513E-01	6.302E+02	6.302E-01
8.000E+01	3.197E+04	3.197E+00	1.332E+04	1.332E+01	1.453E+03	1.453E-01	6.056E+02	6.056E-01
9.000E+01	3.075E+04	3.075E+00	1.282E+04	1.282E+01	1.398E+03	1.398E-01	5.826E+02	5.826E-01
1.000E+02	2.961E+04	2.961E+00	1.234E+04	1.234E+01	1.346E+03	1.346E-01	5.609E+02	5.609E-01
2.000E+02	2.163E+04	2.163E+00	9.010E+03	9.010E+00	9.831E+02	9.831E-02	4.096E+02	4.096E-01
3.000E+02	1.718E+04	1.718E+00	7.159E+03	7.159E+00	7.809E+02	7.809E-02	3.254E+02	3.254E-01
4.000E+02	1.433E+04	1.433E+00	5.971E+03	5.971E+00	6.514E+02	6.514E-02	2.714E+02	2.714E-01
5.000E+02	1.233E+04	1.233E+00	5.138E+03	5.138E+00	5.605E+02	5.605E-02	2.335E+02	2.335E-01
6.000E+02	1.084E+04	1.084E+00	4.517E+03	4.517E+00	4.927E+02	4.927E-02	2.053E+02	2.053E-01
7.000E+02	9.691E+03	9.691E-01	4.038E+03	4.038E+00	4.405E+02	4.405E-02	1.836E+02	1.836E-01
8.000E+02	8.775E+03	8.775E-01	3.657E+03	3.657E+00	3.989E+02	3.989E-02	1.662E+02	1.662E-01
9.000E+02	8.029E+03	8.029E-01	3.346E+03	3.346E+00	3.649E+02	3.649E-02	1.521E+02	1.521E-01
1.000E+03	7.410E+03	7.410E-01	3.087E+03	3.087E+00	3.368E+02	3.368E-02	1.403E+02	1.403E-01
2.000E+03	4.353E+03	4.353E-01	1.814E+03	1.814E+00	1.979E+02	1.979E-02	8.243E+01	8.243E-02
3.000E+03	3.215E+03	3.215E-01	1.340E+03	1.340E+00	1.461E+02	1.461E-02	6.090E+01	6.090E-02
4.000E+03	2.616E+03	2.616E-01	1.090E+03	1.090E+00	1.189E+02	1.189E-02	4.955E+01	4.955E-02
5.000E+03	2.245E+03	2.245E-01	9.356E+02	9.356E-01	1.021E+02	1.021E-02	4.253E+01	4.253E-02
6.000E+03	1.993E+03	1.993E-01	8.306E+02	8.306E-01	9.061E+01	9.061E-03	3.776E+01	3.776E-02
7.000E+03	1.811E+03	1.811E-01	7.546E+02	7.546E-01	8.232E+01	8.232E-03	3.430E+01	3.430E-02
8.000E+03	1.673E+03	1.673E-01	6.972E+02	6.972E-01	7.604E+01	7.604E-03	3.169E+01	3.169E-02
9.000E+03	1.566E+03	1.566E-01	6.524E+02	6.524E-01	7.118E+01	7.118E-03	2.965E+01	2.965E-02
1.000E+04	1.480E+03	1.480E-01	6.164E+02	6.164E-01	6.726E+01	6.726E-03	2.802E+01	2.802E-02
2.000E+04	1.098E+03	1.098E-01	4.578E+02	4.578E-01	4.993E+01	4.993E-03	2.081E+01	2.081E-02
3.000E+04	9.847E+02	9.847E-02	4.103E+02	4.103E-01	4.476E+01	4.476E-03	1.865E+01	1.865E-02
4.000E+04	9.357E+02	9.357E-02	3.899E+02	3.899E-01	4.253E+01	4.253E-03	1.772E+01	1.772E-02
5.000E+04	9.129E+02	9.129E-02	3.804E+02	3.804E-01	4.150E+01	4.150E-03	1.729E+01	1.729E-02
6.000E+04	9.023E+02	9.023E-02	3.759E+02	3.759E-01	4.101E+01	4.101E-03	1.709E+01	1.709E-02
7.000E+04	8.980E+02	8.980E-02	3.742E+02	3.742E-01	4.082E+01	4.082E-03	1.701E+01	1.701E-02
8.000E+04	8.974E+02	8.974E-02	3.739E+02	3.739E-01	4.079E+01	4.079E-03	1.700E+01	1.700E-02
9.000E+04	8.988E+02	8.988E-02	3.745E+02	3.745E-01	4.086E+01	4.086E-03	1.702E+01	1.702E-02
1.000E+05	9.015E+02	9.015E-02	3.756E+02	3.756E-01	4.098E+01	4.098E-03	1.707E+01	1.707E-02
2.000E+05	9.426E+02	9.426E-02	3.927E+02	3.927E-01	4.284E+01	4.284E-03	1.785E+01	1.785E-02
3.000E+05	9.775E+02	9.775E-02	4.073E+02	4.073E-01	4.443E+01	4.443E-03	1.851E+01	1.851E-02

TABLE 112

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: S Z= 16 A= 32.07

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
4.000E-01	6.366E+03	6.366E-01	2.653E+03	2.653E+00	2.894E+02	2.894E-02	1.206E+02	1.206E-01
5.000E-01	7.117E+03	7.117E-01	2.966E+03	2.966E+00	3.235E+02	3.235E-02	1.348E+02	1.348E-01
6.000E-01	7.796E+03	7.796E-01	3.248E+03	3.248E+00	3.544E+02	3.544E-02	1.477E+02	1.477E-01
7.000E-01	8.421E+03	8.421E-01	3.508E+03	3.508E+00	3.828E+02	3.828E-02	1.595E+02	1.595E-01
8.000E-01	9.002E+03	9.002E-01	3.751E+03	3.751E+00	4.092E+02	4.092E-02	1.705E+02	1.705E-01
9.000E-01	9.549E+03	9.549E-01	3.978E+03	3.978E+00	4.340E+02	4.340E-02	1.808E+02	1.808E-01
1.000E+00	1.006E+04	1.006E+00	4.194E+03	4.194E+00	4.575E+02	4.575E-02	1.906E+02	1.906E-01
2.000E+00	1.423E+04	1.423E+00	5.931E+03	5.931E+00	6.470E+02	6.470E-02	2.696E+02	2.696E-01
3.000E+00	1.743E+04	1.743E+00	7.263E+03	7.263E+00	7.924E+02	7.924E-02	3.302E+02	3.302E-01
4.000E+00	2.013E+04	2.013E+00	8.387E+03	8.387E+00	9.149E+02	9.149E-02	3.812E+02	3.812E-01
5.000E+00	2.251E+04	2.251E+00	9.376E+03	9.376E+00	1.023E+03	1.023E-01	4.262E+02	4.262E-01
6.000E+00	2.465E+04	2.465E+00	1.027E+04	1.027E+01	1.121E+03	1.121E-01	4.669E+02	4.669E-01
7.000E+00	2.663E+04	2.663E+00	1.109E+04	1.109E+01	1.210E+03	1.210E-01	5.042E+02	5.042E-01
8.000E+00	2.846E+04	2.846E+00	1.186E+04	1.186E+01	1.294E+03	1.294E-01	5.391E+02	5.391E-01
9.000E+00	3.018E+04	3.018E+00	1.258E+04	1.258E+01	1.372E+03	1.372E-01	5.717E+02	5.717E-01
1.000E+01	3.182E+04	3.182E+00	1.326E+04	1.326E+01	1.446E+03	1.446E-01	6.026E+02	6.026E-01
2.000E+01	3.989E+04	3.989E+00	1.662E+04	1.662E+01	1.813E+03	1.813E-01	7.555E+02	7.555E-01
3.000E+01	4.107E+04	4.107E+00	1.711E+04	1.711E+01	1.867E+03	1.867E-01	7.778E+02	7.778E-01
4.000E+01	4.051E+04	4.051E+00	1.688E+04	1.688E+01	1.841E+03	1.841E-01	7.670E+02	7.670E-01
5.000E+01	3.937E+04	3.937E+00	1.640E+04	1.640E+01	1.790E+03	1.790E-01	7.456E+02	7.456E-01
6.000E+01	3.807E+04	3.807E+00	1.586E+04	1.586E+01	1.730E+03	1.730E-01	7.210E+02	7.210E-01
7.000E+01	3.672E+04	3.672E+00	1.530E+04	1.530E+01	1.669E+03	1.669E-01	6.954E+02	6.954E-01
8.000E+01	3.541E+04	3.541E+00	1.476E+04	1.476E+01	1.609E+03	1.609E-01	6.708E+02	6.708E-01
9.000E+01	3.417E+04	3.417E+00	1.423E+04	1.423E+01	1.553E+03	1.553E-01	6.470E+02	6.470E-01
1.000E+02	3.299E+04	3.299E+00	1.375E+04	1.375E+01	1.499E+03	1.499E-01	6.248E+02	6.248E-01
2.000E+02	2.450E+04	2.450E+00	1.021E+04	1.021E+01	1.113E+03	1.113E-01	4.640E+02	4.640E-01
3.000E+02	1.963E+04	1.963E+00	8.180E+03	8.180E+00	8.924E+02	8.924E-02	3.718E+02	3.718E-01
4.000E+02	1.647E+04	1.647E+00	6.862E+03	6.862E+00	7.487E+02	7.487E-02	3.119E+02	3.119E-01
5.000E+02	1.423E+04	1.423E+00	5.928E+03	5.928E+00	6.468E+02	6.468E-02	2.695E+02	2.695E-01
6.000E+02	1.254E+04	1.254E+00	5.230E+03	5.230E+00	5.702E+02	5.702E-02	2.377E+02	2.377E-01
7.000E+02	1.125E+04	1.125E+00	4.686E+03	4.686E+00	5.111E+02	5.111E-02	2.130E+02	2.130E-01
8.000E+02	1.020E+04	1.020E+00	4.250E+03	4.250E+00	4.637E+02	4.637E-02	1.932E+02	1.932E-01
9.000E+02	9.344E+03	9.344E-01	3.894E+03	3.894E+00	4.247E+02	4.247E-02	1.770E+02	1.770E-01
1.000E+03	8.633E+03	8.633E-01	3.598E+03	3.598E+00	3.924E+02	3.924E-02	1.635E+02	1.635E-01
2.000E+03	5.082E+03	5.082E-01	2.117E+03	2.117E+00	2.310E+02	2.310E-02	9.625E+01	9.625E-02
3.000E+03	3.752E+03	3.752E-01	1.563E+03	1.563E+00	1.705E+02	1.705E-02	7.106E+01	7.106E-02
4.000E+03	3.049E+03	3.049E-01	1.270E+03	1.270E+00	1.386E+02	1.386E-02	5.774E+01	5.774E-02
5.000E+03	2.615E+03	2.615E-01	1.090E+03	1.090E+00	1.188E+02	1.188E-02	4.954E+01	4.954E-02
6.000E+03	2.319E+03	2.319E-01	9.662E+02	9.662E-01	1.054E+02	1.054E-02	4.392E+01	4.392E-02
7.000E+03	2.105E+03	2.105E-01	8.769E+02	8.769E-01	9.568E+01	9.568E-03	3.986E+01	3.986E-02
8.000E+03	1.942E+03	1.942E-01	8.094E+02	8.094E-01	8.829E+01	8.829E-03	3.679E+01	3.679E-02
9.000E+03	1.816E+03	1.816E-01	7.567E+02	7.567E-01	8.253E+01	8.253E-03	3.439E+01	3.439E-02
1.000E+04	1.715E+03	1.715E-01	7.143E+02	7.143E-01	7.794E+01	7.794E-03	3.247E+01	3.247E-02
2.000E+04	1.265E+03	1.265E-01	5.268E+02	5.268E-01	5.749E+01	5.749E-03	2.395E+01	2.395E-02
3.000E+04	1.129E+03	1.129E-01	4.705E+02	4.705E-01	5.133E+01	5.133E-03	2.139E+01	2.139E-02
4.000E+04	1.070E+03	1.070E-01	4.458E+02	4.458E-01	4.866E+01	4.866E-03	2.026E+01	2.026E-02
5.000E+04	1.042E+03	1.042E-01	4.341E+02	4.341E-01	4.735E+01	4.735E-03	1.973E+01	1.973E-02
6.000E+04	1.028E+03	1.028E-01	4.285E+02	4.285E-01	4.672E+01	4.672E-03	1.948E+01	1.948E-02
7.000E+04	1.022E+03	1.022E-01	4.260E+02	4.260E-01	4.646E+01	4.646E-03	1.936E+01	1.936E-02
8.000E+04	1.021E+03	1.021E-01	4.254E+02	4.254E-01	4.641E+01	4.641E-03	1.934E+01	1.934E-02
9.000E+04	1.022E+03	1.022E-01	4.258E+02	4.258E-01	4.643E+01	4.643E-03	1.935E+01	1.935E-02
1.000E+05	1.024E+03	1.024E-01	4.269E+02	4.269E-01	4.657E+01	4.657E-03	1.940E+01	1.940E-02
2.000E+05	1.069E+03	1.069E-01	4.455E+02	4.455E-01	4.861E+01	4.861E-03	2.025E+01	2.025E-02
3.000E+05	1.108E+03	1.108E-01	4.619E+02	4.619E-01	5.038E+01	5.038E-03	2.100E+01	2.100E-02

TABLE 113

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CL Z= 17 A= 35.46

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
4.000E-01	6.368E+03	6.368E-01	2.653E+03	2.653E+00	2.895E+02	2.895E-02	1.206E+02	1.206E-01
5.000E-01	7.121E+03	7.121E-01	2.967E+03	2.967E+00	3.237E+02	3.237E-02	1.349E+02	1.349E-01
6.000E-01	7.801E+03	7.801E-01	3.251E+03	3.251E+00	3.546E+02	3.546E-02	1.478E+02	1.478E-01
7.000E-01	8.426E+03	8.426E-01	3.511E+03	3.511E+00	3.830E+02	3.830E-02	1.596E+02	1.596E-01
8.000E-01	9.008E+03	9.008E-01	3.753E+03	3.753E+00	4.094E+02	4.094E-02	1.706E+02	1.706E-01
9.000E-01	9.554E+03	9.554E-01	3.981E+03	3.981E+00	4.343E+02	4.343E-02	1.809E+02	1.809E-01
1.000E+00	1.007E+04	1.007E+00	4.196E+03	4.196E+00	4.577E+02	4.577E-02	1.907E+02	1.907E-01
2.000E+00	1.424E+04	1.424E+00	5.934E+03	5.934E+00	6.475E+02	6.475E-02	2.697E+02	2.697E-01
3.000E+00	1.744E+04	1.744E+00	7.268E+03	7.268E+00	7.929E+02	7.929E-02	3.304E+02	3.304E-01
4.000E+00	2.014E+04	2.014E+00	8.392E+03	8.392E+00	9.153E+02	9.153E-02	3.814E+02	3.814E-01
5.000E+00	2.252E+04	2.252E+00	9.382E+03	9.382E+00	1.024E+03	1.024E-01	4.265E+02	4.265E-01
6.000E+00	2.467E+04	2.467E+00	1.028E+04	1.028E+01	1.121E+03	1.121E-01	4.672E+02	4.672E-01
7.000E+00	2.665E+04	2.665E+00	1.110E+04	1.110E+01	1.211E+03	1.211E-01	5.046E+02	5.046E-01
8.000E+00	2.848E+04	2.848E+00	1.187E+04	1.187E+01	1.294E+03	1.294E-01	5.395E+02	5.395E-01
9.000E+00	3.020E+04	3.020E+00	1.259E+04	1.259E+01	1.373E+03	1.373E-01	5.723E+02	5.723E-01
1.000E+01	3.184E+04	3.184E+00	1.327E+04	1.327E+01	1.447E+03	1.447E-01	6.030E+02	6.030E-01
2.000E+01	4.162E+04	4.162E+00	1.734E+04	1.734E+01	1.892E+03	1.892E-01	7.881E+02	7.881E-01
3.000E+01	4.381E+04	4.381E+00	1.826E+04	1.826E+01	1.991E+03	1.991E-01	8.298E+02	8.298E-01
4.000E+01	4.382E+04	4.382E+00	1.826E+04	1.826E+01	1.992E+03	1.992E-01	8.299E+02	8.299E-01
5.000E+01	4.304E+04	4.304E+00	1.793E+04	1.793E+01	1.957E+03	1.957E-01	8.151E+02	8.151E-01
6.000E+01	4.197E+04	4.197E+00	1.748E+04	1.748E+01	1.908E+03	1.908E-01	7.948E+02	7.948E-01
7.000E+01	4.076E+04	4.076E+00	1.699E+04	1.699E+01	1.853E+03	1.853E-01	7.721E+02	7.721E-01
8.000E+01	3.955E+04	3.955E+00	1.648E+04	1.648E+01	1.798E+03	1.798E-01	7.489E+02	7.489E-01
9.000E+01	3.835E+04	3.835E+00	1.597E+04	1.597E+01	1.743E+03	1.743E-01	7.261E+02	7.261E-01
1.000E+02	3.719E+04	3.719E+00	1.550E+04	1.550E+01	1.690E+03	1.690E-01	7.044E+02	7.044E-01
2.000E+02	2.838E+04	2.838E+00	1.183E+04	1.183E+01	1.290E+03	1.290E-01	5.377E+02	5.377E-01
3.000E+02	2.307E+04	2.307E+00	9.611E+03	9.611E+00	1.049E+03	1.049E-01	4.368E+02	4.368E-01
4.000E+02	1.952E+04	1.952E+00	8.135E+03	8.135E+00	8.871E+02	8.871E-02	3.698E+02	3.698E-01
5.000E+02	1.698E+04	1.698E+00	7.074E+03	7.074E+00	7.720E+02	7.720E-02	3.216E+02	3.216E-01
6.000E+02	1.506E+04	1.506E+00	6.272E+03	6.272E+00	6.844E+02	6.844E-02	2.851E+02	2.851E-01
7.000E+02	1.354E+04	1.354E+00	5.642E+03	5.642E+00	6.154E+02	6.154E-02	2.565E+02	2.565E-01
8.000E+02	1.232E+04	1.232E+00	5.134E+03	5.134E+00	5.601E+02	5.601E-02	2.334E+02	2.334E-01
9.000E+02	1.132E+04	1.132E+00	4.715E+03	4.715E+00	5.146E+02	5.146E-02	2.143E+02	2.143E-01
1.000E+03	1.048E+04	1.048E+00	4.364E+03	4.364E+00	4.762E+02	4.762E-02	1.984E+02	1.984E-01
2.000E+03	6.190E+03	6.190E-01	2.579E+03	2.579E+00	2.814E+02	2.814E-02	1.172E+02	1.172E-01
3.000E+03	4.560E+03	4.560E-01	1.901E+03	1.901E+00	2.073E+02	2.073E-02	8.639E+01	8.639E-02
4.000E+03	3.697E+03	3.697E-01	1.540E+03	1.540E+00	1.680E+02	1.680E-02	7.000E+01	7.000E-02
5.000E+03	3.161E+03	3.161E-01	1.317E+03	1.317E+00	1.437E+02	1.437E-02	5.988E+01	5.988E-02
6.000E+03	2.795E+03	2.795E-01	1.165E+03	1.165E+00	1.270E+02	1.270E-02	5.296E+01	5.296E-02
7.000E+03	2.529E+03	2.529E-01	1.054E+03	1.054E+00	1.150E+02	1.150E-02	4.791E+01	4.791E-02
8.000E+03	2.329E+03	2.329E-01	9.700E+02	9.700E-01	1.059E+02	1.059E-02	4.409E+01	4.409E-02
9.000E+03	2.171E+03	2.171E-01	9.047E+02	9.047E-01	9.870E+01	9.870E-03	4.112E+01	4.112E-02
1.000E+04	2.044E+03	2.044E-01	8.518E+02	8.518E-01	9.293E+01	9.293E-03	3.872E+01	3.872E-02
2.000E+04	1.479E+03	1.479E-01	6.161E+02	6.161E-01	6.721E+01	6.721E-03	2.801E+01	2.801E-02
3.000E+04	1.306E+03	1.306E-01	5.442E+02	5.442E-01	5.938E+01	5.938E-03	2.474E+01	2.474E-02
4.000E+04	1.228E+03	1.228E-01	5.115E+02	5.115E-01	5.580E+01	5.580E-03	2.325E+01	2.325E-02
5.000E+04	1.188E+03	1.188E-01	4.952E+02	4.952E-01	5.401E+01	5.401E-03	2.251E+01	2.251E-02
6.000E+04	1.168E+03	1.168E-01	4.868E+02	4.868E-01	5.311E+01	5.311E-03	2.213E+01	2.213E-02
7.000E+04	1.158E+03	1.158E-01	4.825E+02	4.825E-01	5.264E+01	5.264E-03	2.193E+01	2.193E-02
8.000E+04	1.153E+03	1.153E-01	4.806E+02	4.806E-01	5.243E+01	5.243E-03	2.185E+01	2.185E-02
9.000E+04	1.153E+03	1.153E-01	4.802E+02	4.802E-01	5.241E+01	5.241E-03	2.183E+01	2.183E-02
1.000E+05	1.154E+03	1.154E-01	4.808E+02	4.808E-01	5.244E+01	5.244E-03	2.185E+01	2.185E-02
2.000E+05	1.197E+03	1.197E-01	4.989E+02	4.989E-01	5.442E+01	5.442E-03	2.268E+01	2.268E-02
3.000E+05	1.240E+03	1.240E-01	5.166E+02	5.166E-01	5.636E+01	5.636E-03	2.348E+01	2.348E-02

TABLE 114

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AR Z= 18 A= 39.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
4.000E-01	6.296E+03	6.296E-01	2.623E+03	2.623E+00	2.862E+02	2.862E-02	1.192E+02	1.192E-01
5.000E-01	7.039E+03	7.039E-01	2.933E+03	2.933E+00	3.200E+02	3.200E-02	1.333E+02	1.333E-01
6.000E-01	7.711E+03	7.711E-01	3.213E+03	3.213E+00	3.505E+02	3.505E-02	1.460E+02	1.460E-01
7.000E-01	8.328E+03	8.328E-01	3.471E+03	3.471E+00	3.785E+02	3.785E-02	1.578E+02	1.578E-01
8.000E-01	8.903E+03	8.903E-01	3.710E+03	3.710E+00	4.047E+02	4.047E-02	1.686E+02	1.686E-01
9.000E-01	9.444E+03	9.444E-01	3.934E+03	3.934E+00	4.293E+02	4.293E-02	1.788E+02	1.788E-01
1.000E+00	9.951E+03	9.951E-01	4.147E+03	4.147E+00	4.523E+02	4.523E-02	1.885E+02	1.885E-01
2.000E+00	1.408E+04	1.408E+00	5.866E+03	5.866E+00	6.398E+02	6.398E-02	2.666E+02	2.666E-01
3.000E+00	1.724E+04	1.724E+00	7.183E+03	7.183E+00	7.838E+02	7.838E-02	3.265E+02	3.265E-01
4.000E+00	1.991E+04	1.991E+00	8.295E+03	8.295E+00	9.051E+02	9.051E-02	3.771E+02	3.771E-01
5.000E+00	2.225E+04	2.225E+00	9.273E+03	9.273E+00	1.012E+03	1.012E-01	4.215E+02	4.215E-01
6.000E+00	2.438E+04	2.438E+00	1.016E+04	1.016E+01	1.108E+03	1.108E-01	4.616E+02	4.616E-01
7.000E+00	2.633E+04	2.633E+00	1.097E+04	1.097E+01	1.197E+03	1.197E-01	4.987E+02	4.987E-01
8.000E+00	2.815E+04	2.815E+00	1.173E+04	1.173E+01	1.279E+03	1.279E-01	5.332E+02	5.332E-01
9.000E+00	2.986E+04	2.986E+00	1.244E+04	1.244E+01	1.357E+03	1.357E-01	5.656E+02	5.656E-01
1.000E+01	3.148E+04	3.148E+00	1.312E+04	1.312E+01	1.431E+03	1.431E-01	5.962E+02	5.962E-01
2.000E+01	4.266E+04	4.266E+00	1.777E+04	1.777E+01	1.939E+03	1.939E-01	8.079E+02	8.079E-01
3.000E+01	4.609E+04	4.609E+00	1.920E+04	1.920E+01	2.095E+03	2.095E-01	8.728E+02	8.728E-01
4.000E+01	4.685E+04	4.685E+00	1.952E+04	1.952E+01	2.129E+03	2.129E-01	8.871E+02	8.871E-01
5.000E+01	4.656E+04	4.656E+00	1.940E+04	1.940E+01	2.116E+03	2.116E-01	8.817E+02	8.817E-01
6.000E+01	4.580E+04	4.580E+00	1.909E+04	1.909E+01	2.082E+03	2.082E-01	8.677E+02	8.677E-01
7.000E+01	4.484E+04	4.484E+00	1.868E+04	1.868E+01	2.038E+03	2.038E-01	8.493E+02	8.493E-01
8.000E+01	4.378E+04	4.378E+00	1.825E+04	1.825E+01	1.990E+03	1.990E-01	8.294E+02	8.294E-01
9.000E+01	4.269E+04	4.269E+00	1.779E+04	1.779E+01	1.941E+03	1.941E-01	8.087E+02	8.087E-01
1.000E+02	4.161E+04	4.161E+00	1.734E+04	1.734E+01	1.891E+03	1.891E-01	7.883E+02	7.883E-01
2.000E+02	3.276E+04	3.276E+00	1.366E+04	1.366E+01	1.489E+03	1.489E-01	6.207E+02	6.207E-01
3.000E+02	2.704E+04	2.704E+00	1.127E+04	1.127E+01	1.229E+03	1.229E-01	5.122E+02	5.122E-01
4.000E+02	2.312E+04	2.312E+00	9.634E+03	9.634E+00	1.051E+03	1.051E-01	4.379E+02	4.379E-01
5.000E+02	2.026E+04	2.026E+00	8.442E+03	8.442E+00	9.208E+02	9.208E-02	3.837E+02	3.837E-01
6.000E+02	1.807E+04	1.807E+00	7.529E+03	7.529E+00	8.213E+02	8.213E-02	3.422E+02	3.422E-01
7.000E+02	1.633E+04	1.633E+00	6.804E+03	6.804E+00	7.422E+02	7.422E-02	3.093E+02	3.093E-01
8.000E+02	1.492E+04	1.492E+00	6.216E+03	6.216E+00	6.782E+02	6.782E-02	2.825E+02	2.825E-01
9.000E+02	1.374E+04	1.374E+00	5.725E+03	5.725E+00	6.246E+02	6.246E-02	2.602E+02	2.602E-01
1.000E+03	1.275E+04	1.275E+00	5.312E+03	5.312E+00	5.794E+02	5.794E-02	2.415E+02	2.415E-01
2.000E+03	7.592E+03	7.592E-01	3.163E+03	3.163E+00	3.451E+02	3.451E-02	1.438E+02	1.438E-01
3.000E+03	5.585E+03	5.585E-01	2.327E+03	2.327E+00	2.539E+02	2.539E-02	1.058E+02	1.058E-01
4.000E+03	4.517E+03	4.517E-01	1.882E+03	1.882E+00	2.053E+02	2.053E-02	8.555E+01	8.555E-02
5.000E+03	3.850E+03	3.850E-01	1.604E+03	1.604E+00	1.750E+02	1.750E-02	7.289E+01	7.289E-02
6.000E+03	3.394E+03	3.394E-01	1.414E+03	1.414E+00	1.543E+02	1.543E-02	6.428E+01	6.428E-02
7.000E+03	3.062E+03	3.062E-01	1.276E+03	1.276E+00	1.392E+02	1.392E-02	5.800E+01	5.800E-02
8.000E+03	2.810E+03	2.810E-01	1.171E+03	1.171E+00	1.277E+02	1.277E-02	5.321E+01	5.321E-02
9.000E+03	2.613E+03	2.613E-01	1.088E+03	1.088E+00	1.188E+02	1.188E-02	4.946E+01	4.946E-02
1.000E+04	2.453E+03	2.453E-01	1.022E+03	1.022E+00	1.115E+02	1.115E-02	4.646E+01	4.646E-02
2.000E+04	1.736E+03	1.736E-01	7.234E+02	7.234E-01	7.893E+01	7.893E-03	3.288E+01	3.288E-02
3.000E+04	1.512E+03	1.512E-01	6.297E+02	6.297E-01	6.870E+01	6.870E-03	2.862E+01	2.862E-02
4.000E+04	1.407E+03	1.407E-01	5.867E+02	5.867E-01	6.398E+01	6.398E-03	2.667E+01	2.667E-02
5.000E+04	1.353E+03	1.353E-01	5.640E+02	5.640E-01	6.151E+01	6.151E-03	2.564E+01	2.564E-02
6.000E+04	1.324E+03	1.324E-01	5.514E+02	5.514E-01	6.017E+01	6.017E-03	2.506E+01	2.506E-02
7.000E+04	1.307E+03	1.307E-01	5.444E+02	5.444E-01	5.939E+01	5.939E-03	2.474E+01	2.474E-02
8.000E+04	1.297E+03	1.297E-01	5.406E+02	5.406E-01	5.896E+01	5.896E-03	2.457E+01	2.457E-02
9.000E+04	1.293E+03	1.293E-01	5.389E+02	5.389E-01	5.879E+01	5.879E-03	2.449E+01	2.449E-02
1.000E+05	1.292E+03	1.292E-01	5.384E+02	5.384E-01	5.873E+01	5.873E-03	2.447E+01	2.447E-02
2.000E+05	1.330E+03	1.330E-01	5.543E+02	5.543E-01	6.045E+01	6.045E-03	2.519E+01	2.519E-02
3.000E+05	1.375E+03	1.375E-01	5.730E+02	5.730E-01	6.249E+01	6.249E-03	2.605E+01	2.605E-02

TABLE 115

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: K Z= 19 A= 39.10

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
4.000E-01	6.652E+03	6.652E-01	2.772E+03	2.772E+00	3.024E+02	3.024E-02	1.260E+02	1.260E-01
5.000E-01	7.439E+03	7.439E-01	3.100E+03	3.100E+00	3.381E+02	3.381E-02	1.409E+02	1.409E-01
6.000E-01	8.148E+03	8.148E-01	3.395E+03	3.395E+00	3.704E+02	3.704E-02	1.543E+02	1.543E-01
7.000E-01	8.802E+03	8.802E-01	3.667E+03	3.667E+00	4.001E+02	4.001E-02	1.667E+02	1.667E-01
8.000E-01	9.409E+03	9.409E-01	3.920E+03	3.920E+00	4.277E+02	4.277E-02	1.782E+02	1.782E-01
9.000E-01	9.980E+03	9.980E-01	4.158E+03	4.158E+00	4.536E+02	4.536E-02	1.890E+02	1.890E-01
1.000E+00	1.052E+04	1.052E+00	4.384E+03	4.384E+00	4.783E+02	4.783E-02	1.993E+02	1.993E-01
2.000E+00	1.488E+04	1.488E+00	6.198E+03	6.198E+00	6.762E+02	6.762E-02	2.817E+02	2.817E-01
3.000E+00	1.822E+04	1.822E+00	7.591E+03	7.591E+00	8.282E+02	8.282E-02	3.451E+02	3.451E-01
4.000E+00	2.103E+04	2.103E+00	8.766E+03	8.766E+00	9.561E+02	9.561E-02	3.984E+02	3.984E-01
5.000E+00	2.353E+04	2.353E+00	9.799E+03	9.799E+00	1.069E+03	1.069E-01	4.454E+02	4.454E-01
6.000E+00	2.576E+04	2.576E+00	1.073E+04	1.073E+01	1.171E+03	1.171E-01	4.879E+02	4.880E-01
7.000E+00	2.783E+04	2.783E+00	1.159E+04	1.159E+01	1.265E+03	1.265E-01	5.270E+02	5.270E-01
8.000E+00	2.975E+04	2.975E+00	1.240E+04	1.240E+01	1.352E+03	1.352E-01	5.636E+02	5.636E-01
9.000E+00	3.155E+04	3.155E+00	1.315E+04	1.315E+01	1.434E+03	1.434E-01	5.976E+02	5.976E-01
1.000E+01	3.326E+04	3.326E+00	1.386E+04	1.386E+01	1.512E+03	1.512E-01	6.298E+02	6.298E-01
2.000E+01	4.508E+04	4.508E+00	1.878E+04	1.878E+01	2.049E+03	2.049E-01	8.538E+02	8.538E-01
3.000E+01	4.880E+04	4.880E+00	2.034E+04	2.034E+01	2.218E+03	2.218E-01	9.244E+02	9.244E-01
4.000E+01	4.970E+04	4.970E+00	2.071E+04	2.071E+01	2.259E+03	2.259E-01	9.414E+02	9.414E-01
5.000E+01	4.949E+04	4.949E+00	2.062E+04	2.062E+01	2.250E+03	2.250E-01	9.374E+02	9.374E-01
6.000E+01	4.877E+04	4.877E+00	2.032E+04	2.032E+01	2.217E+03	2.217E-01	9.236E+02	9.236E-01
7.000E+01	4.781E+04	4.781E+00	1.992E+04	1.992E+01	2.173E+03	2.173E-01	9.053E+02	9.053E-01
8.000E+01	4.674E+04	4.674E+00	1.947E+04	1.947E+01	2.125E+03	2.125E-01	8.852E+02	8.852E-01
9.000E+01	4.563E+04	4.563E+00	1.901E+04	1.901E+01	2.074E+03	2.074E-01	8.642E+02	8.642E-01
1.000E+02	4.452E+04	4.452E+00	1.855E+04	1.855E+01	2.024E+03	2.024E-01	8.431E+02	8.431E-01
2.000E+02	3.529E+04	3.529E+00	1.470E+04	1.470E+01	1.604E+03	1.604E-01	6.684E+02	6.684E-01
3.000E+02	2.922E+04	2.922E+00	1.218E+04	1.218E+01	1.328E+03	1.328E-01	5.536E+02	5.536E-01
4.000E+02	2.505E+04	2.505E+00	1.044E+04	1.044E+01	1.139E+03	1.139E-01	4.744E+02	4.744E-01
5.000E+02	2.199E+04	2.199E+00	9.162E+03	9.162E+00	9.995E+02	9.995E-02	4.165E+02	4.165E-01
6.000E+02	1.964E+04	1.964E+00	8.183E+03	8.183E+00	8.926E+02	8.926E-02	3.720E+02	3.720E-01
7.000E+02	1.777E+04	1.777E+00	7.406E+03	7.406E+00	8.077E+02	8.077E-02	3.366E+02	3.366E-01
8.000E+02	1.625E+04	1.625E+00	6.771E+03	6.771E+00	7.386E+02	7.386E-02	3.078E+02	3.078E-01
9.000E+02	1.498E+04	1.498E+00	6.242E+03	6.242E+00	6.809E+02	6.809E-02	2.837E+02	2.837E-01
1.000E+03	1.390E+04	1.390E+00	5.793E+03	5.793E+00	6.319E+02	6.319E-02	2.633E+02	2.633E-01
2.000E+03	8.310E+03	8.310E-01	3.463E+03	3.463E+00	3.777E+02	3.777E-02	1.574E+02	1.574E-01
3.000E+03	6.122E+03	6.122E-01	2.551E+03	2.551E+00	2.783E+02	2.783E-02	1.159E+02	1.159E-01
4.000E+03	4.954E+03	4.954E-01	2.064E+03	2.064E+00	2.252E+02	2.252E-02	9.384E+01	9.384E-02
5.000E+03	4.225E+03	4.225E-01	1.760E+03	1.760E+00	1.921E+02	1.921E-02	8.002E+01	8.002E-02
6.000E+03	3.727E+03	3.727E-01	1.553E+03	1.553E+00	1.694E+02	1.694E-02	7.060E+01	7.060E-02
7.000E+03	3.364E+03	3.364E-01	1.402E+03	1.402E+00	1.529E+02	1.529E-02	6.372E+01	6.372E-02
8.000E+03	3.090E+03	3.090E-01	1.288E+03	1.288E+00	1.405E+02	1.405E-02	5.853E+01	5.853E-02
9.000E+03	2.874E+03	2.874E-01	1.197E+03	1.197E+00	1.306E+02	1.306E-02	5.443E+01	5.443E-02
1.000E+04	2.700E+03	2.700E-01	1.125E+03	1.125E+00	1.227E+02	1.227E-02	5.112E+01	5.112E-02
2.000E+04	1.917E+03	1.917E-01	7.991E+02	7.991E-01	8.715E+01	8.715E-03	3.632E+01	3.632E-02
3.000E+04	1.674E+03	1.674E-01	6.975E+02	6.975E-01	7.608E+01	7.608E-03	3.170E+01	3.170E-02
4.000E+04	1.562E+03	1.562E-01	6.508E+02	6.508E-01	7.099E+01	7.099E-03	2.958E+01	2.958E-02
5.000E+04	1.504E+03	1.504E-01	6.264E+02	6.264E-01	6.835E+01	6.835E-03	2.847E+01	2.847E-02
6.000E+04	1.471E+03	1.471E-01	6.131E+02	6.131E-01	6.685E+01	6.685E-03	2.787E+01	2.787E-02
7.000E+04	1.454E+03	1.454E-01	6.057E+02	6.057E-01	6.608E+01	6.608E-03	2.753E+01	2.753E-02
8.000E+04	1.445E+03	1.445E-01	6.019E+02	6.019E-01	6.567E+01	6.567E-03	2.736E+01	2.736E-02
9.000E+04	1.441E+03	1.441E-01	6.002E+02	6.002E-01	6.549E+01	6.549E-03	2.728E+01	2.728E-02
1.000E+05	1.440E+03	1.440E-01	5.999E+02	5.999E-01	6.546E+01	6.546E-03	2.727E+01	2.727E-02
2.000E+05	1.484E+03	1.484E-01	6.185E+02	6.185E-01	6.747E+01	6.747E-03	2.811E+01	2.811E-02
3.000E+05	1.536E+03	1.536E-01	6.397E+02	6.397E-01	6.980E+01	6.980E-03	2.907E+01	2.908E-02

TABLE 116

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CA Z= 20 A= 40.08

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
5.000E-01	7.656E+03	7.656E-01	3.190E+03	3.190E+00	3.480E+02	3.480E-02	1.450E+02	1.450E-01
6.000E-01	8.387E+03	8.387E-01	3.495E+03	3.495E+00	3.812E+02	3.812E-02	1.589E+02	1.589E-01
7.000E-01	9.059E+03	9.059E-01	3.774E+03	3.774E+00	4.118E+02	4.118E-02	1.716E+02	1.716E-01
8.000E-01	9.684E+03	9.684E-01	4.035E+03	4.035E+00	4.402E+02	4.402E-02	1.834E+02	1.834E-01
9.000E-01	1.027E+04	1.027E+00	4.280E+03	4.280E+00	4.667E+02	4.667E-02	1.945E+02	1.945E-01
1.000E+00	1.083E+04	1.083E+00	4.512E+03	4.512E+00	4.922E+02	4.922E-02	2.051E+02	2.051E-01
2.000E+00	1.531E+04	1.531E+00	6.380E+03	6.380E+00	6.959E+02	6.959E-02	2.900E+02	2.900E-01
3.000E+00	1.875E+04	1.875E+00	7.813E+03	7.813E+00	8.525E+02	8.525E-02	3.551E+02	3.551E-01
4.000E+00	2.165E+04	2.165E+00	9.022E+03	9.022E+00	9.843E+02	9.843E-02	4.101E+02	4.101E-01
5.000E+00	2.420E+04	2.420E+00	1.009E+04	1.009E+01	1.100E+03	1.100E-01	4.585E+02	4.585E-01
6.000E+00	2.651E+04	2.651E+00	1.105E+04	1.105E+01	1.205E+03	1.205E-01	5.023E+02	5.023E-01
7.000E+00	2.864E+04	2.864E+00	1.193E+04	1.193E+01	1.302E+03	1.302E-01	5.425E+02	5.425E-01
8.000E+00	3.061E+04	3.061E+00	1.276E+04	1.276E+01	1.392E+03	1.392E-01	5.798E+02	5.798E-01
9.000E+00	3.247E+04	3.247E+00	1.353E+04	1.353E+01	1.476E+03	1.476E-01	6.152E+02	6.152E-01
1.000E+01	3.423E+04	3.423E+00	1.427E+04	1.427E+01	1.556E+03	1.556E-01	6.484E+02	6.484E-01
2.000E+01	4.683E+04	4.683E+00	1.951E+04	1.951E+01	2.129E+03	2.129E-01	8.868E+02	8.868E-01
3.000E+01	5.119E+04	5.119E+00	2.133E+04	2.133E+01	2.327E+03	2.327E-01	9.695E+02	9.695E-01
4.000E+01	5.247E+04	5.247E+00	2.186E+04	2.186E+01	2.385E+03	2.385E-01	9.938E+02	9.938E-01
5.000E+01	5.250E+04	5.250E+00	2.188E+04	2.188E+01	2.386E+03	2.386E-01	9.944E+02	9.944E-01
6.000E+01	5.193E+04	5.193E+00	2.164E+04	2.164E+01	2.361E+03	2.361E-01	9.836E+02	9.836E-01
7.000E+01	5.108E+04	5.108E+00	2.129E+04	2.129E+01	2.322E+03	2.322E-01	9.675E+02	9.675E-01
8.000E+01	5.009E+04	5.009E+00	2.086E+04	2.086E+01	2.277E+03	2.277E-01	9.484E+02	9.484E-01
9.000E+01	4.902E+04	4.902E+00	2.043E+04	2.043E+01	2.228E+03	2.228E-01	9.285E+02	9.285E-01
1.000E+02	4.794E+04	4.794E+00	1.997E+04	1.997E+01	2.179E+03	2.179E-01	9.078E+02	9.078E-01
2.000E+02	3.853E+04	3.853E+00	1.606E+04	1.606E+01	1.751E+03	1.751E-01	7.299E+02	7.299E-01
3.000E+02	3.215E+04	3.215E+00	1.340E+04	1.340E+01	1.461E+03	1.461E-01	6.090E+02	6.090E-01
4.000E+02	2.769E+04	2.769E+00	1.154E+04	1.154E+01	1.259E+03	1.259E-01	5.247E+02	5.247E-01
5.000E+02	2.440E+04	2.440E+00	1.017E+04	1.017E+01	1.109E+03	1.109E-01	4.621E+02	4.621E-01
6.000E+02	2.185E+04	2.185E+00	9.105E+03	9.105E+00	9.931E+02	9.931E-02	4.138E+02	4.138E-01
7.000E+02	1.983E+04	1.983E+00	8.258E+03	8.258E+00	9.012E+02	9.012E-02	3.754E+02	3.754E-01
8.000E+02	1.816E+04	1.816E+00	7.566E+03	7.566E+00	8.252E+02	8.252E-02	3.439E+02	3.439E-01
9.000E+02	1.677E+04	1.677E+00	6.986E+03	6.986E+00	7.621E+02	7.621E-02	3.175E+02	3.175E-01
1.000E+03	1.559E+04	1.559E+00	6.495E+03	6.494E+00	7.085E+02	7.085E-02	2.952E+02	2.952E-01
2.000E+03	9.369E+03	9.369E-01	3.903E+03	3.903E+00	4.259E+02	4.259E-02	1.774E+02	1.774E-01
3.000E+03	6.907E+03	6.907E-01	2.878E+03	2.878E+00	3.140E+02	3.140E-02	1.308E+02	1.308E-01
4.000E+03	5.587E+03	5.587E-01	2.328E+03	2.328E+00	2.539E+02	2.539E-02	1.058E+02	1.058E-01
5.000E+03	4.763E+03	4.763E-01	1.985E+03	1.985E+00	2.165E+02	2.165E-02	9.022E+01	9.022E-02
6.000E+03	4.199E+03	4.199E-01	1.750E+03	1.750E+00	1.909E+02	1.909E-02	7.955E+01	7.955E-02
7.000E+03	3.789E+03	3.789E-01	1.579E+03	1.579E+00	1.722E+02	1.722E-02	7.176E+01	7.176E-02
8.000E+03	3.477E+03	3.477E-01	1.449E+03	1.449E+00	1.580E+02	1.580E-02	6.586E+01	6.586E-02
9.000E+03	3.233E+03	3.233E-01	1.347E+03	1.347E+00	1.469E+02	1.469E-02	6.121E+01	6.121E-02
1.000E+04	3.036E+03	3.036E-01	1.264E+03	1.264E+00	1.380E+02	1.380E-02	5.747E+01	5.747E-02
2.000E+04	2.146E+03	2.146E-01	8.942E+02	8.942E-01	9.754E+01	9.754E-03	4.064E+01	4.064E-02
3.000E+04	1.868E+03	1.868E-01	7.782E+02	7.782E-01	8.489E+01	8.489E-03	3.537E+01	3.537E-02
4.000E+04	1.739E+03	1.739E-01	7.248E+02	7.248E-01	7.906E+01	7.906E-03	3.294E+01	3.294E-02
5.000E+04	1.672E+03	1.672E-01	6.966E+02	6.966E-01	7.601E+01	7.601E-03	3.167E+01	3.167E-02
6.000E+04	1.634E+03	1.634E-01	6.810E+02	6.810E-01	7.427E+01	7.427E-03	3.095E+01	3.095E-02
7.000E+04	1.613E+03	1.613E-01	6.722E+02	6.722E-01	7.332E+01	7.332E-03	3.056E+01	3.056E-02
8.000E+04	1.602E+03	1.602E-01	6.675E+02	6.675E-01	7.282E+01	7.282E-03	3.034E+01	3.034E-02
9.000E+04	1.597E+03	1.597E-01	6.653E+02	6.653E-01	7.260E+01	7.260E-03	3.024E+01	3.024E-02
1.000E+05	1.595E+03	1.595E-01	6.647E+02	6.647E-01	7.250E+01	7.250E-03	3.021E+01	3.021E-02
2.000E+05	1.641E+03	1.641E-01	6.842E+02	6.842E-01	7.461E+01	7.461E-03	3.110E+01	3.110E-02
3.000E+05	1.697E+03	1.697E-01	7.073E+02	7.073E-01	7.714E+01	7.714E-03	3.215E+01	3.215E-02
4.000E+05	1.743E+03	1.743E-01	7.262E+02	7.262E-01	7.921E+01	7.921E-03	3.301E+01	3.301E-02

TABLE 117

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: SC Z= 21 A= 44.96

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
5.000E-01	7.508E+03	7.508E-01	3.128E+03	3.128E+00	3.413E+02	3.413E-02	1.422E+02	1.422E-01
6.000E-01	8.226E+03	8.226E-01	3.428E+03	3.428E+00	3.739E+02	3.739E-02	1.558E+02	1.558E-01
7.000E-01	8.886E+03	8.886E-01	3.702E+03	3.702E+00	4.039E+02	4.039E-02	1.683E+02	1.683E-01
8.000E-01	9.499E+03	9.499E-01	3.958E+03	3.958E+00	4.318E+02	4.318E-02	1.799E+02	1.799E-01
9.000E-01	1.008E+04	1.008E+00	4.198E+03	4.198E+00	4.580E+02	4.580E-02	1.908E+02	1.908E-01
1.000E+00	1.062E+04	1.062E+00	4.425E+03	4.425E+00	4.828E+02	4.828E-02	2.011E+02	2.011E-01
2.000E+00	1.502E+04	1.502E+00	6.257E+03	6.257E+00	6.825E+02	6.825E-02	2.844E+02	2.844E-01
3.000E+00	1.840E+04	1.840E+00	7.665E+03	7.665E+00	8.362E+02	8.362E-02	3.484E+02	3.484E-01
4.000E+00	2.124E+04	2.124E+00	8.850E+03	8.850E+00	9.653E+02	9.653E-02	4.023E+02	4.023E-01
5.000E+00	2.375E+04	2.375E+00	9.896E+03	9.896E+00	1.079E+03	1.079E-01	4.498E+02	4.498E-01
6.000E+00	2.601E+04	2.601E+00	1.084E+04	1.084E+01	1.182E+03	1.182E-01	4.926E+02	4.926E-01
7.000E+00	2.810E+04	2.810E+00	1.171E+04	1.171E+01	1.277E+03	1.277E-01	5.321E+02	5.321E-01
8.000E+00	3.003E+04	3.003E+00	1.252E+04	1.252E+01	1.365E+03	1.365E-01	5.690E+02	5.690E-01
9.000E+00	3.185E+04	3.185E+00	1.327E+04	1.327E+01	1.448E+03	1.448E-01	6.034E+02	6.034E-01
1.000E+01	3.358E+04	3.358E+00	1.399E+04	1.399E+01	1.526E+03	1.526E-01	6.360E+02	6.360E-01
2.000E+01	4.692E+04	4.692E+00	1.954E+04	1.954E+01	2.133E+03	2.133E-01	8.884E+02	8.884E-01
3.000E+01	5.262E+04	5.262E+00	2.192E+04	2.192E+01	2.392E+03	2.392E-01	9.965E+02	9.965E-01
4.000E+01	5.478E+04	5.478E+00	2.282E+04	2.282E+01	2.490E+03	2.490E-01	1.037E+03	1.037E+00
5.000E+01	5.541E+04	5.541E+00	2.309E+04	2.309E+01	2.519E+03	2.519E-01	1.049E+03	1.049E+00
6.000E+01	5.530E+04	5.530E+00	2.304E+04	2.304E+01	2.514E+03	2.514E-01	1.047E+03	1.047E+00
7.000E+01	5.478E+04	5.478E+00	2.283E+04	2.283E+01	2.490E+03	2.490E-01	1.038E+03	1.038E+00
8.000E+01	5.404E+04	5.404E+00	2.252E+04	2.252E+01	2.457E+03	2.457E-01	1.023E+03	1.023E+00
9.000E+01	5.319E+04	5.319E+00	2.216E+04	2.216E+01	2.418E+03	2.418E-01	1.007E+03	1.007E+00
1.000E+02	5.225E+04	5.225E+00	2.177E+04	2.177E+01	2.375E+03	2.375E-01	9.898E+02	9.898E-01
2.000E+02	4.326E+04	4.326E+00	1.803E+04	1.803E+01	1.966E+03	1.966E-01	8.193E+02	8.193E-01
3.000E+02	3.667E+04	3.667E+00	1.528E+04	1.528E+01	1.667E+03	1.667E-01	6.946E+02	6.946E-01
4.000E+02	3.191E+04	3.191E+00	1.330E+04	1.330E+01	1.450E+03	1.450E-01	6.044E+02	6.044E-01
5.000E+02	2.832E+04	2.832E+00	1.180E+04	1.180E+01	1.287E+03	1.287E-01	5.364E+02	5.364E-01
6.000E+02	2.552E+04	2.552E+00	1.063E+04	1.063E+01	1.160E+03	1.160E-01	4.833E+02	4.833E-01
7.000E+02	2.324E+04	2.324E+00	9.685E+03	9.685E+00	1.056E+03	1.056E-01	4.402E+02	4.402E-01
8.000E+02	2.138E+04	2.138E+00	8.908E+03	8.908E+00	9.716E+02	9.716E-02	4.049E+02	4.049E-01
9.000E+02	1.981E+04	1.981E+00	8.253E+03	8.253E+00	9.003E+02	9.003E-02	3.751E+02	3.751E-01
1.000E+03	1.846E+04	1.846E+00	7.694E+03	7.694E+00	8.393E+02	8.393E-02	3.497E+02	3.497E-01
2.000E+03	1.124E+04	1.124E+00	4.683E+03	4.683E+00	5.108E+02	5.108E-02	2.129E+02	2.129E-01
3.000E+03	8.290E+03	8.290E-01	3.454E+03	3.454E+00	3.768E+02	3.768E-02	1.570E+02	1.570E-01
4.000E+03	6.696E+03	6.696E-01	2.790E+03	2.790E+00	3.044E+02	3.044E-02	1.268E+02	1.268E-01
5.000E+03	5.696E+03	5.696E-01	2.373E+03	2.373E+00	2.589E+02	2.589E-02	1.079E+02	1.079E-01
6.000E+03	5.009E+03	5.009E-01	2.087E+03	2.087E+00	2.277E+02	2.277E-02	9.488E+01	9.488E-02
7.000E+03	4.508E+03	4.508E-01	1.878E+03	1.878E+00	2.049E+02	2.049E-02	8.537E+01	8.537E-02
8.000E+03	4.127E+03	4.127E-01	1.720E+03	1.720E+00	1.876E+02	1.876E-02	7.817E+01	7.817E-02
9.000E+03	3.826E+03	3.826E-01	1.594E+03	1.594E+00	1.739E+02	1.739E-02	7.247E+01	7.247E-02
1.000E+04	3.584E+03	3.584E-01	1.493E+03	1.493E+00	1.629E+02	1.629E-02	6.787E+01	6.787E-02
2.000E+04	2.484E+03	2.484E-01	1.035E+03	1.035E+00	1.129E+02	1.129E-02	4.702E+01	4.702E-02
3.000E+04	2.131E+03	2.131E-01	8.879E+02	8.879E-01	9.685E+01	9.685E-03	4.036E+01	4.036E-02
4.000E+04	1.969E+03	1.969E-01	8.202E+02	8.202E-01	8.948E+01	8.948E-03	3.728E+01	3.728E-02
5.000E+04	1.878E+03	1.878E-01	7.825E+02	7.825E-01	8.538E+01	8.538E-03	3.557E+01	3.557E-02
6.000E+04	1.826E+03	1.826E-01	7.609E+02	7.609E-01	8.302E+01	8.302E-03	3.458E+01	3.458E-02
7.000E+04	1.795E+03	1.795E-01	7.480E+02	7.480E-01	8.159E+01	8.159E-03	3.400E+01	3.400E-02
8.000E+04	1.776E+03	1.776E-01	7.402E+02	7.402E-01	8.075E+01	8.075E-03	3.365E+01	3.365E-02
9.000E+04	1.766E+03	1.766E-01	7.358E+02	7.358E-01	8.028E+01	8.028E-03	3.345E+01	3.345E-02
1.000E+05	1.760E+03	1.760E-01	7.337E+02	7.337E-01	8.002E+01	8.002E-03	3.335E+01	3.335E-02
2.000E+05	1.796E+03	1.796E-01	7.483E+02	7.483E-01	8.164E+01	8.164E-03	3.401E+01	3.401E-02
3.000E+05	1.853E+03	1.853E-01	7.720E+02	7.720E-01	8.421E+01	8.421E-03	3.509E+01	3.509E-02
4.000E+05	1.901E+03	1.901E-01	7.920E+02	7.920E-01	8.639E+01	8.639E-03	3.600E+01	3.600E-02

TABLE 118

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: TI Z= 22 A= 47.90

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
5.000E-01	7.537E+03	7.537E-01	3.141E+03	3.141E+00	3.426E+02	3.426E-02	1.428E+02	1.428E-01
6.000E-01	8.260E+03	8.260E-01	3.441E+03	3.441E+00	3.754E+02	3.754E-02	1.564E+02	1.564E-01
7.000E-01	8.920E+03	8.920E-01	3.717E+03	3.717E+00	4.055E+02	4.055E-02	1.690E+02	1.690E-01
8.000E-01	9.536E+03	9.536E-01	3.974E+03	3.974E+00	4.335E+02	4.335E-02	1.806E+02	1.806E-01
9.000E-01	1.011E+04	1.011E+00	4.214E+03	4.214E+00	4.597E+02	4.597E-02	1.916E+02	1.916E-01
1.000E+00	1.066E+04	1.066E+00	4.443E+03	4.443E+00	4.846E+02	4.846E-02	2.020E+02	2.020E-01
2.000E+00	1.508E+04	1.508E+00	6.283E+03	6.283E+00	6.853E+02	6.853E-02	2.856E+02	2.856E-01
3.000E+00	1.847E+04	1.847E+00	7.695E+03	7.695E+00	8.394E+02	8.394E-02	3.498E+02	3.498E-01
4.000E+00	2.132E+04	2.132E+00	8.885E+03	8.885E+00	9.693E+02	9.693E-02	4.038E+02	4.038E-01
5.000E+00	2.384E+04	2.384E+00	9.932E+03	9.932E+00	1.084E+03	1.084E-01	4.515E+02	4.515E-01
6.000E+00	2.611E+04	2.611E+00	1.088E+04	1.088E+01	1.187E+03	1.187E-01	4.946E+02	4.946E-01
7.000E+00	2.820E+04	2.820E+00	1.175E+04	1.175E+01	1.282E+03	1.282E-01	5.342E+02	5.342E-01
8.000E+00	3.015E+04	3.015E+00	1.256E+04	1.256E+01	1.370E+03	1.370E-01	5.711E+02	5.711E-01
9.000E+00	3.198E+04	3.198E+00	1.332E+04	1.332E+01	1.454E+03	1.454E-01	6.055E+02	6.055E-01
1.000E+01	3.370E+04	3.370E+00	1.404E+04	1.404E+01	1.532E+03	1.532E-01	6.383E+02	6.383E-01
2.000E+01	4.747E+04	4.747E+00	1.978E+04	1.978E+01	2.158E+03	2.158E-01	8.992E+02	8.992E-01
3.000E+01	5.417E+04	5.417E+00	2.257E+04	2.257E+01	2.462E+03	2.462E-01	1.026E+03	1.026E+00
4.000E+01	5.698E+04	5.698E+00	2.374E+04	2.374E+01	2.590E+03	2.590E-01	1.079E+03	1.079E+00
5.000E+01	5.806E+04	5.806E+00	2.419E+04	2.419E+01	2.639E+03	2.639E-01	1.100E+03	1.100E+00
6.000E+01	5.828E+04	5.828E+00	2.428E+04	2.428E+01	2.649E+03	2.649E-01	1.104E+03	1.104E+00
7.000E+01	5.802E+04	5.802E+00	2.418E+04	2.418E+01	2.637E+03	2.637E-01	1.099E+03	1.099E+00
8.000E+01	5.747E+04	5.747E+00	2.395E+04	2.395E+01	2.612E+03	2.612E-01	1.088E+03	1.088E+00
9.000E+01	5.676E+04	5.676E+00	2.365E+04	2.365E+01	2.580E+03	2.580E-01	1.075E+03	1.075E+00
1.000E+02	5.594E+04	5.594E+00	2.331E+04	2.331E+01	2.543E+03	2.543E-01	1.060E+03	1.060E+00
2.000E+02	4.728E+04	4.728E+00	1.970E+04	1.970E+01	2.149E+03	2.149E-01	8.956E+02	8.956E-01
3.000E+02	4.053E+04	4.053E+00	1.689E+04	1.689E+01	1.842E+03	1.842E-01	7.677E+02	7.677E-01
4.000E+02	3.552E+04	3.552E+00	1.480E+04	1.480E+01	1.614E+03	1.614E-01	6.729E+02	6.729E-01
5.000E+02	3.169E+04	3.169E+00	1.321E+04	1.321E+01	1.440E+03	1.440E-01	6.003E+02	6.003E-01
6.000E+02	2.865E+04	2.865E+00	1.194E+04	1.194E+01	1.302E+03	1.302E-01	5.429E+02	5.429E-01
7.000E+02	2.620E+04	2.620E+00	1.092E+04	1.092E+01	1.191E+03	1.191E-01	4.962E+02	4.963E-01
8.000E+02	2.416E+04	2.416E+00	1.007E+04	1.007E+01	1.098E+03	1.098E-01	4.576E+02	4.576E-01
9.000E+02	2.244E+04	2.244E+00	9.351E+03	9.351E+00	1.020E+03	1.020E-01	4.251E+02	4.251E-01
1.000E+03	2.096E+04	2.096E+00	8.735E+03	8.735E+00	9.529E+02	9.529E-02	3.970E+02	3.970E-01
2.000E+03	1.290E+04	1.290E+00	5.373E+03	5.373E+00	5.863E+02	5.863E-02	2.442E+02	2.442E-01
3.000E+03	9.530E+03	9.530E-01	3.971E+03	3.971E+00	4.332E+02	4.332E-02	1.805E+02	1.805E-01
4.000E+03	7.696E+03	7.696E-01	3.206E+03	3.206E+00	3.498E+02	3.498E-02	1.457E+02	1.457E-01
5.000E+03	6.541E+03	6.541E-01	2.725E+03	2.725E+00	2.973E+02	2.973E-02	1.239E+02	1.239E-01
6.000E+03	5.746E+03	5.746E-01	2.394E+03	2.394E+00	2.612E+02	2.612E-02	1.088E+02	1.088E-01
7.000E+03	5.164E+03	5.164E-01	2.152E+03	2.152E+00	2.347E+02	2.347E-02	9.782E+01	9.782E-02
8.000E+03	4.721E+03	4.721E-01	1.967E+03	1.967E+00	2.146E+02	2.146E-02	8.941E+01	8.941E-02
9.000E+03	4.372E+03	4.372E-01	1.822E+03	1.822E+00	1.987E+02	1.987E-02	8.282E+01	8.282E-02
1.000E+04	4.092E+03	4.092E-01	1.705E+03	1.705E+00	1.860E+02	1.860E-02	7.750E+01	7.750E-02
2.000E+04	2.804E+03	2.804E-01	1.168E+03	1.168E+00	1.275E+02	1.275E-02	5.310E+01	5.310E-02
3.000E+04	2.387E+03	2.387E-01	9.947E+02	9.947E-01	1.085E+02	1.085E-02	4.521E+01	4.521E-02
4.000E+04	2.195E+03	2.195E-01	9.145E+02	9.145E-01	9.976E+01	9.976E-03	4.157E+01	4.157E-02
5.000E+04	2.085E+03	2.085E-01	8.690E+02	8.690E-01	9.479E+01	9.479E-03	3.950E+01	3.950E-02
6.000E+04	2.021E+03	2.021E-01	8.423E+02	8.423E-01	9.188E+01	9.188E-03	3.829E+01	3.829E-02
7.000E+04	1.983E+03	1.983E-01	8.260E+02	8.260E-01	9.012E+01	9.012E-03	3.755E+01	3.755E-02
8.000E+04	1.958E+03	1.958E-01	8.160E+02	8.160E-01	8.900E+01	8.900E-03	3.709E+01	3.709E-02
9.000E+04	1.943E+03	1.943E-01	8.099E+02	8.099E-01	8.833E+01	8.833E-03	3.681E+01	3.681E-02
1.000E+05	1.935E+03	1.935E-01	8.064E+02	8.064E-01	8.797E+01	8.797E-03	3.665E+01	3.665E-02
2.000E+05	1.964E+03	1.964E-01	8.181E+02	8.181E-01	8.925E+01	8.925E-03	3.718E+01	3.718E-02
3.000E+05	2.023E+03	2.023E-01	8.427E+02	8.427E-01	9.194E+01	9.194E-03	3.830E+01	3.830E-02
4.000E+05	2.074E+03	2.074E-01	8.643E+02	8.643E-01	9.427E+01	9.427E-03	3.929E+01	3.929E-02

TABLE 119

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: V Z= 23 A= 50.95

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
6.000E-01	8.279E+03	8.279E-01	3.450E+03	3.450E+00	3.763E+02	3.763E-02	1.568E+02	1.568E-01
7.000E-01	8.942E+03	8.942E-01	3.725E+03	3.725E+00	4.064E+02	4.064E-02	1.693E+02	1.693E-01
8.000E-01	9.560E+03	9.560E-01	3.983E+03	3.983E+00	4.345E+02	4.345E-02	1.810E+02	1.810E-01
9.000E-01	1.014E+04	1.014E+00	4.224E+03	4.224E+00	4.610E+02	4.610E-02	1.920E+02	1.920E-01
1.000E+00	1.069E+04	1.069E+00	4.452E+03	4.452E+00	4.859E+02	4.859E-02	2.024E+02	2.024E-01
2.000E+00	1.511E+04	1.511E+00	6.298E+03	6.298E+00	6.870E+02	6.870E-02	2.863E+02	2.863E-01
3.000E+00	1.852E+04	1.852E+00	7.713E+03	7.713E+00	8.416E+02	8.416E-02	3.506E+02	3.506E-01
4.000E+00	2.137E+04	2.137E+00	8.906E+03	8.906E+00	9.715E+02	9.715E-02	4.048E+02	4.048E-01
5.000E+00	2.390E+04	2.390E+00	9.954E+03	9.954E+00	1.086E+03	1.086E-01	4.525E+02	4.525E-01
6.000E+00	2.618E+04	2.618E+00	1.091E+04	1.091E+01	1.190E+03	1.190E-01	4.957E+02	4.957E-01
7.000E+00	2.827E+04	2.827E+00	1.178E+04	1.178E+01	1.285E+03	1.285E-01	5.356E+02	5.356E-01
8.000E+00	3.023E+04	3.023E+00	1.259E+04	1.259E+01	1.374E+03	1.374E-01	5.723E+02	5.723E-01
9.000E+00	3.206E+04	3.206E+00	1.336E+04	1.336E+01	1.457E+03	1.457E-01	6.072E+02	6.072E-01
1.000E+01	3.379E+04	3.379E+00	1.409E+04	1.409E+01	1.536E+03	1.536E-01	6.403E+02	6.403E-01
2.000E+01	4.775E+04	4.775E+00	1.990E+04	1.990E+01	2.171E+03	2.171E-01	9.046E+02	9.046E-01
3.000E+01	5.546E+04	5.546E+00	2.311E+04	2.311E+01	2.521E+03	2.521E-01	1.050E+03	1.050E+00
4.000E+01	5.893E+04	5.893E+00	2.455E+04	2.455E+01	2.679E+03	2.679E-01	1.116E+03	1.116E+00
5.000E+01	6.050E+04	6.050E+00	2.521E+04	2.521E+01	2.750E+03	2.750E-01	1.146E+03	1.146E+00
6.000E+01	6.108E+04	6.108E+00	2.545E+04	2.545E+01	2.776E+03	2.776E-01	1.157E+03	1.157E+00
7.000E+01	6.108E+04	6.108E+00	2.545E+04	2.545E+01	2.776E+03	2.776E-01	1.157E+03	1.157E+00
8.000E+01	6.075E+04	6.075E+00	2.531E+04	2.531E+01	2.761E+03	2.761E-01	1.151E+03	1.151E+00
9.000E+01	6.020E+04	6.020E+00	2.509E+04	2.509E+01	2.736E+03	2.736E-01	1.140E+03	1.140E+00
1.000E+02	5.952E+04	5.952E+00	2.480E+04	2.480E+01	2.706E+03	2.706E-01	1.127E+03	1.127E+00
2.000E+02	5.132E+04	5.132E+00	2.139E+04	2.139E+01	2.333E+03	2.333E-01	9.721E+02	9.721E-01
3.000E+02	4.448E+04	4.448E+00	1.853E+04	1.853E+01	2.022E+03	2.022E-01	8.423E+02	8.423E-01
4.000E+02	3.926E+04	3.926E+00	1.636E+04	1.636E+01	1.785E+03	1.785E-01	7.436E+02	7.436E-01
5.000E+02	3.521E+04	3.521E+00	1.467E+04	1.467E+01	1.600E+03	1.600E-01	6.668E+02	6.668E-01
6.000E+02	3.197E+04	3.197E+00	1.332E+04	1.332E+01	1.453E+03	1.453E-01	6.057E+02	6.057E-01
7.000E+02	2.932E+04	2.932E+00	1.222E+04	1.222E+01	1.333E+03	1.333E-01	5.554E+02	5.554E-01
8.000E+02	2.711E+04	2.711E+00	1.130E+04	1.130E+01	1.232E+03	1.232E-01	5.136E+02	5.136E-01
9.000E+02	2.525E+04	2.525E+00	1.051E+04	1.051E+01	1.148E+03	1.148E-01	4.779E+02	4.779E-01
1.000E+03	2.364E+04	2.364E+00	9.848E+03	9.848E+00	1.075E+03	1.075E-01	4.476E+02	4.476E-01
2.000E+03	1.470E+04	1.470E+00	6.125E+03	6.125E+00	6.681E+02	6.681E-02	2.784E+02	2.784E-01
3.000E+03	1.090E+04	1.090E+00	4.539E+03	4.539E+00	4.953E+02	4.953E-02	2.063E+02	2.063E-01
4.000E+03	8.797E+03	8.797E-01	3.665E+03	3.665E+00	3.999E+02	3.999E-02	1.666E+02	1.666E-01
5.000E+03	7.472E+03	7.472E-01	3.114E+03	3.114E+00	3.396E+02	3.396E-02	1.415E+02	1.415E-01
6.000E+03	6.557E+03	6.557E-01	2.732E+03	2.732E+00	2.980E+02	2.980E-02	1.242E+02	1.242E-01
7.000E+03	5.888E+03	5.888E-01	2.453E+03	2.453E+00	2.676E+02	2.676E-02	1.115E+02	1.115E-01
8.000E+03	5.377E+03	5.377E-01	2.240E+03	2.240E+00	2.444E+02	2.444E-02	1.018E+02	1.018E-01
9.000E+03	4.973E+03	4.973E-01	2.073E+03	2.073E+00	2.260E+02	2.260E-02	9.421E+01	9.421E-02
1.000E+04	4.647E+03	4.647E-01	1.936E+03	1.936E+00	2.112E+02	2.112E-02	8.802E+01	8.802E-02
2.000E+04	3.154E+03	3.154E-01	1.314E+03	1.314E+00	1.434E+02	1.434E-02	5.974E+01	5.974E-02
3.000E+04	2.666E+03	2.666E-01	1.111E+03	1.111E+00	1.212E+02	1.212E-02	5.050E+01	5.050E-02
4.000E+04	2.438E+03	2.438E-01	1.016E+03	1.016E+00	1.108E+02	1.108E-02	4.619E+01	4.619E-02
5.000E+04	2.308E+03	2.308E-01	9.619E+02	9.619E-01	1.049E+02	1.049E-02	4.372E+01	4.372E-02
6.000E+04	2.231E+03	2.231E-01	9.295E+02	9.295E-01	1.014E+02	1.014E-02	4.225E+01	4.225E-02
7.000E+04	2.182E+03	2.182E-01	9.093E+02	9.093E-01	9.918E+01	9.918E-03	4.133E+01	4.133E-02
8.000E+04	2.152E+03	2.152E-01	8.964E+02	8.964E-01	9.780E+01	9.780E-03	4.075E+01	4.075E-02
9.000E+04	2.132E+03	2.132E-01	8.884E+02	8.884E-01	9.693E+01	9.693E-03	4.038E+01	4.038E-02
1.000E+05	2.120E+03	2.120E-01	8.834E+02	8.834E-01	9.637E+01	9.637E-03	4.015E+01	4.015E-02
2.000E+05	2.139E+03	2.139E-01	8.910E+02	8.910E-01	9.722E+01	9.722E-03	4.050E+01	4.050E-02
3.000E+05	2.199E+03	2.199E-01	9.164E+02	9.164E-01	9.996E+01	9.996E-03	4.165E+01	4.165E-02
4.000E+05	2.254E+03	2.254E-01	9.393E+02	9.393E-01	1.025E+02	1.025E-02	4.269E+01	4.269E-02
5.000E+05	2.301E+03	2.301E-01	9.588E+02	9.588E-01	1.046E+02	1.046E-02	4.358E+01	4.358E-02

TABLE 120

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CR Z= 24 A= 52.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
6.000E-01	8.454E+03	8.454E-01	3.523E+03	3.523E+00	3.843E+02	3.843E-02	1.601E+02	1.601E-01
7.000E-01	9.130E+03	9.130E-01	3.804E+03	3.804E+00	4.150E+02	4.150E-02	1.729E+02	1.729E-01
8.000E-01	9.760E+03	9.760E-01	4.067E+03	4.067E+00	4.436E+02	4.436E-02	1.849E+02	1.849E-01
9.000E-01	1.035E+04	1.035E+00	4.314E+03	4.314E+00	4.704E+02	4.704E-02	1.961E+02	1.961E-01
1.000E+00	1.091E+04	1.091E+00	4.547E+03	4.547E+00	4.960E+02	4.960E-02	2.067E+02	2.067E-01
2.000E+00	1.543E+04	1.543E+00	6.431E+03	6.431E+00	7.014E+02	7.014E-02	2.923E+02	2.923E-01
3.000E+00	1.890E+04	1.890E+00	7.875E+03	7.875E+00	8.592E+02	8.592E-02	3.580E+02	3.580E-01
4.000E+00	2.183E+04	2.183E+00	9.094E+03	9.094E+00	9.921E+02	9.921E-02	4.134E+02	4.134E-01
5.000E+00	2.441E+04	2.441E+00	1.017E+04	1.017E+01	1.109E+03	1.109E-01	4.621E+02	4.621E-01
6.000E+00	2.673E+04	2.673E+00	1.114E+04	1.114E+01	1.215E+03	1.215E-01	5.062E+02	5.062E-01
7.000E+00	2.887E+04	2.887E+00	1.203E+04	1.203E+01	1.312E+03	1.312E-01	5.467E+02	5.467E-01
8.000E+00	3.087E+04	3.087E+00	1.286E+04	1.286E+01	1.403E+03	1.403E-01	5.844E+02	5.844E-01
9.000E+00	3.274E+04	3.274E+00	1.364E+04	1.364E+01	1.488E+03	1.488E-01	6.200E+02	6.200E-01
1.000E+01	3.451E+04	3.451E+00	1.438E+04	1.438E+01	1.568E+03	1.568E-01	6.537E+02	6.537E-01
2.000E+01	4.881E+04	4.881E+00	2.033E+04	2.033E+01	2.218E+03	2.218E-01	9.243E+02	9.243E-01
3.000E+01	5.719E+04	5.719E+00	2.383E+04	2.383E+01	2.600E+03	2.600E-01	1.083E+03	1.083E+00
4.000E+01	6.111E+04	6.111E+00	2.546E+04	2.546E+01	2.778E+03	2.778E-01	1.157E+03	1.157E+00
5.000E+01	6.298E+04	6.298E+00	2.625E+04	2.625E+01	2.863E+03	2.863E-01	1.193E+03	1.193E+00
6.000E+01	6.379E+04	6.379E+00	2.657E+04	2.657E+01	2.899E+03	2.899E-01	1.208E+03	1.208E+00
7.000E+01	6.396E+04	6.396E+00	2.665E+04	2.665E+01	2.907E+03	2.907E-01	1.211E+03	1.211E+00
8.000E+01	6.377E+04	6.377E+00	2.657E+04	2.657E+01	2.899E+03	2.899E-01	1.208E+03	1.208E+00
9.000E+01	6.332E+04	6.332E+00	2.638E+04	2.638E+01	2.878E+03	2.878E-01	1.199E+03	1.199E+00
1.000E+02	6.272E+04	6.272E+00	2.614E+04	2.614E+01	2.851E+03	2.851E-01	1.188E+03	1.188E+00
2.000E+02	5.474E+04	5.474E+00	2.280E+04	2.280E+01	2.488E+03	2.488E-01	1.037E+03	1.037E+00
3.000E+02	4.777E+04	4.777E+00	1.990E+04	1.990E+01	2.171E+03	2.171E-01	9.046E+02	9.046E-01
4.000E+02	4.236E+04	4.236E+00	1.765E+04	1.765E+01	1.925E+03	1.925E-01	8.023E+02	8.023E-01
5.000E+02	3.812E+04	3.812E+00	1.588E+04	1.588E+01	1.733E+03	1.733E-01	7.218E+02	7.218E-01
6.000E+02	3.469E+04	3.469E+00	1.445E+04	1.445E+01	1.577E+03	1.577E-01	6.569E+02	6.569E-01
7.000E+02	3.189E+04	3.189E+00	1.329E+04	1.329E+01	1.449E+03	1.449E-01	6.039E+02	6.039E-01
8.000E+02	2.954E+04	2.954E+00	1.231E+04	1.231E+01	1.343E+03	1.343E-01	5.597E+02	5.597E-01
9.000E+02	2.754E+04	2.754E+00	1.148E+04	1.148E+01	1.252E+03	1.252E-01	5.218E+02	5.218E-01
1.000E+03	2.582E+04	2.582E+00	1.076E+04	1.076E+01	1.174E+03	1.174E-01	4.890E+02	4.890E-01
2.000E+03	1.618E+04	1.618E+00	6.743E+03	6.743E+00	7.356E+02	7.356E-02	3.065E+02	3.065E-01
3.000E+03	1.202E+04	1.202E+00	5.012E+03	5.012E+00	5.466E+02	5.466E-02	2.278E+02	2.278E-01
4.000E+03	9.718E+03	9.718E-01	4.049E+03	4.049E+00	4.417E+02	4.417E-02	1.840E+02	1.840E-01
5.000E+03	8.254E+03	8.254E-01	3.439E+03	3.439E+00	3.752E+02	3.752E-02	1.563E+02	1.563E-01
6.000E+03	7.242E+03	7.242E-01	3.018E+03	3.018E+00	3.292E+02	3.292E-02	1.372E+02	1.372E-01
7.000E+03	6.501E+03	6.501E-01	2.709E+03	2.709E+00	2.955E+02	2.955E-02	1.231E+02	1.231E-01
8.000E+03	5.935E+03	5.935E-01	2.473E+03	2.473E+00	2.698E+02	2.698E-02	1.124E+02	1.124E-01
9.000E+03	5.488E+03	5.488E-01	2.287E+03	2.287E+00	2.494E+02	2.494E-02	1.039E+02	1.039E-01
1.000E+04	5.127E+03	5.127E-01	2.136E+03	2.136E+00	2.330E+02	2.330E-02	9.709E+01	9.709E-02
2.000E+04	3.468E+03	3.468E-01	1.445E+03	1.445E+00	1.576E+02	1.576E-02	6.569E+01	6.569E-02
3.000E+04	2.923E+03	2.923E-01	1.218E+03	1.218E+00	1.329E+02	1.329E-02	5.537E+01	5.537E-02
4.000E+04	2.670E+03	2.670E-01	1.112E+03	1.112E+00	1.214E+02	1.214E-02	5.054E+01	5.054E-02
5.000E+04	2.525E+03	2.525E-01	1.052E+03	1.052E+00	1.148E+02	1.148E-02	4.784E+01	4.784E-02
6.000E+04	2.437E+03	2.437E-01	1.016E+03	1.016E+00	1.108E+02	1.108E-02	4.618E+01	4.618E-02
7.000E+04	2.382E+03	2.382E-01	9.928E+02	9.928E-01	1.083E+02	1.083E-02	4.513E+01	4.513E-02
8.000E+04	2.347E+03	2.347E-01	9.780E+02	9.780E-01	1.067E+02	1.067E-02	4.445E+01	4.445E-02
9.000E+04	2.325E+03	2.325E-01	9.686E+02	9.686E-01	1.057E+02	1.057E-02	4.403E+01	4.403E-02
1.000E+05	2.311E+03	2.311E-01	9.628E+02	9.628E-01	1.050E+02	1.050E-02	4.376E+01	4.376E-02
2.000E+05	2.325E+03	2.325E-01	9.691E+02	9.691E-01	1.057E+02	1.057E-02	4.405E+01	4.405E-02
3.000E+05	2.390E+03	2.390E-01	9.961E+02	9.961E-01	1.087E+02	1.087E-02	4.528E+01	4.528E-02
4.000E+05	2.450E+03	2.450E-01	1.021E+03	1.021E+00	1.114E+02	1.114E-02	4.642E+01	4.642E-02
5.000E+05	2.501E+03	2.501E-01	1.042E+03	1.042E+00	1.137E+02	1.137E-02	4.735E+01	4.735E-02

TABLE 121

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: MN Z= 25 A= 54.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
6.000E-01	8.472E+03	8.472E-01	3.531E+03	3.531E+00	3.851E+02	3.851E-02	1.605E+02	1.605E-01
7.000E-01	9.154E+03	9.154E-01	3.814E+03	3.814E+00	4.161E+02	4.161E-02	1.734E+02	1.734E-01
8.000E-01	9.786E+03	9.786E-01	4.077E+03	4.077E+00	4.448E+02	4.448E-02	1.853E+02	1.853E-01
9.000E-01	1.038E+04	1.038E+00	4.325E+03	4.325E+00	4.718E+02	4.718E-02	1.966E+02	1.966E-01
1.000E+00	1.094E+04	1.094E+00	4.559E+03	4.559E+00	4.973E+02	4.973E-02	2.072E+02	2.072E-01
2.000E+00	1.547E+04	1.547E+00	6.447E+03	6.447E+00	7.033E+02	7.033E-02	2.930E+02	2.930E-01
3.000E+00	1.895E+04	1.895E+00	7.896E+03	7.896E+00	8.615E+02	8.615E-02	3.589E+02	3.589E-01
4.000E+00	2.188E+04	2.188E+00	9.117E+03	9.117E+00	9.945E+02	9.945E-02	4.144E+02	4.144E-01
5.000E+00	2.447E+04	2.447E+00	1.019E+04	1.019E+01	1.112E+03	1.112E-01	4.632E+02	4.632E-01
6.000E+00	2.680E+04	2.680E+00	1.116E+04	1.116E+01	1.218E+03	1.218E-01	5.074E+02	5.074E-01
7.000E+00	2.895E+04	2.895E+00	1.206E+04	1.206E+01	1.316E+03	1.316E-01	5.480E+02	5.480E-01
8.000E+00	3.094E+04	3.094E+00	1.289E+04	1.289E+01	1.407E+03	1.407E-01	5.860E+02	5.860E-01
9.000E+00	3.282E+04	3.282E+00	1.367E+04	1.367E+01	1.492E+03	1.492E-01	6.216E+02	6.216E-01
1.000E+01	3.460E+04	3.460E+00	1.441E+04	1.441E+01	1.573E+03	1.573E-01	6.551E+02	6.551E-01
2.000E+01	4.891E+04	4.891E+00	2.038E+04	2.038E+01	2.223E+03	2.223E-01	9.262E+02	9.262E-01
3.000E+01	5.817E+04	5.817E+00	2.424E+04	2.424E+01	2.644E+03	2.644E-01	1.102E+03	1.102E+00
4.000E+01	6.275E+04	6.275E+00	2.615E+04	2.615E+01	2.852E+03	2.852E-01	1.189E+03	1.189E+00
5.000E+01	6.511E+04	6.511E+00	2.712E+04	2.712E+01	2.959E+03	2.959E-01	1.233E+03	1.233E+00
6.000E+01	6.627E+04	6.627E+00	2.761E+04	2.761E+01	3.012E+03	3.012E-01	1.255E+03	1.255E+00
7.000E+01	6.674E+04	6.674E+00	2.781E+04	2.781E+01	3.034E+03	3.034E-01	1.264E+03	1.264E+00
8.000E+01	6.677E+04	6.677E+00	2.782E+04	2.782E+01	3.035E+03	3.035E-01	1.264E+03	1.264E+00
9.000E+01	6.651E+04	6.651E+00	2.772E+04	2.772E+01	3.023E+03	3.023E-01	1.260E+03	1.260E+00
1.000E+02	6.607E+04	6.607E+00	2.753E+04	2.753E+01	3.003E+03	3.003E-01	1.251E+03	1.251E+00
2.000E+02	5.872E+04	5.872E+00	2.446E+04	2.446E+01	2.669E+03	2.669E-01	1.112E+03	1.112E+00
3.000E+02	5.175E+04	5.175E+00	2.156E+04	2.156E+01	2.352E+03	2.352E-01	9.800E+02	9.800E-01
4.000E+02	4.620E+04	4.620E+00	1.925E+04	1.925E+01	2.100E+03	2.100E-01	8.748E+02	8.748E-01
5.000E+02	4.178E+04	4.178E+00	1.741E+04	1.741E+01	1.899E+03	1.899E-01	7.912E+02	7.912E-01
6.000E+02	3.818E+04	3.818E+00	1.591E+04	1.591E+01	1.735E+03	1.735E-01	7.230E+02	7.230E-01
7.000E+02	3.520E+04	3.520E+00	1.467E+04	1.467E+01	1.600E+03	1.600E-01	6.668E+02	6.668E-01
8.000E+02	3.269E+04	3.269E+00	1.362E+04	1.362E+01	1.486E+03	1.486E-01	6.190E+02	6.190E-01
9.000E+02	3.054E+04	3.054E+00	1.272E+04	1.272E+01	1.388E+03	1.388E-01	5.784E+02	5.784E-01
1.000E+03	2.868E+04	2.868E+00	1.195E+04	1.195E+01	1.304E+03	1.304E-01	5.433E+02	5.433E-01
2.000E+03	1.819E+04	1.819E+00	7.577E+03	7.577E+00	8.268E+02	8.268E-02	3.444E+02	3.444E-01
3.000E+03	1.357E+04	1.357E+00	5.651E+03	5.651E+00	6.166E+02	6.166E-02	2.569E+02	2.569E-01
4.000E+03	1.097E+04	1.097E+00	4.571E+03	4.571E+00	4.987E+02	4.987E-02	2.078E+02	2.078E-01
5.000E+03	9.314E+03	9.314E-01	3.881E+03	3.881E+00	4.233E+02	4.233E-02	1.764E+02	1.764E-01
6.000E+03	8.168E+03	8.168E-01	3.403E+03	3.403E+00	3.713E+02	3.713E-02	1.547E+02	1.547E-01
7.000E+03	7.326E+03	7.326E-01	3.052E+03	3.052E+00	3.330E+02	3.330E-02	1.387E+02	1.387E-01
8.000E+03	6.682E+03	6.682E-01	2.785E+03	2.785E+00	3.037E+02	3.037E-02	1.266E+02	1.266E-01
9.000E+03	6.173E+03	6.173E-01	2.573E+03	2.573E+00	2.806E+02	2.806E-02	1.169E+02	1.169E-01
1.000E+04	5.762E+03	5.762E-01	2.401E+03	2.401E+00	2.619E+02	2.619E-02	1.091E+02	1.091E-01
2.000E+04	3.865E+03	3.865E-01	1.611E+03	1.611E+00	1.757E+02	1.757E-02	7.323E+01	7.323E-02
3.000E+04	3.238E+03	3.238E-01	1.349E+03	1.349E+00	1.472E+02	1.472E-02	6.133E+01	6.133E-02
4.000E+04	2.941E+03	2.941E-01	1.225E+03	1.225E+00	1.337E+02	1.337E-02	5.569E+01	5.569E-02
5.000E+04	2.775E+03	2.775E-01	1.156E+03	1.156E+00	1.261E+02	1.261E-02	5.254E+01	5.254E-02
6.000E+04	2.670E+03	2.670E-01	1.113E+03	1.113E+00	1.214E+02	1.214E-02	5.058E+01	5.058E-02
7.000E+04	2.604E+03	2.604E-01	1.085E+03	1.085E+00	1.184E+02	1.184E-02	4.932E+01	4.932E-02
8.000E+04	2.561E+03	2.561E-01	1.067E+03	1.067E+00	1.164E+02	1.164E-02	4.851E+01	4.851E-02
9.000E+04	2.533E+03	2.533E-01	1.055E+03	1.055E+00	1.151E+02	1.151E-02	4.796E+01	4.796E-02
1.000E+05	2.514E+03	2.514E-01	1.047E+03	1.047E+00	1.143E+02	1.143E-02	4.761E+01	4.761E-02
2.000E+05	2.516E+03	2.516E-01	1.049E+03	1.049E+00	1.144E+02	1.144E-02	4.766E+01	4.766E-02
3.000E+05	2.583E+03	2.583E-01	1.076E+03	1.076E+00	1.174E+02	1.174E-02	4.892E+01	4.892E-02
4.000E+05	2.645E+03	2.645E-01	1.102E+03	1.102E+00	1.202E+02	1.202E-02	5.009E+01	5.009E-02
5.000E+05	2.700E+03	2.700E-01	1.125E+03	1.125E+00	1.227E+02	1.227E-02	5.112E+01	5.112E-02

TABLE 122

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: FE Z= 26 A= 55.84

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
6.000E-01	8.651E+03	8.651E-01	3.605E+03	3.605E+00	3.932E+02	3.932E-02	1.638E+02	1.638E-01
7.000E-01	9.348E+03	9.348E-01	3.895E+03	3.895E+00	4.249E+02	4.249E-02	1.770E+02	1.770E-01
8.000E-01	9.990E+03	9.990E-01	4.164E+03	4.164E+00	4.541E+02	4.541E-02	1.893E+02	1.893E-01
9.000E-01	1.060E+04	1.060E+00	4.416E+03	4.416E+00	4.818E+02	4.818E-02	2.007E+02	2.007E-01
1.000E+00	1.118E+04	1.118E+00	4.655E+03	4.655E+00	5.080E+02	5.080E-02	2.116E+02	2.116E-01
2.000E+00	1.581E+04	1.581E+00	6.583E+03	6.583E+00	7.184E+02	7.184E-02	2.992E+02	2.992E-01
3.000E+00	1.934E+04	1.934E+00	8.062E+03	8.062E+00	8.793E+02	8.793E-02	3.665E+02	3.665E-01
4.000E+00	2.234E+04	2.234E+00	9.309E+03	9.309E+00	1.016E+03	1.016E-01	4.231E+02	4.231E-01
5.000E+00	2.498E+04	2.498E+00	1.040E+04	1.040E+01	1.135E+03	1.135E-01	4.729E+02	4.729E-01
6.000E+00	2.736E+04	2.736E+00	1.141E+04	1.141E+01	1.244E+03	1.244E-01	5.184E+02	5.184E-01
7.000E+00	2.955E+04	2.955E+00	1.231E+04	1.231E+01	1.343E+03	1.343E-01	5.596E+02	5.596E-01
8.000E+00	3.159E+04	3.159E+00	1.316E+04	1.316E+01	1.436E+03	1.436E-01	5.983E+02	5.983E-01
9.000E+00	3.351E+04	3.351E+00	1.397E+04	1.397E+01	1.523E+03	1.523E-01	6.348E+02	6.348E-01
1.000E+01	3.533E+04	3.533E+00	1.472E+04	1.472E+01	1.606E+03	1.606E-01	6.692E+02	6.692E-01
2.000E+01	4.994E+04	4.994E+00	2.080E+04	2.080E+01	2.270E+03	2.270E-01	9.456E+02	9.456E-01
3.000E+01	5.971E+04	5.971E+00	2.488E+04	2.488E+01	2.714E+03	2.714E-01	1.131E+03	1.131E+00
4.000E+01	6.473E+04	6.473E+00	2.697E+04	2.697E+01	2.942E+03	2.942E-01	1.226E+03	1.226E+00
5.000E+01	6.740E+04	6.740E+00	2.808E+04	2.808E+01	3.064E+03	3.064E-01	1.276E+03	1.276E+00
6.000E+01	6.881E+04	6.881E+00	2.867E+04	2.867E+01	3.128E+03	3.128E-01	1.303E+03	1.303E+00
7.000E+01	6.945E+04	6.945E+00	2.894E+04	2.894E+01	3.157E+03	3.157E-01	1.315E+03	1.315E+00
8.000E+01	6.962E+04	6.962E+00	2.901E+04	2.901E+01	3.165E+03	3.165E-01	1.319E+03	1.319E+00
9.000E+01	6.949E+04	6.949E+00	2.895E+04	2.895E+01	3.158E+03	3.158E-01	1.316E+03	1.316E+00
1.000E+02	6.914E+04	6.914E+00	2.881E+04	2.881E+01	3.143E+03	3.143E-01	1.309E+03	1.309E+00
2.000E+02	6.209E+04	6.209E+00	2.587E+04	2.587E+01	2.822E+03	2.822E-01	1.176E+03	1.176E+00
3.000E+02	5.507E+04	5.507E+00	2.295E+04	2.295E+01	2.503E+03	2.503E-01	1.043E+03	1.043E+00
4.000E+02	4.936E+04	4.936E+00	2.057E+04	2.057E+01	2.244E+03	2.244E-01	9.350E+02	9.350E-01
5.000E+02	4.477E+04	4.477E+00	1.865E+04	1.865E+01	2.035E+03	2.035E-01	8.478E+02	8.478E-01
6.000E+02	4.102E+04	4.102E+00	1.709E+04	1.709E+01	1.864E+03	1.864E-01	7.768E+02	7.768E-01
7.000E+02	3.789E+04	3.789E+00	1.579E+04	1.579E+01	1.722E+03	1.722E-01	7.178E+02	7.178E-01
8.000E+02	3.525E+04	3.525E+00	1.469E+04	1.469E+01	1.602E+03	1.602E-01	6.675E+02	6.675E-01
9.000E+02	3.298E+04	3.298E+00	1.374E+04	1.374E+01	1.499E+03	1.499E-01	6.245E+02	6.245E-01
1.000E+03	3.100E+04	3.100E+00	1.292E+04	1.292E+01	1.409E+03	1.409E-01	5.873E+02	5.873E-01
2.000E+03	1.980E+04	1.980E+00	8.249E+03	8.249E+00	8.999E+02	8.999E-02	3.750E+02	3.750E-01
3.000E+03	1.482E+04	1.482E+00	6.173E+03	6.173E+00	6.735E+02	6.735E-02	2.806E+02	2.806E-01
4.000E+03	1.199E+04	1.199E+00	4.998E+03	4.998E+00	5.451E+02	5.451E-02	2.272E+02	2.272E-01
5.000E+03	1.019E+04	1.019E+00	4.245E+03	4.245E+00	4.630E+02	4.630E-02	1.930E+02	1.930E-01
6.000E+03	8.935E+03	8.935E-01	3.723E+03	3.723E+00	4.061E+02	4.061E-02	1.692E+02	1.692E-01
7.000E+03	8.012E+03	8.012E-01	3.339E+03	3.339E+00	3.642E+02	3.642E-02	1.518E+02	1.518E-01
8.000E+03	7.307E+03	7.307E-01	3.045E+03	3.045E+00	3.322E+02	3.322E-02	1.384E+02	1.384E-01
9.000E+03	6.749E+03	6.749E-01	2.812E+03	2.812E+00	3.068E+02	3.068E-02	1.278E+02	1.278E-01
1.000E+04	6.297E+03	6.297E-01	2.624E+03	2.624E+00	2.862E+02	2.862E-02	1.193E+02	1.193E-01
2.000E+04	4.215E+03	4.215E-01	1.756E+03	1.756E+00	1.916E+02	1.916E-02	7.982E+01	7.982E-02
3.000E+04	3.523E+03	3.523E-01	1.468E+03	1.468E+00	1.601E+02	1.601E-02	6.671E+01	6.671E-02
4.000E+04	3.197E+03	3.197E-01	1.331E+03	1.331E+00	1.453E+02	1.453E-02	6.052E+01	6.052E-02
5.000E+04	3.013E+03	3.013E-01	1.256E+03	1.256E+00	1.370E+02	1.370E-02	5.709E+01	5.709E-02
6.000E+04	2.897E+03	2.897E-01	1.208E+03	1.208E+00	1.317E+02	1.317E-02	5.489E+01	5.489E-02
7.000E+04	2.824E+03	2.824E-01	1.177E+03	1.177E+00	1.284E+02	1.284E-02	5.349E+01	5.349E-02
8.000E+04	2.775E+03	2.775E-01	1.156E+03	1.156E+00	1.261E+02	1.261E-02	5.255E+01	5.255E-02
9.000E+04	2.743E+03	2.743E-01	1.143E+03	1.143E+00	1.247E+02	1.247E-02	5.194E+01	5.194E-02
1.000E+05	2.723E+03	2.723E-01	1.134E+03	1.134E+00	1.238E+02	1.238E-02	5.154E+01	5.154E-02
2.000E+05	2.720E+03	2.720E-01	1.134E+03	1.134E+00	1.236E+02	1.236E-02	5.153E+01	5.153E-02
3.000E+05	2.790E+03	2.790E-01	1.163E+03	1.163E+00	1.268E+02	1.268E-02	5.286E+01	5.286E-02
4.000E+05	2.857E+03	2.857E-01	1.191E+03	1.191E+00	1.299E+02	1.299E-02	5.412E+01	5.412E-02
5.000E+05	2.915E+03	2.915E-01	1.215E+03	1.215E+00	1.325E+02	1.325E-02	5.522E+01	5.522E-02

TABLE 123

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: CO Z= 27 A= 58.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
6.000E-01	8.657E+03	8.657E-01	3.607E+03	3.607E+00	3.935E+02	3.935E-02	1.640E+02	1.640E-01
7.000E-01	9.353E+03	9.353E-01	3.897E+03	3.897E+00	4.251E+02	4.251E-02	1.771E+02	1.771E-01
8.000E-01	9.999E+03	9.999E-01	4.166E+03	4.166E+00	4.545E+02	4.545E-02	1.893E+02	1.893E-01
9.000E-01	1.061E+04	1.061E+00	4.418E+03	4.418E+00	4.821E+02	4.821E-02	2.008E+02	2.008E-01
1.000E+00	1.118E+04	1.118E+00	4.658E+03	4.658E+00	5.081E+02	5.081E-02	2.117E+02	2.117E-01
2.000E+00	1.581E+04	1.581E+00	6.586E+03	6.586E+00	7.185E+02	7.185E-02	2.994E+02	2.994E-01
3.000E+00	1.936E+04	1.936E+00	8.067E+03	8.067E+00	8.802E+02	8.802E-02	3.667E+02	3.667E-01
4.000E+00	2.236E+04	2.236E+00	9.315E+03	9.315E+00	1.016E+03	1.016E-01	4.234E+02	4.234E-01
5.000E+00	2.499E+04	2.499E+00	1.042E+04	1.042E+01	1.136E+03	1.136E-01	4.735E+02	4.735E-01
6.000E+00	2.738E+04	2.738E+00	1.141E+04	1.141E+01	1.245E+03	1.245E-01	5.186E+02	5.186E-01
7.000E+00	2.957E+04	2.957E+00	1.232E+04	1.232E+01	1.344E+03	1.344E-01	5.602E+02	5.602E-01
8.000E+00	3.161E+04	3.161E+00	1.317E+04	1.317E+01	1.437E+03	1.437E-01	5.986E+02	5.986E-01
9.000E+00	3.353E+04	3.353E+00	1.397E+04	1.397E+01	1.524E+03	1.524E-01	6.348E+02	6.348E-01
1.000E+01	3.535E+04	3.535E+00	1.473E+04	1.473E+01	1.607E+03	1.607E-01	6.694E+02	6.694E-01
2.000E+01	4.996E+04	4.996E+00	2.082E+04	2.082E+01	2.271E+03	2.271E-01	9.463E+02	9.463E-01
3.000E+01	6.034E+04	6.034E+00	2.514E+04	2.514E+01	2.743E+03	2.743E-01	1.143E+03	1.143E+00
4.000E+01	6.601E+04	6.601E+00	2.750E+04	2.750E+01	3.000E+03	3.000E-01	1.250E+03	1.250E+00
5.000E+01	6.919E+04	6.919E+00	2.883E+04	2.883E+01	3.145E+03	3.145E-01	1.310E+03	1.310E+00
6.000E+01	7.099E+04	7.099E+00	2.958E+04	2.958E+01	3.227E+03	3.227E-01	1.345E+03	1.345E+00
7.000E+01	7.194E+04	7.194E+00	2.998E+04	2.998E+01	3.270E+03	3.270E-01	1.363E+03	1.363E+00
8.000E+01	7.237E+04	7.237E+00	3.015E+04	3.015E+01	3.289E+03	3.289E-01	1.370E+03	1.370E+00
9.000E+01	7.244E+04	7.244E+00	3.018E+04	3.018E+01	3.293E+03	3.293E-01	1.372E+03	1.372E+00
1.000E+02	7.227E+04	7.227E+00	3.011E+04	3.011E+01	3.285E+03	3.285E-01	1.368E+03	1.368E+00
2.000E+02	6.603E+04	6.603E+00	2.751E+04	2.751E+01	3.001E+03	3.001E-01	1.251E+03	1.251E+00
3.000E+02	5.914E+04	5.914E+00	2.464E+04	2.464E+01	2.688E+03	2.688E-01	1.120E+03	1.120E+00
4.000E+02	5.337E+04	5.337E+00	2.224E+04	2.224E+01	2.426E+03	2.426E-01	1.011E+03	1.011E+00
5.000E+02	4.864E+04	4.864E+00	2.026E+04	2.026E+01	2.211E+03	2.211E-01	9.211E+02	9.211E-01
6.000E+02	4.473E+04	4.473E+00	1.864E+04	1.864E+01	2.033E+03	2.033E-01	8.473E+02	8.473E-01
7.000E+02	4.144E+04	4.144E+00	1.727E+04	1.727E+01	1.884E+03	1.884E-01	7.850E+02	7.850E-01
8.000E+02	3.865E+04	3.865E+00	1.611E+04	1.611E+01	1.757E+03	1.757E-01	7.321E+02	7.321E-01
9.000E+02	3.624E+04	3.624E+00	1.510E+04	1.510E+01	1.647E+03	1.647E-01	6.862E+02	6.862E-01
1.000E+03	3.414E+04	3.414E+00	1.422E+04	1.422E+01	1.552E+03	1.552E-01	6.465E+02	6.465E-01
2.000E+03	2.206E+04	2.206E+00	9.189E+03	9.189E+00	1.003E+03	1.003E-01	4.177E+02	4.177E-01
3.000E+03	1.657E+04	1.657E+00	6.906E+03	6.906E+00	7.534E+02	7.534E-02	3.139E+02	3.139E-01
4.000E+03	1.344E+04	1.344E+00	5.600E+03	5.600E+00	6.108E+02	6.108E-02	2.545E+02	2.545E-01
5.000E+03	1.142E+04	1.142E+00	4.757E+03	4.757E+00	5.190E+02	5.190E-02	2.162E+02	2.162E-01
6.000E+03	1.001E+04	1.001E+00	4.170E+03	4.170E+00	4.549E+02	4.549E-02	1.895E+02	1.895E-01
7.000E+03	8.971E+03	8.971E-01	3.738E+03	3.738E+00	4.078E+02	4.078E-02	1.699E+02	1.699E-01
8.000E+03	8.175E+03	8.175E-01	3.406E+03	3.406E+00	3.716E+02	3.716E-02	1.548E+02	1.548E-01
9.000E+03	7.545E+03	7.545E-01	3.143E+03	3.143E+00	3.429E+02	3.429E-02	1.429E+02	1.429E-01
1.000E+04	7.035E+03	7.035E-01	2.931E+03	2.931E+00	3.198E+02	3.198E-02	1.332E+02	1.332E-01
2.000E+04	4.671E+03	4.671E-01	1.946E+03	1.946E+00	2.123E+02	2.123E-02	8.847E+01	8.847E-02
3.000E+04	3.880E+03	3.880E-01	1.617E+03	1.617E+00	1.764E+02	1.764E-02	7.350E+01	7.350E-02
4.000E+04	3.504E+03	3.504E-01	1.460E+03	1.460E+00	1.593E+02	1.593E-02	6.635E+01	6.635E-02
5.000E+04	3.292E+03	3.292E-01	1.372E+03	1.372E+00	1.497E+02	1.496E-02	6.237E+01	6.237E-02
6.000E+04	3.157E+03	3.157E-01	1.316E+03	1.316E+00	1.435E+02	1.435E-02	5.981E+01	5.981E-02
7.000E+04	3.070E+03	3.070E-01	1.279E+03	1.279E+00	1.395E+02	1.395E-02	5.815E+01	5.815E-02
8.000E+04	3.012E+03	3.012E-01	1.255E+03	1.255E+00	1.369E+02	1.369E-02	5.705E+01	5.705E-02
9.000E+04	2.973E+03	2.973E-01	1.239E+03	1.239E+00	1.351E+02	1.351E-02	5.632E+01	5.632E-02
1.000E+05	2.946E+03	2.946E-01	1.228E+03	1.228E+00	1.339E+02	1.339E-02	5.581E+01	5.581E-02
2.000E+05	2.927E+03	2.927E-01	1.219E+03	1.219E+00	1.330E+02	1.330E-02	5.542E+01	5.542E-02
3.000E+05	2.996E+03	2.996E-01	1.248E+03	1.248E+00	1.362E+02	1.362E-02	5.674E+01	5.674E-02
4.000E+05	3.067E+03	3.067E-01	1.278E+03	1.278E+00	1.394E+02	1.394E-02	5.809E+01	5.809E-02
5.000E+05	3.128E+03	3.128E-01	1.304E+03	1.304E+00	1.422E+02	1.422E-02	5.926E+01	5.926E-02

TABLE 124

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: NI Z= 28 A= 58.71

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
6.000E-01	8.903E+03	8.903E-01	3.710E+03	3.710E+00	4.047E+02	4.047E-02	1.686E+02	1.686E-01
7.000E-01	9.617E+03	9.617E-01	4.008E+03	4.008E+00	4.372E+02	4.372E-02	1.822E+02	1.822E-01
8.000E-01	1.028E+04	1.028E+00	4.284E+03	4.284E+00	4.673E+02	4.673E-02	1.947E+02	1.947E-01
9.000E-01	1.091E+04	1.091E+00	4.544E+03	4.544E+00	4.959E+02	4.959E-02	2.065E+02	2.065E-01
1.000E+00	1.150E+04	1.150E+00	4.790E+03	4.790E+00	5.226E+02	5.226E-02	2.177E+02	2.177E-01
2.000E+00	1.625E+04	1.625E+00	6.773E+03	6.773E+00	7.389E+02	7.389E-02	3.079E+02	3.079E-01
3.000E+00	1.991E+04	1.991E+00	8.297E+03	8.297E+00	9.051E+02	9.051E-02	3.771E+02	3.771E-01
4.000E+00	2.299E+04	2.299E+00	9.579E+03	9.579E+00	1.045E+03	1.045E-01	4.354E+02	4.354E-01
5.000E+00	2.570E+04	2.570E+00	1.071E+04	1.071E+01	1.168E+03	1.168E-01	4.866E+02	4.866E-01
6.000E+00	2.816E+04	2.816E+00	1.174E+04	1.174E+01	1.280E+03	1.280E-01	5.335E+02	5.335E-01
7.000E+00	3.041E+04	3.041E+00	1.267E+04	1.267E+01	1.382E+03	1.382E-01	5.758E+02	5.758E-01
8.000E+00	3.251E+04	3.251E+00	1.354E+04	1.354E+01	1.478E+03	1.478E-01	6.155E+02	6.155E-01
9.000E+00	3.448E+04	3.448E+00	1.437E+04	1.437E+01	1.567E+03	1.567E-01	6.531E+02	6.531E-01
1.000E+01	3.635E+04	3.635E+00	1.515E+04	1.515E+01	1.652E+03	1.652E-01	6.885E+02	6.885E-01
2.000E+01	5.139E+04	5.139E+00	2.141E+04	2.141E+01	2.336E+03	2.336E-01	9.733E+02	9.733E-01
3.000E+01	6.214E+04	6.214E+00	2.589E+04	2.589E+01	2.825E+03	2.825E-01	1.177E+03	1.177E+00
4.000E+01	6.814E+04	6.814E+00	2.839E+04	2.839E+01	3.097E+03	3.097E-01	1.290E+03	1.290E+00
5.000E+01	7.154E+04	7.154E+00	2.981E+04	2.981E+01	3.252E+03	3.252E-01	1.355E+03	1.355E+00
6.000E+01	7.350E+04	7.350E+00	3.063E+04	3.063E+01	3.341E+03	3.341E-01	1.392E+03	1.392E+00
7.000E+01	7.459E+04	7.459E+00	3.108E+04	3.108E+01	3.390E+03	3.390E-01	1.413E+03	1.413E+00
8.000E+01	7.512E+04	7.512E+00	3.130E+04	3.130E+01	3.414E+03	3.414E-01	1.423E+03	1.423E+00
9.000E+01	7.527E+04	7.527E+00	3.136E+04	3.136E+01	3.421E+03	3.421E-01	1.426E+03	1.426E+00
1.000E+02	7.515E+04	7.515E+00	3.131E+04	3.131E+01	3.416E+03	3.416E-01	1.423E+03	1.423E+00
2.000E+02	6.911E+04	6.911E+00	2.880E+04	2.880E+01	3.141E+03	3.141E-01	1.309E+03	1.309E+00
3.000E+02	6.213E+04	6.213E+00	2.588E+04	2.588E+01	2.824E+03	2.824E-01	1.176E+03	1.176E+00
4.000E+02	5.622E+04	5.622E+00	2.343E+04	2.343E+01	2.556E+03	2.556E-01	1.065E+03	1.065E+00
5.000E+02	5.133E+04	5.133E+00	2.139E+04	2.139E+01	2.333E+03	2.333E-01	9.721E+02	9.721E-01
6.000E+02	4.729E+04	4.729E+00	1.970E+04	1.970E+01	2.149E+03	2.149E-01	8.954E+02	8.954E-01
7.000E+02	4.387E+04	4.387E+00	1.827E+04	1.827E+01	1.994E+03	1.994E-01	8.306E+02	8.306E-01
8.000E+02	4.095E+04	4.095E+00	1.706E+04	1.706E+01	1.861E+03	1.861E-01	7.755E+02	7.755E-01
9.000E+02	3.844E+04	3.844E+00	1.602E+04	1.602E+01	1.747E+03	1.747E-01	7.281E+02	7.281E-01
1.000E+03	3.624E+04	3.624E+00	1.510E+04	1.510E+01	1.647E+03	1.647E-01	6.864E+02	6.864E-01
2.000E+03	2.352E+04	2.352E+00	9.801E+03	9.801E+00	1.069E+03	1.069E-01	4.455E+02	4.455E-01
3.000E+03	1.772E+04	1.772E+00	7.385E+03	7.385E+00	8.057E+02	8.057E-02	3.357E+02	3.357E-01
4.000E+03	1.439E+04	1.439E+00	5.996E+03	5.996E+00	6.541E+02	6.541E-02	2.725E+02	2.725E-01
5.000E+03	1.223E+04	1.223E+00	5.097E+03	5.097E+00	5.560E+02	5.560E-02	2.317E+02	2.317E-01
6.000E+03	1.072E+04	1.072E+00	4.470E+03	4.470E+00	4.875E+02	4.875E-02	2.032E+02	2.032E-01
7.000E+03	9.616E+03	9.616E-01	4.007E+03	4.007E+00	4.371E+02	4.371E-02	1.821E+02	1.821E-01
8.000E+03	8.765E+03	8.765E-01	3.652E+03	3.652E+00	3.984E+02	3.984E-02	1.660E+02	1.660E-01
9.000E+03	8.092E+03	8.092E-01	3.371E+03	3.371E+00	3.678E+02	3.678E-02	1.532E+02	1.532E-01
1.000E+04	7.544E+03	7.544E-01	3.143E+03	3.143E+00	3.429E+02	3.429E-02	1.429E+02	1.429E-01
2.000E+04	5.014E+03	5.014E-01	2.089E+03	2.089E+00	2.279E+02	2.279E-02	9.495E+01	9.495E-02
3.000E+04	4.166E+03	4.166E-01	1.736E+03	1.736E+00	1.894E+02	1.894E-02	7.892E+01	7.892E-02
4.000E+04	3.764E+03	3.764E-01	1.568E+03	1.568E+00	1.711E+02	1.711E-02	7.125E+01	7.125E-02
5.000E+04	3.538E+03	3.538E-01	1.474E+03	1.474E+00	1.608E+02	1.608E-02	6.701E+01	6.701E-02
6.000E+04	3.393E+03	3.393E-01	1.414E+03	1.414E+00	1.542E+02	1.542E-02	6.426E+01	6.426E-02
7.000E+04	3.299E+03	3.299E-01	1.375E+03	1.375E+00	1.500E+02	1.500E-02	6.248E+01	6.248E-02
8.000E+04	3.237E+03	3.237E-01	1.349E+03	1.349E+00	1.471E+02	1.471E-02	6.131E+01	6.131E-02
9.000E+04	3.196E+03	3.196E-01	1.332E+03	1.332E+00	1.453E+02	1.453E-02	6.053E+01	6.053E-02
1.000E+05	3.168E+03	3.168E-01	1.319E+03	1.319E+00	1.440E+02	1.440E-02	5.997E+01	5.997E-02
2.000E+05	3.148E+03	3.148E-01	1.311E+03	1.311E+00	1.431E+02	1.431E-02	5.961E+01	5.961E-02
3.000E+05	3.224E+03	3.224E-01	1.343E+03	1.343E+00	1.465E+02	1.465E-02	6.104E+01	6.104E-02
4.000E+05	3.300E+03	3.300E-01	1.375E+03	1.375E+00	1.500E+02	1.500E-02	6.248E+01	6.248E-02
5.000E+05	3.366E+03	3.366E-01	1.402E+03	1.402E+00	1.530E+02	1.530E-02	6.374E+01	6.374E-02

TABLE 125

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: KR Z= 36 A= 83.80

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
9.000E-01	1.086E+04	1.086E+00	4.523E+03	4.523E+00	4.936E+02	4.936E-02	2.056E+02	2.056E-01
1.000E+00	1.145E+04	1.145E+00	4.769E+03	4.769E+00	5.204E+02	5.204E-02	2.168E+02	2.168E-01
2.000E+00	1.619E+04	1.619E+00	6.745E+03	6.745E+00	7.357E+02	7.357E-02	3.066E+02	3.066E-01
3.000E+00	1.982E+04	1.982E+00	8.261E+03	8.261E+00	9.011E+02	9.011E-02	3.755E+02	3.755E-01
4.000E+00	2.289E+04	2.289E+00	9.538E+03	9.538E+00	1.040E+03	1.040E-01	4.335E+02	4.335E-01
5.000E+00	2.559E+04	2.559E+00	1.067E+04	1.067E+01	1.163E+03	1.163E-01	4.849E+02	4.849E-01
6.000E+00	2.804E+04	2.804E+00	1.168E+04	1.168E+01	1.274E+03	1.274E-01	5.308E+02	5.308E-01
7.000E+00	3.028E+04	3.028E+00	1.261E+04	1.261E+01	1.376E+03	1.376E-01	5.734E+02	5.734E-01
8.000E+00	3.237E+04	3.237E+00	1.349E+04	1.349E+01	1.472E+03	1.472E-01	6.130E+02	6.130E-01
9.000E+00	3.434E+04	3.434E+00	1.431E+04	1.431E+01	1.561E+03	1.561E-01	6.505E+02	6.505E-01
1.000E+01	3.620E+04	3.620E+00	1.509E+04	1.509E+01	1.646E+03	1.646E-01	6.858E+02	6.858E-01
2.000E+01	5.118E+04	5.118E+00	2.133E+04	2.133E+01	2.326E+03	2.326E-01	9.694E+02	9.694E-01
3.000E+01	6.268E+04	6.268E+00	2.612E+04	2.612E+01	2.849E+03	2.849E-01	1.187E+03	1.187E+00
4.000E+01	7.237E+04	7.237E+00	3.016E+04	3.016E+01	3.290E+03	3.290E-01	1.371E+03	1.371E+00
5.000E+01	7.961E+04	7.961E+00	3.317E+04	3.317E+01	3.619E+03	3.619E-01	1.508E+03	1.508E+00
6.000E+01	8.469E+04	8.469E+00	3.529E+04	3.529E+01	3.850E+03	3.850E-01	1.604E+03	1.604E+00
7.000E+01	8.836E+04	8.836E+00	3.682E+04	3.682E+01	4.017E+03	4.017E-01	1.674E+03	1.674E+00
8.000E+01	9.107E+04	9.107E+00	3.795E+04	3.795E+01	4.139E+03	4.139E-01	1.725E+03	1.725E+00
9.000E+01	9.307E+04	9.307E+00	3.878E+04	3.878E+01	4.231E+03	4.231E-01	1.763E+03	1.763E+00
1.000E+02	9.457E+04	9.457E+00	3.940E+04	3.940E+01	4.299E+03	4.299E-01	1.791E+03	1.791E+00
2.000E+02	9.728E+04	9.728E+00	4.053E+04	4.053E+01	4.422E+03	4.422E-01	1.842E+03	1.842E+00
3.000E+02	9.332E+04	9.332E+00	3.888E+04	3.888E+01	4.242E+03	4.242E-01	1.767E+03	1.767E+00
4.000E+02	8.837E+04	8.837E+00	3.682E+04	3.682E+01	4.017E+03	4.017E-01	1.674E+03	1.674E+00
5.000E+02	8.353E+04	8.353E+00	3.480E+04	3.480E+01	3.797E+03	3.797E-01	1.582E+03	1.582E+00
6.000E+02	7.906E+04	7.906E+00	3.294E+04	3.294E+01	3.594E+03	3.594E-01	1.497E+03	1.497E+00
7.000E+02	7.500E+04	7.500E+00	3.125E+04	3.125E+01	3.409E+03	3.409E-01	1.421E+03	1.421E+00
8.000E+02	7.134E+04	7.134E+00	2.973E+04	2.973E+01	3.243E+03	3.243E-01	1.351E+03	1.351E+00
9.000E+02	6.804E+04	6.804E+00	2.835E+04	2.835E+01	3.093E+03	3.093E-01	1.289E+03	1.289E+00
1.000E+03	6.505E+04	6.505E+00	2.710E+04	2.710E+01	2.957E+03	2.957E-01	1.232E+03	1.232E+00
2.000E+03	4.581E+04	4.581E+00	1.909E+04	1.909E+01	2.082E+03	2.082E-01	8.675E+02	8.675E-01
3.000E+03	3.594E+04	3.594E+00	1.497E+04	1.497E+01	1.633E+03	1.633E-01	6.803E+02	6.803E-01
4.000E+03	2.983E+04	2.983E+00	1.243E+04	1.243E+01	1.356E+03	1.356E-01	5.649E+02	5.649E-01
5.000E+03	2.565E+04	2.565E+00	1.069E+04	1.069E+01	1.166E+03	1.166E-01	4.860E+02	4.860E-01
6.000E+03	2.261E+04	2.261E+00	9.419E+03	9.419E+00	1.028E+03	1.028E-01	4.282E+02	4.282E-01
7.000E+03	2.029E+04	2.029E+00	8.456E+03	8.456E+00	9.222E+02	9.222E-02	3.843E+02	3.843E-01
8.000E+03	1.848E+04	1.848E+00	7.699E+03	7.699E+00	8.399E+02	8.399E-02	3.499E+02	3.499E-01
9.000E+03	1.701E+04	1.701E+00	7.089E+03	7.089E+00	7.734E+02	7.734E-02	3.222E+02	3.222E-01
1.000E+04	1.581E+04	1.581E+00	6.588E+03	6.588E+00	7.185E+02	7.185E-02	2.994E+02	2.994E-01
2.000E+04	1.009E+04	1.009E+00	4.203E+03	4.203E+00	4.586E+02	4.586E-02	1.911E+02	1.911E-01
3.000E+04	8.081E+03	8.081E-01	3.367E+03	3.367E+00	3.673E+02	3.673E-02	1.530E+02	1.530E-01
4.000E+04	7.082E+03	7.082E-01	2.950E+03	2.950E+00	3.219E+02	3.219E-02	1.341E+02	1.341E-01
5.000E+04	6.500E+03	6.500E-01	2.708E+03	2.708E+00	2.954E+02	2.954E-02	1.231E+02	1.231E-01
6.000E+04	6.129E+03	6.129E-01	2.554E+03	2.554E+00	2.786E+02	2.786E-02	1.161E+02	1.161E-01
7.000E+04	5.877E+03	5.877E-01	2.448E+03	2.448E+00	2.671E+02	2.671E-02	1.113E+02	1.113E-01
8.000E+04	5.690E+03	5.690E-01	2.371E+03	2.371E+00	2.587E+02	2.587E-02	1.078E+02	1.078E-01
9.000E+04	5.554E+03	5.554E-01	2.314E+03	2.314E+00	2.525E+02	2.525E-02	1.052E+02	1.052E-01
1.000E+05	5.453E+03	5.453E-01	2.272E+03	2.272E+00	2.479E+02	2.479E-02	1.033E+02	1.033E-01
2.000E+05	5.170E+03	5.170E-01	2.154E+03	2.154E+00	2.350E+02	2.350E-02	9.793E+01	9.793E-02
3.000E+05	5.214E+03	5.214E-01	2.173E+03	2.173E+00	2.370E+02	2.370E-02	9.876E+01	9.876E-02
4.000E+05	5.304E+03	5.304E-01	2.210E+03	2.210E+00	2.411E+02	2.411E-02	1.004E+02	1.004E-01
5.000E+05	5.394E+03	5.394E-01	2.248E+03	2.248E+00	2.452E+02	2.452E-02	1.022E+02	1.022E-01
6.000E+05	5.478E+03	5.478E-01	2.283E+03	2.283E+00	2.490E+02	2.490E-02	1.038E+02	1.038E-01
7.000E+05	5.554E+03	5.554E-01	2.314E+03	2.314E+00	2.524E+02	2.524E-02	1.052E+02	1.052E-01
8.000E+05	5.623E+03	5.623E-01	2.343E+03	2.343E+00	2.556E+02	2.556E-02	1.065E+02	1.065E-01

TABLE 126

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AG Z= 47 A= 107.87

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E+00	1.707E+04	1.707E+00	7.108E+03	7.108E+00	7.758E+02	7.758E-02	3.231E+02	3.231E-01
3.000E+00	2.090E+04	2.090E+00	8.706E+03	8.706E+00	9.498E+02	9.498E-02	3.957E+02	3.957E-01
4.000E+00	2.413E+04	2.413E+00	1.005E+04	1.005E+01	1.097E+03	1.097E-01	4.570E+02	4.570E-01
5.000E+00	2.697E+04	2.697E+00	1.124E+04	1.124E+01	1.226E+03	1.226E-01	5.109E+02	5.109E-01
6.000E+00	2.955E+04	2.955E+00	1.231E+04	1.231E+01	1.343E+03	1.343E-01	5.596E+02	5.596E-01
7.000E+00	3.191E+04	3.191E+00	1.330E+04	1.330E+01	1.451E+03	1.451E-01	6.043E+02	6.043E-01
8.000E+00	3.412E+04	3.412E+00	1.422E+04	1.422E+01	1.551E+03	1.551E-01	6.462E+02	6.462E-01
9.000E+00	3.619E+04	3.619E+00	1.507E+04	1.507E+01	1.645E+03	1.645E-01	6.852E+02	6.852E-01
1.000E+01	3.814E+04	3.814E+00	1.589E+04	1.589E+01	1.734E+03	1.734E-01	7.223E+02	7.223E-01
2.000E+01	5.394E+04	5.394E+00	2.247E+04	2.247E+01	2.452E+03	2.452E-01	1.021E+03	1.021E+00
3.000E+01	6.605E+04	6.605E+00	2.752E+04	2.752E+01	3.002E+03	3.002E-01	1.251E+03	1.251E+00
4.000E+01	7.627E+04	7.627E+00	3.177E+04	3.177E+01	3.467E+03	3.467E-01	1.444E+03	1.444E+00
5.000E+01	8.525E+04	8.525E+00	3.552E+04	3.552E+01	3.875E+03	3.875E-01	1.615E+03	1.615E+00
6.000E+01	9.337E+04	9.337E+00	3.890E+04	3.890E+01	4.244E+03	4.244E-01	1.768E+03	1.768E+00
7.000E+01	9.984E+04	9.984E+00	4.160E+04	4.160E+01	4.538E+03	4.538E-01	1.891E+03	1.891E+00
8.000E+01	1.050E+05	1.050E+01	4.376E+04	4.376E+01	4.772E+03	4.772E-01	1.989E+03	1.989E+00
9.000E+01	1.092E+05	1.092E+01	4.549E+04	4.549E+01	4.964E+03	4.964E-01	2.068E+03	2.068E+00
1.000E+02	1.126E+05	1.126E+01	4.691E+04	4.691E+01	5.118E+03	5.118E-01	2.132E+03	2.132E+00
2.000E+02	1.270E+05	1.270E+01	5.291E+04	5.291E+01	5.775E+03	5.775E-01	2.405E+03	2.405E+00
3.000E+02	1.285E+05	1.285E+01	5.354E+04	5.354E+01	5.841E+03	5.841E-01	2.434E+03	2.434E+00
4.000E+02	1.264E+05	1.264E+01	5.268E+04	5.268E+01	5.746E+03	5.746E-01	2.395E+03	2.395E+00
5.000E+02	1.232E+05	1.232E+01	5.131E+04	5.131E+01	5.599E+03	5.599E-01	2.332E+03	2.332E+00
6.000E+02	1.195E+05	1.195E+01	4.978E+04	4.978E+01	5.431E+03	5.431E-01	2.263E+03	2.263E+00
7.000E+02	1.157E+05	1.157E+01	4.821E+04	4.821E+01	5.258E+03	5.258E-01	2.191E+03	2.191E+00
8.000E+02	1.120E+05	1.120E+01	4.667E+04	4.667E+01	5.093E+03	5.093E-01	2.121E+03	2.121E+00
9.000E+02	1.086E+05	1.086E+01	4.521E+04	4.521E+01	4.934E+03	4.934E-01	2.055E+03	2.055E+00
1.000E+03	1.052E+05	1.052E+01	4.382E+04	4.382E+01	4.780E+03	4.780E-01	1.992E+03	1.992E+00
2.000E+03	8.043E+04	8.043E+00	3.351E+04	3.351E+01	3.656E+03	3.656E-01	1.523E+03	1.523E+00
3.000E+03	6.577E+04	6.577E+00	2.740E+04	2.740E+01	2.990E+03	2.990E-01	1.246E+03	1.246E+00
4.000E+03	5.608E+04	5.608E+00	2.336E+04	2.336E+01	2.549E+03	2.549E-01	1.062E+03	1.062E+00
5.000E+03	4.916E+04	4.916E+00	2.049E+04	2.049E+01	2.235E+03	2.235E-01	9.312E+02	9.312E-01
6.000E+03	4.395E+04	4.395E+00	1.831E+04	1.831E+01	1.998E+03	1.998E-01	8.324E+02	8.324E-01
7.000E+03	3.986E+04	3.986E+00	1.661E+04	1.661E+01	1.812E+03	1.812E-01	7.549E+02	7.549E-01
8.000E+03	3.656E+04	3.656E+00	1.523E+04	1.523E+01	1.662E+03	1.662E-01	6.924E+02	6.924E-01
9.000E+03	3.384E+04	3.384E+00	1.409E+04	1.409E+01	1.538E+03	1.538E-01	6.407E+02	6.407E-01
1.000E+04	3.156E+04	3.156E+00	1.315E+04	1.315E+01	1.434E+03	1.434E-01	5.976E+02	5.976E-01
2.000E+04	2.001E+04	2.001E+00	8.338E+03	8.338E+00	9.097E+02	9.097E-02	3.790E+02	3.790E-01
3.000E+04	1.572E+04	1.572E+00	6.551E+03	6.551E+00	7.148E+02	7.148E-02	2.978E+02	2.978E-01
4.000E+04	1.353E+04	1.353E+00	5.637E+03	5.637E+00	6.149E+02	6.149E-02	2.562E+02	2.562E-01
5.000E+04	1.222E+04	1.222E+00	5.091E+03	5.091E+00	5.556E+02	5.556E-02	2.314E+02	2.314E-01
6.000E+04	1.136E+04	1.136E+00	4.735E+03	4.735E+00	5.163E+02	5.163E-02	2.152E+02	2.152E-01
7.000E+04	1.077E+04	1.077E+00	4.487E+03	4.487E+00	4.896E+02	4.896E-02	2.040E+02	2.040E-01
8.000E+04	1.034E+04	1.034E+00	4.309E+03	4.309E+00	4.700E+02	4.700E-02	1.959E+02	1.959E-01
9.000E+04	1.002E+04	1.002E+00	4.175E+03	4.175E+00	4.555E+02	4.555E-02	1.898E+02	1.898E-01
1.000E+05	9.765E+03	9.764E-01	4.068E+03	4.068E+00	4.438E+02	4.438E-02	1.849E+02	1.849E-01
2.000E+05	8.877E+03	8.877E-01	3.699E+03	3.699E+00	4.035E+02	4.035E-02	1.681E+02	1.681E-01
3.000E+05	8.817E+03	8.817E-01	3.674E+03	3.674E+00	4.008E+02	4.008E-02	1.670E+02	1.670E-01
4.000E+05	8.903E+03	8.903E-01	3.709E+03	3.709E+00	4.047E+02	4.047E-02	1.686E+02	1.686E-01
5.000E+05	9.021E+03	9.021E-01	3.759E+03	3.759E+00	4.101E+02	4.101E-02	1.708E+02	1.708E-01
6.000E+05	9.143E+03	9.143E-01	3.809E+03	3.809E+00	4.156E+02	4.156E-02	1.731E+02	1.731E-01
7.000E+05	9.258E+03	9.258E-01	3.857E+03	3.857E+00	4.208E+02	4.208E-02	1.753E+02	1.753E-01
8.000E+05	9.366E+03	9.366E-01	3.902E+03	3.902E+00	4.257E+02	4.257E-02	1.774E+02	1.774E-01
9.000E+05	9.466E+03	9.466E-01	3.944E+03	3.944E+00	4.303E+02	4.303E-02	1.793E+02	1.793E-01
1.000E+06	9.557E+03	9.557E-01	3.983E+03	3.983E+00	4.344E+02	4.344E-02	1.810E+02	1.810E-01

TABLE 127

COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM

ELEMENT: AU Z= 79 A= 197.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)	(PC/CM)	(PC/UM)	(PC*SQCM/G)	(PC*SQCM/MG)
2.000E+00	1.771E+04	1.771E+00	7.379E+03	7.379E+00	8.051E+02	8.051E-02	3.354E+02	3.354E-01
3.000E+00	2.170E+04	2.170E+00	9.040E+03	9.040E+00	9.863E+02	9.863E-02	4.109E+02	4.109E-01
4.000E+00	2.505E+04	2.505E+00	1.044E+04	1.044E+01	1.139E+03	1.139E-01	4.746E+02	4.746E-01
5.000E+00	2.801E+04	2.801E+00	1.167E+04	1.167E+01	1.273E+03	1.273E-01	5.305E+02	5.305E-01
6.000E+00	3.068E+04	3.068E+00	1.279E+04	1.279E+01	1.395E+03	1.395E-01	5.812E+02	5.812E-01
7.000E+00	3.314E+04	3.314E+00	1.381E+04	1.381E+01	1.506E+03	1.506E-01	6.277E+02	6.277E-01
8.000E+00	3.542E+04	3.542E+00	1.476E+04	1.476E+01	1.610E+03	1.610E-01	6.708E+02	6.708E-01
9.000E+00	3.757E+04	3.757E+00	1.566E+04	1.566E+01	1.708E+03	1.708E-01	7.117E+02	7.117E-01
1.000E+01	3.960E+04	3.960E+00	1.650E+04	1.650E+01	1.800E+03	1.800E-01	7.501E+02	7.501E-01
2.000E+01	5.602E+04	5.602E+00	2.334E+04	2.334E+01	2.546E+03	2.546E-01	1.061E+03	1.061E+00
3.000E+01	6.859E+04	6.859E+00	2.858E+04	2.858E+01	3.118E+03	3.118E-01	1.299E+03	1.299E+00
4.000E+01	7.921E+04	7.921E+00	3.300E+04	3.300E+01	3.601E+03	3.601E-01	1.500E+03	1.500E+00
5.000E+01	8.855E+04	8.855E+00	3.690E+04	3.690E+01	4.025E+03	4.025E-01	1.677E+03	1.677E+00
6.000E+01	9.700E+04	9.700E+00	4.042E+04	4.042E+01	4.409E+03	4.409E-01	1.837E+03	1.837E+00
7.000E+01	1.048E+05	1.048E+01	4.365E+04	4.365E+01	4.762E+03	4.762E-01	1.984E+03	1.984E+00
8.000E+01	1.120E+05	1.120E+01	4.666E+04	4.666E+01	5.092E+03	5.092E-01	2.121E+03	2.121E+00
9.000E+01	1.188E+05	1.188E+01	4.949E+04	4.949E+01	5.401E+03	5.401E-01	2.249E+03	2.249E+00
1.000E+02	1.253E+05	1.253E+01	5.217E+04	5.217E+01	5.693E+03	5.693E-01	2.371E+03	2.371E+00
2.000E+02	1.714E+05	1.714E+01	7.146E+04	7.146E+01	7.793E+03	7.793E-01	3.248E+03	3.248E+00
3.000E+02	1.932E+05	1.932E+01	8.050E+04	8.050E+01	8.780E+03	8.780E-01	3.659E+03	3.659E+00
4.000E+02	2.049E+05	2.049E+01	8.535E+04	8.535E+01	9.313E+03	9.313E-01	3.880E+03	3.880E+00
5.000E+02	2.115E+05	2.115E+01	8.810E+04	8.810E+01	9.612E+03	9.612E-01	4.005E+03	4.005E+00
6.000E+02	2.152E+05	2.152E+01	8.966E+04	8.966E+01	9.781E+03	9.781E-01	4.075E+03	4.075E+00
7.000E+02	2.171E+05	2.171E+01	9.046E+04	9.046E+01	9.870E+03	9.870E-01	4.112E+03	4.112E+00
8.000E+02	2.179E+05	2.179E+01	9.077E+04	9.077E+01	9.902E+03	9.902E-01	4.126E+03	4.126E+00
9.000E+02	2.178E+05	2.178E+01	9.076E+04	9.076E+01	9.900E+03	9.900E-01	4.125E+03	4.125E+00
1.000E+03	2.172E+05	2.172E+01	9.051E+04	9.051E+01	9.873E+03	9.873E-01	4.114E+03	4.114E+00
2.000E+03	2.006E+05	2.006E+01	8.359E+04	8.359E+01	9.119E+03	9.119E-01	3.800E+03	3.800E+00
3.000E+03	1.824E+05	1.824E+01	7.598E+04	7.598E+01	8.290E+03	8.290E-01	3.453E+03	3.453E+00
4.000E+03	1.668E+05	1.668E+01	6.948E+04	6.948E+01	7.582E+03	7.582E-01	3.158E+03	3.158E+00
5.000E+03	1.538E+05	1.538E+01	6.408E+04	6.408E+01	6.991E+03	6.991E-01	2.913E+03	2.913E+00
6.000E+03	1.429E+05	1.429E+01	5.954E+04	5.954E+01	6.494E+03	6.494E-01	2.706E+03	2.706E+00
7.000E+03	1.336E+05	1.336E+01	5.569E+04	5.569E+01	6.074E+03	6.074E-01	2.532E+03	2.532E+00
8.000E+03	1.257E+05	1.257E+01	5.240E+04	5.240E+01	5.715E+03	5.715E-01	2.382E+03	2.382E+00
9.000E+03	1.189E+05	1.189E+01	4.954E+04	4.954E+01	5.405E+03	5.405E-01	2.252E+03	2.252E+00
1.000E+04	1.129E+05	1.129E+01	4.703E+04	4.703E+01	5.131E+03	5.131E-01	2.138E+03	2.138E+00
2.000E+04	7.776E+04	7.776E+00	3.240E+04	3.240E+01	3.535E+03	3.535E-01	1.473E+03	1.473E+00
3.000E+04	6.163E+04	6.163E+00	2.568E+04	2.568E+01	2.801E+03	2.801E-01	1.167E+03	1.167E+00
4.000E+04	5.225E+04	5.225E+00	2.178E+04	2.178E+01	2.375E+03	2.375E-01	9.898E+02	9.898E-01
5.000E+04	4.616E+04	4.616E+00	1.924E+04	1.924E+01	2.098E+03	2.098E-01	8.743E+02	8.743E-01
6.000E+04	4.190E+04	4.190E+00	1.746E+04	1.746E+01	1.905E+03	1.905E-01	7.937E+02	7.937E-01
7.000E+04	3.880E+04	3.880E+00	1.617E+04	1.617E+01	1.764E+03	1.764E-01	7.348E+02	7.348E-01
8.000E+04	3.646E+04	3.646E+00	1.519E+04	1.519E+01	1.657E+03	1.657E-01	6.902E+02	6.902E-01
9.000E+04	3.463E+04	3.463E+00	1.443E+04	1.443E+01	1.574E+03	1.574E-01	6.560E+02	6.560E-01
1.000E+05	3.317E+04	3.317E+00	1.383E+04	1.383E+01	1.508E+03	1.508E-01	6.285E+02	6.285E-01
2.000E+05	2.703E+04	2.703E+00	1.126E+04	1.126E+01	1.229E+03	1.229E-01	5.120E+02	5.120E-01
3.000E+05	2.545E+04	2.545E+00	1.060E+04	1.060E+01	1.157E+03	1.157E-01	4.820E+02	4.820E-01
4.000E+05	2.498E+04	2.498E+00	1.041E+04	1.041E+01	1.136E+03	1.136E-01	4.733E+02	4.733E-01
5.000E+05	2.489E+04	2.489E+00	1.037E+04	1.037E+01	1.131E+03	1.131E-01	4.714E+02	4.714E-01
6.000E+05	2.496E+04	2.496E+00	1.040E+04	1.040E+01	1.135E+03	1.135E-01	4.729E+02	4.729E-01
7.000E+05	2.510E+04	2.510E+00	1.046E+04	1.046E+01	1.141E+03	1.141E-01	4.753E+02	4.753E-01
8.000E+05	2.527E+04	2.527E+00	1.053E+04	1.053E+01	1.149E+03	1.149E-01	4.786E+02	4.786E-01
9.000E+05	2.547E+04	2.547E+00	1.061E+04	1.061E+01	1.158E+03	1.158E-01	4.824E+02	4.824E-01
1.000E+06	2.565E+04	2.565E+00	1.069E+04	1.069E+01	1.166E+03	1.166E-01	4.859E+02	4.859E-01

TABLE 128

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: H Z= 1 A= 1.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	3.066E+02	3.066E-02	3.066E+02	3.066E-01
2.000E-02	4.335E+02	4.335E-02	4.335E+02	4.335E-01
3.000E-02	5.275E+02	5.275E-02	5.275E+02	5.275E-01
4.000E-02	5.865E+02	5.865E-02	5.865E+02	5.865E-01
5.000E-02	6.261E+02	6.261E-02	6.261E+02	6.261E-01
6.000E-02	6.555E+02	6.555E-02	6.555E+02	6.555E-01
7.000E-02	6.788E+02	6.788E-02	6.788E+02	6.788E-01
8.000E-02	6.985E+02	6.985E-02	6.985E+02	6.985E-01
9.000E-02	7.157E+02	7.157E-02	7.157E+02	7.157E-01
1.000E-01	7.290E+02	7.290E-02	7.290E+02	7.290E-01
2.000E-01	6.749E+02	6.749E-02	6.749E+02	6.749E-01
3.000E-01	5.751E+02	5.751E-02	5.751E+02	5.751E-01
4.000E-01	4.959E+02	4.959E-02	4.959E+02	4.959E-01
5.000E-01	4.355E+02	4.355E-02	4.355E+02	4.355E-01
6.000E-01	3.886E+02	3.886E-02	3.886E+02	3.886E-01
7.000E-01	3.513E+02	3.513E-02	3.513E+02	3.513E-01
8.000E-01	3.211E+02	3.211E-02	3.211E+02	3.211E-01
9.000E-01	2.959E+02	2.959E-02	2.959E+02	2.959E-01
1.000E+00	2.748E+02	2.748E-02	2.748E+02	2.748E-01
2.000E+00	1.650E+02	1.650E-02	1.650E+02	1.650E-01
3.000E+00	1.208E+02	1.208E-02	1.208E+02	1.208E-01
4.000E+00	9.644E+01	9.644E-03	9.644E+01	9.644E-02
5.000E+00	8.076E+01	8.076E-03	8.076E+01	8.076E-02
6.000E+00	6.979E+01	6.979E-03	6.979E+01	6.979E-02
7.000E+00	6.165E+01	6.165E-03	6.165E+01	6.165E-02
8.000E+00	5.534E+01	5.534E-03	5.534E+01	5.534E-02
9.000E+00	5.030E+01	5.030E-03	5.030E+01	5.030E-02
1.000E+01	4.617E+01	4.617E-03	4.617E+01	4.617E-02
2.000E+01	2.620E+01	2.620E-03	2.620E+01	2.620E-02
3.000E+01	1.881E+01	1.881E-03	1.881E+01	1.881E-02
4.000E+01	1.490E+01	1.490E-03	1.490E+01	1.490E-02
5.000E+01	1.246E+01	1.246E-03	1.246E+01	1.246E-02
6.000E+01	1.079E+01	1.079E-03	1.079E+01	1.079E-02
7.000E+01	9.561E+00	9.561E-04	9.561E+00	9.561E-03
8.000E+01	8.625E+00	8.625E-04	8.625E+00	8.625E-03
9.000E+01	7.885E+00	7.885E-04	7.885E+00	7.885E-03
1.000E+02	7.285E+00	7.285E-04	7.285E+00	7.285E-03
2.000E+02	4.487E+00	4.487E-04	4.487E+00	4.487E-03
3.000E+02	3.517E+00	3.517E-04	3.517E+00	3.517E-03
4.000E+02	3.030E+00	3.030E-04	3.030E+00	3.030E-03
5.000E+02	2.742E+00	2.742E-04	2.742E+00	2.742E-03
6.000E+02	2.555E+00	2.555E-04	2.555E+00	2.555E-03
7.000E+02	2.425E+00	2.425E-04	2.425E+00	2.425E-03
8.000E+02	2.332E+00	2.332E-04	2.332E+00	2.332E-03
9.000E+02	2.261E+00	2.261E-04	2.261E+00	2.261E-03
1.000E+03	2.206E+00	2.206E-04	2.206E+00	2.206E-03
2.000E+03	2.016E+00	2.016E-04	2.016E+00	2.016E-03
3.000E+03	2.002E+00	2.002E-04	2.002E+00	2.002E-03
4.000E+03	2.016E+00	2.016E-04	2.016E+00	2.016E-03
5.000E+03	2.038E+00	2.038E-04	2.038E+00	2.038E-03
6.000E+03	2.060E+00	2.060E-04	2.060E+00	2.060E-03
7.000E+03	2.081E+00	2.081E-04	2.081E+00	2.081E-03
8.000E+03	2.101E+00	2.101E-04	2.101E+00	2.101E-03
9.000E+03	2.119E+00	2.119E-04	2.119E+00	2.119E-03
1.000E+04	2.136E+00	2.136E-04	2.136E+00	2.136E-03

TABLE 129

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: HE Z= 2 A= 4.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.853E+02	1.853E-02	1.853E+02	1.853E-01
2.000E-02	2.621E+02	2.621E-02	2.621E+02	2.621E-01
3.000E-02	3.210E+02	3.210E-02	3.210E+02	3.210E-01
4.000E-02	3.658E+02	3.658E-02	3.658E+02	3.658E-01
5.000E-02	3.989E+02	3.989E-02	3.989E+02	3.989E-01
6.000E-02	4.252E+02	4.252E-02	4.252E+02	4.252E-01
7.000E-02	4.472E+02	4.472E-02	4.472E+02	4.472E-01
8.000E-02	4.663E+02	4.663E-02	4.663E+02	4.663E-01
9.000E-02	4.834E+02	4.834E-02	4.834E+02	4.834E-01
1.000E-01	4.988E+02	4.988E-02	4.988E+02	4.988E-01
2.000E-01	5.543E+02	5.543E-02	5.543E+02	5.543E-01
3.000E-01	5.226E+02	5.226E-02	5.226E+02	5.226E-01
4.000E-01	4.743E+02	4.743E-02	4.743E+02	4.743E-01
5.000E-01	4.273E+02	4.273E-02	4.273E+02	4.273E-01
6.000E-01	3.862E+02	3.862E-02	3.862E+02	3.862E-01
7.000E-01	3.516E+02	3.516E-02	3.516E+02	3.516E-01
8.000E-01	3.219E+02	3.219E-02	3.219E+02	3.219E-01
9.000E-01	2.966E+02	2.966E-02	2.966E+02	2.966E-01
1.000E+00	2.752E+02	2.752E-02	2.752E+02	2.752E-01
2.000E+00	1.650E+02	1.650E-02	1.650E+02	1.650E-01
3.000E+00	1.208E+02	1.208E-02	1.208E+02	1.208E-01
4.000E+00	9.645E+01	9.645E-03	9.645E+01	9.645E-02
5.000E+00	8.078E+01	8.078E-03	8.078E+01	8.078E-02
6.000E+00	6.981E+01	6.981E-03	6.981E+01	6.981E-02
7.000E+00	6.167E+01	6.167E-03	6.167E+01	6.167E-02
8.000E+00	5.535E+01	5.535E-03	5.535E+01	5.535E-02
9.000E+00	5.031E+01	5.031E-03	5.031E+01	5.031E-02
1.000E+01	4.618E+01	4.618E-03	4.618E+01	4.618E-02
2.000E+01	2.621E+01	2.621E-03	2.621E+01	2.621E-02
3.000E+01	1.882E+01	1.882E-03	1.882E+01	1.882E-02
4.000E+01	1.490E+01	1.490E-03	1.490E+01	1.490E-02
5.000E+01	1.246E+01	1.246E-03	1.246E+01	1.246E-02
6.000E+01	1.079E+01	1.079E-03	1.079E+01	1.079E-02
7.000E+01	9.563E+00	9.563E-04	9.563E+00	9.563E-03
8.000E+01	8.627E+00	8.627E-04	8.627E+00	8.627E-03
9.000E+01	7.887E+00	7.887E-04	7.887E+00	7.887E-03
1.000E+02	7.288E+00	7.288E-04	7.288E+00	7.288E-03
2.000E+02	4.488E+00	4.488E-04	4.488E+00	4.488E-03
3.000E+02	3.518E+00	3.518E-04	3.518E+00	3.518E-03
4.000E+02	3.031E+00	3.031E-04	3.031E+00	3.031E-03
5.000E+02	2.743E+00	2.743E-04	2.743E+00	2.743E-03
6.000E+02	2.555E+00	2.555E-04	2.555E+00	2.555E-03
7.000E+02	2.426E+00	2.426E-04	2.426E+00	2.426E-03
8.000E+02	2.334E+00	2.334E-04	2.334E+00	2.334E-03
9.000E+02	2.262E+00	2.262E-04	2.262E+00	2.262E-03
1.000E+03	2.207E+00	2.207E-04	2.207E+00	2.207E-03
2.000E+03	2.017E+00	2.017E-04	2.017E+00	2.017E-03
3.000E+03	2.002E+00	2.002E-04	2.002E+00	2.002E-03
4.000E+03	2.017E+00	2.017E-04	2.017E+00	2.017E-03
5.000E+03	2.039E+00	2.039E-04	2.039E+00	2.039E-03
6.000E+03	2.060E+00	2.060E-04	2.060E+00	2.060E-03
7.000E+03	2.082E+00	2.082E-04	2.082E+00	2.082E-03
8.000E+03	2.102E+00	2.102E-04	2.102E+00	2.102E-03
9.000E+03	2.120E+00	2.120E-04	2.120E+00	2.120E-03
1.000E+04	2.137E+00	2.137E-04	2.137E+00	2.137E-03

TABLE 130

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: LI Z= 3 A= 6.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.405E+02	1.405E-02	1.405E+02	1.405E-01
2.000E-02	1.988E+02	1.988E-02	1.988E+02	1.988E-01
3.000E-02	2.434E+02	2.434E-02	2.434E+02	2.434E-01
4.000E-02	2.777E+02	2.777E-02	2.777E+02	2.777E-01
5.000E-02	3.038E+02	3.038E-02	3.038E+02	3.038E-01
6.000E-02	3.254E+02	3.254E-02	3.254E+02	3.254E-01
7.000E-02	3.439E+02	3.439E-02	3.439E+02	3.439E-01
8.000E-02	3.604E+02	3.604E-02	3.604E+02	3.604E-01
9.000E-02	3.753E+02	3.753E-02	3.753E+02	3.753E-01
1.000E-01	3.890E+02	3.890E-02	3.890E+02	3.890E-01
2.000E-01	4.731E+02	4.731E-02	4.731E+02	4.731E-01
3.000E-01	4.931E+02	4.931E-02	4.931E+02	4.931E-01
4.000E-01	4.890E+02	4.890E-02	4.890E+02	4.890E-01
5.000E-01	4.729E+02	4.729E-02	4.729E+02	4.729E-01
6.000E-01	4.508E+02	4.508E-02	4.508E+02	4.508E-01
7.000E-01	4.261E+02	4.261E-02	4.261E+02	4.261E-01
8.000E-01	4.011E+02	4.011E-02	4.011E+02	4.011E-01
9.000E-01	3.770E+02	3.770E-02	3.770E+02	3.770E-01
1.000E+00	3.545E+02	3.545E-02	3.545E+02	3.545E-01
2.000E+00	2.142E+02	2.142E-02	2.142E+02	2.142E-01
3.000E+00	1.568E+02	1.568E-02	1.568E+02	1.568E-01
4.000E+00	1.252E+02	1.252E-02	1.252E+02	1.252E-01
5.000E+00	1.048E+02	1.048E-02	1.048E+02	1.048E-01
6.000E+00	9.060E+01	9.060E-03	9.060E+01	9.060E-02
7.000E+00	8.003E+01	8.003E-03	8.003E+01	8.003E-02
8.000E+00	7.183E+01	7.183E-03	7.183E+01	7.183E-02
9.000E+00	6.530E+01	6.530E-03	6.530E+01	6.530E-02
1.000E+01	5.994E+01	5.994E-03	5.994E+01	5.994E-02
2.000E+01	3.401E+01	3.401E-03	3.401E+01	3.401E-02
3.000E+01	2.442E+01	2.442E-03	2.442E+01	2.442E-02
4.000E+01	1.935E+01	1.935E-03	1.935E+01	1.935E-02
5.000E+01	1.618E+01	1.618E-03	1.618E+01	1.618E-02
6.000E+01	1.400E+01	1.400E-03	1.400E+01	1.400E-02
7.000E+01	1.241E+01	1.241E-03	1.241E+01	1.241E-02
8.000E+01	1.120E+01	1.120E-03	1.120E+01	1.120E-02
9.000E+01	1.023E+01	1.023E-03	1.023E+01	1.023E-02
1.000E+02	9.455E+00	9.455E-04	9.455E+00	9.455E-03
2.000E+02	5.825E+00	5.825E-04	5.825E+00	5.825E-03
3.000E+02	4.566E+00	4.566E-04	4.566E+00	4.566E-03
4.000E+02	3.934E+00	3.934E-04	3.934E+00	3.934E-03
5.000E+02	3.559E+00	3.559E-04	3.559E+00	3.559E-03
6.000E+02	3.316E+00	3.316E-04	3.316E+00	3.316E-03
7.000E+02	3.149E+00	3.149E-04	3.149E+00	3.149E-03
8.000E+02	3.029E+00	3.029E-04	3.029E+00	3.029E-03
9.000E+02	2.936E+00	2.936E-04	2.936E+00	2.936E-03
1.000E+03	2.864E+00	2.864E-04	2.864E+00	2.864E-03
2.000E+03	2.618E+00	2.618E-04	2.618E+00	2.618E-03
3.000E+03	2.598E+00	2.598E-04	2.598E+00	2.598E-03
4.000E+03	2.617E+00	2.617E-04	2.617E+00	2.617E-03
5.000E+03	2.646E+00	2.646E-04	2.646E+00	2.646E-03
6.000E+03	2.674E+00	2.674E-04	2.674E+00	2.674E-03
7.000E+03	2.702E+00	2.702E-04	2.702E+00	2.702E-03
8.000E+03	2.727E+00	2.727E-04	2.727E+00	2.727E-03
9.000E+03	2.751E+00	2.751E-04	2.751E+00	2.751E-03
1.000E+04	2.773E+00	2.773E-04	2.773E+00	2.773E-03

TABLE 131

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: BE Z= 4 A= 9.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.412E+02	1.412E-02	1.412E+02	1.412E-01
2.000E-02	1.997E+02	1.997E-02	1.997E+02	1.997E-01
3.000E-02	2.446E+02	2.446E-02	2.446E+02	2.446E-01
4.000E-02	2.824E+02	2.824E-02	2.824E+02	2.824E-01
5.000E-02	3.158E+02	3.158E-02	3.158E+02	3.158E-01
6.000E-02	3.459E+02	3.459E-02	3.459E+02	3.459E-01
7.000E-02	3.731E+02	3.731E-02	3.731E+02	3.731E-01
8.000E-02	3.971E+02	3.971E-02	3.971E+02	3.971E-01
9.000E-02	4.183E+02	4.183E-02	4.183E+02	4.183E-01
1.000E-01	4.374E+02	4.374E-02	4.374E+02	4.374E-01
2.000E-01	5.505E+02	5.505E-02	5.505E+02	5.505E-01
3.000E-01	5.619E+02	5.619E-02	5.619E+02	5.619E-01
4.000E-01	5.427E+02	5.427E-02	5.427E+02	5.427E-01
5.000E-01	5.158E+02	5.158E-02	5.158E+02	5.158E-01
6.000E-01	4.882E+02	4.882E-02	4.882E+02	4.882E-01
7.000E-01	4.620E+02	4.620E-02	4.620E+02	4.620E-01
8.000E-01	4.379E+02	4.379E-02	4.379E+02	4.379E-01
9.000E-01	4.161E+02	4.161E-02	4.161E+02	4.161E-01
1.000E+00	3.962E+02	3.962E-02	3.962E+02	3.962E-01
2.000E+00	2.700E+02	2.700E-02	2.700E+02	2.700E-01
3.000E+00	2.065E+02	2.065E-02	2.065E+02	2.065E-01
4.000E+00	1.678E+02	1.678E-02	1.678E+02	1.678E-01
5.000E+00	1.418E+02	1.418E-02	1.418E+02	1.418E-01
6.000E+00	1.231E+02	1.231E-02	1.231E+02	1.231E-01
7.000E+00	1.090E+02	1.090E-02	1.090E+02	1.090E-01
8.000E+00	9.803E+01	9.803E-03	9.803E+01	9.803E-02
9.000E+00	8.916E+01	8.916E-03	8.916E+01	8.916E-02
1.000E+01	8.191E+01	8.191E-03	8.191E+01	8.191E-02
2.000E+01	4.655E+01	4.655E-03	4.655E+01	4.655E-02
3.000E+01	3.343E+01	3.343E-03	3.343E+01	3.343E-02
4.000E+01	2.648E+01	2.648E-03	2.648E+01	2.648E-02
5.000E+01	2.215E+01	2.215E-03	2.215E+01	2.215E-02
6.000E+01	1.916E+01	1.916E-03	1.916E+01	1.916E-02
7.000E+01	1.699E+01	1.699E-03	1.699E+01	1.699E-02
8.000E+01	1.533E+01	1.533E-03	1.533E+01	1.533E-02
9.000E+01	1.401E+01	1.401E-03	1.401E+01	1.401E-02
1.000E+02	1.294E+01	1.294E-03	1.294E+01	1.294E-02
2.000E+02	7.974E+00	7.974E-04	7.974E+00	7.974E-03
3.000E+02	6.249E+00	6.249E-04	6.249E+00	6.249E-03
4.000E+02	5.385E+00	5.385E-04	5.385E+00	5.385E-03
5.000E+02	4.872E+00	4.872E-04	4.872E+00	4.872E-03
6.000E+02	4.540E+00	4.540E-04	4.540E+00	4.540E-03
7.000E+02	4.310E+00	4.310E-04	4.310E+00	4.310E-03
8.000E+02	4.145E+00	4.145E-04	4.145E+00	4.145E-03
9.000E+02	4.019E+00	4.019E-04	4.019E+00	4.019E-03
1.000E+03	3.921E+00	3.921E-04	3.921E+00	3.921E-03
2.000E+03	3.584E+00	3.584E-04	3.584E+00	3.584E-03
3.000E+03	3.556E+00	3.556E-04	3.556E+00	3.556E-03
4.000E+03	3.583E+00	3.583E-04	3.583E+00	3.583E-03
5.000E+03	3.622E+00	3.622E-04	3.622E+00	3.622E-03
6.000E+03	3.661E+00	3.661E-04	3.661E+00	3.661E-03
7.000E+03	3.698E+00	3.698E-04	3.698E+00	3.698E-03
8.000E+03	3.733E+00	3.733E-04	3.733E+00	3.733E-03
9.000E+03	3.766E+00	3.766E-04	3.766E+00	3.766E-03
1.000E+04	3.796E+00	3.796E-04	3.796E+00	3.796E-03

TABLE 132

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: B Z= 5 A= 10.82

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.531E+02	1.531E-02	1.531E+02	1.531E-01
2.000E-02	2.165E+02	2.165E-02	2.165E+02	2.165E-01
3.000E-02	2.651E+02	2.651E-02	2.651E+02	2.651E-01
4.000E-02	3.061E+02	3.061E-02	3.061E+02	3.061E-01
5.000E-02	3.422E+02	3.422E-02	3.422E+02	3.422E-01
6.000E-02	3.749E+02	3.749E-02	3.749E+02	3.749E-01
7.000E-02	4.049E+02	4.049E-02	4.049E+02	4.049E-01
8.000E-02	4.315E+02	4.315E-02	4.315E+02	4.315E-01
9.000E-02	4.554E+02	4.554E-02	4.554E+02	4.554E-01
1.000E-01	4.769E+02	4.769E-02	4.769E+02	4.769E-01
2.000E-01	6.108E+02	6.108E-02	6.108E+02	6.108E-01
3.000E-01	6.358E+02	6.358E-02	6.358E+02	6.358E-01
4.000E-01	6.232E+02	6.232E-02	6.232E+02	6.232E-01
5.000E-01	5.993E+02	5.993E-02	5.993E+02	5.993E-01
6.000E-01	5.725E+02	5.725E-02	5.725E+02	5.725E-01
7.000E-01	5.460E+02	5.460E-02	5.460E+02	5.460E-01
8.000E-01	5.211E+02	5.211E-02	5.211E+02	5.211E-01
9.000E-01	4.980E+02	4.980E-02	4.980E+02	4.980E-01
1.000E+00	4.766E+02	4.766E-02	4.766E+02	4.766E-01
2.000E+00	3.351E+02	3.351E-02	3.351E+02	3.351E-01
3.000E+00	2.606E+02	2.606E-02	2.606E+02	2.606E-01
4.000E+00	2.141E+02	2.141E-02	2.141E+02	2.141E-01
5.000E+00	1.822E+02	1.822E-02	1.822E+02	1.822E-01
6.000E+00	1.589E+02	1.589E-02	1.589E+02	1.589E-01
7.000E+00	1.410E+02	1.410E-02	1.410E+02	1.410E-01
8.000E+00	1.270E+02	1.270E-02	1.270E+02	1.270E-01
9.000E+00	1.156E+02	1.156E-02	1.156E+02	1.156E-01
1.000E+01	1.063E+02	1.063E-02	1.063E+02	1.063E-01
2.000E+01	6.058E+01	6.058E-03	6.058E+01	6.058E-02
3.000E+01	4.351E+01	4.351E-03	4.351E+01	4.351E-02
4.000E+01	3.447E+01	3.447E-03	3.447E+01	3.447E-02
5.000E+01	2.882E+01	2.882E-03	2.882E+01	2.882E-02
6.000E+01	2.494E+01	2.494E-03	2.494E+01	2.494E-02
7.000E+01	2.212E+01	2.212E-03	2.212E+01	2.212E-02
8.000E+01	1.995E+01	1.995E-03	1.995E+01	1.995E-02
9.000E+01	1.824E+01	1.824E-03	1.824E+01	1.824E-02
1.000E+02	1.685E+01	1.685E-03	1.685E+01	1.685E-02
2.000E+02	1.038E+01	1.038E-03	1.038E+01	1.038E-02
3.000E+02	8.134E+00	8.134E-04	8.134E+00	8.134E-03
4.000E+02	7.008E+00	7.008E-04	7.008E+00	7.008E-03
5.000E+02	6.341E+00	6.341E-04	6.341E+00	6.341E-03
6.000E+02	5.909E+00	5.909E-04	5.909E+00	5.909E-03
7.000E+02	5.610E+00	5.610E-04	5.610E+00	5.610E-03
8.000E+02	5.395E+00	5.395E-04	5.395E+00	5.395E-03
9.000E+02	5.231E+00	5.231E-04	5.231E+00	5.231E-03
1.000E+03	5.103E+00	5.103E-04	5.103E+00	5.103E-03
2.000E+03	4.665E+00	4.665E-04	4.665E+00	4.665E-03
3.000E+03	4.628E+00	4.628E-04	4.628E+00	4.628E-03
4.000E+03	4.663E+00	4.663E-04	4.663E+00	4.663E-03
5.000E+03	4.713E+00	4.713E-04	4.713E+00	4.713E-03
6.000E+03	4.765E+00	4.765E-04	4.765E+00	4.765E-03
7.000E+03	4.814E+00	4.814E-04	4.814E+00	4.814E-03
8.000E+03	4.860E+00	4.860E-04	4.860E+00	4.860E-03
9.000E+03	4.902E+00	4.902E-04	4.902E+00	4.902E-03
1.000E+04	4.940E+00	4.940E-04	4.940E+00	4.940E-03

TABLE 133

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: C Z= 6 A= 12.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.689E+02	1.689E-02	1.689E+02	1.689E-01
2.000E-02	2.389E+02	2.389E-02	2.389E+02	2.389E-01
3.000E-02	2.925E+02	2.925E-02	2.925E+02	2.925E-01
4.000E-02	3.378E+02	3.378E-02	3.378E+02	3.378E-01
5.000E-02	3.777E+02	3.777E-02	3.777E+02	3.777E-01
6.000E-02	4.137E+02	4.137E-02	4.137E+02	4.137E-01
7.000E-02	4.469E+02	4.469E-02	4.469E+02	4.469E-01
8.000E-02	4.769E+02	4.769E-02	4.769E+02	4.769E-01
9.000E-02	5.038E+02	5.038E-02	5.038E+02	5.038E-01
1.000E-01	5.283E+02	5.283E-02	5.283E+02	5.283E-01
2.000E-01	6.861E+02	6.861E-02	6.861E+02	6.861E-01
3.000E-01	7.254E+02	7.254E-02	7.254E+02	7.254E-01
4.000E-01	7.197E+02	7.197E-02	7.197E+02	7.197E-01
5.000E-01	6.988E+02	6.988E-02	6.988E+02	6.988E-01
6.000E-01	6.729E+02	6.729E-02	6.729E+02	6.729E-01
7.000E-01	6.462E+02	6.462E-02	6.462E+02	6.462E-01
8.000E-01	6.203E+02	6.203E-02	6.203E+02	6.203E-01
9.000E-01	5.958E+02	5.953E-02	5.958E+02	5.958E-01
1.000E+00	5.727E+02	5.727E-02	5.727E+02	5.727E-01
2.000E+00	4.138E+02	4.138E-02	4.138E+02	4.138E-01
3.000E+00	3.266E+02	3.266E-02	3.266E+02	3.266E-01
4.000E+00	2.710E+02	2.710E-02	2.710E+02	2.710E-01
5.000E+00	2.322E+02	2.322E-02	2.322E+02	2.322E-01
6.000E+00	2.034E+02	2.034E-02	2.034E+02	2.034E-01
7.000E+00	1.812E+02	1.812E-02	1.812E+02	1.812E-01
8.000E+00	1.636E+02	1.636E-02	1.636E+02	1.636E-01
9.000E+00	1.492E+02	1.492E-02	1.492E+02	1.492E-01
1.000E+01	1.374E+02	1.374E-02	1.374E+02	1.374E-01
2.000E+01	7.853E+01	7.853E-03	7.853E+01	7.853E-02
3.000E+01	5.644E+01	5.644E-03	5.644E+01	5.644E-02
4.000E+01	4.471E+01	4.471E-03	4.471E+01	4.471E-02
5.000E+01	3.739E+01	3.739E-03	3.739E+01	3.739E-02
6.000E+01	3.236E+01	3.236E-03	3.236E+01	3.236E-02
7.000E+01	2.869E+01	2.869E-03	2.869E+01	2.869E-02
8.000E+01	2.588E+01	2.588E-03	2.588E+01	2.588E-02
9.000E+01	2.366E+01	2.366E-03	2.366E+01	2.366E-02
1.000E+02	2.185E+01	2.185E-03	2.185E+01	2.185E-02
2.000E+02	1.346E+01	1.346E-03	1.346E+01	1.346E-02
3.000E+02	1.055E+01	1.055E-03	1.055E+01	1.055E-02
4.000E+02	9.091E+00	9.091E-04	9.091E+00	9.091E-03
5.000E+02	8.226E+00	8.226E-04	8.226E+00	8.226E-03
6.000E+02	7.664E+00	7.664E-04	7.664E+00	7.664E-03
7.000E+02	7.277E+00	7.277E-04	7.277E+00	7.277E-03
8.000E+02	6.999E+00	6.999E-04	6.999E+00	6.999E-03
9.000E+02	6.786E+00	6.786E-04	6.786E+00	6.786E-03
1.000E+03	6.620E+00	6.620E-04	6.620E+00	6.620E-03
2.000E+03	6.051E+00	6.051E-04	6.051E+00	6.051E-03
3.000E+03	6.005E+00	6.005E-04	6.005E+00	6.005E-03
4.000E+03	6.049E+00	6.049E-04	6.049E+00	6.049E-03
5.000E+03	6.114E+00	6.114E-04	6.114E+00	6.114E-03
6.000E+03	6.180E+00	6.180E-04	6.180E+00	6.180E-03
7.000E+03	6.245E+00	6.245E-04	6.245E+00	6.245E-03
8.000E+03	6.304E+00	6.304E-04	6.304E+00	6.304E-03
9.000E+03	6.358E+00	6.358E-04	6.358E+00	6.358E-03
1.000E+04	6.409E+00	6.409E-04	6.409E+00	6.409E-03

TABLE 134

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: N Z= 7 A= 14.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.703E+02	1.703E-02	1.703E+02	1.703E-01
2.000E-02	2.408E+02	2.408E-02	2.408E+02	2.408E-01
3.000E-02	2.949E+02	2.949E-02	2.949E+02	2.949E-01
4.000E-02	3.406E+02	3.406E-02	3.406E+02	3.406E-01
5.000E-02	3.807E+02	3.807E-02	3.807E+02	3.807E-01
6.000E-02	4.171E+02	4.171E-02	4.171E+02	4.171E-01
7.000E-02	4.505E+02	4.505E-02	4.505E+02	4.505E-01
8.000E-02	4.814E+02	4.814E-02	4.814E+02	4.814E-01
9.000E-02	5.091E+02	5.091E-02	5.091E+02	5.091E-01
1.000E-01	5.342E+02	5.342E-02	5.342E+02	5.342E-01
2.000E-01	7.018E+02	7.018E-02	7.018E+02	7.018E-01
3.000E-01	7.520E+02	7.520E-02	7.520E+02	7.520E-01
4.000E-01	7.537E+02	7.537E-02	7.537E+02	7.537E-01
5.000E-01	7.377E+02	7.377E-02	7.377E+02	7.377E-01
6.000E-01	7.154E+02	7.154E-02	7.154E+02	7.154E-01
7.000E-01	6.911E+02	6.911E-02	6.911E+02	6.911E-01
8.000E-01	6.668E+02	6.668E-02	6.668E+02	6.668E-01
9.000E-01	6.433E+02	6.433E-02	6.433E+02	6.433E-01
1.000E+00	6.208E+02	6.208E-02	6.208E+02	6.208E-01
2.000E+00	4.596E+02	4.596E-02	4.596E+02	4.596E-01
3.000E+00	3.675E+02	3.675E-02	3.675E+02	3.675E-01
4.000E+00	3.077E+02	3.077E-02	3.077E+02	3.077E-01
5.000E+00	2.653E+02	2.653E-02	2.653E+02	2.653E-01
6.000E+00	2.337E+02	2.337E-02	2.337E+02	2.337E-01
7.000E+00	2.089E+02	2.089E-02	2.089E+02	2.089E-01
8.000E+00	1.891E+02	1.891E-02	1.891E+02	1.891E-01
9.000E+00	1.729E+02	1.729E-02	1.729E+02	1.729E-01
1.000E+01	1.594E+02	1.594E-02	1.594E+02	1.594E-01
2.000E+01	9.154E+01	9.154E-03	9.154E+01	9.154E-02
3.000E+01	6.585E+01	6.585E-03	6.585E+01	6.585E-02
4.000E+01	5.218E+01	5.218E-03	5.218E+01	5.218E-02
5.000E+01	4.363E+01	4.363E-03	4.363E+01	4.363E-02
6.000E+01	3.776E+01	3.776E-03	3.776E+01	3.776E-02
7.000E+01	3.347E+01	3.347E-03	3.347E+01	3.347E-02
8.000E+01	3.019E+01	3.019E-03	3.019E+01	3.019E-02
9.000E+01	2.761E+01	2.761E-03	2.761E+01	2.761E-02
1.000E+02	2.551E+01	2.551E-03	2.551E+01	2.551E-02
2.000E+02	1.571E+01	1.571E-03	1.571E+01	1.571E-02
3.000E+02	1.231E+01	1.231E-03	1.231E+01	1.231E-02
4.000E+02	1.061E+01	1.061E-03	1.061E+01	1.061E-02
5.000E+02	9.601E+00	9.601E-04	9.601E+00	9.601E-03
6.000E+02	8.945E+00	8.945E-04	8.945E+00	8.945E-03
7.000E+02	8.493E+00	8.493E-04	8.493E+00	8.493E-03
8.000E+02	8.168E+00	8.168E-04	8.168E+00	8.168E-03
9.000E+02	7.919E+00	7.919E-04	7.919E+00	7.919E-03
1.000E+03	7.725E+00	7.725E-04	7.725E+00	7.725E-03
2.000E+03	7.062E+00	7.062E-04	7.062E+00	7.062E-03
3.000E+03	7.008E+00	7.008E-04	7.008E+00	7.008E-03
4.000E+03	7.059E+00	7.059E-04	7.059E+00	7.059E-03
5.000E+03	7.135E+00	7.135E-04	7.135E+00	7.135E-03
6.000E+03	7.213E+00	7.213E-04	7.213E+00	7.213E-03
7.000E+03	7.288E+00	7.288E-04	7.288E+00	7.288E-03
8.000E+03	7.357E+00	7.357E-04	7.357E+00	7.357E-03
9.000E+03	7.420E+00	7.420E-04	7.420E+00	7.420E-03
1.000E+04	7.479E+00	7.479E-04	7.479E+00	7.479E-03

TABLE 135

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: O Z= 8 A= 16.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.705E+02	1.705E-02	1.705E+02	1.705E-01
2.000E-02	2.412E+02	2.412E-02	2.412E+02	2.412E-01
3.000E-02	2.954E+02	2.954E-02	2.954E+02	2.954E-01
4.000E-02	3.411E+02	3.411E-02	3.411E+02	3.411E-01
5.000E-02	3.813E+02	3.813E-02	3.813E+02	3.813E-01
6.000E-02	4.177E+02	4.177E-02	4.177E+02	4.177E-01
7.000E-02	4.513E+02	4.513E-02	4.513E+02	4.513E-01
8.000E-02	4.823E+02	4.823E-02	4.823E+02	4.823E-01
9.000E-02	5.105E+02	5.105E-02	5.105E+02	5.105E-01
1.000E-01	5.362E+02	5.362E-02	5.362E+02	5.362E-01
2.000E-01	7.103E+02	7.103E-02	7.103E+02	7.103E-01
3.000E-01	7.699E+02	7.699E-02	7.699E+02	7.699E-01
4.000E-01	7.785E+02	7.785E-02	7.785E+02	7.785E-01
5.000E-01	7.675E+02	7.675E-02	7.675E+02	7.675E-01
6.000E-01	7.487E+02	7.487E-02	7.487E+02	7.487E-01
7.000E-01	7.271E+02	7.271E-02	7.271E+02	7.271E-01
8.000E-01	7.046E+02	7.046E-02	7.046E+02	7.046E-01
9.000E-01	6.824E+02	6.824E-02	6.824E+02	6.824E-01
1.000E+00	6.610E+02	6.610E-02	6.610E+02	6.610E-01
2.000E+00	5.005E+02	5.005E-02	5.005E+02	5.005E-01
3.000E+00	4.049E+02	4.049E-02	4.049E+02	4.049E-01
4.000E+00	3.416E+02	3.416E-02	3.416E+02	3.416E-01
5.000E+00	2.964E+02	2.964E-02	2.964E+02	2.964E-01
6.000E+00	2.622E+02	2.622E-02	2.622E+02	2.622E-01
7.000E+00	2.354E+02	2.354E-02	2.354E+02	2.354E-01
8.000E+00	2.137E+02	2.137E-02	2.137E+02	2.137E-01
9.000E+00	1.958E+02	1.958E-02	1.958E+02	1.958E-01
1.000E+01	1.808E+02	1.808E-02	1.808E+02	1.808E-01
2.000E+01	1.045E+02	1.045E-02	1.045E+02	1.045E-01
3.000E+01	7.527E+01	7.527E-03	7.527E+01	7.527E-02
4.000E+01	5.965E+01	5.965E-03	5.965E+01	5.965E-02
5.000E+01	4.990E+01	4.990E-03	4.990E+01	4.990E-02
6.000E+01	4.318E+01	4.318E-03	4.318E+01	4.318E-02
7.000E+01	3.828E+01	3.828E-03	3.828E+01	3.828E-02
8.000E+01	3.453E+01	3.453E-03	3.453E+01	3.453E-02
9.000E+01	3.157E+01	3.157E-03	3.157E+01	3.157E-02
1.000E+02	2.917E+01	2.917E-03	2.917E+01	2.917E-02
2.000E+02	1.796E+01	1.796E-03	1.796E+01	1.796E-02
3.000E+02	1.408E+01	1.408E-03	1.408E+01	1.408E-02
4.000E+02	1.214E+01	1.214E-03	1.214E+01	1.214E-02
5.000E+02	1.098E+01	1.098E-03	1.098E+01	1.098E-02
6.000E+02	1.023E+01	1.023E-03	1.023E+01	1.023E-02
7.000E+02	9.713E+00	9.713E-04	9.713E+00	9.713E-03
8.000E+02	9.341E+00	9.341E-04	9.341E+00	9.341E-03
9.000E+02	9.056E+00	9.056E-04	9.056E+00	9.056E-03
1.000E+03	8.834E+00	8.834E-04	8.834E+00	8.834E-03
2.000E+03	8.076E+00	8.076E-04	8.076E+00	8.076E-03
3.000E+03	8.013E+00	8.013E-04	8.013E+00	8.013E-03
4.000E+03	8.073E+00	8.073E-04	8.073E+00	8.073E-03
5.000E+03	8.159E+00	8.159E-04	8.159E+00	8.159E-03
6.000E+03	8.249E+00	8.249E-04	8.249E+00	8.249E-03
7.000E+03	8.333E+00	8.333E-04	8.333E+00	8.333E-03
8.000E+03	8.412E+00	8.412E-04	8.412E+00	8.412E-03
9.000E+03	8.486E+00	8.486E-04	8.486E+00	8.486E-03
1.000E+04	8.553E+00	8.553E-04	8.553E+00	8.553E-03

TABLE 136

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: F Z= 9 A= 19.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.608E+02	1.608E-02	1.608E+02	1.608E-01
2.000E-02	2.274E+02	2.274E-02	2.274E+02	2.274E-01
3.000E-02	2.785E+02	2.785E-02	2.785E+02	2.785E-01
4.000E-02	3.216E+02	3.216E-02	3.216E+02	3.216E-01
5.000E-02	3.595E+02	3.595E-02	3.595E+02	3.595E-01
6.000E-02	3.938E+02	3.938E-02	3.938E+02	3.938E-01
7.000E-02	4.254E+02	4.254E-02	4.254E+02	4.254E-01
8.000E-02	4.547E+02	4.547E-02	4.547E+02	4.547E-01
9.000E-02	4.817E+02	4.817E-02	4.817E+02	4.817E-01
1.000E-01	5.064E+02	5.064E-02	5.064E+02	5.064E-01
2.000E-01	6.755E+02	6.755E-02	6.755E+02	6.755E-01
3.000E-01	7.397E+02	7.397E-02	7.397E+02	7.397E-01
4.000E-01	7.538E+02	7.538E-02	7.538E+02	7.538E-01
5.000E-01	7.480E+02	7.480E-02	7.480E+02	7.480E-01
6.000E-01	7.336E+02	7.336E-02	7.336E+02	7.336E-01
7.000E-01	7.157E+02	7.157E-02	7.157E+02	7.157E-01
8.000E-01	6.963E+02	6.963E-02	6.963E+02	6.963E-01
9.000E-01	6.768E+02	6.768E-02	6.768E+02	6.768E-01
1.000E+00	6.577E+02	6.577E-02	6.577E+02	6.577E-01
2.000E+00	5.083E+02	5.083E-02	5.083E+02	5.083E-01
3.000E+00	4.156E+02	4.156E-02	4.156E+02	4.156E-01
4.000E+00	3.533E+02	3.533E-02	3.533E+02	3.533E-01
5.000E+00	3.082E+02	3.082E-02	3.082E+02	3.082E-01
6.000E+00	2.738E+02	2.738E-02	2.738E+02	2.738E-01
7.000E+00	2.466E+02	2.466E-02	2.466E+02	2.466E-01
8.000E+00	2.246E+02	2.246E-02	2.246E+02	2.246E-01
9.000E+00	2.063E+02	2.063E-02	2.063E+02	2.063E-01
1.000E+01	1.909E+02	1.909E-02	1.909E+02	1.909E-01
2.000E+01	1.112E+02	1.112E-02	1.112E+02	1.112E-01
3.000E+01	8.016E+01	8.016E-03	8.016E+01	8.016E-02
4.000E+01	6.357E+01	6.357E-03	6.357E+01	6.357E-02
5.000E+01	5.317E+01	5.317E-03	5.317E+01	5.317E-02
6.000E+01	4.602E+01	4.602E-03	4.602E+01	4.602E-02
7.000E+01	4.080E+01	4.080E-03	4.080E+01	4.080E-02
8.000E+01	3.681E+01	3.681E-03	3.681E+01	3.681E-02
9.000E+01	3.365E+01	3.365E-03	3.365E+01	3.365E-02
1.000E+02	3.109E+01	3.109E-03	3.109E+01	3.109E-02
2.000E+02	1.915E+01	1.915E-03	1.915E+01	1.915E-02
3.000E+02	1.501E+01	1.501E-03	1.501E+01	1.501E-02
4.000E+02	1.293E+01	1.293E-03	1.293E+01	1.293E-02
5.000E+02	1.170E+01	1.170E-03	1.170E+01	1.170E-02
6.000E+02	1.090E+01	1.090E-03	1.090E+01	1.090E-02
7.000E+02	1.035E+01	1.035E-03	1.035E+01	1.035E-02
8.000E+02	9.954E+00	9.954E-04	9.954E+00	9.954E-03
9.000E+02	9.652E+00	9.652E-04	9.652E+00	9.652E-03
1.000E+03	9.415E+00	9.415E-04	9.415E+00	9.415E-03
2.000E+03	8.607E+00	8.607E-04	8.607E+00	8.607E-03
3.000E+03	8.541E+00	8.541E-04	8.541E+00	8.541E-03
4.000E+03	8.604E+00	8.604E-04	8.604E+00	8.604E-03
5.000E+03	8.696E+00	8.696E-04	8.696E+00	8.696E-03
6.000E+03	8.791E+00	8.791E-04	8.791E+00	8.791E-03
7.000E+03	8.882E+00	8.882E-04	8.882E+00	8.882E-03
8.000E+03	8.966E+00	8.966E-04	8.966E+00	8.966E-03
9.000E+03	9.044E+00	9.044E-04	9.044E+00	9.044E-03
1.000E+04	9.115E+00	9.115E-04	9.115E+00	9.115E-03

TABLE 137

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: NE Z= 10 A= 20.18

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.665E+02	1.665E-02	1.665E+02	1.665E-01
2.000E-02	2.356E+02	2.356E-02	2.356E+02	2.356E-01
3.000E-02	2.884E+02	2.884E-02	2.884E+02	2.884E-01
4.000E-02	3.331E+02	3.331E-02	3.331E+02	3.331E-01
5.000E-02	3.724E+02	3.724E-02	3.724E+02	3.724E-01
6.000E-02	4.080E+02	4.080E-02	4.080E+02	4.080E-01
7.000E-02	4.406E+02	4.406E-02	4.406E+02	4.406E-01
8.000E-02	4.711E+02	4.711E-02	4.711E+02	4.711E-01
9.000E-02	4.995E+02	4.995E-02	4.995E+02	4.995E-01
1.000E-01	5.254E+02	5.254E-02	5.254E+02	5.254E-01
2.000E-01	7.053E+02	7.053E-02	7.053E+02	7.053E-01
3.000E-01	7.796E+02	7.796E-02	7.796E+02	7.796E-01
4.000E-01	8.001E+02	8.001E-02	8.001E+02	8.001E-01
5.000E-01	7.984E+02	7.984E-02	7.984E+02	7.984E-01
6.000E-01	7.868E+02	7.868E-02	7.868E+02	7.868E-01
7.000E-01	7.707E+02	7.707E-02	7.707E+02	7.707E-01
8.000E-01	7.527E+02	7.527E-02	7.527E+02	7.527E-01
9.000E-01	7.341E+02	7.341E-02	7.341E+02	7.341E-01
1.000E+00	7.154E+02	7.154E-02	7.154E+02	7.154E-01
2.000E+00	5.633E+02	5.633E-02	5.633E+02	5.633E-01
3.000E+00	4.655E+02	4.655E-02	4.655E+02	4.655E-01
4.000E+00	3.982E+02	3.982E-02	3.982E+02	3.982E-01
5.000E+00	3.491E+02	3.491E-02	3.491E+02	3.491E-01
6.000E+00	3.114E+02	3.114E-02	3.114E+02	3.114E-01
7.000E+00	2.815E+02	2.815E-02	2.815E+02	2.815E-01
8.000E+00	2.570E+02	2.570E-02	2.570E+02	2.570E-01
9.000E+00	2.366E+02	2.366E-02	2.366E+02	2.366E-01
1.000E+01	2.194E+02	2.194E-02	2.194E+02	2.194E-01
2.000E+01	1.288E+02	1.288E-02	1.288E+02	1.288E-01
3.000E+01	9.307E+01	9.307E-03	9.307E+01	9.307E-02
4.000E+01	7.385E+01	7.385E-03	7.385E+01	7.385E-02
5.000E+01	6.178E+01	6.178E-03	6.178E+01	6.178E-02
6.000E+01	5.348E+01	5.348E-03	5.348E+01	5.348E-02
7.000E+01	4.741E+01	4.741E-03	4.741E+01	4.741E-02
8.000E+01	4.278E+01	4.278E-03	4.278E+01	4.278E-02
9.000E+01	3.911E+01	3.911E-03	3.911E+01	3.911E-02
1.000E+02	3.613E+01	3.613E-03	3.613E+01	3.613E-02
2.000E+02	2.225E+01	2.225E-03	2.225E+01	2.225E-02
3.000E+02	1.745E+01	1.745E-03	1.745E+01	1.745E-02
4.000E+02	1.503E+01	1.503E-03	1.503E+01	1.503E-02
5.000E+02	1.359E+01	1.359E-03	1.359E+01	1.359E-02
6.000E+02	1.267E+01	1.267E-03	1.267E+01	1.267E-02
7.000E+02	1.203E+01	1.203E-03	1.203E+01	1.203E-02
8.000E+02	1.157E+01	1.157E-03	1.157E+01	1.157E-02
9.000E+02	1.122E+01	1.122E-03	1.122E+01	1.122E-02
1.000E+03	1.095E+01	1.095E-03	1.095E+01	1.095E-02
2.000E+03	1.000E+01	1.000E-03	1.000E+01	1.000E-02
3.000E+03	9.926E+00	9.926E-04	9.926E+00	9.926E-03
4.000E+03	1.000E+01	1.000E-03	1.000E+01	1.000E-02
5.000E+03	1.011E+01	1.011E-03	1.011E+01	1.011E-02
6.000E+03	1.022E+01	1.022E-03	1.022E+01	1.022E-02
7.000E+03	1.032E+01	1.032E-03	1.032E+01	1.032E-02
8.000E+03	1.042E+01	1.042E-03	1.042E+01	1.042E-02
9.000E+03	1.051E+01	1.051E-03	1.051E+01	1.051E-02
1.000E+04	1.059E+01	1.059E-03	1.059E+01	1.059E-02

TABLE 138

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: NA Z= 11 A= 22.99

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.588E+02	1.588E-02	1.588E+02	1.588E-01
2.000E-02	2.246E+02	2.246E-02	2.246E+02	2.246E-01
3.000E-02	2.750E+02	2.750E-02	2.750E+02	2.750E-01
4.000E-02	3.176E+02	3.176E-02	3.176E+02	3.176E-01
5.000E-02	3.550E+02	3.550E-02	3.550E+02	3.550E-01
6.000E-02	3.890E+02	3.890E-02	3.890E+02	3.890E-01
7.000E-02	4.201E+02	4.201E-02	4.201E+02	4.201E-01
8.000E-02	4.491E+02	4.491E-02	4.491E+02	4.491E-01
9.000E-02	4.764E+02	4.764E-02	4.764E+02	4.764E-01
1.000E-01	5.014E+02	5.014E-02	5.014E+02	5.014E-01
2.000E-01	6.769E+02	6.769E-02	6.769E+02	6.769E-01
3.000E-01	7.548E+02	7.548E-02	7.548E+02	7.548E-01
4.000E-01	7.796E+02	7.796E-02	7.796E+02	7.796E-01
5.000E-01	7.820E+02	7.820E-02	7.820E+02	7.820E-01
6.000E-01	7.740E+02	7.740E-02	7.740E+02	7.740E-01
7.000E-01	7.611E+02	7.611E-02	7.611E+02	7.611E-01
8.000E-01	7.457E+02	7.457E-02	7.457E+02	7.457E-01
9.000E-01	7.294E+02	7.294E-02	7.294E+02	7.294E-01
1.000E+00	7.128E+02	7.128E-02	7.128E+02	7.128E-01
2.000E+00	5.712E+02	5.712E-02	5.712E+02	5.712E-01
3.000E+00	4.765E+02	4.765E-02	4.765E+02	4.765E-01
4.000E+00	4.102E+02	4.102E-02	4.102E+02	4.102E-01
5.000E+00	3.613E+02	3.613E-02	3.613E+02	3.613E-01
6.000E+00	3.234E+02	3.234E-02	3.234E+02	3.234E-01
7.000E+00	2.933E+02	2.933E-02	2.933E+02	2.933E-01
8.000E+00	2.685E+02	2.685E-02	2.685E+02	2.685E-01
9.000E+00	2.477E+02	2.477E-02	2.477E+02	2.477E-01
1.000E+01	2.301E+02	2.301E-02	2.301E+02	2.301E-01
2.000E+01	1.364E+02	1.364E-02	1.364E+02	1.364E-01
3.000E+01	9.873E+01	9.873E-03	9.873E+01	9.873E-02
4.000E+01	7.839E+01	7.839E-03	7.839E+01	7.839E-02
5.000E+01	6.561E+01	6.561E-03	6.561E+01	6.561E-02
6.000E+01	5.681E+01	5.681E-03	5.681E+01	5.681E-02
7.000E+01	5.036E+01	5.036E-03	5.036E+01	5.036E-02
8.000E+01	4.543E+01	4.543E-03	4.543E+01	4.543E-02
9.000E+01	4.154E+01	4.154E-03	4.154E+01	4.154E-02
1.000E+02	3.838E+01	3.838E-03	3.838E+01	3.838E-02
2.000E+02	2.364E+01	2.364E-03	2.364E+01	2.364E-02
3.000E+02	1.853E+01	1.853E-03	1.853E+01	1.853E-02
4.000E+02	1.596E+01	1.596E-03	1.596E+01	1.596E-02
5.000E+02	1.444E+01	1.444E-03	1.444E+01	1.444E-02
6.000E+02	1.346E+01	1.346E-03	1.346E+01	1.346E-02
7.000E+02	1.277E+01	1.277E-03	1.277E+01	1.277E-02
8.000E+02	1.229E+01	1.229E-03	1.229E+01	1.229E-02
9.000E+02	1.192E+01	1.192E-03	1.192E+01	1.192E-02
1.000E+03	1.163E+01	1.163E-03	1.163E+01	1.163E-02
2.000E+03	1.062E+01	1.062E-03	1.062E+01	1.062E-02
3.000E+03	1.054E+01	1.054E-03	1.054E+01	1.054E-02
4.000E+03	1.062E+01	1.062E-03	1.062E+01	1.062E-02
5.000E+03	1.074E+01	1.074E-03	1.074E+01	1.074E-02
6.000E+03	1.085E+01	1.085E-03	1.085E+01	1.085E-02
7.000E+03	1.097E+01	1.097E-03	1.097E+01	1.097E-02
8.000E+03	1.107E+01	1.107E-03	1.107E+01	1.107E-02
9.000E+03	1.117E+01	1.117E-03	1.117E+01	1.117E-02
1.000E+04	1.125E+01	1.125E-03	1.125E+01	1.125E-02

TABLE 139

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: MG Z= 12 A= 24.32

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.614E+02	1.614E-02	1.614E+02	1.614E-01
2.000E-02	2.283E+02	2.283E-02	2.283E+02	2.283E-01
3.000E-02	2.796E+02	2.796E-02	2.796E+02	2.796E-01
4.000E-02	3.228E+02	3.228E-02	3.228E+02	3.228E-01
5.000E-02	3.608E+02	3.608E-02	3.608E+02	3.608E-01
6.000E-02	3.954E+02	3.954E-02	3.954E+02	3.954E-01
7.000E-02	4.270E+02	4.270E-02	4.270E+02	4.270E-01
8.000E-02	4.564E+02	4.564E-02	4.564E+02	4.564E-01
9.000E-02	4.842E+02	4.842E-02	4.842E+02	4.842E-01
1.000E-01	5.100E+02	5.100E-02	5.100E+02	5.100E-01
2.000E-01	6.919E+02	6.919E-02	6.919E+02	6.919E-01
3.000E-01	7.776E+02	7.776E-02	7.776E+02	7.776E-01
4.000E-01	8.078E+02	8.078E-02	8.078E+02	8.078E-01
5.000E-01	8.141E+02	8.141E-02	8.141E+02	8.141E-01
6.000E-01	8.091E+02	8.091E-02	8.091E+02	8.091E-01
7.000E-01	7.983E+02	7.983E-02	7.983E+02	7.983E-01
8.000E-01	7.846E+02	7.846E-02	7.846E+02	7.846E-01
9.000E-01	7.695E+02	7.695E-02	7.695E+02	7.695E-01
1.000E+00	7.538E+02	7.538E-02	7.538E+02	7.538E-01
2.000E+00	6.139E+02	6.139E-02	6.139E+02	6.139E-01
3.000E+00	5.168E+02	5.168E-02	5.168E+02	5.168E-01
4.000E+00	4.476E+02	4.476E-02	4.476E+02	4.476E-01
5.000E+00	3.959E+02	3.959E-02	3.959E+02	3.959E-01
6.000E+00	3.556E+02	3.556E-02	3.556E+02	3.556E-01
7.000E+00	3.234E+02	3.234E-02	3.234E+02	3.234E-01
8.000E+00	2.967E+02	2.967E-02	2.967E+02	2.967E-01
9.000E+00	2.744E+02	2.744E-02	2.744E+02	2.744E-01
1.000E+01	2.554E+02	2.554E-02	2.554E+02	2.554E-01
2.000E+01	1.529E+02	1.529E-02	1.529E+02	1.529E-01
3.000E+01	1.109E+02	1.109E-02	1.109E+02	1.109E-01
4.000E+01	8.812E+01	8.812E-03	8.812E+01	8.812E-02
5.000E+01	7.379E+01	7.379E-03	7.379E+01	7.379E-02
6.000E+01	6.389E+01	6.389E-03	6.389E+01	6.389E-02
7.000E+01	5.665E+01	5.665E-03	5.665E+01	5.665E-02
8.000E+01	5.111E+01	5.111E-03	5.111E+01	5.111E-02
9.000E+01	4.673E+01	4.673E-03	4.673E+01	4.673E-02
1.000E+02	4.318E+01	4.318E-03	4.318E+01	4.318E-02
2.000E+02	2.660E+01	2.660E-03	2.660E+01	2.660E-02
3.000E+02	2.084E+01	2.084E-03	2.084E+01	2.084E-02
4.000E+02	1.796E+01	1.796E-03	1.796E+01	1.796E-02
5.000E+02	1.625E+01	1.625E-03	1.625E+01	1.625E-02
6.000E+02	1.515E+01	1.515E-03	1.515E+01	1.515E-02
7.000E+02	1.438E+01	1.438E-03	1.438E+01	1.438E-02
8.000E+02	1.383E+01	1.383E-03	1.383E+01	1.383E-02
9.000E+02	1.340E+01	1.340E-03	1.340E+01	1.340E-02
1.000E+03	1.307E+01	1.307E-03	1.307E+01	1.307E-02
2.000E+03	1.196E+01	1.196E-03	1.196E+01	1.196E-02
3.000E+03	1.186E+01	1.186E-03	1.186E+01	1.186E-02
4.000E+03	1.195E+01	1.195E-03	1.195E+01	1.195E-02
5.000E+03	1.208E+01	1.208E-03	1.208E+01	1.208E-02
6.000E+03	1.221E+01	1.221E-03	1.221E+01	1.221E-02
7.000E+03	1.234E+01	1.234E-03	1.234E+01	1.234E-02
8.000E+03	1.246E+01	1.246E-03	1.246E+01	1.246E-02
9.000E+03	1.256E+01	1.256E-03	1.256E+01	1.256E-02
1.000E+04	1.266E+01	1.266E-03	1.266E+01	1.266E-02

TABLE 140

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AL Z= 13 A= 26.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.550E+02	1.550E-02	1.550E+02	1.550E-01
2.000E-02	2.193E+02	2.193E-02	2.193E+02	2.193E-01
3.000E-02	2.685E+02	2.685E-02	2.685E+02	2.685E-01
4.000E-02	3.100E+02	3.100E-02	3.100E+02	3.100E-01
5.000E-02	3.466E+02	3.466E-02	3.466E+02	3.466E-01
6.000E-02	3.797E+02	3.797E-02	3.797E+02	3.797E-01
7.000E-02	4.101E+02	4.101E-02	4.101E+02	4.101E-01
8.000E-02	4.385E+02	4.385E-02	4.385E+02	4.385E-01
9.000E-02	4.650E+02	4.650E-02	4.650E+02	4.650E-01
1.000E-01	4.900E+02	4.900E-02	4.900E+02	4.900E-01
2.000E-01	6.677E+02	6.677E-02	6.677E+02	6.677E-01
3.000E-01	7.557E+02	7.557E-02	7.557E+02	7.557E-01
4.000E-01	7.895E+02	7.895E-02	7.895E+02	7.895E-01
5.000E-01	7.991E+02	7.991E-02	7.991E+02	7.991E-01
6.000E-01	7.970E+02	7.970E-02	7.970E+02	7.970E-01
7.000E-01	7.889E+02	7.889E-02	7.889E+02	7.889E-01
8.000E-01	7.776E+02	7.776E-02	7.776E+02	7.776E-01
9.000E-01	7.646E+02	7.646E-02	7.646E+02	7.646E-01
1.000E+00	7.507E+02	7.507E-02	7.507E+02	7.507E-01
2.000E+00	6.208E+02	6.208E-02	6.208E+02	6.208E-01
3.000E+00	5.270E+02	5.270E-02	5.270E+02	5.270E-01
4.000E+00	4.591E+02	4.591E-02	4.591E+02	4.591E-01
5.000E+00	4.077E+02	4.077E-02	4.077E+02	4.077E-01
6.000E+00	3.674E+02	3.674E-02	3.674E+02	3.674E-01
7.000E+00	3.350E+02	3.350E-02	3.350E+02	3.350E-01
8.000E+00	3.080E+02	3.080E-02	3.080E+02	3.080E-01
9.000E+00	2.855E+02	2.855E-02	2.855E+02	2.855E-01
1.000E+01	2.661E+02	2.661E-02	2.661E+02	2.661E-01
2.000E+01	1.608E+02	1.608E-02	1.608E+02	1.608E-01
3.000E+01	1.170E+02	1.170E-02	1.170E+02	1.170E-01
4.000E+01	9.307E+01	9.307E-03	9.307E+01	9.307E-02
5.000E+01	7.796E+01	7.796E-03	7.796E+01	7.796E-02
6.000E+01	6.752E+01	6.752E-03	6.752E+01	6.752E-02
7.000E+01	5.988E+01	5.988E-03	5.988E+01	5.988E-02
8.000E+01	5.402E+01	5.402E-03	5.402E+01	5.402E-02
9.000E+01	4.940E+01	4.940E-03	4.940E+01	4.940E-02
1.000E+02	4.564E+01	4.564E-03	4.564E+01	4.564E-02
2.000E+02	2.811E+01	2.811E-03	2.811E+01	2.811E-02
3.000E+02	2.204E+01	2.204E-03	2.204E+01	2.204E-02
4.000E+02	1.899E+01	1.899E-03	1.899E+01	1.899E-02
5.000E+02	1.718E+01	1.718E-03	1.718E+01	1.718E-02
6.000E+02	1.601E+01	1.601E-03	1.601E+01	1.601E-02
7.000E+02	1.520E+01	1.520E-03	1.520E+01	1.520E-02
8.000E+02	1.461E+01	1.461E-03	1.461E+01	1.461E-02
9.000E+02	1.417E+01	1.417E-03	1.417E+01	1.417E-02
1.000E+03	1.383E+01	1.383E-03	1.383E+01	1.383E-02
2.000E+03	1.264E+01	1.264E-03	1.264E+01	1.264E-02
3.000E+03	1.254E+01	1.254E-03	1.254E+01	1.254E-02
4.000E+03	1.263E+01	1.263E-03	1.263E+01	1.263E-02
5.000E+03	1.277E+01	1.277E-03	1.277E+01	1.277E-02
6.000E+03	1.290E+01	1.290E-03	1.290E+01	1.290E-02
7.000E+03	1.304E+01	1.304E-03	1.304E+01	1.304E-02
8.000E+03	1.316E+01	1.316E-03	1.316E+01	1.316E-02
9.000E+03	1.328E+01	1.328E-03	1.328E+01	1.328E-02
1.000E+04	1.338E+01	1.338E-03	1.338E+01	1.338E-02

TABLE 141

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: SI Z= 14 A= 28.09

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.577E+02	1.577E-02	1.577E+02	1.577E-01
2.000E-02	2.231E+02	2.231E-02	2.231E+02	2.231E-01
3.000E-02	2.732E+02	2.732E-02	2.732E+02	2.732E-01
4.000E-02	3.154E+02	3.154E-02	3.154E+02	3.154E-01
5.000E-02	3.527E+02	3.527E-02	3.527E+02	3.527E-01
6.000E-02	3.863E+02	3.863E-02	3.863E+02	3.863E-01
7.000E-02	4.173E+02	4.173E-02	4.173E+02	4.173E-01
8.000E-02	4.461E+02	4.461E-02	4.461E+02	4.461E-01
9.000E-02	4.731E+02	4.731E-02	4.731E+02	4.731E-01
1.000E-01	4.988E+02	4.988E-02	4.988E+02	4.988E-01
2.000E-01	6.823E+02	6.823E-02	6.823E+02	6.823E-01
3.000E-01	7.773E+02	7.773E-02	7.773E+02	7.773E-01
4.000E-01	8.161E+02	8.161E-02	8.161E+02	8.161E-01
5.000E-01	8.296E+02	8.296E-02	8.296E+02	8.296E-01
6.000E-01	8.303E+02	8.303E-02	8.303E+02	8.303E-01
7.000E-01	8.243E+02	8.243E-02	8.243E+02	8.243E-01
8.000E-01	8.146E+02	8.146E-02	8.146E+02	8.146E-01
9.000E-01	8.028E+02	8.028E-02	8.028E+02	8.028E-01
1.000E+00	7.899E+02	7.899E-02	7.899E+02	7.899E-01
2.000E+00	6.624E+02	6.624E-02	6.624E+02	6.624E-01
3.000E+00	5.669E+02	5.669E-02	5.669E+02	5.669E-01
4.000E+00	4.965E+02	4.965E-02	4.965E+02	4.965E-01
5.000E+00	4.428E+02	4.428E-02	4.428E+02	4.428E-01
6.000E+00	4.003E+02	4.003E-02	4.003E+02	4.003E-01
7.000E+00	3.657E+02	3.657E-02	3.657E+02	3.657E-01
8.000E+00	3.371E+02	3.371E-02	3.371E+02	3.371E-01
9.000E+00	3.130E+02	3.130E-02	3.130E+02	3.130E-01
1.000E+01	2.923E+02	2.923E-02	2.923E+02	2.923E-01
2.000E+01	1.784E+02	1.784E-02	1.784E+02	1.784E-01
3.000E+01	1.302E+02	1.302E-02	1.302E+02	1.302E-01
4.000E+01	1.036E+02	1.036E-02	1.036E+02	1.036E-01
5.000E+01	8.685E+01	8.685E-03	8.685E+01	8.685E-02
6.000E+01	7.524E+01	7.524E-03	7.524E+01	7.524E-02
7.000E+01	6.674E+01	6.674E-03	6.674E+01	6.674E-02
8.000E+01	6.022E+01	6.022E-03	6.022E+01	6.022E-02
9.000E+01	5.507E+01	5.507E-03	5.507E+01	5.507E-02
1.000E+02	5.088E+01	5.088E-03	5.088E+01	5.088E-02
2.000E+02	3.134E+01	3.134E-03	3.134E+01	3.134E-02
3.000E+02	2.456E+01	2.456E-03	2.456E+01	2.456E-02
4.000E+02	2.116E+01	2.116E-03	2.116E+01	2.116E-02
5.000E+02	1.915E+01	1.915E-03	1.915E+01	1.915E-02
6.000E+02	1.784E+01	1.784E-03	1.784E+01	1.784E-02
7.000E+02	1.694E+01	1.694E-03	1.694E+01	1.694E-02
8.000E+02	1.629E+01	1.629E-03	1.629E+01	1.629E-02
9.000E+02	1.580E+01	1.580E-03	1.580E+01	1.580E-02
1.000E+03	1.541E+01	1.541E-03	1.541E+01	1.541E-02
2.000E+03	1.409E+01	1.409E-03	1.409E+01	1.409E-02
3.000E+03	1.397E+01	1.397E-03	1.397E+01	1.397E-02
4.000E+03	1.409E+01	1.409E-03	1.409E+01	1.409E-02
5.000E+03	1.423E+01	1.423E-03	1.423E+01	1.423E-02
6.000E+03	1.439E+01	1.439E-03	1.439E+01	1.439E-02
7.000E+03	1.454E+01	1.454E-03	1.454E+01	1.454E-02
8.000E+03	1.468E+01	1.468E-03	1.468E+01	1.468E-02
9.000E+03	1.481E+01	1.481E-03	1.481E+01	1.481E-02
1.000E+04	1.492E+01	1.492E-03	1.492E+01	1.492E-02

TABLE 142

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: P Z= 15 A= 30.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.505E+02	1.505E-02	1.505E+02	1.505E-01
2.000E-02	2.129E+02	2.129E-02	2.129E+02	2.129E-01
3.000E-02	2.607E+02	2.607E-02	2.607E+02	2.607E-01
4.000E-02	3.010E+02	3.010E-02	3.010E+02	3.010E-01
5.000E-02	3.366E+02	3.366E-02	3.366E+02	3.366E-01
6.000E-02	3.687E+02	3.687E-02	3.687E+02	3.687E-01
7.000E-02	3.982E+02	3.982E-02	3.982E+02	3.982E-01
8.000E-02	4.257E+02	4.257E-02	4.257E+02	4.257E-01
9.000E-02	4.516E+02	4.516E-02	4.516E+02	4.516E-01
1.000E-01	4.761E+02	4.761E-02	4.761E+02	4.761E-01
2.000E-01	6.536E+02	6.536E-02	6.536E+02	6.536E-01
3.000E-01	7.492E+02	7.492E-02	7.492E+02	7.492E-01
4.000E-01	7.904E+02	7.904E-02	7.904E+02	7.904E-01
5.000E-01	8.065E+02	8.065E-02	8.065E+02	8.065E-01
6.000E-01	8.093E+02	8.098E-02	8.093E+02	8.098E-01
7.000E-01	8.062E+02	8.062E-02	8.062E+02	8.062E-01
8.000E-01	7.986E+02	7.986E-02	7.986E+02	7.986E-01
9.000E-01	7.887E+02	7.887E-02	7.887E+02	7.887E-01
1.000E+00	7.776E+02	7.776E-02	7.776E+02	7.776E-01
2.000E+00	6.608E+02	6.608E-02	6.608E+02	6.608E-01
3.000E+00	5.699E+02	5.699E-02	5.699E+02	5.699E-01
4.000E+00	5.017E+02	5.017E-02	5.017E+02	5.017E-01
5.000E+00	4.491E+02	4.491E-02	4.491E+02	4.491E-01
6.000E+00	4.071E+02	4.071E-02	4.071E+02	4.071E-01
7.000E+00	3.729E+02	3.729E-02	3.729E+02	3.729E-01
8.000E+00	3.445E+02	3.445E-02	3.445E+02	3.445E-01
9.000E+00	3.204E+02	3.204E-02	3.204E+02	3.204E-01
1.000E+01	2.996E+02	2.996E-02	2.996E+02	2.996E-01
2.000E+01	1.846E+02	1.846E-02	1.846E+02	1.846E-01
3.000E+01	1.352E+02	1.352E-02	1.352E+02	1.352E-01
4.000E+01	1.077E+02	1.077E-02	1.077E+02	1.077E-01
5.000E+01	9.035E+01	9.035E-03	9.035E+01	9.035E-02
6.000E+01	7.829E+01	7.829E-03	7.829E+01	7.829E-02
7.000E+01	6.945E+01	6.945E-03	6.945E+01	6.945E-02
8.000E+01	6.268E+01	6.268E-03	6.268E+01	6.268E-02
9.000E+01	5.732E+01	5.732E-03	5.732E+01	5.732E-02
1.000E+02	5.297E+01	5.297E-03	5.297E+01	5.297E-02
2.000E+02	3.263E+01	3.263E-03	3.263E+01	3.263E-02
3.000E+02	2.557E+01	2.557E-03	2.557E+01	2.557E-02
4.000E+02	2.203E+01	2.203E-03	2.203E+01	2.203E-02
5.000E+02	1.994E+01	1.994E-03	1.994E+01	1.994E-02
6.000E+02	1.858E+01	1.858E-03	1.858E+01	1.858E-02
7.000E+02	1.764E+01	1.764E-03	1.764E+01	1.764E-02
8.000E+02	1.696E+01	1.696E-03	1.696E+01	1.696E-02
9.000E+02	1.644E+01	1.644E-03	1.644E+01	1.644E-02
1.000E+03	1.604E+01	1.604E-03	1.604E+01	1.604E-02
2.000E+03	1.467E+01	1.467E-03	1.467E+01	1.467E-02
3.000E+03	1.456E+01	1.456E-03	1.456E+01	1.456E-02
4.000E+03	1.466E+01	1.466E-03	1.466E+01	1.466E-02
5.000E+03	1.482E+01	1.482E-03	1.482E+01	1.482E-02
6.000E+03	1.498E+01	1.498E-03	1.498E+01	1.498E-02
7.000E+03	1.513E+01	1.513E-03	1.513E+01	1.513E-02
8.000E+03	1.528E+01	1.528E-03	1.528E+01	1.528E-02
9.000E+03	1.541E+01	1.541E-03	1.541E+01	1.541E-02
1.000E+04	1.553E+01	1.553E-03	1.553E+01	1.553E-02

TABLE 143

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: S Z= 16 A= 32.07

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.522E+02	1.522E-02	1.522E+02	1.522E-01
2.000E-02	2.153E+02	2.153E-02	2.153E+02	2.153E-01
3.000E-02	2.637E+02	2.637E-02	2.637E+02	2.637E-01
4.000E-02	3.044E+02	3.044E-02	3.044E+02	3.044E-01
5.000E-02	3.404E+02	3.404E-02	3.404E+02	3.404E-01
6.000E-02	3.729E+02	3.729E-02	3.729E+02	3.729E-01
7.000E-02	4.028E+02	4.028E-02	4.028E+02	4.028E-01
8.000E-02	4.305E+02	4.305E-02	4.305E+02	4.305E-01
9.000E-02	4.567E+02	4.567E-02	4.567E+02	4.567E-01
1.000E-01	4.814E+02	4.814E-02	4.814E+02	4.814E-01
2.000E-01	6.631E+02	6.631E-02	6.631E+02	6.631E-01
3.000E-01	7.646E+02	7.646E-02	7.646E+02	7.646E-01
4.000E-01	8.104E+02	8.104E-02	8.104E+02	8.104E-01
5.000E-01	8.298E+02	8.298E-02	8.298E+02	8.298E-01
6.000E-01	8.358E+02	8.358E-02	8.358E+02	8.358E-01
7.000E-01	8.341E+02	8.341E-02	8.341E+02	8.341E-01
8.000E-01	8.282E+02	8.282E-02	8.282E+02	8.282E-01
9.000E-01	8.197E+02	8.197E-02	8.197E+02	8.197E-01
1.000E+00	8.096E+02	8.096E-02	8.096E+02	8.096E-01
2.000E+00	6.966E+02	6.966E-02	6.966E+02	6.966E-01
3.000E+00	6.051E+02	6.051E-02	6.051E+02	6.051E-01
4.000E+00	5.354E+02	5.354E-02	5.354E+02	5.354E-01
5.000E+00	4.810E+02	4.810E-02	4.810E+02	4.810E-01
6.000E+00	4.373E+02	4.373E-02	4.373E+02	4.373E-01
7.000E+00	4.015E+02	4.015E-02	4.015E+02	4.015E-01
8.000E+00	3.716E+02	3.716E-02	3.716E+02	3.716E-01
9.000E+00	3.461E+02	3.461E-02	3.461E+02	3.461E-01
1.000E+01	3.242E+02	3.242E-02	3.242E+02	3.242E-01
2.000E+01	2.014E+02	2.014E-02	2.014E+02	2.014E-01
3.000E+01	1.481E+02	1.481E-02	1.481E+02	1.481E-01
4.000E+01	1.183E+02	1.183E-02	1.183E+02	1.183E-01
5.000E+01	9.922E+01	9.922E-03	9.922E+01	9.922E-02
6.000E+01	8.600E+01	8.600E-03	8.600E+01	8.600E-02
7.000E+01	7.630E+01	7.630E-03	7.630E+01	7.630E-02
8.000E+01	6.887E+01	6.887E-03	6.887E+01	6.887E-02
9.000E+01	6.299E+01	6.299E-03	6.299E+01	6.299E-02
1.000E+02	5.820E+01	5.820E-03	5.820E+01	5.820E-02
2.000E+02	3.586E+01	3.586E-03	3.586E+01	3.586E-02
3.000E+02	2.811E+01	2.811E-03	2.811E+01	2.811E-02
4.000E+02	2.421E+01	2.421E-03	2.421E+01	2.421E-02
5.000E+02	2.191E+01	2.191E-03	2.191E+01	2.191E-02
6.000E+02	2.042E+01	2.042E-03	2.042E+01	2.042E-02
7.000E+02	1.938E+01	1.938E-03	1.938E+01	1.938E-02
8.000E+02	1.864E+01	1.864E-03	1.864E+01	1.864E-02
9.000E+02	1.808E+01	1.808E-03	1.808E+01	1.808E-02
1.000E+03	1.763E+01	1.763E-03	1.763E+01	1.763E-02
2.000E+03	1.611E+01	1.611E-03	1.611E+01	1.611E-02
3.000E+03	1.599E+01	1.599E-03	1.599E+01	1.599E-02
4.000E+03	1.611E+01	1.611E-03	1.611E+01	1.611E-02
5.000E+03	1.629E+01	1.629E-03	1.629E+01	1.629E-02
6.000E+03	1.646E+01	1.646E-03	1.646E+01	1.646E-02
7.000E+03	1.664E+01	1.664E-03	1.664E+01	1.664E-02
8.000E+03	1.679E+01	1.679E-03	1.679E+01	1.679E-02
9.000E+03	1.693E+01	1.693E-03	1.693E+01	1.693E-02
1.000E+04	1.707E+01	1.707E-03	1.707E+01	1.707E-02

TABLE 144

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CL Z= 17 A= 35.46

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.435E+02	1.435E-02	1.435E+02	1.435E-01
2.000E-02	2.030E+02	2.030E-02	2.030E+02	2.030E-01
3.000E-02	2.485E+02	2.485E-02	2.485E+02	2.485E-01
4.000E-02	2.870E+02	2.870E-02	2.870E+02	2.870E-01
5.000E-02	3.209E+02	3.209E-02	3.209E+02	3.209E-01
6.000E-02	3.515E+02	3.515E-02	3.515E+02	3.515E-01
7.000E-02	3.796E+02	3.796E-02	3.796E+02	3.796E-01
8.000E-02	4.058E+02	4.058E-02	4.058E+02	4.058E-01
9.000E-02	4.304E+02	4.304E-02	4.304E+02	4.304E-01
1.000E-01	4.538E+02	4.538E-02	4.538E+02	4.538E-01
2.000E-01	6.269E+02	6.269E-02	6.269E+02	6.269E-01
3.000E-01	7.270E+02	7.270E-02	7.270E+02	7.270E-01
4.000E-01	7.738E+02	7.738E-02	7.738E+02	7.738E-01
5.000E-01	7.952E+02	7.952E-02	7.952E+02	7.952E-01
6.000E-01	8.031E+02	8.031E-02	8.031E+02	8.031E-01
7.000E-01	8.035E+02	8.035E-02	8.035E+02	8.035E-01
8.000E-01	7.994E+02	7.994E-02	7.994E+02	7.994E-01
9.000E-01	7.927E+02	7.927E-02	7.927E+02	7.927E-01
1.000E+00	7.842E+02	7.842E-02	7.842E+02	7.842E-01
2.000E+00	6.828E+02	6.828E-02	6.828E+02	6.828E-01
3.000E+00	5.973E+02	5.973E-02	5.973E+02	5.973E-01
4.000E+00	5.308E+02	5.308E-02	5.308E+02	5.308E-01
5.000E+00	4.786E+02	4.786E-02	4.786E+02	4.786E-01
6.000E+00	4.363E+02	4.363E-02	4.363E+02	4.363E-01
7.000E+00	4.016E+02	4.016E-02	4.016E+02	4.016E-01
8.000E+00	3.722E+02	3.722E-02	3.722E+02	3.722E-01
9.000E+00	3.473E+02	3.473E-02	3.473E+02	3.473E-01
1.000E+01	3.257E+02	3.257E-02	3.257E+02	3.257E-01
2.000E+01	2.042E+02	2.042E-02	2.042E+02	2.042E-01
3.000E+01	1.507E+02	1.507E-02	1.507E+02	1.507E-01
4.000E+01	1.204E+02	1.204E-02	1.204E+02	1.204E-01
5.000E+01	1.012E+02	1.012E-02	1.012E+02	1.012E-01
6.000E+01	8.774E+01	8.774E-03	8.774E+01	8.774E-02
7.000E+01	7.787E+01	7.787E-03	7.787E+01	7.787E-02
8.000E+01	7.030E+01	7.030E-03	7.030E+01	7.030E-02
9.000E+01	6.430E+01	6.430E-03	6.430E+01	6.430E-02
1.000E+02	5.942E+01	5.942E-03	5.942E+01	5.942E-02
2.000E+02	3.662E+01	3.662E-03	3.662E+01	3.662E-02
3.000E+02	2.870E+01	2.870E-03	2.870E+01	2.870E-02
4.000E+02	2.472E+01	2.472E-03	2.472E+01	2.472E-02
5.000E+02	2.237E+01	2.237E-03	2.237E+01	2.237E-02
6.000E+02	2.084E+01	2.084E-03	2.084E+01	2.084E-02
7.000E+02	1.979E+01	1.979E-03	1.979E+01	1.979E-02
8.000E+02	1.903E+01	1.903E-03	1.903E+01	1.903E-02
9.000E+02	1.845E+01	1.845E-03	1.845E+01	1.845E-02
1.000E+03	1.800E+01	1.800E-03	1.800E+01	1.800E-02
2.000E+03	1.646E+01	1.646E-03	1.646E+01	1.646E-02
3.000E+03	1.632E+01	1.632E-03	1.632E+01	1.632E-02
4.000E+03	1.645E+01	1.645E-03	1.645E+01	1.645E-02
5.000E+03	1.663E+01	1.663E-03	1.663E+01	1.663E-02
6.000E+03	1.680E+01	1.680E-03	1.680E+01	1.680E-02
7.000E+03	1.698E+01	1.698E-03	1.698E+01	1.698E-02
8.000E+03	1.715E+01	1.715E-03	1.715E+01	1.715E-02
9.000E+03	1.729E+01	1.729E-03	1.729E+01	1.729E-02
1.000E+04	1.743E+01	1.743E-03	1.743E+01	1.743E-02

TABLE 145

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AR Z= 18 A= 39.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.324E+02	1.324E-02	1.324E+02	1.324E-01
2.000E-02	1.872E+02	1.872E-02	1.872E+02	1.872E-01
3.000E-02	2.292E+02	2.292E-02	2.292E+02	2.292E-01
4.000E-02	2.647E+02	2.647E-02	2.647E+02	2.647E-01
5.000E-02	2.960E+02	2.960E-02	2.960E+02	2.960E-01
6.000E-02	3.242E+02	3.242E-02	3.242E+02	3.242E-01
7.000E-02	3.503E+02	3.503E-02	3.503E+02	3.503E-01
8.000E-02	3.744E+02	3.744E-02	3.744E+02	3.744E-01
9.000E-02	3.971E+02	3.971E-02	3.971E+02	3.971E-01
1.000E-01	4.185E+02	4.185E-02	4.185E+02	4.185E-01
2.000E-01	5.800E+02	5.800E-02	5.800E+02	5.800E-01
3.000E-01	6.755E+02	6.755E-02	6.755E+02	6.755E-01
4.000E-01	7.220E+02	7.220E-02	7.220E+02	7.220E-01
5.000E-01	7.442E+02	7.442E-02	7.442E+02	7.442E-01
6.000E-01	7.537E+02	7.537E-02	7.537E+02	7.537E-01
7.000E-01	7.558E+02	7.558E-02	7.558E+02	7.558E-01
8.000E-01	7.536E+02	7.536E-02	7.536E+02	7.536E-01
9.000E-01	7.485E+02	7.485E-02	7.485E+02	7.485E-01
1.000E+00	7.418E+02	7.418E-02	7.418E+02	7.418E-01
2.000E+00	6.530E+02	6.530E-02	6.530E+02	6.530E-01
3.000E+00	5.748E+02	5.748E-02	5.748E+02	5.748E-01
4.000E+00	5.133E+02	5.133E-02	5.133E+02	5.133E-01
5.000E+00	4.643E+02	4.643E-02	4.643E+02	4.643E-01
6.000E+00	4.244E+02	4.244E-02	4.244E+02	4.244E-01
7.000E+00	3.914E+02	3.914E-02	3.914E+02	3.914E-01
8.000E+00	3.635E+02	3.635E-02	3.635E+02	3.635E-01
9.000E+00	3.397E+02	3.397E-02	3.397E+02	3.397E-01
1.000E+01	3.190E+02	3.190E-02	3.190E+02	3.190E-01
2.000E+01	2.016E+02	2.016E-02	2.016E+02	2.016E-01
3.000E+01	1.494E+02	1.494E-02	1.494E+02	1.494E-01
4.000E+01	1.197E+02	1.197E-02	1.197E+02	1.197E-01
5.000E+01	1.006E+02	1.006E-02	1.006E+02	1.006E-01
6.000E+01	8.725E+01	8.725E-03	8.725E+01	8.725E-02
7.000E+01	7.745E+01	7.745E-03	7.745E+01	7.745E-02
8.000E+01	6.993E+01	6.993E-03	6.993E+01	6.993E-02
9.000E+01	6.396E+01	6.396E-03	6.396E+01	6.396E-02
1.000E+02	5.912E+01	5.912E-03	5.912E+01	5.912E-02
2.000E+02	3.643E+01	3.643E-03	3.643E+01	3.643E-02
3.000E+02	2.855E+01	2.855E-03	2.855E+01	2.855E-02
4.000E+02	2.460E+01	2.460E-03	2.460E+01	2.460E-02
5.000E+02	2.226E+01	2.226E-03	2.226E+01	2.226E-02
6.000E+02	2.074E+01	2.074E-03	2.074E+01	2.074E-02
7.000E+02	1.970E+01	1.970E-03	1.970E+01	1.970E-02
8.000E+02	1.894E+01	1.894E-03	1.894E+01	1.894E-02
9.000E+02	1.836E+01	1.836E-03	1.836E+01	1.836E-02
1.000E+03	1.791E+01	1.791E-03	1.791E+01	1.791E-02
2.000E+03	1.638E+01	1.638E-03	1.638E+01	1.638E-02
3.000E+03	1.626E+01	1.626E-03	1.626E+01	1.626E-02
4.000E+03	1.637E+01	1.637E-03	1.637E+01	1.637E-02
5.000E+03	1.655E+01	1.655E-03	1.655E+01	1.655E-02
6.000E+03	1.672E+01	1.672E-03	1.672E+01	1.672E-02
7.000E+03	1.690E+01	1.690E-03	1.690E+01	1.690E-02
8.000E+03	1.706E+01	1.706E-03	1.706E+01	1.706E-02
9.000E+03	1.721E+01	1.721E-03	1.721E+01	1.721E-02
1.000E+04	1.734E+01	1.734E-03	1.734E+01	1.734E-02

TABLE 146

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: K Z= 19 A= 39.10

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.401E+02	1.401E-02	1.401E+02	1.401E-01
2.000E-02	1.982E+02	1.982E-02	1.982E+02	1.982E-01
3.000E-02	2.427E+02	2.427E-02	2.427E+02	2.427E-01
4.000E-02	2.803E+02	2.803E-02	2.803E+02	2.803E-01
5.000E-02	3.133E+02	3.133E-02	3.133E+02	3.133E-01
6.000E-02	3.433E+02	3.433E-02	3.433E+02	3.433E-01
7.000E-02	3.708E+02	3.708E-02	3.708E+02	3.708E-01
8.000E-02	3.963E+02	3.963E-02	3.963E+02	3.963E-01
9.000E-02	4.204E+02	4.204E-02	4.204E+02	4.204E-01
1.000E-01	4.432E+02	4.432E-02	4.432E+02	4.432E-01
2.000E-01	6.155E+02	6.155E-02	6.155E+02	6.155E-01
3.000E-01	7.197E+02	7.197E-02	7.197E+02	7.197E-01
4.000E-01	7.722E+02	7.722E-02	7.722E+02	7.722E-01
5.000E-01	7.985E+02	7.985E-02	7.985E+02	7.985E-01
6.000E-01	8.107E+02	8.107E-02	8.107E+02	8.107E-01
7.000E-01	8.147E+02	8.147E-02	8.147E+02	8.147E-01
8.000E-01	8.138E+02	8.138E-02	8.138E+02	8.138E-01
9.000E-01	8.098E+02	8.098E-02	8.098E+02	8.098E-01
1.000E+00	8.037E+02	8.037E-02	8.037E+02	8.037E-01
2.000E+00	7.149E+02	7.149E-02	7.149E+02	7.149E-01
3.000E+00	6.333E+02	6.333E-02	6.333E+02	6.333E-01
4.000E+00	5.680E+02	5.680E-02	5.680E+02	5.680E-01
5.000E+00	5.154E+02	5.154E-02	5.154E+02	5.154E-01
6.000E+00	4.723E+02	4.723E-02	4.723E+02	4.723E-01
7.000E+00	4.364E+02	4.364E-02	4.364E+02	4.364E-01
8.000E+00	4.061E+02	4.061E-02	4.061E+02	4.061E-01
9.000E+00	3.800E+02	3.800E-02	3.800E+02	3.800E-01
1.000E+01	3.573E+02	3.573E-02	3.573E+02	3.573E-01
2.000E+01	2.277E+02	2.277E-02	2.277E+02	2.277E-01
3.000E+01	1.693E+02	1.693E-02	1.693E+02	1.693E-01
4.000E+01	1.359E+02	1.359E-02	1.359E+02	1.359E-01
5.000E+01	1.143E+02	1.143E-02	1.143E+02	1.143E-01
6.000E+01	9.923E+01	9.923E-03	9.923E+01	9.923E-02
7.000E+01	8.811E+01	8.811E-03	8.811E+01	8.811E-02
8.000E+01	7.957E+01	7.957E-03	7.957E+01	7.957E-02
9.000E+01	7.279E+01	7.279E-03	7.279E+01	7.279E-02
1.000E+02	6.728E+01	6.728E-03	6.728E+01	6.728E-02
2.000E+02	4.147E+01	4.147E-03	4.147E+01	4.147E-02
3.000E+02	3.250E+01	3.250E-03	3.250E+01	3.250E-02
4.000E+02	2.800E+01	2.800E-03	2.800E+01	2.800E-02
5.000E+02	2.534E+01	2.534E-03	2.534E+01	2.534E-02
6.000E+02	2.361E+01	2.361E-03	2.361E+01	2.361E-02
7.000E+02	2.242E+01	2.242E-03	2.242E+01	2.242E-02
8.000E+02	2.156E+01	2.156E-03	2.156E+01	2.156E-02
9.000E+02	2.090E+01	2.090E-03	2.090E+01	2.090E-02
1.000E+03	2.039E+01	2.039E-03	2.039E+01	2.039E-02
2.000E+03	1.864E+01	1.864E-03	1.864E+01	1.864E-02
3.000E+03	1.850E+01	1.850E-03	1.850E+01	1.850E-02
4.000E+03	1.863E+01	1.863E-03	1.863E+01	1.863E-02
5.000E+03	1.884E+01	1.884E-03	1.884E+01	1.884E-02
6.000E+03	1.904E+01	1.904E-03	1.904E+01	1.904E-02
7.000E+03	1.923E+01	1.923E-03	1.923E+01	1.923E-02
8.000E+03	1.942E+01	1.942E-03	1.942E+01	1.942E-02
9.000E+03	1.959E+01	1.959E-03	1.959E+01	1.959E-02
1.000E+04	1.974E+01	1.974E-03	1.974E+01	1.974E-02

TABLE 147

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CA Z= 20 A= 40.08

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.412E+02	1.412E-02	1.412E+02	1.412E-01
2.000E-02	1.998E+02	1.998E-02	1.998E+02	1.998E-01
3.000E-02	2.447E+02	2.447E-02	2.447E+02	2.447E-01
4.000E-02	2.825E+02	2.825E-02	2.825E+02	2.825E-01
5.000E-02	3.159E+02	3.159E-02	3.159E+02	3.159E-01
6.000E-02	3.460E+02	3.460E-02	3.460E+02	3.460E-01
7.000E-02	3.737E+02	3.737E-02	3.737E+02	3.737E-01
8.000E-02	3.995E+02	3.995E-02	3.995E+02	3.995E-01
9.000E-02	4.237E+02	4.237E-02	4.237E+02	4.237E-01
1.000E-01	4.466E+02	4.466E-02	4.466E+02	4.466E-01
2.000E-01	6.218E+02	6.218E-02	6.218E+02	6.218E-01
3.000E-01	7.299E+02	7.298E-02	7.299E+02	7.299E-01
4.000E-01	7.859E+02	7.859E-02	7.859E+02	7.859E-01
5.000E-01	8.151E+02	8.151E-02	8.151E+02	8.151E-01
6.000E-01	8.295E+02	8.295E-02	8.295E+02	8.295E-01
7.000E-01	8.354E+02	8.354E-02	8.354E+02	8.354E-01
8.000E-01	8.359E+02	8.359E-02	8.359E+02	8.359E-01
9.000E-01	8.331E+02	8.331E-02	8.331E+02	8.331E-01
1.000E+00	8.281E+02	8.281E-02	8.281E+02	8.281E-01
2.000E+00	7.440E+02	7.440E-02	7.440E+02	7.440E-01
3.000E+00	6.630E+02	6.630E-02	6.630E+02	6.630E-01
4.000E+00	5.970E+02	5.970E-02	5.970E+02	5.970E-01
5.000E+00	5.434E+02	5.434E-02	5.434E+02	5.434E-01
6.000E+00	4.993E+02	4.993E-02	4.993E+02	4.993E-01
7.000E+00	4.623E+02	4.623E-02	4.623E+02	4.623E-01
8.000E+00	4.307E+02	4.307E-02	4.307E+02	4.307E-01
9.000E+00	4.037E+02	4.037E-02	4.037E+02	4.037E-01
1.000E+01	3.801E+02	3.801E-02	3.801E+02	3.801E-01
2.000E+01	2.441E+02	2.441E-02	2.441E+02	2.441E-01
3.000E+01	1.822E+02	1.822E-02	1.822E+02	1.822E-01
4.000E+01	1.466E+02	1.466E-02	1.466E+02	1.466E-01
5.000E+01	1.233E+02	1.233E-02	1.233E+02	1.233E-01
6.000E+01	1.071E+02	1.071E-02	1.071E+02	1.071E-01
7.000E+01	9.518E+01	9.518E-03	9.518E+01	9.518E-02
8.000E+01	8.596E+01	8.596E-03	8.596E+01	8.596E-02
9.000E+01	7.866E+01	7.866E-03	7.866E+01	7.866E-02
1.000E+02	7.271E+01	7.271E-03	7.271E+01	7.271E-02
2.000E+02	4.483E+01	4.483E-03	4.483E+01	4.483E-02
3.000E+02	3.513E+01	3.513E-03	3.513E+01	3.513E-02
4.000E+02	3.027E+01	3.027E-03	3.027E+01	3.027E-02
5.000E+02	2.739E+01	2.739E-03	2.739E+01	2.739E-02
6.000E+02	2.552E+01	2.552E-03	2.552E+01	2.552E-02
7.000E+02	2.423E+01	2.423E-03	2.423E+01	2.423E-02
8.000E+02	2.331E+01	2.331E-03	2.331E+01	2.331E-02
9.000E+02	2.259E+01	2.259E-03	2.259E+01	2.259E-02
1.000E+03	2.204E+01	2.204E-03	2.204E+01	2.204E-02
2.000E+03	2.014E+01	2.014E-03	2.014E+01	2.014E-02
3.000E+03	1.999E+01	1.999E-03	1.999E+01	1.999E-02
4.000E+03	2.014E+01	2.014E-03	2.014E+01	2.014E-02
5.000E+03	2.036E+01	2.036E-03	2.036E+01	2.036E-02
6.000E+03	2.058E+01	2.058E-03	2.058E+01	2.058E-02
7.000E+03	2.079E+01	2.079E-03	2.079E+01	2.079E-02
8.000E+03	2.099E+01	2.099E-03	2.099E+01	2.099E-02
9.000E+03	2.117E+01	2.117E-03	2.117E+01	2.117E-02
1.000E+04	2.134E+01	2.134E-03	2.134E+01	2.134E-02

TABLE 148

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: SC Z= 21 A= 44.96

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.298E+02	1.298E-02	1.298E+02	1.298E-01
2.000E-02	1.835E+02	1.835E-02	1.835E+02	1.835E-01
3.000E-02	2.248E+02	2.248E-02	2.248E+02	2.248E-01
4.000E-02	2.595E+02	2.595E-02	2.595E+02	2.595E-01
5.000E-02	2.902E+02	2.902E-02	2.902E+02	2.902E-01
6.000E-02	3.178E+02	3.178E-02	3.178E+02	3.178E-01
7.000E-02	3.433E+02	3.433E-02	3.433E+02	3.433E-01
8.000E-02	3.670E+02	3.670E-02	3.670E+02	3.670E-01
9.000E-02	3.893E+02	3.893E-02	3.893E+02	3.893E-01
1.000E-01	4.104E+02	4.104E-02	4.104E+02	4.104E-01
2.000E-01	5.725E+02	5.725E-02	5.725E+02	5.725E-01
3.000E-01	6.744E+02	6.744E-02	6.744E+02	6.744E-01
4.000E-01	7.288E+02	7.288E-02	7.288E+02	7.288E-01
5.000E-01	7.579E+02	7.579E-02	7.579E+02	7.579E-01
6.000E-01	7.731E+02	7.731E-02	7.731E+02	7.731E-01
7.000E-01	7.800E+02	7.800E-02	7.800E+02	7.800E-01
8.000E-01	7.820E+02	7.820E-02	7.820E+02	7.820E-01
9.000E-01	7.806E+02	7.806E-02	7.806E+02	7.806E-01
1.000E+00	7.769E+02	7.769E-02	7.769E+02	7.769E-01
2.000E+00	7.045E+02	7.045E-02	7.045E+02	7.045E-01
3.000E+00	6.314E+02	6.314E-02	6.314E+02	6.314E-01
4.000E+00	5.709E+02	5.709E-02	5.709E+02	5.709E-01
5.000E+00	5.211E+02	5.211E-02	5.211E+02	5.211E-01
6.000E+00	4.799E+02	4.799E-02	4.799E+02	4.799E-01
7.000E+00	4.452E+02	4.452E-02	4.452E+02	4.452E-01
8.000E+00	4.155E+02	4.155E-02	4.155E+02	4.155E-01
9.000E+00	3.899E+02	3.899E-02	3.899E+02	3.899E-01
1.000E+01	3.676E+02	3.676E-02	3.676E+02	3.676E-01
2.000E+01	2.378E+02	2.378E-02	2.378E+02	2.378E-01
3.000E+01	1.783E+02	1.783E-02	1.783E+02	1.783E-01
4.000E+01	1.437E+02	1.437E-02	1.437E+02	1.437E-01
5.000E+01	1.210E+02	1.210E-02	1.210E+02	1.210E-01
6.000E+01	1.052E+02	1.052E-02	1.052E+02	1.052E-01
7.000E+01	9.347E+01	9.347E-03	9.347E+01	9.347E-02
8.000E+01	8.444E+01	8.444E-03	8.444E+01	8.444E-02
9.000E+01	7.727E+01	7.727E-03	7.727E+01	7.727E-02
1.000E+02	7.144E+01	7.144E-03	7.144E+01	7.144E-02
2.000E+02	4.406E+01	4.406E-03	4.406E+01	4.406E-02
3.000E+02	3.453E+01	3.453E-03	3.453E+01	3.453E-02
4.000E+02	2.975E+01	2.975E-03	2.975E+01	2.975E-02
5.000E+02	2.692E+01	2.692E-03	2.692E+01	2.692E-02
6.000E+02	2.508E+01	2.508E-03	2.508E+01	2.508E-02
7.000E+02	2.382E+01	2.382E-03	2.382E+01	2.382E-02
8.000E+02	2.290E+01	2.290E-03	2.290E+01	2.290E-02
9.000E+02	2.220E+01	2.220E-03	2.220E+01	2.220E-02
1.000E+03	2.166E+01	2.166E-03	2.166E+01	2.166E-02
2.000E+03	1.980E+01	1.980E-03	1.980E+01	1.980E-02
3.000E+03	1.965E+01	1.965E-03	1.965E+01	1.965E-02
4.000E+03	1.980E+01	1.980E-03	1.980E+01	1.980E-02
5.000E+03	2.001E+01	2.001E-03	2.001E+01	2.001E-02
6.000E+03	2.022E+01	2.022E-03	2.022E+01	2.022E-02
7.000E+03	2.043E+01	2.043E-03	2.043E+01	2.043E-02
8.000E+03	2.063E+01	2.063E-03	2.063E+01	2.063E-02
9.000E+03	2.081E+01	2.081E-03	2.081E+01	2.081E-02
1.000E+04	2.097E+01	2.097E-03	2.097E+01	2.097E-02

TABLE 149

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: TI Z= 22 A= 47.90

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.253E+02	1.253E-02	1.253E+02	1.253E-01
2.000E-02	1.771E+02	1.771E-02	1.771E+02	1.771E-01
3.000E-02	2.170E+02	2.170E-02	2.170E+02	2.170E-01
4.000E-02	2.505E+02	2.505E-02	2.505E+02	2.505E-01
5.000E-02	2.801E+02	2.801E-02	2.801E+02	2.801E-01
6.000E-02	3.068E+02	3.068E-02	3.068E+02	3.068E-01
7.000E-02	3.313E+02	3.313E-02	3.313E+02	3.313E-01
8.000E-02	3.543E+02	3.543E-02	3.543E+02	3.543E-01
9.000E-02	3.757E+02	3.757E-02	3.757E+02	3.757E-01
1.000E-01	3.961E+02	3.961E-02	3.961E+02	3.961E-01
2.000E-01	5.537E+02	5.537E-02	5.537E+02	5.537E-01
3.000E-01	6.545E+02	6.545E-02	6.545E+02	6.545E-01
4.000E-01	7.097E+02	7.097E-02	7.097E+02	7.097E-01
5.000E-01	7.399E+02	7.399E-02	7.399E+02	7.399E-01
6.000E-01	7.564E+02	7.564E-02	7.564E+02	7.564E-01
7.000E-01	7.647E+02	7.647E-02	7.647E+02	7.647E-01
8.000E-01	7.678E+02	7.678E-02	7.678E+02	7.678E-01
9.000E-01	7.675E+02	7.675E-02	7.675E+02	7.675E-01
1.000E+00	7.649E+02	7.649E-02	7.649E+02	7.649E-01
2.000E+00	6.999E+02	6.999E-02	6.999E+02	6.999E-01
3.000E+00	6.306E+02	6.306E-02	6.306E+02	6.306E-01
4.000E+00	5.723E+02	5.723E-02	5.723E+02	5.723E-01
5.000E+00	5.240E+02	5.240E-02	5.240E+02	5.240E-01
6.000E+00	4.836E+02	4.836E-02	4.836E+02	4.836E-01
7.000E+00	4.495E+02	4.495E-02	4.495E+02	4.495E-01
8.000E+00	4.202E+02	4.202E-02	4.202E+02	4.202E-01
9.000E+00	3.949E+02	3.949E-02	3.949E+02	3.949E-01
1.000E+01	3.727E+02	3.727E-02	3.727E+02	3.727E-01
2.000E+01	2.428E+02	2.428E-02	2.428E+02	2.428E-01
3.000E+01	1.827E+02	1.827E-02	1.827E+02	1.827E-01
4.000E+01	1.476E+02	1.476E-02	1.476E+02	1.476E-01
5.000E+01	1.244E+02	1.244E-02	1.244E+02	1.244E-01
6.000E+01	1.082E+02	1.082E-02	1.082E+02	1.082E-01
7.000E+01	9.620E+01	9.620E-03	9.620E+01	9.620E-02
8.000E+01	8.693E+01	8.693E-03	8.693E+01	8.693E-02
9.000E+01	7.956E+01	7.956E-03	7.956E+01	7.956E-02
1.000E+02	7.357E+01	7.357E-03	7.357E+01	7.357E-02
2.000E+02	4.539E+01	4.539E-03	4.539E+01	4.539E-02
3.000E+02	3.557E+01	3.557E-03	3.557E+01	3.557E-02
4.000E+02	3.065E+01	3.065E-03	3.065E+01	3.065E-02
5.000E+02	2.773E+01	2.773E-03	2.773E+01	2.773E-02
6.000E+02	2.584E+01	2.584E-03	2.584E+01	2.584E-02
7.000E+02	2.454E+01	2.454E-03	2.454E+01	2.454E-02
8.000E+02	2.360E+01	2.360E-03	2.360E+01	2.360E-02
9.000E+02	2.288E+01	2.288E-03	2.288E+01	2.288E-02
1.000E+03	2.232E+01	2.232E-03	2.232E+01	2.232E-02
2.000E+03	2.040E+01	2.040E-03	2.040E+01	2.040E-02
3.000E+03	2.024E+01	2.024E-03	2.024E+01	2.024E-02
4.000E+03	2.039E+01	2.039E-03	2.039E+01	2.039E-02
5.000E+03	2.061E+01	2.061E-03	2.061E+01	2.061E-02
6.000E+03	2.084E+01	2.084E-03	2.084E+01	2.084E-02
7.000E+03	2.105E+01	2.105E-03	2.105E+01	2.105E-02
8.000E+03	2.125E+01	2.125E-03	2.125E+01	2.125E-02
9.000E+03	2.143E+01	2.143E-03	2.143E+01	2.143E-02
1.000E+04	2.160E+01	2.160E-03	2.160E+01	2.160E-02

TABLE 150

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: V Z= 23 A= 50.95

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.209E+02	1.209E-02	1.209E+02	1.209E-01
2.000E-02	1.710E+02	1.710E-02	1.710E+02	1.710E-01
3.000E-02	2.094E+02	2.094E-02	2.094E+02	2.094E-01
4.000E-02	2.418E+02	2.418E-02	2.418E+02	2.418E-01
5.000E-02	2.704E+02	2.704E-02	2.704E+02	2.704E-01
6.000E-02	2.962E+02	2.962E-02	2.962E+02	2.962E-01
7.000E-02	3.199E+02	3.199E-02	3.199E+02	3.199E-01
8.000E-02	3.419E+02	3.419E-02	3.419E+02	3.419E-01
9.000E-02	3.627E+02	3.627E-02	3.627E+02	3.627E-01
1.000E-01	3.823E+02	3.823E-02	3.823E+02	3.823E-01
2.000E-01	5.352E+02	5.352E-02	5.352E+02	5.352E-01
3.000E-01	6.347E+02	6.347E-02	6.347E+02	6.347E-01
4.000E-01	6.905E+02	6.905E-02	6.905E+02	6.905E-01
5.000E-01	7.218E+02	7.218E-02	7.218E+02	7.218E-01
6.000E-01	7.394E+02	7.394E-02	7.394E+02	7.394E-01
7.000E-01	7.489E+02	7.489E-02	7.489E+02	7.489E-01
8.000E-01	7.531E+02	7.531E-02	7.531E+02	7.531E-01
9.000E-01	7.538E+02	7.538E-02	7.538E+02	7.538E-01
1.000E+00	7.523E+02	7.523E-02	7.523E+02	7.523E-01
2.000E+00	6.941E+02	6.941E-02	6.941E+02	6.941E-01
3.000E+00	6.286E+02	6.286E-02	6.286E+02	6.286E-01
4.000E+00	5.726E+02	5.726E-02	5.726E+02	5.726E-01
5.000E+00	5.257E+02	5.257E-02	5.257E+02	5.257E-01
6.000E+00	4.863E+02	4.863E-02	4.863E+02	4.863E-01
7.000E+00	4.528E+02	4.528E-02	4.528E+02	4.528E-01
8.000E+00	4.239E+02	4.239E-02	4.239E+02	4.239E-01
9.000E+00	3.989E+02	3.989E-02	3.989E+02	3.989E-01
1.000E+01	3.769E+02	3.769E-02	3.769E+02	3.769E-01
2.000E+01	2.472E+02	2.472E-02	2.472E+02	2.472E-01
3.000E+01	1.867E+02	1.867E-02	1.867E+02	1.867E-01
4.000E+01	1.511E+02	1.511E-02	1.511E+02	1.511E-01
5.000E+01	1.277E+02	1.277E-02	1.277E+02	1.277E-01
6.000E+01	1.111E+02	1.111E-02	1.111E+02	1.111E-01
7.000E+01	9.876E+01	9.876E-03	9.876E+01	9.876E-02
8.000E+01	8.927E+01	8.927E-03	8.927E+01	8.927E-02
9.000E+01	8.171E+01	8.171E-03	8.171E+01	8.171E-02
1.000E+02	7.556E+01	7.556E-03	7.556E+01	7.556E-02
2.000E+02	4.663E+01	4.663E-03	4.663E+01	4.663E-02
3.000E+02	3.655E+01	3.655E-03	3.655E+01	3.655E-02
4.000E+02	3.149E+01	3.149E-03	3.149E+01	3.149E-02
5.000E+02	2.850E+01	2.850E-03	2.850E+01	2.850E-02
6.000E+02	2.655E+01	2.655E-03	2.655E+01	2.655E-02
7.000E+02	2.521E+01	2.521E-03	2.521E+01	2.521E-02
8.000E+02	2.425E+01	2.425E-03	2.425E+01	2.425E-02
9.000E+02	2.350E+01	2.350E-03	2.350E+01	2.350E-02
1.000E+03	2.293E+01	2.293E-03	2.293E+01	2.293E-02
2.000E+03	2.096E+01	2.096E-03	2.096E+01	2.096E-02
3.000E+03	2.079E+01	2.079E-03	2.079E+01	2.079E-02
4.000E+03	2.096E+01	2.096E-03	2.096E+01	2.096E-02
5.000E+03	2.118E+01	2.118E-03	2.118E+01	2.118E-02
6.000E+03	2.141E+01	2.141E-03	2.141E+01	2.141E-02
7.000E+03	2.163E+01	2.163E-03	2.163E+01	2.163E-02
8.000E+03	2.183E+01	2.183E-03	2.183E+01	2.183E-02
9.000E+03	2.202E+01	2.202E-03	2.202E+01	2.202E-02
1.000E+04	2.220E+01	2.220E-03	2.220E+01	2.220E-02

TABLE 151

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CR Z= 24 A= 52.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.215E+02	1.215E-02	1.215E+02	1.215E-01
2.000E-02	1.718E+02	1.718E-02	1.718E+02	1.718E-01
3.000E-02	2.104E+02	2.104E-02	2.104E+02	2.104E-01
4.000E-02	2.430E+02	2.430E-02	2.430E+02	2.430E-01
5.000E-02	2.716E+02	2.716E-02	2.716E+02	2.716E-01
6.000E-02	2.976E+02	2.976E-02	2.976E+02	2.976E-01
7.000E-02	3.214E+02	3.214E-02	3.214E+02	3.214E-01
8.000E-02	3.435E+02	3.435E-02	3.435E+02	3.435E-01
9.000E-02	3.644E+02	3.644E-02	3.644E+02	3.644E-01
1.000E-01	3.841E+02	3.841E-02	3.841E+02	3.841E-01
2.000E-01	5.386E+02	5.386E-02	5.386E+02	5.386E-01
3.000E-01	6.401E+02	6.401E-02	6.401E+02	6.401E-01
4.000E-01	6.986E+02	6.986E-02	6.986E+02	6.986E-01
5.000E-01	7.321E+02	7.321E-02	7.321E+02	7.321E-01
6.000E-01	7.514E+02	7.514E-02	7.514E+02	7.514E-01
7.000E-01	7.623E+02	7.623E-02	7.623E+02	7.623E-01
8.000E-01	7.677E+02	7.677E-02	7.677E+02	7.677E-01
9.000E-01	7.695E+02	7.695E-02	7.695E+02	7.695E-01
1.000E+00	7.687E+02	7.687E-02	7.687E+02	7.687E-01
2.000E+00	7.151E+02	7.151E-02	7.151E+02	7.151E-01
3.000E+00	6.509E+02	6.509E-02	6.509E+02	6.509E-01
4.000E+00	5.949E+02	5.949E-02	5.949E+02	5.949E-01
5.000E+00	5.476E+02	5.476E-02	5.476E+02	5.476E-01
6.000E+00	5.077E+02	5.077E-02	5.077E+02	5.077E-01
7.000E+00	4.735E+02	4.735E-02	4.735E+02	4.735E-01
8.000E+00	4.440E+02	4.440E-02	4.440E+02	4.440E-01
9.000E+00	4.183E+02	4.183E-02	4.183E+02	4.183E-01
1.000E+01	3.956E+02	3.956E-02	3.956E+02	3.956E-01
2.000E+01	2.613E+02	2.613E-02	2.613E+02	2.613E-01
3.000E+01	1.980E+02	1.980E-02	1.980E+02	1.980E-01
4.000E+01	1.606E+02	1.606E-02	1.606E+02	1.606E-01
5.000E+01	1.359E+02	1.359E-02	1.359E+02	1.359E-01
6.000E+01	1.183E+02	1.183E-02	1.183E+02	1.183E-01
7.000E+01	1.053E+02	1.053E-02	1.053E+02	1.053E-01
8.000E+01	9.515E+01	9.515E-03	9.515E+01	9.515E-02
9.000E+01	8.711E+01	8.711E-03	8.711E+01	8.711E-02
1.000E+02	8.057E+01	8.057E-03	8.057E+01	8.057E-02
2.000E+02	4.974E+01	4.974E-03	4.974E+01	4.974E-02
3.000E+02	3.899E+01	3.899E-03	3.899E+01	3.899E-02
4.000E+02	3.359E+01	3.359E-03	3.359E+01	3.359E-02
5.000E+02	3.040E+01	3.040E-03	3.040E+01	3.040E-02
6.000E+02	2.832E+01	2.832E-03	2.832E+01	2.832E-02
7.000E+02	2.689E+01	2.689E-03	2.689E+01	2.689E-02
8.000E+02	2.586E+01	2.586E-03	2.586E+01	2.586E-02
9.000E+02	2.508E+01	2.508E-03	2.508E+01	2.508E-02
1.000E+03	2.446E+01	2.446E-03	2.446E+01	2.446E-02
2.000E+03	2.236E+01	2.236E-03	2.236E+01	2.236E-02
3.000E+03	2.219E+01	2.219E-03	2.219E+01	2.219E-02
4.000E+03	2.235E+01	2.235E-03	2.235E+01	2.235E-02
5.000E+03	2.259E+01	2.259E-03	2.259E+01	2.259E-02
6.000E+03	2.284E+01	2.284E-03	2.284E+01	2.284E-02
7.000E+03	2.307E+01	2.307E-03	2.307E+01	2.307E-02
8.000E+03	2.329E+01	2.329E-03	2.329E+01	2.329E-02
9.000E+03	2.350E+01	2.350E-03	2.350E+01	2.350E-02
1.000E+04	2.368E+01	2.368E-03	2.368E+01	2.368E-02

TABLE 152

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: MN Z= 25 A= 54.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.178E+02	1.178E-02	1.178E+02	1.178E-01
2.000E-02	1.665E+02	1.665E-02	1.665E+02	1.665E-01
3.000E-02	2.039E+02	2.039E-02	2.039E+02	2.039E-01
4.000E-02	2.355E+02	2.355E-02	2.355E+02	2.355E-01
5.000E-02	2.633E+02	2.633E-02	2.633E+02	2.633E-01
6.000E-02	2.884E+02	2.884E-02	2.884E+02	2.884E-01
7.000E-02	3.115E+02	3.115E-02	3.115E+02	3.115E-01
8.000E-02	3.331E+02	3.331E-02	3.331E+02	3.331E-01
9.000E-02	3.533E+02	3.533E-02	3.533E+02	3.533E-01
1.000E-01	3.723E+02	3.723E-02	3.723E+02	3.723E-01
2.000E-01	5.228E+02	5.228E-02	5.228E+02	5.228E-01
3.000E-01	6.227E+02	6.227E-02	6.227E+02	6.227E-01
4.000E-01	6.817E+02	6.817E-02	6.817E+02	6.817E-01
5.000E-01	7.160E+02	7.160E-02	7.160E+02	7.160E-01
6.000E-01	7.364E+02	7.364E-02	7.364E+02	7.364E-01
7.000E-01	7.482E+02	7.482E-02	7.482E+02	7.482E-01
8.000E-01	7.546E+02	7.546E-02	7.546E+02	7.546E-01
9.000E-01	7.573E+02	7.573E-02	7.573E+02	7.573E-01
1.000E+00	7.575E+02	7.575E-02	7.575E+02	7.575E-01
2.000E+00	7.102E+02	7.102E-02	7.102E+02	7.102E-01
3.000E+00	6.493E+02	6.493E-02	6.493E+02	6.493E-01
4.000E+00	5.955E+02	5.955E-02	5.955E+02	5.955E-01
5.000E+00	5.496E+02	5.496E-02	5.496E+02	5.496E-01
6.000E+00	5.105E+02	5.105E-02	5.105E+02	5.105E-01
7.000E+00	4.770E+02	4.770E-02	4.770E+02	4.770E-01
8.000E+00	4.479E+02	4.479E-02	4.479E+02	4.479E-01
9.000E+00	4.224E+02	4.224E-02	4.224E+02	4.224E-01
1.000E+01	4.000E+02	4.000E-02	4.000E+02	4.000E-01
2.000E+01	2.659E+02	2.659E-02	2.659E+02	2.659E-01
3.000E+01	2.022E+02	2.022E-02	2.022E+02	2.022E-01
4.000E+01	1.643E+02	1.643E-02	1.643E+02	1.643E-01
5.000E+01	1.392E+02	1.392E-02	1.392E+02	1.392E-01
6.000E+01	1.213E+02	1.213E-02	1.213E+02	1.213E-01
7.000E+01	1.079E+02	1.079E-02	1.079E+02	1.079E-01
8.000E+01	9.766E+01	9.766E-03	9.766E+01	9.766E-02
9.000E+01	8.943E+01	8.943E-03	8.943E+01	8.943E-02
1.000E+02	8.271E+01	8.271E-03	8.271E+01	8.271E-02
2.000E+02	5.109E+01	5.109E-03	5.109E+01	5.109E-02
3.000E+02	4.005E+01	4.005E-03	4.005E+01	4.005E-02
4.000E+02	3.450E+01	3.450E-03	3.450E+01	3.450E-02
5.000E+02	3.122E+01	3.122E-03	3.122E+01	3.122E-02
6.000E+02	2.909E+01	2.909E-03	2.909E+01	2.909E-02
7.000E+02	2.762E+01	2.762E-03	2.762E+01	2.762E-02
8.000E+02	2.657E+01	2.657E-03	2.657E+01	2.657E-02
9.000E+02	2.576E+01	2.576E-03	2.576E+01	2.576E-02
1.000E+03	2.513E+01	2.513E-03	2.513E+01	2.513E-02
2.000E+03	2.297E+01	2.297E-03	2.297E+01	2.297E-02
3.000E+03	2.279E+01	2.279E-03	2.279E+01	2.279E-02
4.000E+03	2.296E+01	2.296E-03	2.296E+01	2.296E-02
5.000E+03	2.321E+01	2.321E-03	2.321E+01	2.321E-02
6.000E+03	2.346E+01	2.346E-03	2.346E+01	2.346E-02
7.000E+03	2.370E+01	2.370E-03	2.370E+01	2.370E-02
8.000E+03	2.392E+01	2.392E-03	2.392E+01	2.392E-02
9.000E+03	2.413E+01	2.413E-03	2.413E+01	2.413E-02
1.000E+04	2.432E+01	2.432E-03	2.432E+01	2.432E-02

TABLE 153

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: FE Z= 26 A= 55.84

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.185E+02	1.185E-02	1.185E+02	1.185E-01
2.000E-02	1.675E+02	1.675E-02	1.675E+02	1.675E-01
3.000E-02	2.051E+02	2.051E-02	2.051E+02	2.051E-01
4.000E-02	2.369E+02	2.369E-02	2.369E+02	2.369E-01
5.000E-02	2.648E+02	2.648E-02	2.648E+02	2.648E-01
6.000E-02	2.902E+02	2.902E-02	2.902E+02	2.902E-01
7.000E-02	3.133E+02	3.133E-02	3.133E+02	3.133E-01
8.000E-02	3.350E+02	3.350E-02	3.350E+02	3.350E-01
9.000E-02	3.553E+02	3.553E-02	3.553E+02	3.553E-01
1.000E-01	3.746E+02	3.746E-02	3.746E+02	3.746E-01
2.000E-01	5.265E+02	5.265E-02	5.265E+02	5.265E-01
3.000E-01	6.284E+02	6.284E-02	6.284E+02	6.284E-01
4.000E-01	6.901E+02	6.901E-02	6.901E+02	6.901E-01
5.000E-01	7.265E+02	7.265E-02	7.265E+02	7.265E-01
6.000E-01	7.484E+02	7.484E-02	7.484E+02	7.484E-01
7.000E-01	7.617E+02	7.617E-02	7.617E+02	7.617E-01
8.000E-01	7.692E+02	7.692E-02	7.692E+02	7.692E-01
9.000E-01	7.729E+02	7.729E-02	7.729E+02	7.729E-01
1.000E+00	7.739E+02	7.739E-02	7.739E+02	7.739E-01
2.000E+00	7.309E+02	7.309E-02	7.309E+02	7.309E-01
3.000E+00	6.713E+02	6.713E-02	6.713E+02	6.713E-01
4.000E+00	6.177E+02	6.177E-02	6.177E+02	6.177E-01
5.000E+00	5.715E+02	5.715E-02	5.715E+02	5.715E-01
6.000E+00	5.319E+02	5.319E-02	5.319E+02	5.319E-01
7.000E+00	4.978E+02	4.978E-02	4.978E+02	4.978E-01
8.000E+00	4.680E+02	4.680E-02	4.680E+02	4.680E-01
9.000E+00	4.420E+02	4.420E-02	4.420E+02	4.420E-01
1.000E+01	4.190E+02	4.190E-02	4.190E+02	4.190E-01
2.000E+01	2.803E+02	2.803E-02	2.803E+02	2.803E-01
3.000E+01	2.138E+02	2.138E-02	2.138E+02	2.138E-01
4.000E+01	1.742E+02	1.742E-02	1.742E+02	1.742E-01
5.000E+01	1.477E+02	1.477E-02	1.477E+02	1.477E-01
6.000E+01	1.289E+02	1.289E-02	1.289E+02	1.289E-01
7.000E+01	1.148E+02	1.148E-02	1.148E+02	1.148E-01
8.000E+01	1.038E+02	1.038E-02	1.038E+02	1.038E-01
9.000E+01	9.508E+01	9.508E-03	9.508E+01	9.508E-02
1.000E+02	8.796E+01	8.796E-03	8.796E+01	8.796E-02
2.000E+02	5.436E+01	5.436E-03	5.436E+01	5.436E-02
3.000E+02	4.261E+01	4.261E-03	4.261E+01	4.261E-02
4.000E+02	3.671E+01	3.671E-03	3.671E+01	3.671E-02
5.000E+02	3.322E+01	3.322E-03	3.322E+01	3.322E-02
6.000E+02	3.095E+01	3.095E-03	3.095E+01	3.095E-02
7.000E+02	2.939E+01	2.939E-03	2.939E+01	2.939E-02
8.000E+02	2.827E+01	2.827E-03	2.827E+01	2.827E-02
9.000E+02	2.740E+01	2.740E-03	2.740E+01	2.740E-02
1.000E+03	2.673E+01	2.673E-03	2.673E+01	2.673E-02
2.000E+03	2.443E+01	2.443E-03	2.443E+01	2.443E-02
3.000E+03	2.425E+01	2.425E-03	2.425E+01	2.425E-02
4.000E+03	2.443E+01	2.443E-03	2.443E+01	2.443E-02
5.000E+03	2.469E+01	2.469E-03	2.469E+01	2.469E-02
6.000E+03	2.496E+01	2.496E-03	2.496E+01	2.496E-02
7.000E+03	2.522E+01	2.522E-03	2.522E+01	2.522E-02
8.000E+03	2.545E+01	2.545E-03	2.545E+01	2.545E-02
9.000E+03	2.567E+01	2.567E-03	2.567E+01	2.567E-02
1.000E+04	2.588E+01	2.588E-03	2.588E+01	2.588E-02

TABLE 154

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CO Z= 27 A= 58.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.147E+02	1.147E-02	1.147E+02	1.147E-01
2.000E-02	1.622E+02	1.622E-02	1.622E+02	1.622E-01
3.000E-02	1.986E+02	1.986E-02	1.986E+02	1.986E-01
4.000E-02	2.293E+02	2.293E-02	2.293E+02	2.293E-01
5.000E-02	2.564E+02	2.564E-02	2.564E+02	2.564E-01
6.000E-02	2.809E+02	2.809E-02	2.809E+02	2.809E-01
7.000E-02	3.034E+02	3.034E-02	3.034E+02	3.034E-01
8.000E-02	3.244E+02	3.244E-02	3.244E+02	3.244E-01
9.000E-02	3.440E+02	3.440E-02	3.440E+02	3.440E-01
1.000E-01	3.626E+02	3.626E-02	3.626E+02	3.626E-01
2.000E-01	5.103E+02	5.103E-02	5.103E+02	5.103E-01
3.000E-01	6.101E+02	6.101E-02	6.101E+02	6.101E-01
4.000E-01	6.719E+02	6.719E-02	6.719E+02	6.719E-01
5.000E-01	7.089E+02	7.089E-02	7.089E+02	7.089E-01
6.000E-01	7.316E+02	7.316E-02	7.316E+02	7.316E-01
7.000E-01	7.456E+02	7.456E-02	7.456E+02	7.456E-01
8.000E-01	7.539E+02	7.539E-02	7.539E+02	7.539E-01
9.000E-01	7.584E+02	7.584E-02	7.584E+02	7.584E-01
1.000E+00	7.602E+02	7.602E-02	7.602E+02	7.602E-01
2.000E+00	7.230E+02	7.230E-02	7.230E+02	7.230E-01
3.000E+00	6.669E+02	6.669E-02	6.669E+02	6.669E-01
4.000E+00	6.156E+02	6.156E-02	6.156E+02	6.156E-01
5.000E+00	5.709E+02	5.709E-02	5.709E+02	5.709E-01
6.000E+00	5.324E+02	5.324E-02	5.324E+02	5.324E-01
7.000E+00	4.990E+02	4.990E-02	4.990E+02	4.990E-01
8.000E+00	4.698E+02	4.698E-02	4.698E+02	4.698E-01
9.000E+00	4.442E+02	4.442E-02	4.442E+02	4.442E-01
1.000E+01	4.215E+02	4.215E-02	4.215E+02	4.215E-01
2.000E+01	2.837E+02	2.837E-02	2.837E+02	2.837E-01
3.000E+01	2.172E+02	2.172E-02	2.172E+02	2.172E-01
4.000E+01	1.773E+02	1.773E-02	1.773E+02	1.773E-01
5.000E+01	1.506E+02	1.506E-02	1.506E+02	1.506E-01
6.000E+01	1.314E+02	1.314E-02	1.314E+02	1.314E-01
7.000E+01	1.171E+02	1.171E-02	1.171E+02	1.171E-01
8.000E+01	1.059E+02	1.059E-02	1.059E+02	1.059E-01
9.000E+01	9.708E+01	9.708E-03	9.708E+01	9.708E-02
1.000E+02	8.983E+01	8.983E-03	8.983E+01	8.983E-02
2.000E+02	5.554E+01	5.554E-03	5.554E+01	5.554E-02
3.000E+02	4.354E+01	4.354E-03	4.354E+01	4.354E-02
4.000E+02	3.752E+01	3.752E-03	3.752E+01	3.752E-02
5.000E+02	3.395E+01	3.395E-03	3.395E+01	3.395E-02
6.000E+02	3.162E+01	3.162E-03	3.162E+01	3.162E-02
7.000E+02	3.003E+01	3.003E-03	3.003E+01	3.003E-02
8.000E+02	2.888E+01	2.888E-03	2.888E+01	2.888E-02
9.000E+02	2.800E+01	2.800E-03	2.800E+01	2.800E-02
1.000E+03	2.732E+01	2.732E-03	2.732E+01	2.732E-02
2.000E+03	2.497E+01	2.497E-03	2.497E+01	2.497E-02
3.000E+03	2.478E+01	2.478E-03	2.478E+01	2.478E-02
4.000E+03	2.497E+01	2.497E-03	2.497E+01	2.497E-02
5.000E+03	2.523E+01	2.523E-03	2.523E+01	2.523E-02
6.000E+03	2.551E+01	2.551E-03	2.551E+01	2.551E-02
7.000E+03	2.577E+01	2.577E-03	2.577E+01	2.577E-02
8.000E+03	2.601E+01	2.601E-03	2.601E+01	2.601E-02
9.000E+03	2.623E+01	2.623E-03	2.623E+01	2.623E-02
1.000E+04	2.645E+01	2.645E-03	2.645E+01	2.645E-02

TABLE 155

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: NI Z= 28 A= 58.71

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	1.175E+02	1.175E-02	1.175E+02	1.175E-01
2.000E-02	1.662E+02	1.662E-02	1.662E+02	1.662E-01
3.000E-02	2.035E+02	2.035E-02	2.035E+02	2.035E-01
4.000E-02	2.350E+02	2.350E-02	2.350E+02	2.350E-01
5.000E-02	2.628E+02	2.628E-02	2.628E+02	2.628E-01
6.000E-02	2.878E+02	2.878E-02	2.878E+02	2.878E-01
7.000E-02	3.108E+02	3.108E-02	3.108E+02	3.108E-01
8.000E-02	3.323E+02	3.323E-02	3.323E+02	3.323E-01
9.000E-02	3.525E+02	3.525E-02	3.525E+02	3.525E-01
1.000E-01	3.716E+02	3.716E-02	3.716E+02	3.716E-01
2.000E-01	5.233E+02	5.233E-02	5.233E+02	5.233E-01
3.000E-01	6.267E+02	6.267E-02	6.267E+02	6.267E-01
4.000E-01	6.921E+02	6.921E-02	6.921E+02	6.921E-01
5.000E-01	7.317E+02	7.317E-02	7.317E+02	7.317E-01
6.000E-01	7.565E+02	7.565E-02	7.565E+02	7.565E-01
7.000E-01	7.720E+02	7.720E-02	7.720E+02	7.720E-01
8.000E-01	7.817E+02	7.817E-02	7.817E+02	7.817E-01
9.000E-01	7.872E+02	7.872E-02	7.872E+02	7.872E-01
1.000E+00	7.898E+02	7.898E-02	7.898E+02	7.898E-01
2.000E+00	7.563E+02	7.563E-02	7.563E+02	7.563E-01
3.000E+00	7.005E+02	7.005E-02	7.005E+02	7.005E-01
4.000E+00	6.484E+02	6.484E-02	6.484E+02	6.484E-01
5.000E+00	6.027E+02	6.027E-02	6.027E+02	6.027E-01
6.000E+00	5.631E+02	5.631E-02	5.631E+02	5.631E-01
7.000E+00	5.286E+02	5.286E-02	5.286E+02	5.286E-01
8.000E+00	4.984E+02	4.984E-02	4.984E+02	4.984E-01
9.000E+00	4.718E+02	4.718E-02	4.718E+02	4.718E-01
1.000E+01	4.480E+02	4.480E-02	4.480E+02	4.480E-01
2.000E+01	3.033E+02	3.033E-02	3.033E+02	3.033E-01
3.000E+01	2.329E+02	2.329E-02	2.329E+02	2.329E-01
4.000E+01	1.906E+02	1.906E-02	1.906E+02	1.906E-01
5.000E+01	1.621E+02	1.621E-02	1.621E+02	1.621E-01
6.000E+01	1.416E+02	1.416E-02	1.416E+02	1.416E-01
7.000E+01	1.263E+02	1.263E-02	1.263E+02	1.263E-01
8.000E+01	1.143E+02	1.143E-02	1.143E+02	1.143E-01
9.000E+01	1.047E+02	1.047E-02	1.047E+02	1.047E-01
1.000E+02	9.692E+01	9.692E-03	9.692E+01	9.692E-02
2.000E+02	5.996E+01	5.996E-03	5.996E+01	5.996E-02
3.000E+02	4.701E+01	4.701E-03	4.701E+01	4.701E-02
4.000E+02	4.051E+01	4.051E-03	4.051E+01	4.051E-02
5.000E+02	3.665E+01	3.665E-03	3.665E+01	3.665E-02
6.000E+02	3.415E+01	3.415E-03	3.415E+01	3.415E-02
7.000E+02	3.242E+01	3.242E-03	3.242E+01	3.242E-02
8.000E+02	3.118E+01	3.118E-03	3.118E+01	3.118E-02
9.000E+02	3.024E+01	3.024E-03	3.024E+01	3.024E-02
1.000E+03	2.949E+01	2.949E-03	2.949E+01	2.949E-02
2.000E+03	2.695E+01	2.695E-03	2.695E+01	2.695E-02
3.000E+03	2.675E+01	2.675E-03	2.675E+01	2.675E-02
4.000E+03	2.695E+01	2.695E-03	2.695E+01	2.695E-02
5.000E+03	2.724E+01	2.724E-03	2.724E+01	2.724E-02
6.000E+03	2.753E+01	2.753E-03	2.753E+01	2.753E-02
7.000E+03	2.782E+01	2.782E-03	2.782E+01	2.782E-02
8.000E+03	2.809E+01	2.809E-03	2.809E+01	2.809E-02
9.000E+03	2.833E+01	2.833E-03	2.833E+01	2.833E-02
1.000E+04	2.855E+01	2.855E-03	2.855E+01	2.855E-02

TABLE 156

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: KR Z= 36 A= 83.80

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	9.446E+01	9.446E-03	9.446E+01	9.446E-02
2.000E-02	1.336E+02	1.336E-02	1.336E+02	1.336E-01
3.000E-02	1.636E+02	1.636E-02	1.636E+02	1.636E-01
4.000E-02	1.889E+02	1.889E-02	1.889E+02	1.889E-01
5.000E-02	2.112E+02	2.112E-02	2.112E+02	2.112E-01
6.000E-02	2.314E+02	2.314E-02	2.314E+02	2.314E-01
7.000E-02	2.499E+02	2.499E-02	2.499E+02	2.499E-01
8.000E-02	2.672E+02	2.672E-02	2.672E+02	2.672E-01
9.000E-02	2.833E+02	2.833E-02	2.833E+02	2.833E-01
1.000E-01	2.986E+02	2.986E-02	2.986E+02	2.986E-01
2.000E-01	4.222E+02	4.222E-02	4.222E+02	4.222E-01
3.000E-01	5.107E+02	5.107E-02	5.107E+02	5.107E-01
4.000E-01	5.740E+02	5.740E-02	5.740E+02	5.740E-01
5.000E-01	6.154E+02	6.154E-02	6.154E+02	6.154E-01
6.000E-01	6.435E+02	6.435E-02	6.435E+02	6.435E-01
7.000E-01	6.631E+02	6.631E-02	6.631E+02	6.631E-01
8.000E-01	6.769E+02	6.769E-02	6.769E+02	6.769E-01
9.000E-01	6.868E+02	6.868E-02	6.868E+02	6.868E-01
1.000E+00	6.937E+02	6.937E-02	6.937E+02	6.937E-01
2.000E+00	6.948E+02	6.948E-02	6.948E+02	6.948E-01
3.000E+00	6.617E+02	6.617E-02	6.617E+02	6.617E-01
4.000E+00	6.249E+02	6.249E-02	6.249E+02	6.249E-01
5.000E+00	5.902E+02	5.902E-02	5.902E+02	5.902E-01
6.000E+00	5.586E+02	5.586E-02	5.586E+02	5.586E-01
7.000E+00	5.302E+02	5.302E-02	5.302E+02	5.302E-01
8.000E+00	5.045E+02	5.045E-02	5.045E+02	5.045E-01
9.000E+00	4.813E+02	4.813E-02	4.813E+02	4.813E-01
1.000E+01	4.603E+02	4.603E-02	4.603E+02	4.603E-01
2.000E+01	3.251E+02	3.251E-02	3.251E+02	3.251E-01
3.000E+01	2.554E+02	2.554E-02	2.554E+02	2.554E-01
4.000E+01	2.121E+02	2.121E-02	2.121E+02	2.121E-01
5.000E+01	1.824E+02	1.824E-02	1.824E+02	1.824E-01
6.000E+01	1.607E+02	1.607E-02	1.607E+02	1.607E-01
7.000E+01	1.440E+02	1.440E-02	1.440E+02	1.440E-01
8.000E+01	1.308E+02	1.308E-02	1.308E+02	1.308E-01
9.000E+01	1.202E+02	1.202E-02	1.202E+02	1.202E-01
1.000E+02	1.115E+02	1.115E-02	1.115E+02	1.115E-01
2.000E+02	6.937E+01	6.937E-03	6.937E+01	6.937E-02
3.000E+02	5.442E+01	5.442E-03	5.443E+01	5.443E-02
4.000E+02	4.691E+01	4.691E-03	4.691E+01	4.691E-02
5.000E+02	4.244E+01	4.244E-03	4.244E+01	4.244E-02
6.000E+02	3.955E+01	3.955E-03	3.955E+01	3.955E-02
7.000E+02	3.755E+01	3.755E-03	3.755E+01	3.755E-02
8.000E+02	3.611E+01	3.611E-03	3.611E+01	3.611E-02
9.000E+02	3.501E+01	3.501E-03	3.501E+01	3.501E-02
1.000E+03	3.415E+01	3.415E-03	3.415E+01	3.415E-02
2.000E+03	3.122E+01	3.122E-03	3.122E+01	3.122E-02
3.000E+03	3.098E+01	3.098E-03	3.098E+01	3.098E-02
4.000E+03	3.121E+01	3.121E-03	3.121E+01	3.121E-02
5.000E+03	3.155E+01	3.155E-03	3.155E+01	3.155E-02
6.000E+03	3.189E+01	3.189E-03	3.189E+01	3.189E-02
7.000E+03	3.222E+01	3.222E-03	3.222E+01	3.222E-02
8.000E+03	3.253E+01	3.253E-03	3.253E+01	3.253E-02
9.000E+03	3.281E+01	3.281E-03	3.281E+01	3.281E-02
1.000E+04	3.307E+01	3.307E-03	3.307E+01	3.307E-02

TABLE 157

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AG Z= 47 A= 107.87

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	8.480E+01	8.480E-03	8.480E+01	8.480E-02
2.000E-02	1.200E+02	1.200E-02	1.200E+02	1.200E-01
3.000E-02	1.469E+02	1.469E-02	1.469E+02	1.469E-01
4.000E-02	1.696E+02	1.696E-02	1.696E+02	1.696E-01
5.000E-02	1.896E+02	1.896E-02	1.896E+02	1.896E-01
6.000E-02	2.078E+02	2.078E-02	2.078E+02	2.078E-01
7.000E-02	2.243E+02	2.243E-02	2.243E+02	2.243E-01
8.000E-02	2.399E+02	2.399E-02	2.399E+02	2.399E-01
9.000E-02	2.544E+02	2.544E-02	2.544E+02	2.544E-01
1.000E-01	2.682E+02	2.682E-02	2.682E+02	2.682E-01
2.000E-01	3.792E+02	3.792E-02	3.792E+02	3.792E-01
3.000E-01	4.623E+02	4.623E-02	4.623E+02	4.623E-01
4.000E-01	5.263E+02	5.263E-02	5.263E+02	5.263E-01
5.000E-01	5.724E+02	5.724E-02	5.724E+02	5.724E-01
6.000E-01	6.055E+02	6.055E-02	6.055E+02	6.055E-01
7.000E-01	6.298E+02	6.298E-02	6.298E+02	6.298E-01
8.000E-01	6.483E+02	6.483E-02	6.483E+02	6.483E-01
9.000E-01	6.625E+02	6.625E-02	6.625E+02	6.625E-01
1.000E+00	6.735E+02	6.735E-02	6.735E+02	6.735E-01
2.000E+00	7.050E+02	7.050E-02	7.050E+02	7.050E-01
3.000E+00	6.900E+02	6.900E-02	6.900E+02	6.900E-01
4.000E+00	6.651E+02	6.651E-02	6.651E+02	6.651E-01
5.000E+00	6.384E+02	6.384E-02	6.384E+02	6.384E-01
6.000E+00	6.123E+02	6.123E-02	6.123E+02	6.123E-01
7.000E+00	5.877E+02	5.877E-02	5.877E+02	5.877E-01
8.000E+00	5.648E+02	5.648E-02	5.648E+02	5.648E-01
9.000E+00	5.436E+02	5.436E-02	5.436E+02	5.436E-01
1.000E+01	5.240E+02	5.240E-02	5.240E+02	5.240E-01
2.000E+01	3.883E+02	3.883E-02	3.883E+02	3.883E-01
3.000E+01	3.127E+02	3.127E-02	3.127E+02	3.127E-01
4.000E+01	2.641E+02	2.641E-02	2.641E+02	2.641E-01
5.000E+01	2.301E+02	2.301E-02	2.301E+02	2.301E-01
6.000E+01	2.046E+02	2.046E-02	2.046E+02	2.046E-01
7.000E+01	1.849E+02	1.849E-02	1.849E+02	1.849E-01
8.000E+01	1.691E+02	1.691E-02	1.691E+02	1.691E-01
9.000E+01	1.561E+02	1.561E-02	1.561E+02	1.561E-01
1.000E+02	1.453E+02	1.453E-02	1.453E+02	1.453E-01
2.000E+02	9.156E+01	9.156E-03	9.156E+01	9.156E-02
3.000E+02	7.200E+01	7.200E-03	7.200E+01	7.200E-02
4.000E+02	6.209E+01	6.209E-03	6.209E+01	6.209E-02
5.000E+02	5.619E+01	5.619E-03	5.619E+01	5.619E-02
6.000E+02	5.237E+01	5.237E-03	5.237E+01	5.237E-02
7.000E+02	4.972E+01	4.972E-03	4.972E+01	4.972E-02
8.000E+02	4.782E+01	4.782E-03	4.782E+01	4.782E-02
9.000E+02	4.636E+01	4.636E-03	4.636E+01	4.636E-02
1.000E+03	4.523E+01	4.523E-03	4.523E+01	4.523E-02
2.000E+03	4.134E+01	4.134E-03	4.134E+01	4.134E-02
3.000E+03	4.102E+01	4.102E-03	4.102E+01	4.102E-02
4.000E+03	4.133E+01	4.133E-03	4.133E+01	4.133E-02
5.000E+03	4.177E+01	4.177E-03	4.177E+01	4.177E-02
6.000E+03	4.223E+01	4.223E-03	4.223E+01	4.223E-02
7.000E+03	4.266E+01	4.266E-03	4.266E+01	4.266E-02
8.000E+03	4.307E+01	4.307E-03	4.307E+01	4.307E-02
9.000E+03	4.345E+01	4.345E-03	4.345E+01	4.345E-02
1.000E+04	4.379E+01	4.379E-03	4.379E+01	4.379E-02

TABLE 158

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AU Z= 79 A= 197.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV/N)	(MEV/N*CM)	(MEV/N*UM)	(MEV*SQCM/N*G)	(MEV*SQCM/N*MG)
1.000E-02	6.176E+01	6.176E-03	6.176E+01	6.176E-02
2.000E-02	8.735E+01	8.735E-03	8.735E+01	8.735E-02
3.000E-02	1.069E+02	1.069E-02	1.069E+02	1.069E-01
4.000E-02	1.235E+02	1.235E-02	1.235E+02	1.235E-01
5.000E-02	1.381E+02	1.381E-02	1.381E+02	1.381E-01
6.000E-02	1.513E+02	1.513E-02	1.513E+02	1.513E-01
7.000E-02	1.635E+02	1.635E-02	1.635E+02	1.635E-01
8.000E-02	1.747E+02	1.747E-02	1.747E+02	1.747E-01
9.000E-02	1.853E+02	1.853E-02	1.853E+02	1.853E-01
1.000E-01	1.953E+02	1.953E-02	1.953E+02	1.953E-01
2.000E-01	2.762E+02	2.762E-02	2.762E+02	2.762E-01
3.000E-01	3.382E+02	3.382E-02	3.382E+02	3.382E-01
4.000E-01	3.894E+02	3.894E-02	3.894E+02	3.894E-01
5.000E-01	4.319E+02	4.319E-02	4.319E+02	4.319E-01
6.000E-01	4.662E+02	4.662E-02	4.662E+02	4.662E-01
7.000E-01	4.932E+02	4.932E-02	4.932E+02	4.932E-01
8.000E-01	5.150E+02	5.150E-02	5.150E+02	5.150E-01
9.000E-01	5.329E+02	5.329E-02	5.329E+02	5.329E-01
1.000E+00	5.478E+02	5.478E-02	5.478E+02	5.478E-01
2.000E+00	6.178E+02	6.178E-02	6.178E+02	6.178E-01
3.000E+00	6.334E+02	6.334E-02	6.334E+02	6.334E-01
4.000E+00	6.322E+02	6.322E-02	6.322E+02	6.322E-01
5.000E+00	6.242E+02	6.242E-02	6.242E+02	6.242E-01
6.000E+00	6.131E+02	6.131E-02	6.131E+02	6.131E-01
7.000E+00	6.008E+02	6.008E-02	6.008E+02	6.008E-01
8.000E+00	5.880E+02	5.880E-02	5.880E+02	5.880E-01
9.000E+00	5.752E+02	5.752E-02	5.752E+02	5.752E-01
1.000E+01	5.625E+02	5.625E-02	5.625E+02	5.625E-01
2.000E+01	4.591E+02	4.591E-02	4.591E+02	4.591E-01
3.000E+01	3.900E+02	3.900E-02	3.900E+02	3.900E-01
4.000E+01	3.414E+02	3.414E-02	3.414E+02	3.414E-01
5.000E+01	3.052E+02	3.052E-02	3.052E+02	3.052E-01
6.000E+01	2.772E+02	2.772E-02	2.772E+02	2.772E-01
7.000E+01	2.548E+02	2.548E-02	2.548E+02	2.548E-01
8.000E+01	2.364E+02	2.364E-02	2.364E+02	2.364E-01
9.000E+01	2.211E+02	2.211E-02	2.211E+02	2.211E-01
1.000E+02	2.080E+02	2.080E-02	2.080E+02	2.080E-01
2.000E+02	1.384E+02	1.384E-02	1.384E+02	1.384E-01
3.000E+02	1.104E+02	1.104E-02	1.104E+02	1.104E-01
4.000E+02	9.566E+01	9.566E-03	9.566E+01	9.566E-02
5.000E+02	8.676E+01	8.676E-03	8.676E+01	8.676E-02
6.000E+02	8.092E+01	8.092E-03	8.092E+01	8.092E-02
7.000E+02	7.688E+01	7.688E-03	7.688E+01	7.688E-02
8.000E+02	7.396E+01	7.396E-03	7.396E+01	7.396E-02
9.000E+02	7.172E+01	7.172E-03	7.172E+01	7.172E-02
1.000E+03	6.997E+01	6.997E-03	6.997E+01	6.997E-02
2.000E+03	6.397E+01	6.397E-03	6.397E+01	6.397E-02
3.000E+03	6.348E+01	6.348E-03	6.348E+01	6.348E-02
4.000E+03	6.395E+01	6.395E-03	6.395E+01	6.395E-02
5.000E+03	6.463E+01	6.463E-03	6.463E+01	6.463E-02
6.000E+03	6.533E+01	6.533E-03	6.533E+01	6.533E-02
7.000E+03	6.601E+01	6.601E-03	6.601E+01	6.601E-02
8.000E+03	6.663E+01	6.663E-03	6.663E+01	6.663E-02
9.000E+03	6.721E+01	6.721E-03	6.721E+01	6.721E-02
1.000E+04	6.775E+01	6.775E-03	6.775E+01	6.775E-02

TABLE 159

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: H Z= 1 A= 1.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-02	4.338E+02	4.338E-02	4.338E+02	4.338E-01
3.000E-02	5.279E+02	5.279E-02	5.279E+02	5.279E-01
4.000E-02	5.869E+02	5.869E-02	5.869E+02	5.869E-01
5.000E-02	6.265E+02	6.265E-02	6.265E+02	6.265E-01
6.000E-02	6.559E+02	6.559E-02	6.559E+02	6.559E-01
7.000E-02	6.793E+02	6.793E-02	6.793E+02	6.793E-01
8.000E-02	6.990E+02	6.990E-02	6.990E+02	6.990E-01
9.000E-02	7.162E+02	7.162E-02	7.162E+02	7.162E-01
1.000E-01	7.296E+02	7.296E-02	7.296E+02	7.296E-01
2.000E-01	6.758E+02	6.758E-02	6.758E+02	6.758E-01
3.000E-01	5.760E+02	5.760E-02	5.760E+02	5.760E-01
4.000E-01	4.967E+02	4.967E-02	4.967E+02	4.967E-01
5.000E-01	4.362E+02	4.362E-02	4.362E+02	4.362E-01
6.000E-01	3.893E+02	3.893E-02	3.893E+02	3.893E-01
7.000E-01	3.519E+02	3.519E-02	3.519E+02	3.519E-01
8.000E-01	3.216E+02	3.216E-02	3.216E+02	3.216E-01
9.000E-01	2.965E+02	2.965E-02	2.965E+02	2.965E-01
1.000E+00	2.753E+02	2.753E-02	2.753E+02	2.753E-01
2.000E+00	1.653E+02	1.653E-02	1.653E+02	1.653E-01
3.000E+00	1.210E+02	1.210E-02	1.210E+02	1.210E-01
4.000E+00	9.662E+01	9.662E-03	9.662E+01	9.662E-02
5.000E+00	8.091E+01	8.091E-03	8.091E+01	8.091E-02
6.000E+00	6.992E+01	6.992E-03	6.992E+01	6.992E-02
7.000E+00	6.176E+01	6.176E-03	6.176E+01	6.176E-02
8.000E+00	5.544E+01	5.544E-03	5.544E+01	5.544E-02
9.000E+00	5.039E+01	5.039E-03	5.039E+01	5.039E-02
1.000E+01	4.626E+01	4.626E-03	4.626E+01	4.626E-02
2.000E+01	2.625E+01	2.625E-03	2.625E+01	2.625E-02
3.000E+01	1.885E+01	1.885E-03	1.885E+01	1.885E-02
4.000E+01	1.493E+01	1.493E-03	1.493E+01	1.493E-02
5.000E+01	1.248E+01	1.248E-03	1.248E+01	1.248E-02
6.000E+01	1.080E+01	1.080E-03	1.080E+01	1.080E-02
7.000E+01	9.578E+00	9.578E-04	9.578E+00	9.578E-03
8.000E+01	8.640E+00	8.640E-04	8.640E+00	8.640E-03
9.000E+01	7.899E+00	7.899E-04	7.899E+00	7.899E-03
1.000E+02	7.298E+00	7.298E-04	7.298E+00	7.298E-03
2.000E+02	4.494E+00	4.494E-04	4.494E+00	4.494E-03
3.000E+02	3.522E+00	3.522E-04	3.522E+00	3.522E-03
4.000E+02	3.034E+00	3.034E-04	3.034E+00	3.034E-03
5.000E+02	2.746E+00	2.746E-04	2.746E+00	2.746E-03
6.000E+02	2.558E+00	2.558E-04	2.558E+00	2.558E-03
7.000E+02	2.429E+00	2.429E-04	2.429E+00	2.429E-03
8.000E+02	2.336E+00	2.336E-04	2.336E+00	2.336E-03
9.000E+02	2.265E+00	2.265E-04	2.265E+00	2.265E-03
1.000E+03	2.210E+00	2.210E-04	2.210E+00	2.210E-03
2.000E+03	2.019E+00	2.019E-04	2.019E+00	2.019E-03
3.000E+03	2.004E+00	2.004E-04	2.004E+00	2.004E-03
4.000E+03	2.018E+00	2.018E-04	2.018E+00	2.018E-03
5.000E+03	2.040E+00	2.040E-04	2.040E+00	2.040E-03
6.000E+03	2.062E+00	2.062E-04	2.062E+00	2.062E-03
7.000E+03	2.083E+00	2.083E-04	2.083E+00	2.083E-03
8.000E+03	2.103E+00	2.103E-04	2.103E+00	2.103E-03
9.000E+03	2.121E+00	2.121E-04	2.121E+00	2.121E-03
1.000E+04	2.138E+00	2.138E-04	2.138E+00	2.138E-03

TABLE 160

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: HE Z= 2 A= 4.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-02	8.293E+02	8.293E-02	8.293E+02	8.293E-01
6.000E-02	9.083E+02	9.083E-02	9.083E+02	9.083E-01
7.000E-02	9.812E+02	9.812E-02	9.812E+02	9.812E-01
8.000E-02	1.049E+03	1.049E-01	1.049E+03	1.049E+00
9.000E-02	1.113E+03	1.113E-01	1.113E+03	1.113E+00
1.000E-01	1.172E+03	1.172E-01	1.172E+03	1.172E+00
2.000E-01	1.596E+03	1.596E-01	1.596E+03	1.596E+00
3.000E-01	1.829E+03	1.829E-01	1.829E+03	1.829E+00
4.000E-01	1.996E+03	1.996E-01	1.996E+03	1.996E+00
5.000E-01	2.126E+03	2.126E-01	2.126E+03	2.126E+00
6.000E-01	2.192E+03	2.192E-01	2.192E+03	2.192E+00
7.000E-01	2.219E+03	2.219E-01	2.219E+03	2.219E+00
8.000E-01	2.219E+03	2.219E-01	2.219E+03	2.219E+00
9.000E-01	2.203E+03	2.203E-01	2.203E+03	2.203E+00
1.000E+00	2.173E+03	2.173E-01	2.173E+03	2.173E+00
2.000E+00	1.711E+03	1.711E-01	1.711E+03	1.711E+00
3.000E+00	1.347E+03	1.347E-01	1.347E+03	1.347E+00
4.000E+00	1.102E+03	1.102E-01	1.102E+03	1.102E+00
5.000E+00	9.383E+02	9.383E-02	9.383E+02	9.383E-01
6.000E+00	8.205E+02	8.205E-02	8.205E+02	8.205E-01
7.000E+00	7.312E+02	7.312E-02	7.312E+02	7.312E-01
8.000E+00	6.611E+02	6.611E-02	6.611E+02	6.611E-01
9.000E+00	6.043E+02	6.043E-02	6.043E+02	6.043E-01
1.000E+01	5.572E+02	5.572E-02	5.572E+02	5.572E-01
2.000E+01	3.236E+02	3.236E-02	3.236E+02	3.236E-01
3.000E+01	2.335E+02	2.335E-02	2.335E+02	2.335E-01
4.000E+01	1.850E+02	1.850E-02	1.850E+02	1.850E-01
5.000E+01	1.542E+02	1.542E-02	1.542E+02	1.542E-01
6.000E+01	1.329E+02	1.329E-02	1.329E+02	1.329E-01
7.000E+01	1.171E+02	1.171E-02	1.171E+02	1.171E-01
8.000E+01	1.050E+02	1.050E-02	1.050E+02	1.050E-01
9.000E+01	9.533E+01	9.533E-03	9.533E+01	9.533E-02
1.000E+02	8.747E+01	8.747E-03	8.747E+01	8.747E-02
2.000E+02	4.993E+01	4.993E-03	4.993E+01	4.993E-02
3.000E+02	3.631E+01	3.631E-03	3.631E+01	3.631E-02
4.000E+02	2.919E+01	2.919E-03	2.919E+01	2.919E-02
5.000E+02	2.479E+01	2.479E-03	2.479E+01	2.479E-02
6.000E+02	2.179E+01	2.179E-03	2.179E+01	2.179E-02
7.000E+02	1.962E+01	1.962E-03	1.962E+01	1.962E-02
8.000E+02	1.797E+01	1.797E-03	1.797E+01	1.797E-02
9.000E+02	1.669E+01	1.669E-03	1.669E+01	1.669E-02
1.000E+03	1.565E+01	1.565E-03	1.565E+01	1.565E-02
2.000E+03	1.098E+01	1.098E-03	1.098E+01	1.098E-02
3.000E+03	9.515E+00	9.515E-04	9.515E+00	9.515E-03
4.000E+03	8.836E+00	8.836E-04	8.836E+00	8.836E-03
5.000E+03	8.474E+00	8.474E-04	8.474E+00	8.474E-03
6.000E+03	8.269E+00	8.269E-04	8.269E+00	8.269E-03
7.000E+03	8.147E+00	8.147E-04	8.147E+00	8.147E-03
8.000E+03	8.076E+00	8.076E-04	8.076E+00	8.076E-03
9.000E+03	8.037E+00	8.037E-04	8.037E+00	8.037E-03
1.000E+04	8.017E+00	8.017E-04	8.017E+00	8.017E-03
2.000E+04	8.159E+00	8.159E-04	8.159E+00	8.159E-03
3.000E+04	8.373E+00	8.373E-04	8.373E+00	8.373E-03
4.000E+04	8.553E+00	8.553E-04	8.553E+00	8.552E-03

TABLE 161

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: LI Z= 3 A= 6.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
7.000E-02	9.793E+02	9.793E-02	9.793E+02	9.793E-01
8.000E-02	1.047E+03	1.047E-01	1.047E+03	1.047E+00
9.000E-02	1.111E+03	1.111E-01	1.111E+03	1.111E+00
1.000E-01	1.171E+03	1.171E-01	1.171E+03	1.171E+00
2.000E-01	1.656E+03	1.656E-01	1.656E+03	1.656E+00
3.000E-01	1.990E+03	1.990E-01	1.990E+03	1.990E+00
4.000E-01	2.225E+03	2.225E-01	2.225E+03	2.225E+00
5.000E-01	2.411E+03	2.411E-01	2.411E+03	2.411E+00
6.000E-01	2.569E+03	2.569E-01	2.569E+03	2.569E+00
7.000E-01	2.707E+03	2.707E-01	2.707E+03	2.707E+00
8.000E-01	2.833E+03	2.833E-01	2.833E+03	2.833E+00
9.000E-01	2.947E+03	2.947E-01	2.947E+03	2.947E+00
1.000E+00	3.046E+03	3.046E-01	3.046E+03	3.046E+00
2.000E+00	3.417E+03	3.417E-01	3.417E+03	3.417E+00
3.000E+00	3.364E+03	3.364E-01	3.364E+03	3.364E+00
4.000E+00	3.167E+03	3.167E-01	3.167E+03	3.167E+00
5.000E+00	2.922E+03	2.922E-01	2.922E+03	2.922E+00
6.000E+00	2.674E+03	2.674E-01	2.674E+03	2.674E+00
7.000E+00	2.448E+03	2.448E-01	2.448E+03	2.448E+00
8.000E+00	2.240E+03	2.240E-01	2.240E+03	2.240E+00
9.000E+00	2.053E+03	2.053E-01	2.053E+03	2.053E+00
1.000E+01	1.900E+03	1.900E-01	1.900E+03	1.900E+00
2.000E+01	1.122E+03	1.122E-01	1.122E+03	1.122E+00
3.000E+01	8.167E+02	8.167E-02	8.167E+02	8.167E-01
4.000E+01	6.493E+02	6.493E-02	6.493E+02	6.493E-01
5.000E+01	5.426E+02	5.426E-02	5.426E+02	5.426E-01
6.000E+01	4.682E+02	4.682E-02	4.682E+02	4.682E-01
7.000E+01	4.131E+02	4.131E-02	4.131E+02	4.131E-01
8.000E+01	3.705E+02	3.705E-02	3.705E+02	3.705E-01
9.000E+01	3.365E+02	3.365E-02	3.365E+02	3.365E-01
1.000E+02	3.086E+02	3.086E-02	3.086E+02	3.086E-01
2.000E+02	1.751E+02	1.751E-02	1.751E+02	1.751E-01
3.000E+02	1.261E+02	1.261E-02	1.261E+02	1.261E-01
4.000E+02	1.003E+02	1.003E-02	1.003E+02	1.003E-01
5.000E+02	8.422E+01	8.422E-03	8.422E+01	8.422E-02
6.000E+02	7.323E+01	7.323E-03	7.323E+01	7.323E-02
7.000E+02	6.522E+01	6.522E-03	6.522E+01	6.522E-02
8.000E+02	5.911E+01	5.911E-03	5.911E+01	5.911E-02
9.000E+02	5.429E+01	5.429E-03	5.429E+01	5.429E-02
1.000E+03	5.040E+01	5.040E-03	5.040E+01	5.040E-02
2.000E+03	3.240E+01	3.240E-03	3.240E+01	3.240E-02
3.000E+03	2.632E+01	2.632E-03	2.632E+01	2.632E-02
4.000E+03	2.335E+01	2.335E-03	2.335E+01	2.335E-02
5.000E+03	2.166E+01	2.166E-03	2.166E+01	2.166E-02
6.000E+03	2.059E+01	2.059E-03	2.059E+01	2.059E-02
7.000E+03	1.984E+01	1.984E-03	1.984E+01	1.984E-02
8.000E+03	1.933E+01	1.933E-03	1.933E+01	1.933E-02
9.000E+03	1.895E+01	1.895E-03	1.895E+01	1.895E-02
1.000E+04	1.869E+01	1.869E-03	1.869E+01	1.869E-02
2.000E+04	1.802E+01	1.802E-03	1.802E+01	1.802E-02
3.000E+04	1.822E+01	1.822E-03	1.822E+01	1.822E-02
4.000E+04	1.851E+01	1.851E-03	1.851E+01	1.851E-02
5.000E+04	1.879E+01	1.879E-03	1.879E+01	1.879E-02
6.000E+04	1.904E+01	1.904E-03	1.904E+01	1.904E-02

TABLE 162

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: BE Z= 4 A= 9.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
1.000E-01	1.341E+03	1.341E-01	1.341E+03	1.341E+00
2.000E-01	1.896E+03	1.896E-01	1.896E+03	1.896E+00
3.000E-01	2.322E+03	2.322E-01	2.322E+03	2.322E+00
4.000E-01	2.681E+03	2.681E-01	2.681E+03	2.681E+00
5.000E-01	2.998E+03	2.998E-01	2.998E+03	2.998E+00
6.000E-01	3.282E+03	3.282E-01	3.282E+03	3.282E+00
7.000E-01	3.531E+03	3.531E-01	3.531E+03	3.531E+00
8.000E-01	3.748E+03	3.748E-01	3.748E+03	3.748E+00
9.000E-01	3.940E+03	3.940E-01	3.940E+03	3.940E+00
1.000E+00	4.113E+03	4.113E-01	4.113E+03	4.113E+00
2.000E+00	5.031E+03	5.031E-01	5.031E+03	5.031E+00
3.000E+00	5.023E+03	5.023E-01	5.023E+03	5.023E+00
4.000E+00	4.789E+03	4.789E-01	4.789E+03	4.789E+00
5.000E+00	4.512E+03	4.512E-01	4.512E+03	4.512E+00
6.000E+00	4.243E+03	4.243E-01	4.243E+03	4.243E+00
7.000E+00	3.996E+03	3.996E-01	3.996E+03	3.996E+00
8.000E+00	3.774E+03	3.774E-01	3.774E+03	3.774E+00
9.000E+00	3.574E+03	3.574E-01	3.574E+03	3.574E+00
1.000E+01	3.394E+03	3.394E-01	3.394E+03	3.394E+00
2.000E+01	2.278E+03	2.278E-01	2.278E+03	2.278E+00
3.000E+01	1.728E+03	1.728E-01	1.728E+03	1.728E+00
4.000E+01	1.399E+03	1.399E-01	1.399E+03	1.399E+00
5.000E+01	1.179E+03	1.179E-01	1.179E+03	1.179E+00
6.000E+01	1.022E+03	1.022E-01	1.022E+03	1.022E+00
7.000E+01	9.046E+02	9.046E-02	9.046E+02	9.046E-01
8.000E+01	8.127E+02	8.127E-02	8.127E+02	8.127E-01
9.000E+01	7.392E+02	7.392E-02	7.392E+02	7.392E-01
1.000E+02	6.788E+02	6.788E-02	6.788E+02	6.788E-01
2.000E+02	3.854E+02	3.854E-02	3.854E+02	3.854E-01
3.000E+02	2.769E+02	2.769E-02	2.769E+02	2.769E-01
4.000E+02	2.195E+02	2.195E-02	2.195E+02	2.195E-01
5.000E+02	1.838E+02	1.838E-02	1.838E+02	1.838E-01
6.000E+02	1.592E+02	1.592E-02	1.592E+02	1.592E-01
7.000E+02	1.413E+02	1.413E-02	1.413E+02	1.413E-01
8.000E+02	1.276E+02	1.276E-02	1.276E+02	1.276E-01
9.000E+02	1.163E+02	1.168E-02	1.168E+02	1.168E-01
1.000E+03	1.081E+02	1.081E-02	1.081E+02	1.081E-01
2.000E+03	6.730E+01	6.730E-03	6.730E+01	6.730E-02
3.000E+03	5.324E+01	5.324E-03	5.324E+01	5.324E-02
4.000E+03	4.624E+01	4.624E-03	4.624E+01	4.624E-02
5.000E+03	4.213E+01	4.213E-03	4.213E+01	4.213E-02
6.000E+03	3.948E+01	3.948E-03	3.948E+01	3.948E-02
7.000E+03	3.767E+01	3.767E-03	3.767E+01	3.767E-02
8.000E+03	3.635E+01	3.635E-03	3.635E+01	3.635E-02
9.000E+03	3.535E+01	3.535E-03	3.535E+01	3.535E-02
1.000E+04	3.460E+01	3.460E-03	3.460E+01	3.460E-02
2.000E+04	3.215E+01	3.215E-03	3.215E+01	3.215E-02
3.000E+04	3.210E+01	3.210E-03	3.210E+01	3.210E-02
4.000E+04	3.244E+01	3.244E-03	3.244E+01	3.244E-02
5.000E+04	3.284E+01	3.284E-03	3.284E+01	3.284E-02
6.000E+04	3.322E+01	3.322E-03	3.322E+01	3.322E-02
7.000E+04	3.358E+01	3.358E-03	3.358E+01	3.358E-02
8.000E+04	3.391E+01	3.391E-03	3.391E+01	3.391E-02
9.000E+04	3.421E+01	3.421E-03	3.421E+01	3.421E-02

TABLE 163

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: B Z= 5 A= 10.82

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	2.251E+03	2.251E-01	2.251E+03	2.251E+00
3.000E-01	2.758E+03	2.758E-01	2.758E+03	2.758E+00
4.000E-01	3.184E+03	3.184E-01	3.184E+03	3.184E+00
5.000E-01	3.561E+03	3.561E-01	3.561E+03	3.561E+00
6.000E-01	3.900E+03	3.900E-01	3.900E+03	3.900E+00
7.000E-01	4.213E+03	4.213E-01	4.213E+03	4.213E+00
8.000E-01	4.499E+03	4.499E-01	4.499E+03	4.499E+00
9.000E-01	4.754E+03	4.754E-01	4.754E+03	4.754E+00
1.000E+00	4.985E+03	4.985E-01	4.985E+03	4.985E+00
2.000E+00	6.489E+03	6.489E-01	6.489E+03	6.489E+00
3.000E+00	6.872E+03	6.872E-01	6.872E+03	6.872E+00
4.000E+00	6.804E+03	6.804E-01	6.804E+03	6.804E+00
5.000E+00	6.588E+03	6.588E-01	6.588E+03	6.588E+00
6.000E+00	6.327E+03	6.327E-01	6.327E+03	6.327E+00
7.000E+00	6.059E+03	6.059E-01	6.059E+03	6.059E+00
8.000E+00	5.800E+03	5.800E-01	5.800E+03	5.800E+00
9.000E+00	5.557E+03	5.557E-01	5.557E+03	5.557E+00
1.000E+01	5.330E+03	5.330E-01	5.330E+03	5.330E+00
2.000E+01	3.793E+03	3.793E-01	3.793E+03	3.793E+00
3.000E+01	2.968E+03	2.968E-01	2.968E+03	2.968E+00
4.000E+01	2.448E+03	2.448E-01	2.448E+03	2.448E+00
5.000E+01	2.089E+03	2.089E-01	2.089E+03	2.089E+00
6.000E+01	1.824E+03	1.824E-01	1.824E+03	1.824E+00
7.000E+01	1.622E+03	1.622E-01	1.622E+03	1.622E+00
8.000E+01	1.462E+03	1.462E-01	1.462E+03	1.462E+00
9.000E+01	1.333E+03	1.333E-01	1.333E+03	1.333E+00
1.000E+02	1.225E+03	1.225E-01	1.225E+03	1.225E+00
2.000E+02	6.990E+02	6.990E-02	6.990E+02	6.990E-01
3.000E+02	5.020E+02	5.020E-02	5.020E+02	5.020E-01
4.000E+02	3.975E+02	3.975E-02	3.975E+02	3.975E-01
5.000E+02	3.321E+02	3.321E-02	3.321E+02	3.321E-01
6.000E+02	2.872E+02	2.872E-02	2.872E+02	2.872E-01
7.000E+02	2.544E+02	2.544E-02	2.544E+02	2.544E-01
8.000E+02	2.293E+02	2.293E-02	2.293E+02	2.293E-01
9.000E+02	2.095E+02	2.095E-02	2.095E+02	2.095E-01
1.000E+03	1.935E+02	1.935E-02	1.935E+02	1.935E-01
2.000E+03	1.182E+02	1.182E-02	1.182E+02	1.182E-01
3.000E+03	9.202E+01	9.202E-03	9.202E+01	9.202E-02
4.000E+03	7.881E+01	7.881E-03	7.881E+01	7.881E-02
5.000E+03	7.096E+01	7.096E-03	7.096E+01	7.096E-02
6.000E+03	6.583E+01	6.583E-03	6.583E+01	6.583E-02
7.000E+03	6.228E+01	6.228E-03	6.228E+01	6.228E-02
8.000E+03	5.970E+01	5.970E-03	5.970E+01	5.970E-02
9.000E+03	5.777E+01	5.777E-03	5.777E+01	5.777E-02
1.000E+04	5.623E+01	5.623E-03	5.623E+01	5.623E-02
2.000E+04	5.071E+01	5.071E-03	5.071E+01	5.071E-02
3.000E+04	5.007E+01	5.007E-03	5.007E+01	5.007E-02
4.000E+04	5.031E+01	5.031E-03	5.031E+01	5.031E-02
5.000E+04	5.078E+01	5.078E-03	5.078E+01	5.078E-02
6.000E+04	5.130E+01	5.130E-03	5.130E+01	5.130E-02
7.000E+04	5.181E+01	5.181E-03	5.181E+01	5.181E-02
8.000E+04	5.228E+01	5.228E-03	5.228E+01	5.228E-02
9.000E+04	5.272E+01	5.272E-03	5.272E+01	5.272E-02
1.000E+05	5.313E+01	5.313E-03	5.313E+01	5.313E-02

TABLE 164

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: C Z= 6 A= 12.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	2.618E+03	2.618E-01	2.618E+03	2.618E+00
3.000E-01	3.206E+03	3.206E-01	3.206E+03	3.206E+00
4.000E-01	3.703E+03	3.703E-01	3.703E+03	3.703E+00
5.000E-01	4.140E+03	4.140E-01	4.140E+03	4.140E+00
6.000E-01	4.535E+03	4.535E-01	4.535E+03	4.535E+00
7.000E-01	4.898E+03	4.898E-01	4.898E+03	4.898E+00
8.000E-01	5.236E+03	5.236E-01	5.236E+03	5.236E+00
9.000E-01	5.550E+03	5.550E-01	5.550E+03	5.550E+00
1.000E+00	5.838E+03	5.838E-01	5.838E+03	5.838E+00
2.000E+00	7.795E+03	7.795E-01	7.795E+03	7.795E+00
3.000E+00	8.585E+03	8.585E-01	8.585E+03	8.585E+00
4.000E+00	8.725E+03	8.725E-01	8.725E+03	8.725E+00
5.000E+00	8.611E+03	8.611E-01	8.611E+03	8.611E+00
6.000E+00	8.394E+03	8.394E-01	8.394E+03	8.394E+00
7.000E+00	8.137E+03	8.137E-01	8.137E+03	8.137E+00
8.000E+00	7.870E+03	7.870E-01	7.870E+03	7.870E+00
9.000E+00	7.607E+03	7.607E-01	7.607E+03	7.607E+00
1.000E+01	7.353E+03	7.353E-01	7.353E+03	7.353E+00
2.000E+01	5.472E+03	5.472E-01	5.472E+03	5.472E+00
3.000E+01	4.383E+03	4.383E-01	4.383E+03	4.383E+00
4.000E+01	3.672E+03	3.672E-01	3.672E+03	3.672E+00
5.000E+01	3.168E+03	3.168E-01	3.168E+03	3.168E+00
6.000E+01	2.790E+03	2.790E-01	2.790E+03	2.790E+00
7.000E+01	2.496E+03	2.496E-01	2.496E+03	2.496E+00
8.000E+01	2.260E+03	2.260E-01	2.260E+03	2.260E+00
9.000E+01	2.066E+03	2.066E-01	2.066E+03	2.066E+00
1.000E+02	1.905E+03	1.905E-01	1.905E+03	1.905E+00
2.000E+02	1.095E+03	1.095E-01	1.095E+03	1.095E+00
3.000E+02	7.869E+02	7.869E-02	7.869E+02	7.869E-01
4.000E+02	6.228E+02	6.228E-02	6.228E+02	6.228E-01
5.000E+02	5.201E+02	5.201E-02	5.201E+02	5.201E-01
6.000E+02	4.493E+02	4.493E-02	4.493E+02	4.493E-01
7.000E+02	3.977E+02	3.977E-02	3.977E+02	3.977E-01
8.000E+02	3.581E+02	3.581E-02	3.581E+02	3.581E-01
9.000E+02	3.268E+02	3.268E-02	3.268E+02	3.268E-01
1.000E+03	3.014E+02	3.014E-02	3.014E+02	3.014E-01
2.000E+03	1.825E+02	1.825E-02	1.825E+02	1.825E-01
3.000E+03	1.408E+02	1.408E-02	1.408E+02	1.408E-01
4.000E+03	1.197E+02	1.197E-02	1.197E+02	1.197E-01
5.000E+03	1.072E+02	1.072E-02	1.072E+02	1.072E-01
6.000E+03	9.880E+01	9.880E-03	9.880E+01	9.880E-02
7.000E+03	9.305E+01	9.305E-03	9.305E+01	9.305E-02
8.000E+03	8.880E+01	8.880E-03	8.880E+01	8.880E-02
9.000E+03	8.563E+01	8.563E-03	8.563E+01	8.563E-02
1.000E+04	8.316E+01	8.316E-03	8.316E+01	8.316E-02
2.000E+04	7.363E+01	7.363E-03	7.363E+01	7.363E-02
3.000E+04	7.215E+01	7.215E-03	7.215E+01	7.215E-02
4.000E+04	7.224E+01	7.224E-03	7.224E+01	7.224E-02
5.000E+04	7.278E+01	7.278E-03	7.278E+01	7.278E-02
6.000E+04	7.343E+01	7.343E-03	7.343E+01	7.343E-02
7.000E+04	7.410E+01	7.410E-03	7.410E+01	7.410E-02
8.000E+04	7.474E+01	7.474E-03	7.474E+01	7.474E-02
9.000E+04	7.535E+01	7.535E-03	7.535E+01	7.535E-02
1.000E+05	7.593E+01	7.593E-03	7.593E+01	7.593E-02

TABLE 165

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: N Z= 7 A= 14.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	2.850E+03	2.850E-01	2.850E+03	2.850E+00
3.000E-01	3.490E+03	3.490E-01	3.490E+03	3.490E+00
4.000E-01	4.031E+03	4.031E-01	4.031E+03	4.031E+00
5.000E-01	4.507E+03	4.507E-01	4.507E+03	4.507E+00
6.000E-01	4.937E+03	4.937E-01	4.937E+03	4.937E+00
7.000E-01	5.332E+03	5.332E-01	5.332E+03	5.332E+00
8.000E-01	5.700E+03	5.700E-01	5.700E+03	5.700E+00
9.000E-01	6.046E+03	6.046E-01	6.046E+03	6.046E+00
1.000E+00	6.373E+03	6.373E-01	6.373E+03	6.373E+00
2.000E+00	8.704E+03	8.704E-01	8.704E+03	8.704E+00
3.000E+00	1.001E+04	1.001E+00	1.001E+04	1.001E+01
4.000E+00	1.049E+04	1.049E+00	1.049E+04	1.049E+01
5.000E+00	1.059E+04	1.059E+00	1.059E+04	1.059E+01
6.000E+00	1.051E+04	1.051E+00	1.051E+04	1.051E+01
7.000E+00	1.033E+04	1.033E+00	1.033E+04	1.033E+01
8.000E+00	1.012E+04	1.012E+00	1.012E+04	1.012E+01
9.000E+00	9.877E+03	9.877E-01	9.877E+03	9.877E+00
1.000E+01	9.633E+03	9.633E-01	9.633E+03	9.633E+00
2.000E+01	7.558E+03	7.558E-01	7.558E+03	7.558E+00
3.000E+01	6.214E+03	6.214E-01	6.214E+03	6.214E+00
4.000E+01	5.300E+03	5.300E-01	5.300E+03	5.300E+00
5.000E+01	4.632E+03	4.632E-01	4.632E+03	4.632E+00
6.000E+01	4.122E+03	4.122E-01	4.122E+03	4.122E+00
7.000E+01	3.718E+03	3.718E-01	3.718E+03	3.718E+00
8.000E+01	3.389E+03	3.389E-01	3.389E+03	3.389E+00
9.000E+01	3.115E+03	3.115E-01	3.115E+03	3.115E+00
1.000E+02	2.885E+03	2.885E-01	2.885E+03	2.885E+00
2.000E+02	1.684E+03	1.684E-01	1.684E+03	1.684E+00
3.000E+02	1.213E+03	1.213E-01	1.213E+03	1.213E+00
4.000E+02	9.603E+02	9.603E-02	9.603E+02	9.603E-01
5.000E+02	8.013E+02	8.013E-02	8.013E+02	8.013E-01
6.000E+02	6.917E+02	6.917E-02	6.917E+02	6.917E-01
7.000E+02	6.114E+02	6.114E-02	6.114E+02	6.114E-01
8.000E+02	5.500E+02	5.500E-02	5.500E+02	5.500E-01
9.000E+02	5.013E+02	5.013E-02	5.013E+02	5.013E-01
1.000E+03	4.618E+02	4.618E-02	4.618E+02	4.618E-01
2.000E+03	2.762E+02	2.762E-02	2.762E+02	2.762E-01
3.000E+03	2.108E+02	2.108E-02	2.108E+02	2.108E-01
4.000E+03	1.773E+02	1.773E-02	1.773E+02	1.773E-01
5.000E+03	1.573E+02	1.573E-02	1.573E+02	1.573E-01
6.000E+03	1.439E+02	1.439E-02	1.439E+02	1.439E-01
7.000E+03	1.345E+02	1.345E-02	1.345E+02	1.345E-01
8.000E+03	1.276E+02	1.276E-02	1.276E+02	1.276E-01
9.000E+03	1.223E+02	1.223E-02	1.223E+02	1.223E-01
1.000E+04	1.182E+02	1.182E-02	1.182E+02	1.182E-01
2.000E+04	1.019E+02	1.019E-02	1.019E+02	1.019E-01
3.000E+04	9.861E+01	9.861E-03	9.861E+01	9.861E-02
4.000E+04	9.814E+01	9.814E-03	9.814E+01	9.814E-02
5.000E+04	9.851E+01	9.851E-03	9.851E+01	9.851E-02
6.000E+04	9.918E+01	9.918E-03	9.918E+01	9.918E-02
7.000E+04	9.994E+01	9.994E-03	9.994E+01	9.994E-02
8.000E+04	1.008E+02	1.008E-02	1.008E+02	1.008E-01
9.000E+04	1.015E+02	1.015E-02	1.015E+02	1.015E-01
1.000E+05	1.023E+02	1.023E-02	1.023E+02	1.023E-01

TABLE 166

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: O Z= 8 A= 16.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	3.051E+03	3.051E-01	3.051E+03	3.051E+00
3.000E-01	3.736E+03	3.736E-01	3.736E+03	3.736E+00
4.000E-01	4.314E+03	4.314E-01	4.314E+03	4.314E+00
5.000E-01	4.824E+03	4.824E-01	4.824E+03	4.824E+00
6.000E-01	5.284E+03	5.284E-01	5.284E+03	5.284E+00
7.000E-01	5.708E+03	5.708E-01	5.708E+03	5.708E+00
8.000E-01	6.102E+03	6.102E-01	6.102E+03	6.102E+00
9.000E-01	6.472E+03	6.472E-01	6.472E+03	6.472E+00
1.000E+00	6.821E+03	6.821E-01	6.821E+03	6.821E+00
2.000E+00	9.468E+03	9.468E-01	9.468E+03	9.468E+00
3.000E+00	1.114E+04	1.114E+00	1.114E+04	1.114E+01
4.000E+00	1.200E+04	1.200E+00	1.200E+04	1.200E+01
5.000E+00	1.237E+04	1.237E+00	1.237E+04	1.237E+01
6.000E+00	1.246E+04	1.246E+00	1.246E+04	1.246E+01
7.000E+00	1.241E+04	1.241E+00	1.241E+04	1.241E+01
8.000E+00	1.228E+04	1.228E+00	1.228E+04	1.228E+01
9.000E+00	1.210E+04	1.210E+00	1.210E+04	1.210E+01
1.000E+01	1.190E+04	1.190E+00	1.190E+04	1.190E+01
2.000E+01	9.793E+03	9.793E-01	9.793E+03	9.793E+00
3.000E+01	8.257E+03	8.257E-01	8.257E+03	8.257E+00
4.000E+01	7.156E+03	7.156E-01	7.156E+03	7.156E+00
5.000E+01	6.330E+03	6.330E-01	6.330E+03	6.330E+00
6.000E+01	5.686E+03	5.686E-01	5.686E+03	5.686E+00
7.000E+01	5.169E+03	5.169E-01	5.169E+03	5.169E+00
8.000E+01	4.742E+03	4.742E-01	4.742E+03	4.742E+00
9.000E+01	4.384E+03	4.384E-01	4.384E+03	4.384E+00
1.000E+02	4.078E+03	4.078E-01	4.078E+03	4.078E+00
2.000E+02	2.434E+03	2.434E-01	2.434E+03	2.434E+00
3.000E+02	1.762E+03	1.762E-01	1.762E+03	1.762E+00
4.000E+02	1.396E+03	1.396E-01	1.396E+03	1.396E+00
5.000E+02	1.165E+03	1.165E-01	1.165E+03	1.165E+00
6.000E+02	1.005E+03	1.005E-01	1.005E+03	1.005E+00
7.000E+02	8.882E+02	8.882E-02	8.882E+02	8.882E-01
8.000E+02	7.982E+02	7.982E-02	7.982E+02	7.982E-01
9.000E+02	7.270E+02	7.270E-02	7.270E+02	7.270E-01
1.000E+03	6.691E+02	6.691E-02	6.691E+02	6.691E-01
2.000E+03	3.965E+02	3.965E-02	3.965E+02	3.965E-01
3.000E+03	2.998E+02	2.998E-02	2.998E+02	2.998E-01
4.000E+03	2.503E+02	2.503E-02	2.503E+02	2.503E-01
5.000E+03	2.203E+02	2.203E-02	2.203E+02	2.203E-01
6.000E+03	2.003E+02	2.003E-02	2.003E+02	2.003E-01
7.000E+03	1.862E+02	1.862E-02	1.862E+02	1.862E-01
8.000E+03	1.756E+02	1.756E-02	1.756E+02	1.756E-01
9.000E+03	1.676E+02	1.676E-02	1.676E+02	1.676E-01
1.000E+04	1.614E+02	1.614E-02	1.614E+02	1.614E-01
2.000E+04	1.355E+02	1.355E-02	1.355E+02	1.355E-01
3.000E+04	1.297E+02	1.297E-02	1.297E+02	1.297E-01
4.000E+04	1.283E+02	1.283E-02	1.283E+02	1.283E-01
5.000E+04	1.283E+02	1.283E-02	1.283E+02	1.283E-01
6.000E+04	1.288E+02	1.288E-02	1.288E+02	1.288E-01
7.000E+04	1.297E+02	1.297E-02	1.297E+02	1.297E-01
8.000E+04	1.306E+02	1.306E-02	1.306E+02	1.306E-01
9.000E+04	1.314E+02	1.314E-02	1.314E+02	1.314E-01
1.000E+05	1.323E+02	1.323E-02	1.323E+02	1.323E-01

TABLE 167

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: F Z= 9 A= 19.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E-01	3.134E+03	3.134E-01	3.134E+03	3.134E+00
3.000E-01	3.838E+03	3.838E-01	3.838E+03	3.838E+00
4.000E-01	4.432E+03	4.432E-01	4.432E+03	4.432E+00
5.000E-01	4.955E+03	4.955E-01	4.955E+03	4.955E+00
6.000E-01	5.428E+03	5.428E-01	5.428E+03	5.428E+00
7.000E-01	5.863E+03	5.863E-01	5.863E+03	5.863E+00
8.000E-01	6.268E+03	6.268E-01	6.268E+03	6.268E+00
9.000E-01	6.649E+03	6.649E-01	6.649E+03	6.649E+00
1.000E+00	7.008E+03	7.008E-01	7.008E+03	7.008E+00
2.000E+00	9.852E+03	9.852E-01	9.852E+03	9.852E+00
3.000E+00	1.173E+04	1.173E+00	1.173E+04	1.173E+01
4.000E+00	1.304E+04	1.304E+00	1.304E+04	1.304E+01
5.000E+00	1.377E+04	1.377E+00	1.377E+04	1.377E+01
6.000E+00	1.414E+04	1.414E+00	1.414E+04	1.414E+01
7.000E+00	1.430E+04	1.430E+00	1.430E+04	1.430E+01
8.000E+00	1.432E+04	1.432E+00	1.432E+04	1.432E+01
9.000E+00	1.426E+04	1.426E+00	1.426E+04	1.426E+01
1.000E+01	1.415E+04	1.415E+00	1.415E+04	1.415E+01
2.000E+01	1.231E+04	1.231E+00	1.231E+04	1.231E+01
3.000E+01	1.068E+04	1.068E+00	1.068E+04	1.068E+01
4.000E+01	9.434E+03	9.434E-01	9.434E+03	9.434E+00
5.000E+01	8.459E+03	8.459E-01	8.459E+03	8.459E+00
6.000E+01	7.681E+03	7.681E-01	7.681E+03	7.681E+00
7.000E+01	7.043E+03	7.043E-01	7.043E+03	7.043E+00
8.000E+01	6.510E+03	6.510E-01	6.510E+03	6.510E+00
9.000E+01	6.057E+03	6.057E-01	6.057E+03	6.057E+00
1.000E+02	5.666E+03	5.666E-01	5.666E+03	5.666E+00
2.000E+02	3.490E+03	3.490E-01	3.490E+03	3.490E+00
3.000E+02	2.550E+03	2.550E-01	2.550E+03	2.550E+00
4.000E+02	2.027E+03	2.027E-01	2.027E+03	2.027E+00
5.000E+02	1.693E+03	1.693E-01	1.693E+03	1.693E+00
6.000E+02	1.461E+03	1.461E-01	1.461E+03	1.461E+00
7.000E+02	1.290E+03	1.290E-01	1.290E+03	1.290E+00
8.000E+02	1.159E+03	1.159E-01	1.159E+03	1.159E+00
9.000E+02	1.055E+03	1.055E-01	1.055E+03	1.055E+00
1.000E+03	9.699E+02	9.699E-02	9.699E+02	9.699E-01
2.000E+03	5.686E+02	5.686E-02	5.686E+02	5.686E-01
3.000E+03	4.258E+02	4.258E-02	4.258E+02	4.258E-01
4.000E+03	3.521E+02	3.521E-02	3.521E+02	3.521E-01
5.000E+03	3.073E+02	3.073E-02	3.073E+02	3.073E-01
6.000E+03	2.772E+02	2.772E-02	2.772E+02	2.772E-01
7.000E+03	2.558E+02	2.558E-02	2.558E+02	2.558E-01
8.000E+03	2.398E+02	2.398E-02	2.398E+02	2.398E-01
9.000E+03	2.274E+02	2.274E-02	2.274E+02	2.274E-01
1.000E+04	2.177E+02	2.177E-02	2.177E+02	2.177E-01
2.000E+04	1.770E+02	1.770E-02	1.770E+02	1.770E-01
3.000E+04	1.665E+02	1.665E-02	1.665E+02	1.665E-01
4.000E+04	1.632E+02	1.632E-02	1.632E+02	1.632E-01
5.000E+04	1.622E+02	1.622E-02	1.622E+02	1.622E-01
6.000E+04	1.624E+02	1.624E-02	1.624E+02	1.624E-01
7.000E+04	1.630E+02	1.630E-02	1.630E+02	1.630E-01
8.000E+04	1.639E+02	1.639E-02	1.639E+02	1.639E-01
9.000E+04	1.647E+02	1.647E-02	1.647E+02	1.647E-01
1.000E+05	1.657E+02	1.657E-02	1.657E+02	1.657E-01

TABLE 168

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: NE Z= 10 A= 20.18

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	4.097E+03	4.097E-01	4.097E+03	4.097E+00
4.000E-01	4.732E+03	4.732E-01	4.732E+03	4.732E+00
5.000E-01	5.292E+03	5.292E-01	5.292E+03	5.292E+00
6.000E-01	5.795E+03	5.795E-01	5.795E+03	5.795E+00
7.000E-01	6.260E+03	6.260E-01	6.260E+03	6.260E+00
8.000E-01	6.692E+03	6.692E-01	6.692E+03	6.692E+00
9.000E-01	7.098E+03	7.098E-01	7.098E+03	7.098E+00
1.000E+00	7.482E+03	7.482E-01	7.482E+03	7.482E+00
2.000E+00	1.056E+04	1.056E+00	1.056E+04	1.056E+01
3.000E+00	1.265E+04	1.265E+00	1.265E+04	1.265E+01
4.000E+00	1.419E+04	1.419E+00	1.419E+04	1.419E+01
5.000E+00	1.516E+04	1.516E+00	1.516E+04	1.516E+01
6.000E+00	1.571E+04	1.571E+00	1.571E+04	1.571E+01
7.000E+00	1.601E+04	1.601E+00	1.601E+04	1.601E+01
8.000E+00	1.614E+04	1.614E+00	1.614E+04	1.614E+01
9.000E+00	1.616E+04	1.616E+00	1.616E+04	1.616E+01
1.000E+01	1.612E+04	1.612E+00	1.612E+04	1.612E+01
2.000E+01	1.447E+04	1.447E+00	1.447E+04	1.447E+01
3.000E+01	1.277E+04	1.277E+00	1.277E+04	1.277E+01
4.000E+01	1.142E+04	1.142E+00	1.142E+04	1.142E+01
5.000E+01	1.033E+04	1.033E+00	1.033E+04	1.033E+01
6.000E+01	9.438E+03	9.438E-01	9.438E+03	9.438E+00
7.000E+01	8.701E+03	8.701E-01	8.701E+03	8.701E+00
8.000E+01	8.080E+03	8.080E-01	8.080E+03	8.080E+00
9.000E+01	7.547E+03	7.547E-01	7.547E+03	7.547E+00
1.000E+02	7.083E+03	7.083E-01	7.083E+03	7.083E+00
2.000E+02	4.457E+03	4.457E-01	4.457E+03	4.457E+00
3.000E+02	3.286E+03	3.286E-01	3.286E+03	3.286E+00
4.000E+02	2.620E+03	2.620E-01	2.620E+03	2.620E+00
5.000E+02	2.191E+03	2.191E-01	2.191E+03	2.191E+00
6.000E+02	1.892E+03	1.892E-01	1.892E+03	1.892E+00
7.000E+02	1.672E+03	1.672E-01	1.672E+03	1.672E+00
8.000E+02	1.501E+03	1.501E-01	1.501E+03	1.501E+00
9.000E+02	1.366E+03	1.366E-01	1.366E+03	1.366E+00
1.000E+03	1.256E+03	1.256E-01	1.256E+03	1.256E+00
2.000E+03	7.342E+02	7.342E-02	7.342E+02	7.342E-01
3.000E+03	5.480E+02	5.480E-02	5.480E+02	5.480E-01
4.000E+03	4.519E+02	4.519E-02	4.519E+02	4.519E-01
5.000E+03	3.932E+02	3.932E-02	3.932E+02	3.932E-01
6.000E+03	3.538E+02	3.538E-02	3.538E+02	3.538E-01
7.000E+03	3.256E+02	3.256E-02	3.256E+02	3.256E-01
8.000E+03	3.046E+02	3.046E-02	3.046E+02	3.046E-01
9.000E+03	2.884E+02	2.884E-02	2.884E+02	2.884E-01
1.000E+04	2.755E+02	2.755E-02	2.755E+02	2.755E-01
2.000E+04	2.213E+02	2.213E-02	2.213E+02	2.213E-01
3.000E+04	2.069E+02	2.069E-02	2.069E+02	2.069E-01
4.000E+04	2.020E+02	2.020E-02	2.020E+02	2.020E-01
5.000E+04	2.004E+02	2.004E-02	2.004E+02	2.004E-01
6.000E+04	2.004E+02	2.004E-02	2.004E+02	2.004E-01
7.000E+04	2.009E+02	2.009E-02	2.009E+02	2.009E-01
8.000E+04	2.017E+02	2.017E-02	2.017E+02	2.017E-01
9.000E+04	2.028E+02	2.028E-02	2.028E+02	2.028E-01
1.000E+05	2.039E+02	2.039E-02	2.039E+02	2.039E-01
2.000E+05	2.137E+02	2.137E-02	2.137E+02	2.137E-01

TABLE 169

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: NA Z= 11 A= 22.99

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	4.170E+03	4.170E-01	4.170E+03	4.170E+00
4.000E-01	4.815E+03	4.815E-01	4.815E+03	4.815E+00
5.000E-01	5.384E+03	5.384E-01	5.384E+03	5.384E+00
6.000E-01	5.898E+03	5.898E-01	5.898E+03	5.898E+00
7.000E-01	6.370E+03	6.370E-01	6.370E+03	6.370E+00
8.000E-01	6.810E+03	6.810E-01	6.810E+03	6.810E+00
9.000E-01	7.223E+03	7.223E-01	7.223E+03	7.223E+00
1.000E+00	7.614E+03	7.614E-01	7.614E+03	7.614E+00
2.000E+00	1.077E+04	1.077E+00	1.077E+04	1.077E+01
3.000E+00	1.303E+04	1.303E+00	1.303E+04	1.303E+01
4.000E+00	1.473E+04	1.473E+00	1.473E+04	1.473E+01
5.000E+00	1.603E+04	1.603E+00	1.603E+04	1.603E+01
6.000E+00	1.687E+04	1.687E+00	1.687E+04	1.687E+01
7.000E+00	1.739E+04	1.739E+00	1.739E+04	1.739E+01
8.000E+00	1.772E+04	1.772E+00	1.772E+04	1.772E+01
9.000E+00	1.790E+04	1.790E+00	1.790E+04	1.790E+01
1.000E+01	1.798E+04	1.798E+00	1.798E+04	1.798E+01
2.000E+01	1.689E+04	1.689E+00	1.689E+04	1.689E+01
3.000E+01	1.527E+04	1.527E+00	1.527E+04	1.527E+01
4.000E+01	1.386E+04	1.386E+00	1.386E+04	1.386E+01
5.000E+01	1.269E+04	1.269E+00	1.269E+04	1.269E+01
6.000E+01	1.170E+04	1.170E+00	1.170E+04	1.170E+01
7.000E+01	1.088E+04	1.088E+00	1.088E+04	1.088E+01
8.000E+01	1.016E+04	1.016E+00	1.016E+04	1.016E+01
9.000E+01	9.544E+03	9.544E-01	9.544E+03	9.544E+00
1.000E+02	9.004E+03	9.004E-01	9.004E+03	9.004E+00
2.000E+02	5.830E+03	5.830E-01	5.830E+03	5.830E+00
3.000E+02	4.358E+03	4.358E-01	4.358E+03	4.358E+00
4.000E+02	3.499E+03	3.499E-01	3.499E+03	3.499E+00
5.000E+02	2.935E+03	2.935E-01	2.935E+03	2.935E+00
6.000E+02	2.538E+03	2.538E-01	2.538E+03	2.538E+00
7.000E+02	2.243E+03	2.243E-01	2.243E+03	2.243E+00
8.000E+02	2.015E+03	2.015E-01	2.015E+03	2.015E+00
9.000E+02	1.834E+03	1.834E-01	1.834E+03	1.834E+00
1.000E+03	1.685E+03	1.685E-01	1.685E+03	1.685E+00
2.000E+03	9.798E+02	9.798E-02	9.798E+02	9.798E-01
3.000E+03	7.268E+02	7.268E-02	7.268E+02	7.268E-01
4.000E+03	5.956E+02	5.956E-02	5.956E+02	5.956E-01
5.000E+03	5.153E+02	5.153E-02	5.153E+02	5.153E-01
6.000E+03	4.613E+02	4.613E-02	4.613E+02	4.613E-01
7.000E+03	4.226E+02	4.226E-02	4.226E+02	4.226E-01
8.000E+03	3.934E+02	3.934E-02	3.934E+02	3.934E-01
9.000E+03	3.708E+02	3.708E-02	3.708E+02	3.708E-01
1.000E+04	3.529E+02	3.529E-02	3.529E+02	3.529E-01
2.000E+04	2.763E+02	2.763E-02	2.763E+02	2.763E-01
3.000E+04	2.546E+02	2.546E-02	2.546E+02	2.546E-01
4.000E+04	2.465E+02	2.465E-02	2.465E+02	2.465E-01
5.000E+04	2.434E+02	2.434E-02	2.434E+02	2.434E-01
6.000E+04	2.424E+02	2.424E-02	2.424E+02	2.424E-01
7.000E+04	2.424E+02	2.424E-02	2.424E+02	2.424E-01
8.000E+04	2.431E+02	2.431E-02	2.431E+02	2.431E-01
9.000E+04	2.440E+02	2.440E-02	2.440E+02	2.440E-01
1.000E+05	2.451E+02	2.451E-02	2.451E+02	2.451E-01
2.000E+05	2.561E+02	2.561E-02	2.561E+02	2.561E-01

TABLE 170

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: MG Z= 12 A= 24.32

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	4.360E+03	4.360E-01	4.360E+03	4.360E+00
4.000E-01	5.034E+03	5.034E-01	5.034E+03	5.034E+00
5.000E-01	5.628E+03	5.628E-01	5.628E+03	5.628E+00
6.000E-01	6.165E+03	6.165E-01	6.165E+03	6.165E+00
7.000E-01	6.659E+03	6.659E-01	6.659E+03	6.659E+00
8.000E-01	7.119E+03	7.119E-01	7.119E+03	7.119E+00
9.000E-01	7.551E+03	7.551E-01	7.551E+03	7.551E+00
1.000E+00	7.958E+03	7.958E-01	7.958E+03	7.958E+00
2.000E+00	1.125E+04	1.125E+00	1.125E+04	1.125E+01
3.000E+00	1.369E+04	1.369E+00	1.369E+04	1.369E+01
4.000E+00	1.553E+04	1.553E+00	1.553E+04	1.553E+01
5.000E+00	1.701E+04	1.701E+00	1.701E+04	1.701E+01
6.000E+00	1.805E+04	1.805E+00	1.805E+04	1.805E+01
7.000E+00	1.875E+04	1.875E+00	1.875E+04	1.875E+01
8.000E+00	1.921E+04	1.921E+00	1.921E+04	1.921E+01
9.000E+00	1.951E+04	1.951E+00	1.951E+04	1.951E+01
1.000E+01	1.968E+04	1.968E+00	1.968E+04	1.968E+01
2.000E+01	1.900E+04	1.900E+00	1.900E+04	1.900E+01
3.000E+01	1.744E+04	1.744E+00	1.744E+04	1.744E+01
4.000E+01	1.601E+04	1.601E+00	1.601E+04	1.601E+01
5.000E+01	1.478E+04	1.478E+00	1.478E+04	1.478E+01
6.000E+01	1.373E+04	1.373E+00	1.373E+04	1.373E+01
7.000E+01	1.281E+04	1.281E+00	1.281E+04	1.281E+01
8.000E+01	1.203E+04	1.203E+00	1.203E+04	1.203E+01
9.000E+01	1.134E+04	1.134E+00	1.134E+04	1.134E+01
1.000E+02	1.073E+04	1.073E+00	1.073E+04	1.073E+01
2.000E+02	7.088E+03	7.088E-01	7.088E+03	7.088E+00
3.000E+02	5.354E+03	5.354E-01	5.354E+03	5.354E+00
4.000E+02	4.323E+03	4.323E-01	4.323E+03	4.323E+00
5.000E+02	3.639E+03	3.639E-01	3.639E+03	3.639E+00
6.000E+02	3.151E+03	3.151E-01	3.151E+03	3.151E+00
7.000E+02	2.788E+03	2.788E-01	2.788E+03	2.788E+00
8.000E+02	2.505E+03	2.505E-01	2.505E+03	2.505E+00
9.000E+02	2.280E+03	2.280E-01	2.280E+03	2.280E+00
1.000E+03	2.096E+03	2.096E-01	2.096E+03	2.096E+00
2.000E+03	1.217E+03	1.217E-01	1.217E+03	1.217E+00
3.000E+03	9.004E+02	9.004E-02	9.004E+02	9.004E-01
4.000E+03	7.361E+02	7.361E-02	7.361E+02	7.361E-01
5.000E+03	6.356E+02	6.356E-02	6.356E+02	6.356E-01
6.000E+03	5.676E+02	5.676E-02	5.676E+02	5.676E-01
7.000E+03	5.189E+02	5.189E-02	5.189E+02	5.189E-01
8.000E+03	4.821E+02	4.821E-02	4.821E+02	4.821E-01
9.000E+03	4.537E+02	4.537E-02	4.537E+02	4.537E-01
1.000E+04	4.311E+02	4.311E-02	4.311E+02	4.311E-01
2.000E+04	3.337E+02	3.337E-02	3.337E+02	3.337E-01
3.000E+04	3.057E+02	3.057E-02	3.057E+02	3.057E-01
4.000E+04	2.948E+02	2.948E-02	2.948E+02	2.948E-01
5.000E+04	2.903E+02	2.903E-02	2.903E+02	2.903E-01
6.000E+04	2.887E+02	2.887E-02	2.887E+02	2.887E-01
7.000E+04	2.884E+02	2.884E-02	2.884E+02	2.884E-01
8.000E+04	2.889E+02	2.889E-02	2.889E+02	2.889E-01
9.000E+04	2.898E+02	2.898E-02	2.898E+02	2.898E-01
1.000E+05	2.910E+02	2.910E-02	2.910E+02	2.910E-01
2.000E+05	3.034E+02	3.034E-02	3.034E+02	3.034E-01

TABLE 171

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AL Z= 13 A= 26.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	4.411E+03	4.411E-01	4.411E+03	4.411E+00
4.000E-01	5.095E+03	5.095E-01	5.095E+03	5.095E+00
5.000E-01	5.696E+03	5.696E-01	5.696E+03	5.696E+00
6.000E-01	6.239E+03	6.239E-01	6.239E+03	6.239E+00
7.000E-01	6.740E+03	6.740E-01	6.740E+03	6.740E+00
8.000E-01	7.205E+03	7.205E-01	7.205E+03	7.205E+00
9.000E-01	7.642E+03	7.642E-01	7.642E+03	7.642E+00
1.000E+00	8.055E+03	8.055E-01	8.055E+03	8.055E+00
2.000E+00	1.139E+04	1.139E+00	1.139E+04	1.139E+01
3.000E+00	1.392E+04	1.392E+00	1.392E+04	1.392E+01
4.000E+00	1.588E+04	1.588E+00	1.588E+04	1.588E+01
5.000E+00	1.747E+04	1.747E+00	1.747E+04	1.747E+01
6.000E+00	1.876E+04	1.876E+00	1.876E+04	1.876E+01
7.000E+00	1.969E+04	1.969E+00	1.969E+04	1.969E+01
8.000E+00	2.035E+04	2.035E+00	2.035E+04	2.035E+01
9.000E+00	2.081E+04	2.081E+00	2.081E+04	2.081E+01
1.000E+01	2.113E+04	2.113E+00	2.113E+04	2.113E+01
2.000E+01	2.118E+04	2.118E+00	2.118E+04	2.118E+01
3.000E+01	1.984E+04	1.984E+00	1.984E+04	1.984E+01
4.000E+01	1.846E+04	1.846E+00	1.846E+04	1.846E+01
5.000E+01	1.722E+04	1.722E+00	1.722E+04	1.722E+01
6.000E+01	1.612E+04	1.612E+00	1.612E+04	1.612E+01
7.000E+01	1.516E+04	1.516E+00	1.516E+04	1.516E+01
8.000E+01	1.431E+04	1.431E+00	1.431E+04	1.431E+01
9.000E+01	1.356E+04	1.356E+00	1.356E+04	1.356E+01
1.000E+02	1.288E+04	1.288E+00	1.288E+04	1.288E+01
2.000E+02	8.731E+03	8.731E-01	8.731E+03	8.731E+00
3.000E+02	6.686E+03	6.686E-01	6.686E+03	6.686E+00
4.000E+02	5.445E+03	5.445E-01	5.445E+03	5.445E+00
5.000E+02	4.606E+03	4.606E-01	4.606E+03	4.606E+00
6.000E+02	4.003E+03	4.003E-01	4.003E+03	4.003E+00
7.000E+02	3.546E+03	3.546E-01	3.546E+03	3.546E+00
8.000E+02	3.191E+03	3.191E-01	3.191E+03	3.191E+00
9.000E+02	2.906E+03	2.906E-01	2.906E+03	2.906E+00
1.000E+03	2.672E+03	2.672E-01	2.672E+03	2.672E+00
2.000E+03	1.548E+03	1.548E-01	1.548E+03	1.548E+00
3.000E+03	1.140E+03	1.140E-01	1.140E+03	1.140E+00
4.000E+03	9.281E+02	9.281E-02	9.281E+02	9.281E-01
5.000E+03	7.981E+02	7.981E-02	7.981E+02	7.981E-01
6.000E+03	7.102E+02	7.102E-02	7.102E+02	7.102E-01
7.000E+03	6.468E+02	6.468E-02	6.468E+02	6.468E-01
8.000E+03	5.990E+02	5.990E-02	5.990E+02	5.990E-01
9.000E+03	5.619E+02	5.619E-02	5.619E+02	5.619E-01
1.000E+04	5.322E+02	5.322E-02	5.322E+02	5.322E-01
2.000E+04	4.033E+02	4.033E-02	4.033E+02	4.033E-01
3.000E+04	3.654E+02	3.654E-02	3.654E+02	3.654E-01
4.000E+04	3.498E+02	3.498E-02	3.498E+02	3.498E-01
5.000E+04	3.427E+02	3.427E-02	3.427E+02	3.427E-01
6.000E+04	3.396E+02	3.396E-02	3.396E+02	3.396E-01
7.000E+04	3.386E+02	3.386E-02	3.386E+02	3.386E-01
8.000E+04	3.386E+02	3.386E-02	3.386E+02	3.386E-01
9.000E+04	3.391E+02	3.391E-02	3.391E+02	3.391E-01
1.000E+05	3.401E+02	3.401E-02	3.401E+02	3.401E-01
2.000E+05	3.535E+02	3.535E-02	3.535E+02	3.535E-01

TABLE 172

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: SI Z= 14 A= 28.09

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
3.000E-01	4.577E+03	4.577E-01	4.577E+03	4.577E+00
4.000E-01	5.286E+03	5.286E-01	5.286E+03	5.286E+00
5.000E-01	5.911E+03	5.911E-01	5.911E+03	5.911E+00
6.000E-01	6.474E+03	6.474E-01	6.474E+03	6.474E+00
7.000E-01	6.993E+03	6.993E-01	6.993E+03	6.993E+00
8.000E-01	7.476E+03	7.476E-01	7.476E+03	7.476E+00
9.000E-01	7.929E+03	7.929E-01	7.929E+03	7.929E+00
1.000E+00	8.359E+03	8.359E-01	8.359E+03	8.359E+00
2.000E+00	1.182E+04	1.182E+00	1.182E+04	1.182E+01
3.000E+00	1.447E+04	1.447E+00	1.447E+04	1.447E+01
4.000E+00	1.656E+04	1.656E+00	1.656E+04	1.656E+01
5.000E+00	1.825E+04	1.825E+00	1.825E+04	1.825E+01
6.000E+00	1.968E+04	1.968E+00	1.968E+04	1.968E+01
7.000E+00	2.077E+04	2.077E+00	2.077E+04	2.077E+01
8.000E+00	2.157E+04	2.157E+00	2.157E+04	2.157E+01
9.000E+00	2.215E+04	2.215E+00	2.215E+04	2.215E+01
1.000E+01	2.257E+04	2.257E+00	2.257E+04	2.257E+01
2.000E+01	2.312E+04	2.312E+00	2.312E+04	2.312E+01
3.000E+01	2.193E+04	2.193E+00	2.193E+04	2.193E+01
4.000E+01	2.059E+04	2.059E+00	2.059E+04	2.059E+01
5.000E+01	1.933E+04	1.933E+00	1.933E+04	1.933E+01
6.000E+01	1.819E+04	1.819E+00	1.819E+04	1.819E+01
7.000E+01	1.718E+04	1.718E+00	1.718E+04	1.718E+01
8.000E+01	1.628E+04	1.628E+00	1.628E+04	1.628E+01
9.000E+01	1.547E+04	1.547E+00	1.547E+04	1.547E+01
1.000E+02	1.475E+04	1.475E+00	1.475E+04	1.475E+01
2.000E+02	1.017E+04	1.017E+00	1.017E+04	1.017E+01
3.000E+02	7.859E+03	7.859E-01	7.859E+03	7.859E+00
4.000E+02	6.437E+03	6.437E-01	6.437E+03	6.437E+00
5.000E+02	5.468E+03	5.468E-01	5.468E+03	5.468E+00
6.000E+02	4.763E+03	4.763E-01	4.763E+03	4.763E+00
7.000E+02	4.229E+03	4.229E-01	4.229E+03	4.229E+00
8.000E+02	3.809E+03	3.809E-01	3.809E+03	3.809E+00
9.000E+02	3.471E+03	3.471E-01	3.471E+03	3.471E+00
1.000E+03	3.193E+03	3.193E-01	3.193E+03	3.193E+00
2.000E+03	1.850E+03	1.850E-01	1.850E+03	1.850E+00
3.000E+03	1.361E+03	1.361E-01	1.361E+03	1.361E+00
4.000E+03	1.107E+03	1.107E-01	1.107E+03	1.107E+00
5.000E+03	9.502E+02	9.502E-02	9.502E+02	9.502E-01
6.000E+03	8.443E+02	8.443E-02	8.443E+02	8.443E-01
7.000E+03	7.679E+02	7.679E-02	7.679E+02	7.679E-01
8.000E+03	7.105E+02	7.105E-02	7.105E+02	7.105E-01
9.000E+03	6.657E+02	6.657E-02	6.657E+02	6.657E-01
1.000E+04	6.298E+02	6.298E-02	6.298E+02	6.298E-01
2.000E+04	4.734E+02	4.734E-02	4.734E+02	4.734E-01
3.000E+04	4.270E+02	4.270E-02	4.270E+02	4.270E-01
4.000E+04	4.077E+02	4.077E-02	4.077E+02	4.077E-01
5.000E+04	3.987E+02	3.987E-02	3.987E+02	3.987E-01
6.000E+04	3.945E+02	3.945E-02	3.945E+02	3.945E-01
7.000E+04	3.928E+02	3.928E-02	3.928E+02	3.928E-01
8.000E+04	3.925E+02	3.925E-02	3.925E+02	3.925E-01
9.000E+04	3.930E+02	3.930E-02	3.930E+02	3.930E-01
1.000E+05	3.940E+02	3.940E-02	3.940E+02	3.940E-01
2.000E+05	4.088E+02	4.088E-02	4.088E+02	4.088E-01

TABLE 173

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: P Z= 15 A= 30.98

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	5.298E+03	5.298E-01	5.298E+03	5.298E+00
5.000E-01	5.924E+03	5.924E-01	5.924E+03	5.924E+00
6.000E-01	6.489E+03	6.489E-01	6.489E+03	6.489E+00
7.000E-01	7.009E+03	7.009E-01	7.009E+03	7.009E+00
8.000E-01	7.493E+03	7.493E-01	7.493E+03	7.493E+00
9.000E-01	7.948E+03	7.948E-01	7.948E+03	7.948E+00
1.000E+00	8.378E+03	8.378E-01	8.378E+03	8.378E+00
2.000E+00	1.184E+04	1.184E+00	1.184E+04	1.184E+01
3.000E+00	1.451E+04	1.451E+00	1.451E+04	1.451E+01
4.000E+00	1.668E+04	1.668E+00	1.668E+04	1.668E+01
5.000E+00	1.847E+04	1.847E+00	1.847E+04	1.847E+01
6.000E+00	1.997E+04	1.997E+00	1.997E+04	1.997E+01
7.000E+00	2.125E+04	2.125E+00	2.125E+04	2.125E+01
8.000E+00	2.226E+04	2.226E+00	2.226E+04	2.226E+01
9.000E+00	2.302E+04	2.302E+00	2.302E+04	2.302E+01
1.000E+01	2.360E+04	2.360E+00	2.360E+04	2.360E+01
2.000E+01	2.506E+04	2.506E+00	2.506E+04	2.506E+01
3.000E+01	2.419E+04	2.419E+00	2.419E+04	2.419E+01
4.000E+01	2.300E+04	2.300E+00	2.300E+04	2.300E+01
5.000E+01	2.179E+04	2.179E+00	2.179E+04	2.179E+01
6.000E+01	2.067E+04	2.067E+00	2.067E+04	2.067E+01
7.000E+01	1.965E+04	1.965E+00	1.965E+04	1.965E+01
8.000E+01	1.872E+04	1.872E+00	1.872E+04	1.872E+01
9.000E+01	1.789E+04	1.789E+00	1.789E+04	1.789E+01
1.000E+02	1.712E+04	1.712E+00	1.712E+04	1.712E+01
2.000E+02	1.211E+04	1.211E+00	1.211E+04	1.211E+01
3.000E+02	9.472E+03	9.472E-01	9.472E+03	9.472E+00
4.000E+02	7.827E+03	7.827E-01	7.827E+03	7.827E+00
5.000E+02	6.691E+03	6.691E-01	6.691E+03	6.691E+00
6.000E+02	5.854E+03	5.854E-01	5.854E+03	5.854E+00
7.000E+02	5.212E+03	5.212E-01	5.212E+03	5.212E+00
8.000E+02	4.704E+03	4.704E-01	4.704E+03	4.704E+00
9.000E+02	4.292E+03	4.292E-01	4.292E+03	4.292E+00
1.000E+03	3.952E+03	3.952E-01	3.952E+03	3.952E+00
2.000E+03	2.290E+03	2.290E-01	2.290E+03	2.290E+00
3.000E+03	1.681E+03	1.681E-01	1.681E+03	1.681E+00
4.000E+03	1.361E+03	1.361E-01	1.361E+03	1.361E+00
5.000E+03	1.165E+03	1.165E-01	1.165E+03	1.165E+00
6.000E+03	1.032E+03	1.032E-01	1.032E+03	1.032E+00
7.000E+03	9.357E+02	9.357E-02	9.357E+02	9.357E-01
8.000E+03	8.630E+02	8.630E-02	8.630E+02	8.630E-01
9.000E+03	8.064E+02	8.064E-02	8.064E+02	8.064E-01
1.000E+04	7.611E+02	7.611E-02	7.611E+02	7.611E-01
2.000E+04	5.608E+02	5.608E-02	5.608E+02	5.608E-01
3.000E+04	5.005E+02	5.005E-02	5.005E+02	5.005E-01
4.000E+04	4.742E+02	4.742E-02	4.742E+02	4.742E-01
5.000E+04	4.615E+02	4.615E-02	4.615E+02	4.615E-01
6.000E+04	4.550E+02	4.550E-02	4.550E+02	4.550E-01
7.000E+04	4.519E+02	4.519E-02	4.519E+02	4.519E-01
8.000E+04	4.507E+02	4.507E-02	4.507E+02	4.507E-01
9.000E+04	4.506E+02	4.506E-02	4.506E+02	4.506E-01
1.000E+05	4.513E+02	4.513E-02	4.513E+02	4.513E-01
2.000E+05	4.662E+02	4.662E-02	4.662E+02	4.662E-01
3.000E+05	4.799E+02	4.799E-02	4.799E+02	4.799E-01

TABLE 174

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: S Z= 16 A= 32.07

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	5.453E+03	5.453E-01	5.453E+03	5.453E+00
5.000E-01	6.096E+03	6.096E-01	6.096E+03	6.096E+00
6.000E-01	6.678E+03	6.678E-01	6.678E+03	6.678E+00
7.000E-01	7.213E+03	7.213E-01	7.213E+03	7.213E+00
8.000E-01	7.711E+03	7.711E-01	7.711E+03	7.711E+00
9.000E-01	8.178E+03	8.178E-01	8.178E+03	8.178E+00
1.000E+00	8.621E+03	8.621E-01	8.621E+03	8.621E+00
2.000E+00	1.219E+04	1.219E+00	1.219E+04	1.219E+01
3.000E+00	1.493E+04	1.493E+00	1.493E+04	1.493E+01
4.000E+00	1.720E+04	1.720E+00	1.720E+04	1.720E+01
5.000E+00	1.908E+04	1.908E+00	1.908E+04	1.908E+01
6.000E+00	2.067E+04	2.067E+00	2.067E+04	2.067E+01
7.000E+00	2.204E+04	2.204E+00	2.204E+04	2.204E+01
8.000E+00	2.319E+04	2.319E+00	2.319E+04	2.319E+01
9.000E+00	2.407E+04	2.407E+00	2.407E+04	2.407E+01
1.000E+01	2.476E+04	2.476E+00	2.476E+04	2.476E+01
2.000E+01	2.680E+04	2.680E+00	2.680E+04	2.680E+01
3.000E+01	2.617E+04	2.617E+00	2.617E+04	2.617E+01
4.000E+01	2.506E+04	2.506E+00	2.506E+04	2.506E+01
5.000E+01	2.390E+04	2.390E+00	2.390E+04	2.390E+01
6.000E+01	2.278E+04	2.278E+00	2.278E+04	2.278E+01
7.000E+01	2.173E+04	2.173E+00	2.173E+04	2.173E+01
8.000E+01	2.079E+04	2.079E+00	2.079E+04	2.079E+01
9.000E+01	1.991E+04	1.991E+00	1.991E+04	1.991E+01
1.000E+02	1.910E+04	1.910E+00	1.910E+04	1.910E+01
2.000E+02	1.373E+04	1.373E+00	1.373E+04	1.373E+01
3.000E+02	1.083E+04	1.083E+00	1.083E+04	1.083E+01
4.000E+02	9.006E+03	9.006E-01	9.006E+03	9.006E+00
5.000E+02	7.728E+03	7.728E-01	7.728E+03	7.728E+00
6.000E+02	6.783E+03	6.783E-01	6.783E+03	6.783E+00
7.000E+02	6.054E+03	6.054E-01	6.054E+03	6.054E+00
8.000E+02	5.472E+03	5.472E-01	5.472E+03	5.472E+00
9.000E+02	5.000E+03	5.000E-01	5.000E+03	5.000E+00
1.000E+03	4.608E+03	4.608E-01	4.608E+03	4.608E+00
2.000E+03	2.676E+03	2.676E-01	2.676E+03	2.676E+00
3.000E+03	1.962E+03	1.962E-01	1.962E+03	1.962E+00
4.000E+03	1.588E+03	1.588E-01	1.588E+03	1.588E+00
5.000E+03	1.357E+03	1.357E-01	1.357E+03	1.357E+00
6.000E+03	1.201E+03	1.201E-01	1.201E+03	1.201E+00
7.000E+03	1.087E+03	1.087E-01	1.087E+03	1.087E+00
8.000E+03	1.002E+03	1.002E-01	1.002E+03	1.002E+00
9.000E+03	9.358E+02	9.358E-02	9.358E+02	9.358E-01
1.000E+04	8.823E+02	8.823E-02	8.823E+02	8.823E-01
2.000E+04	6.457E+02	6.457E-02	6.457E+02	6.457E-01
3.000E+04	5.741E+02	5.741E-02	5.741E+02	5.741E-01
4.000E+04	5.425E+02	5.425E-02	5.425E+02	5.425E-01
5.000E+04	5.269E+02	5.269E-02	5.269E+02	5.269E-01
6.000E+04	5.189E+02	5.189E-02	5.189E+02	5.189E-01
7.000E+04	5.148E+02	5.148E-02	5.148E+02	5.148E-01
8.000E+04	5.131E+02	5.131E-02	5.131E+02	5.131E-01
9.000E+04	5.126E+02	5.126E-02	5.126E+02	5.126E-01
1.000E+05	5.131E+02	5.131E-02	5.131E+02	5.131E-01
2.000E+05	5.292E+02	5.292E-02	5.292E+02	5.292E-01
3.000E+05	5.446E+02	5.446E-02	5.446E+02	5.446E-01

TABLE 175

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CL Z= 17 A= 35.46

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	5.403E+03	5.403E-01	5.403E+03	5.403E+00
5.000E-01	6.041E+03	6.041E-01	6.041E+03	6.041E+00
6.000E-01	6.619E+03	6.619E-01	6.619E+03	6.619E+00
7.000E-01	7.148E+03	7.148E-01	7.148E+03	7.148E+00
8.000E-01	7.642E+03	7.642E-01	7.642E+03	7.642E+00
9.000E-01	8.106E+03	8.106E-01	8.106E+03	8.106E+00
1.000E+00	8.543E+03	8.543E-01	8.543E+03	8.543E+00
2.000E+00	1.208E+04	1.208E+00	1.208E+04	1.208E+01
3.000E+00	1.480E+04	1.480E+00	1.480E+04	1.480E+01
4.000E+00	1.708E+04	1.708E+00	1.708E+04	1.708E+01
5.000E+00	1.902E+04	1.902E+00	1.902E+04	1.902E+01
6.000E+00	2.067E+04	2.067E+00	2.067E+04	2.067E+01
7.000E+00	2.210E+04	2.210E+00	2.210E+04	2.210E+01
8.000E+00	2.339E+04	2.339E+00	2.339E+04	2.339E+01
9.000E+00	2.447E+04	2.447E+00	2.447E+04	2.447E+01
1.000E+01	2.532E+04	2.532E+00	2.532E+04	2.532E+01
2.000E+01	2.841E+04	2.841E+00	2.841E+04	2.841E+01
3.000E+01	2.825E+04	2.825E+00	2.825E+04	2.825E+01
4.000E+01	2.738E+04	2.738E+00	2.738E+04	2.738E+01
5.000E+01	2.634E+04	2.634E+00	2.634E+04	2.634E+01
6.000E+01	2.530E+04	2.530E+00	2.530E+04	2.530E+01
7.000E+01	2.430E+04	2.430E+00	2.430E+04	2.430E+01
8.000E+01	2.336E+04	2.336E+00	2.336E+04	2.336E+01
9.000E+01	2.248E+04	2.248E+00	2.248E+04	2.248E+01
1.000E+02	2.167E+04	2.167E+00	2.167E+04	2.167E+01
2.000E+02	1.597E+04	1.597E+00	1.597E+04	1.597E+01
3.000E+02	1.278E+04	1.278E+00	1.278E+04	1.278E+01
4.000E+02	1.071E+04	1.071E+00	1.071E+04	1.071E+01
5.000E+02	9.249E+03	9.249E-01	9.249E+03	9.249E+00
6.000E+02	8.158E+03	8.158E-01	8.158E+03	8.158E+00
7.000E+02	7.308E+03	7.308E-01	7.308E+03	7.308E+00
8.000E+02	6.627E+03	6.627E-01	6.627E+03	6.627E+00
9.000E+02	6.069E+03	6.069E-01	6.069E+03	6.069E+00
1.000E+03	5.603E+03	5.603E-01	5.603E+03	5.603E+00
2.000E+03	3.264E+03	3.264E-01	3.264E+03	3.264E+00
3.000E+03	2.388E+03	2.388E-01	2.388E+03	2.388E+00
4.000E+03	1.928E+03	1.928E-01	1.928E+03	1.928E+00
5.000E+03	1.643E+03	1.643E-01	1.643E+03	1.643E+00
6.000E+03	1.449E+03	1.449E-01	1.449E+03	1.449E+00
7.000E+03	1.309E+03	1.309E-01	1.309E+03	1.309E+00
8.000E+03	1.203E+03	1.203E-01	1.203E+03	1.203E+00
9.000E+03	1.120E+03	1.120E-01	1.120E+03	1.120E+00
1.000E+04	1.053E+03	1.053E-01	1.053E+03	1.053E+00
2.000E+04	7.560E+02	7.560E-02	7.560E+02	7.560E-01
3.000E+04	6.648E+02	6.648E-02	6.648E+02	6.648E-01
4.000E+04	6.231E+02	6.231E-02	6.231E+02	6.231E-01
5.000E+04	6.017E+02	6.017E-02	6.017E+02	6.017E-01
6.000E+04	5.902E+02	5.902E-02	5.902E+02	5.902E-01
7.000E+04	5.839E+02	5.839E-02	5.839E+02	5.839E-01
8.000E+04	5.805E+02	5.805E-02	5.805E+02	5.805E-01
9.000E+04	5.790E+02	5.790E-02	5.790E+02	5.790E-01
1.000E+05	5.787E+02	5.787E-02	5.787E+02	5.787E-01
2.000E+05	5.937E+02	5.937E-02	5.937E+02	5.937E-01
3.000E+05	6.103E+02	6.103E-02	6.103E+02	6.103E-01

TABLE 176

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AR Z= 18 A= 39.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	5.292E+03	5.292E-01	5.292E+03	5.292E+00
5.000E-01	5.917E+03	5.917E-01	5.917E+03	5.917E+00
6.000E-01	6.481E+03	6.481E-01	6.481E+03	6.481E+00
7.000E-01	7.000E+03	7.000E-01	7.000E+03	7.000E+00
8.000E-01	7.483E+03	7.483E-01	7.483E+03	7.483E+00
9.000E-01	7.937E+03	7.937E-01	7.937E+03	7.937E+00
1.000E+00	8.365E+03	8.365E-01	8.365E+03	8.365E+00
2.000E+00	1.183E+04	1.183E+00	1.183E+04	1.183E+01
3.000E+00	1.449E+04	1.449E+00	1.449E+04	1.449E+01
4.000E+00	1.673E+04	1.673E+00	1.673E+04	1.673E+01
5.000E+00	1.870E+04	1.870E+00	1.870E+04	1.870E+01
6.000E+00	2.039E+04	2.039E+00	2.039E+04	2.039E+01
7.000E+00	2.186E+04	2.186E+00	2.186E+04	2.186E+01
8.000E+00	2.318E+04	2.318E+00	2.318E+04	2.318E+01
9.000E+00	2.438E+04	2.438E+00	2.438E+04	2.438E+01
1.000E+01	2.542E+04	2.542E+00	2.542E+04	2.542E+01
2.000E+01	2.973E+04	2.973E+00	2.973E+04	2.973E+01
3.000E+01	3.016E+04	3.016E+00	3.016E+04	3.016E+01
4.000E+01	2.963E+04	2.963E+00	2.963E+04	2.963E+01
5.000E+01	2.880E+04	2.880E+00	2.880E+04	2.880E+01
6.000E+01	2.788E+04	2.788E+00	2.788E+04	2.788E+01
7.000E+01	2.696E+04	2.696E+00	2.696E+04	2.696E+01
8.000E+01	2.608E+04	2.608E+00	2.608E+04	2.608E+01
9.000E+01	2.522E+04	2.522E+00	2.522E+04	2.522E+01
1.000E+02	2.442E+04	2.442E+00	2.442E+04	2.442E+01
2.000E+02	1.854E+04	1.854E+00	1.854E+04	1.854E+01
3.000E+02	1.504E+04	1.504E+00	1.504E+04	1.504E+01
4.000E+02	1.273E+04	1.273E+00	1.273E+04	1.273E+01
5.000E+02	1.107E+04	1.107E+00	1.107E+04	1.107E+01
6.000E+02	9.825E+03	9.825E-01	9.825E+03	9.825E+00
7.000E+02	8.842E+03	8.842E-01	8.842E+03	8.842E+00
8.000E+02	8.047E+03	8.047E-01	8.047E+03	8.047E+00
9.000E+02	7.391E+03	7.391E-01	7.391E+03	7.391E+00
1.000E+03	6.840E+03	6.840E-01	6.840E+03	6.840E+00
2.000E+03	4.012E+03	4.012E-01	4.012E+03	4.012E+00
3.000E+03	2.931E+03	2.931E-01	2.931E+03	2.931E+00
4.000E+03	2.359E+03	2.359E-01	2.359E+03	2.359E+00
5.000E+03	2.004E+03	2.004E-01	2.004E+03	2.004E+00
6.000E+03	1.763E+03	1.763E-01	1.763E+03	1.763E+00
7.000E+03	1.587E+03	1.587E-01	1.587E+03	1.587E+00
8.000E+03	1.454E+03	1.454E-01	1.454E+03	1.454E+00
9.000E+03	1.350E+03	1.350E-01	1.350E+03	1.350E+00
1.000E+04	1.266E+03	1.266E-01	1.266E+03	1.266E+00
2.000E+04	8.888E+02	8.888E-02	8.888E+02	8.888E-01
3.000E+04	7.701E+02	7.701E-02	7.702E+02	7.702E-01
4.000E+04	7.154E+02	7.154E-02	7.155E+02	7.155E-01
5.000E+04	6.862E+02	6.862E-02	6.862E+02	6.862E-01
6.000E+04	6.696E+02	6.696E-02	6.696E+02	6.696E-01
7.000E+04	6.598E+02	6.598E-02	6.598E+02	6.598E-01
8.000E+04	6.540E+02	6.540E-02	6.540E+02	6.540E-01
9.000E+04	6.509E+02	6.509E-02	6.509E+02	6.509E-01
1.000E+05	6.493E+02	6.493E-02	6.493E+02	6.493E-01
2.000E+05	6.610E+02	6.610E-02	6.610E+02	6.610E-01
3.000E+05	6.783E+02	6.783E-02	6.783E+02	6.783E-01

TABLE 177

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: K Z= 19 A= 39.10

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
4.000E-01	5.541E+03	5.541E-01	5.541E+03	5.541E+00
5.000E-01	6.197E+03	6.197E-01	6.197E+03	6.197E+00
6.000E-01	6.788E+03	6.788E-01	6.788E+03	6.788E+00
7.000E-01	7.332E+03	7.332E-01	7.332E+03	7.332E+00
8.000E-01	7.838E+03	7.838E-01	7.838E+03	7.838E+00
9.000E-01	8.313E+03	8.313E-01	8.313E+03	8.313E+00
1.000E+00	8.765E+03	8.765E-01	8.765E+03	8.765E+00
2.000E+00	1.239E+04	1.239E+00	1.239E+04	1.239E+01
3.000E+00	1.517E+04	1.517E+00	1.517E+04	1.517E+01
4.000E+00	1.753E+04	1.753E+00	1.753E+04	1.753E+01
5.000E+00	1.959E+04	1.959E+00	1.959E+04	1.959E+01
6.000E+00	2.136E+04	2.136E+00	2.136E+04	2.136E+01
7.000E+00	2.292E+04	2.292E+00	2.292E+04	2.292E+01
8.000E+00	2.431E+04	2.431E+00	2.431E+04	2.431E+01
9.000E+00	2.556E+04	2.556E+00	2.556E+04	2.556E+01
1.000E+01	2.666E+04	2.666E+00	2.666E+04	2.666E+01
2.000E+01	3.130E+04	3.130E+00	3.130E+04	3.130E+01
3.000E+01	3.185E+04	3.185E+00	3.185E+04	3.185E+01
4.000E+01	3.136E+04	3.136E+00	3.136E+04	3.136E+01
5.000E+01	3.055E+04	3.055E+00	3.055E+04	3.055E+01
6.000E+01	2.964E+04	2.964E+00	2.964E+04	2.964E+01
7.000E+01	2.870E+04	2.870E+00	2.870E+04	2.870E+01
8.000E+01	2.780E+04	2.780E+00	2.780E+04	2.780E+01
9.000E+01	2.693E+04	2.693E+00	2.693E+04	2.693E+01
1.000E+02	2.609E+04	2.609E+00	2.609E+04	2.609E+01
2.000E+02	1.994E+04	1.994E+00	1.994E+04	1.994E+01
3.000E+02	1.625E+04	1.625E+00	1.625E+04	1.625E+01
4.000E+02	1.378E+04	1.378E+00	1.378E+04	1.378E+01
5.000E+02	1.201E+04	1.201E+00	1.201E+04	1.201E+01
6.000E+02	1.067E+04	1.067E+00	1.067E+04	1.067E+01
7.000E+02	9.617E+03	9.617E-01	9.617E+03	9.617E+00
8.000E+02	8.761E+03	8.761E-01	8.761E+03	8.761E+00
9.000E+02	8.054E+03	8.054E-01	8.054E+03	8.054E+00
1.000E+03	7.456E+03	7.456E-01	7.456E+03	7.456E+00
2.000E+03	4.391E+03	4.391E-01	4.391E+03	4.391E+00
3.000E+03	3.212E+03	3.212E-01	3.212E+03	3.212E+00
4.000E+03	2.587E+03	2.587E-01	2.587E+03	2.587E+00
5.000E+03	2.199E+03	2.199E-01	2.199E+03	2.199E+00
6.000E+03	1.935E+03	1.935E-01	1.935E+03	1.935E+00
7.000E+03	1.744E+03	1.744E-01	1.744E+03	1.744E+00
8.000E+03	1.598E+03	1.598E-01	1.598E+03	1.598E+00
9.000E+03	1.484E+03	1.484E-01	1.484E+03	1.484E+00
1.000E+04	1.393E+03	1.393E-01	1.393E+03	1.393E+00
2.000E+04	9.813E+02	9.813E-02	9.813E+02	9.813E-01
3.000E+04	8.528E+02	8.528E-02	8.528E+02	8.528E-01
4.000E+04	7.934E+02	7.934E-02	7.934E+02	7.934E-01
5.000E+04	7.620E+02	7.620E-02	7.620E+02	7.620E-01
6.000E+04	7.443E+02	7.443E-02	7.443E+02	7.443E-01
7.000E+04	7.339E+02	7.339E-02	7.339E+02	7.339E-01
8.000E+04	7.279E+02	7.279E-02	7.279E+02	7.279E-01
9.000E+04	7.247E+02	7.247E-02	7.247E+02	7.247E-01
1.000E+05	7.232E+02	7.232E-02	7.232E+02	7.232E-01
2.000E+05	7.373E+02	7.373E-02	7.373E+02	7.373E-01
3.000E+05	7.569E+02	7.569E-02	7.569E+02	7.569E-01

TABLE 178

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CA Z= 20 A= 40.08

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-01	6.324E+03	6.324E-01	6.324E+03	6.324E+00
6.000E-01	6.927E+03	6.927E-01	6.927E+03	6.927E+00
7.000E-01	7.482E+03	7.482E-01	7.482E+03	7.482E+00
8.000E-01	7.997E+03	7.997E-01	7.997E+03	7.997E+00
9.000E-01	8.483E+03	8.483E-01	8.483E+03	8.483E+00
1.000E+00	8.942E+03	8.942E-01	8.942E+03	8.942E+00
2.000E+00	1.265E+04	1.265E+00	1.265E+04	1.265E+01
3.000E+00	1.548E+04	1.548E+00	1.548E+04	1.548E+01
4.000E+00	1.789E+04	1.789E+00	1.789E+04	1.789E+01
5.000E+00	2.000E+04	2.000E+00	2.000E+04	2.000E+01
6.000E+00	2.184E+04	2.184E+00	2.184E+04	2.184E+01
7.000E+00	2.346E+04	2.346E+00	2.346E+04	2.346E+01
8.000E+00	2.490E+04	2.490E+00	2.490E+04	2.490E+01
9.000E+00	2.621E+04	2.621E+00	2.621E+04	2.621E+01
1.000E+01	2.738E+04	2.738E+00	2.738E+04	2.738E+01
2.000E+01	3.266E+04	3.266E+00	3.266E+04	3.266E+01
3.000E+01	3.351E+04	3.351E+00	3.351E+04	3.351E+01
4.000E+01	3.319E+04	3.319E+00	3.319E+04	3.319E+01
5.000E+01	3.248E+04	3.248E+00	3.248E+04	3.248E+01
6.000E+01	3.163E+04	3.163E+00	3.163E+04	3.163E+01
7.000E+01	3.073E+04	3.073E+00	3.073E+04	3.073E+01
8.000E+01	2.984E+04	2.984E+00	2.984E+04	2.984E+01
9.000E+01	2.897E+04	2.897E+00	2.897E+04	2.897E+01
1.000E+02	2.814E+04	2.814E+00	2.814E+04	2.814E+01
2.000E+02	2.180E+04	2.180E+00	2.180E+04	2.180E+01
3.000E+02	1.789E+04	1.789E+00	1.789E+04	1.789E+01
4.000E+02	1.525E+04	1.525E+00	1.525E+04	1.525E+01
5.000E+02	1.334E+04	1.334E+00	1.334E+04	1.334E+01
6.000E+02	1.188E+04	1.188E+00	1.188E+04	1.188E+01
7.000E+02	1.073E+04	1.073E+00	1.073E+04	1.073E+01
8.000E+02	9.796E+03	9.796E-01	9.796E+03	9.796E+00
9.000E+02	9.019E+03	9.019E-01	9.019E+03	9.019E+00
1.000E+03	8.363E+03	8.363E-01	8.363E+03	8.363E+00
2.000E+03	4.952E+03	4.952E-01	4.952E+03	4.952E+00
3.000E+03	3.624E+03	3.624E-01	3.624E+03	3.624E+00
4.000E+03	2.918E+03	2.918E-01	2.918E+03	2.918E+00
5.000E+03	2.480E+03	2.480E-01	2.480E+03	2.480E+00
6.000E+03	2.181E+03	2.181E-01	2.181E+03	2.181E+00
7.000E+03	1.964E+03	1.964E-01	1.964E+03	1.964E+00
8.000E+03	1.799E+03	1.799E-01	1.799E+03	1.799E+00
9.000E+03	1.670E+03	1.670E-01	1.670E+03	1.670E+00
1.000E+04	1.567E+03	1.567E-01	1.567E+03	1.567E+00
2.000E+04	1.098E+03	1.098E-01	1.098E+03	1.098E+00
3.000E+04	9.517E+02	9.517E-02	9.517E+02	9.517E-01
4.000E+04	8.839E+02	8.839E-02	8.839E+02	8.839E-01
5.000E+04	8.476E+02	8.476E-02	8.476E+02	8.476E-01
6.000E+04	8.270E+02	8.270E-02	8.270E+02	8.270E-01
7.000E+04	8.148E+02	8.148E-02	8.148E+02	8.148E-01
8.000E+04	8.077E+02	8.077E-02	8.077E+02	8.077E-01
9.000E+04	8.037E+02	8.037E-02	8.037E+02	8.037E-01
1.000E+05	8.017E+02	8.017E-02	8.017E+02	8.017E-01
2.000E+05	8.158E+02	8.158E-02	8.158E+02	8.158E-01
3.000E+05	8.372E+02	8.372E-02	8.372E+02	8.372E-01
4.000E+05	8.552E+02	8.552E-02	8.552E+02	8.552E-01

TABLE 179

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: SC Z= 21 A= 44.96

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-01	6.152E+03	6.152E-01	6.152E+03	6.152E+00
6.000E-01	6.740E+03	6.740E-01	6.740E+03	6.740E+00
7.000E-01	7.280E+03	7.280E-01	7.280E+03	7.280E+00
8.000E-01	7.782E+03	7.782E-01	7.782E+03	7.782E+00
9.000E-01	8.255E+03	8.255E-01	8.255E+03	8.255E+00
1.000E+00	8.702E+03	8.702E-01	8.702E+03	8.702E+00
2.000E+00	1.230E+04	1.230E+00	1.230E+04	1.230E+01
3.000E+00	1.507E+04	1.507E+00	1.507E+04	1.507E+01
4.000E+00	1.740E+04	1.740E+00	1.740E+04	1.740E+01
5.000E+00	1.946E+04	1.946E+00	1.946E+04	1.946E+01
6.000E+00	2.130E+04	2.130E+00	2.130E+04	2.130E+01
7.000E+00	2.296E+04	2.296E+00	2.296E+04	2.296E+01
8.000E+00	2.442E+04	2.442E+00	2.442E+04	2.442E+01
9.000E+00	2.575E+04	2.575E+00	2.575E+04	2.575E+01
1.000E+01	2.697E+04	2.697E+00	2.697E+04	2.697E+01
2.000E+01	3.346E+04	3.346E+00	3.346E+04	3.346E+01
3.000E+01	3.500E+04	3.500E+00	3.500E+04	3.500E+01
4.000E+01	3.510E+04	3.510E+00	3.510E+04	3.510E+01
5.000E+01	3.467E+04	3.467E+00	3.467E+04	3.467E+01
6.000E+01	3.401E+04	3.401E+00	3.401E+04	3.401E+01
7.000E+01	3.325E+04	3.325E+00	3.325E+04	3.325E+01
8.000E+01	3.246E+04	3.246E+00	3.246E+04	3.246E+01
9.000E+01	3.167E+04	3.167E+00	3.167E+04	3.167E+01
1.000E+02	3.089E+04	3.089E+00	3.089E+04	3.089E+01
2.000E+02	2.461E+04	2.461E+00	2.461E+04	2.461E+01
3.000E+02	2.050E+04	2.050E+00	2.050E+04	2.050E+01
4.000E+02	1.764E+04	1.764E+00	1.764E+04	1.764E+01
5.000E+02	1.554E+04	1.554E+00	1.554E+04	1.554E+01
6.000E+02	1.392E+04	1.392E+00	1.392E+04	1.392E+01
7.000E+02	1.263E+04	1.263E+00	1.263E+04	1.263E+01
8.000E+02	1.157E+04	1.157E+00	1.157E+04	1.157E+01
9.000E+02	1.069E+04	1.069E+00	1.069E+04	1.069E+01
1.000E+03	9.936E+03	9.936E-01	9.936E+03	9.936E+00
2.000E+03	5.955E+03	5.955E-01	5.955E+03	5.955E+00
3.000E+03	4.359E+03	4.359E-01	4.359E+03	4.359E+00
4.000E+03	3.504E+03	3.504E-01	3.504E+03	3.504E+00
5.000E+03	2.971E+03	2.971E-01	2.971E+03	2.971E+00
6.000E+03	2.605E+03	2.605E-01	2.605E+03	2.605E+00
7.000E+03	2.340E+03	2.340E-01	2.340E+03	2.340E+00
8.000E+03	2.138E+03	2.138E-01	2.138E+03	2.138E+00
9.000E+03	1.980E+03	1.980E-01	1.980E+03	1.980E+00
1.000E+04	1.852E+03	1.852E-01	1.852E+03	1.852E+00
2.000E+04	1.273E+03	1.273E-01	1.273E+03	1.273E+00
3.000E+04	1.088E+03	1.088E-01	1.088E+03	1.088E+00
4.000E+04	1.001E+03	1.001E-01	1.001E+03	1.001E+00
5.000E+04	9.533E+02	9.533E-02	9.533E+02	9.533E-01
6.000E+04	9.251E+02	9.251E-02	9.251E+02	9.251E-01
7.000E+04	9.078E+02	9.078E-02	9.078E+02	9.078E-01
8.000E+04	8.970E+02	8.970E-02	8.970E+02	8.970E-01
9.000E+04	8.903E+02	8.903E-02	8.903E+02	8.903E-01
1.000E+05	8.863E+02	8.863E-02	8.863E+02	8.863E-01
2.000E+05	8.942E+02	8.942E-02	8.942E+02	8.942E-01
3.000E+05	9.157E+02	9.157E-02	9.157E+02	9.157E-01
4.000E+05	9.347E+02	9.347E-02	9.347E+02	9.347E-01

TABLE 180

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: TI Z= 22 A= 47.90

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
5.000E-01	6.129E+03	6.129E-01	6.129E+03	6.129E+00
6.000E-01	6.715E+03	6.715E-01	6.715E+03	6.715E+00
7.000E-01	7.252E+03	7.252E-01	7.252E+03	7.252E+00
8.000E-01	7.754E+03	7.754E-01	7.754E+03	7.754E+00
9.000E-01	8.224E+03	8.224E-01	8.224E+03	8.224E+00
1.000E+00	8.670E+03	8.670E-01	8.670E+03	8.670E+00
2.000E+00	1.226E+04	1.226E+00	1.226E+04	1.226E+01
3.000E+00	1.502E+04	1.502E+00	1.502E+04	1.502E+01
4.000E+00	1.734E+04	1.734E+00	1.734E+04	1.734E+01
5.000E+00	1.938E+04	1.938E+00	1.938E+04	1.938E+01
6.000E+00	2.123E+04	2.123E+00	2.123E+04	2.123E+01
7.000E+00	2.292E+04	2.292E+00	2.292E+04	2.292E+01
8.000E+00	2.443E+04	2.443E+00	2.443E+04	2.443E+01
9.000E+00	2.578E+04	2.578E+00	2.578E+04	2.578E+01
1.000E+01	2.703E+04	2.703E+00	2.703E+04	2.703E+01
2.000E+01	3.431E+04	3.431E+00	3.431E+04	3.431E+01
3.000E+01	3.637E+04	3.637E+00	3.637E+04	3.637E+01
4.000E+01	3.679E+04	3.679E+00	3.679E+04	3.679E+01
5.000E+01	3.656E+04	3.656E+00	3.656E+04	3.656E+01
6.000E+01	3.605E+04	3.605E+00	3.605E+04	3.605E+01
7.000E+01	3.540E+04	3.540E+00	3.540E+04	3.540E+01
8.000E+01	3.469E+04	3.469E+00	3.469E+04	3.469E+01
9.000E+01	3.395E+04	3.395E+00	3.395E+04	3.395E+01
1.000E+02	3.322E+04	3.322E+00	3.322E+04	3.322E+01
2.000E+02	2.698E+04	2.698E+00	2.698E+04	2.698E+01
3.000E+02	2.271E+04	2.271E+00	2.271E+04	2.271E+01
4.000E+02	1.969E+04	1.969E+00	1.969E+04	1.969E+01
5.000E+02	1.743E+04	1.743E+00	1.743E+04	1.743E+01
6.000E+02	1.567E+04	1.567E+00	1.567E+04	1.567E+01
7.000E+02	1.426E+04	1.426E+00	1.426E+04	1.426E+01
8.000E+02	1.310E+04	1.310E+00	1.310E+04	1.310E+01
9.000E+02	1.213E+04	1.213E+00	1.213E+04	1.213E+01
1.000E+03	1.130E+04	1.130E+00	1.130E+04	1.130E+01
2.000E+03	6.841E+03	6.841E-01	6.841E+03	6.841E+00
3.000E+03	5.017E+03	5.017E-01	5.017E+03	5.017E+00
4.000E+03	4.032E+03	4.032E-01	4.032E+03	4.032E+00
5.000E+03	3.414E+03	3.414E-01	3.414E+03	3.414E+00
6.000E+03	2.992E+03	2.992E-01	2.992E+03	2.992E+00
7.000E+03	2.683E+03	2.683E-01	2.683E+03	2.683E+00
8.000E+03	2.448E+03	2.448E-01	2.448E+03	2.448E+00
9.000E+03	2.264E+03	2.264E-01	2.264E+03	2.264E+00
1.000E+04	2.115E+03	2.115E-01	2.115E+03	2.115E+00
2.000E+04	1.439E+03	1.439E-01	1.439E+03	1.439E+00
3.000E+04	1.219E+03	1.219E-01	1.219E+03	1.219E+00
4.000E+04	1.117E+03	1.117E-01	1.117E+03	1.117E+00
5.000E+04	1.059E+03	1.059E-01	1.059E+03	1.059E+00
6.000E+04	1.025E+03	1.025E-01	1.025E+03	1.025E+00
7.000E+04	1.004E+03	1.004E-01	1.004E+03	1.004E+00
8.000E+04	9.896E+02	9.896E-02	9.896E+02	9.896E-01
9.000E+04	9.808E+02	9.808E-02	9.808E+02	9.808E-01
1.000E+05	9.752E+02	9.752E-02	9.752E+02	9.752E-01
2.000E+05	9.786E+02	9.786E-02	9.786E+02	9.786E-01
3.000E+05	1.001E+03	1.001E-01	1.001E+03	1.001E+00
4.000E+05	1.021E+03	1.021E-01	1.021E+03	1.021E+00

TABLE 181

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: V Z= 23 A= 50.95

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	6.684E+03	6.684E-01	6.684E+03	6.684E+00
7.000E-01	7.220E+03	7.220E-01	7.220E+03	7.220E+00
8.000E-01	7.719E+03	7.719E-01	7.719E+03	7.719E+00
9.000E-01	8.186E+03	8.186E-01	8.186E+03	8.186E+00
1.000E+00	8.628E+03	8.628E-01	8.628E+03	8.628E+00
2.000E+00	1.220E+04	1.220E+00	1.220E+04	1.220E+01
3.000E+00	1.495E+04	1.495E+00	1.495E+04	1.495E+01
4.000E+00	1.726E+04	1.726E+00	1.726E+04	1.726E+01
5.000E+00	1.929E+04	1.929E+00	1.929E+04	1.929E+01
6.000E+00	2.114E+04	2.114E+00	2.114E+04	2.114E+01
7.000E+00	2.283E+04	2.283E+00	2.283E+04	2.283E+01
8.000E+00	2.437E+04	2.437E+00	2.437E+04	2.437E+01
9.000E+00	2.576E+04	2.576E+00	2.576E+04	2.576E+01
1.000E+01	2.704E+04	2.704E+00	2.704E+04	2.704E+01
2.000E+01	3.502E+04	3.502E+00	3.502E+04	3.502E+01
3.000E+01	3.760E+04	3.760E+00	3.760E+04	3.760E+01
4.000E+01	3.835E+04	3.835E+00	3.835E+04	3.835E+01
5.000E+01	3.835E+04	3.835E+00	3.834E+04	3.834E+01
6.000E+01	3.799E+04	3.799E+00	3.800E+04	3.800E+01
7.000E+01	3.747E+04	3.747E+00	3.747E+04	3.747E+01
8.000E+01	3.685E+04	3.685E+00	3.685E+04	3.685E+01
9.000E+01	3.618E+04	3.618E+00	3.618E+04	3.618E+01
1.000E+02	3.550E+04	3.550E+00	3.550E+04	3.550E+01
2.000E+02	2.937E+04	2.937E+00	2.937E+04	2.937E+01
3.000E+02	2.499E+04	2.499E+00	2.499E+04	2.499E+01
4.000E+02	2.180E+04	2.180E+00	2.180E+04	2.180E+01
5.000E+02	1.940E+04	1.940E+00	1.940E+04	1.940E+01
6.000E+02	1.751E+04	1.751E+00	1.751E+04	1.751E+01
7.000E+02	1.599E+04	1.599E+00	1.599E+04	1.599E+01
8.000E+02	1.473E+04	1.473E+00	1.473E+04	1.473E+01
9.000E+02	1.367E+04	1.367E+00	1.367E+04	1.367E+01
1.000E+03	1.276E+04	1.276E+00	1.276E+04	1.276E+01
2.000E+03	7.807E+03	7.807E-01	7.807E+03	7.807E+00
3.000E+03	5.741E+03	5.741E-01	5.741E+03	5.741E+00
4.000E+03	4.613E+03	4.613E-01	4.613E+03	4.613E+00
5.000E+03	3.904E+03	3.904E-01	3.904E+03	3.904E+00
6.000E+03	3.416E+03	3.416E-01	3.416E+03	3.416E+00
7.000E+03	3.061E+03	3.061E-01	3.061E+03	3.061E+00
8.000E+03	2.791E+03	2.791E-01	2.791E+03	2.791E+00
9.000E+03	2.577E+03	2.577E-01	2.577E+03	2.577E+00
1.000E+04	2.405E+03	2.405E-01	2.405E+03	2.405E+00
2.000E+04	1.619E+03	1.619E-01	1.619E+03	1.619E+00
3.000E+04	1.362E+03	1.362E-01	1.362E+03	1.362E+00
4.000E+04	1.241E+03	1.241E-01	1.241E+03	1.241E+00
5.000E+04	1.174E+03	1.174E-01	1.174E+03	1.174E+00
6.000E+04	1.132E+03	1.132E-01	1.132E+03	1.132E+00
7.000E+04	1.105E+03	1.105E-01	1.105E+03	1.105E+00
8.000E+04	1.088E+03	1.088E-01	1.083E+03	1.088E+00
9.000E+04	1.076E+03	1.076E-01	1.076E+03	1.076E+00
1.000E+05	1.069E+03	1.069E-01	1.069E+03	1.069E+00
2.000E+05	1.067E+03	1.067E-01	1.067E+03	1.067E+00
3.000E+05	1.090E+03	1.090E-01	1.090E+03	1.090E+00
4.000E+05	1.111E+03	1.111E-01	1.111E+03	1.111E+00
5.000E+05	1.129E+03	1.129E-01	1.129E+03	1.129E+00

TABLE 182

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CR Z= 24 A= 52.01

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	6.786E+03	6.786E-01	6.786E+03	6.786E+00
7.000E-01	7.329E+03	7.329E-01	7.329E+03	7.329E+00
8.000E-01	7.835E+03	7.835E-01	7.835E+03	7.835E+00
9.000E-01	8.310E+03	8.310E-01	8.310E+03	8.310E+00
1.000E+00	8.759E+03	8.759E-01	8.759E+03	8.759E+00
2.000E+00	1.238E+04	1.238E+00	1.238E+04	1.238E+01
3.000E+00	1.517E+04	1.517E+00	1.517E+04	1.517E+01
4.000E+00	1.752E+04	1.752E+00	1.752E+04	1.752E+01
5.000E+00	1.959E+04	1.959E+00	1.959E+04	1.959E+01
6.000E+00	2.145E+04	2.145E+00	2.145E+04	2.145E+01
7.000E+00	2.318E+04	2.318E+00	2.318E+04	2.318E+01
8.000E+00	2.476E+04	2.476E+00	2.476E+04	2.476E+01
9.000E+00	2.620E+04	2.620E+00	2.620E+04	2.620E+01
1.000E+01	2.751E+04	2.751E+00	2.751E+04	2.751E+01
2.000E+01	3.598E+04	3.598E+00	3.598E+04	3.598E+01
3.000E+01	3.889E+04	3.889E+00	3.889E+04	3.889E+01
4.000E+01	3.987E+04	3.987E+00	3.987E+04	3.987E+01
5.000E+01	4.001E+04	4.001E+00	4.001E+04	4.001E+01
6.000E+01	3.976E+04	3.976E+00	3.976E+04	3.976E+01
7.000E+01	3.930E+04	3.930E+00	3.930E+04	3.930E+01
8.000E+01	3.874E+04	3.874E+00	3.874E+04	3.874E+01
9.000E+01	3.811E+04	3.811E+00	3.811E+04	3.811E+01
1.000E+02	3.746E+04	3.746E+00	3.746E+04	3.746E+01
2.000E+02	3.136E+04	3.136E+00	3.136E+04	3.136E+01
3.000E+02	2.685E+04	2.685E+00	2.685E+04	2.685E+01
4.000E+02	2.354E+04	2.354E+00	2.354E+04	2.354E+01
5.000E+02	2.102E+04	2.102E+00	2.102E+04	2.102E+01
6.000E+02	1.902E+04	1.902E+00	1.902E+04	1.902E+01
7.000E+02	1.740E+04	1.740E+00	1.740E+04	1.740E+01
8.000E+02	1.605E+04	1.605E+00	1.605E+04	1.605E+01
9.000E+02	1.492E+04	1.492E+00	1.492E+04	1.492E+01
1.000E+03	1.395E+04	1.395E+00	1.395E+04	1.395E+01
2.000E+03	8.599E+03	8.599E-01	8.599E+03	8.599E+00
3.000E+03	6.340E+03	6.340E-01	6.340E+03	6.340E+00
4.000E+03	5.097E+03	5.097E-01	5.097E+03	5.097E+00
5.000E+03	4.314E+03	4.314E-01	4.314E+03	4.314E+00
6.000E+03	3.775E+03	3.775E-01	3.775E+03	3.775E+00
7.000E+03	3.381E+03	3.381E-01	3.381E+03	3.381E+00
8.000E+03	3.082E+03	3.082E-01	3.082E+03	3.082E+00
9.000E+03	2.845E+03	2.845E-01	2.845E+03	2.845E+00
1.000E+04	2.654E+03	2.654E-01	2.654E+03	2.654E+00
2.000E+04	1.780E+03	1.780E-01	1.780E+03	1.780E+00
3.000E+04	1.494E+03	1.494E-01	1.494E+03	1.494E+00
4.000E+04	1.360E+03	1.360E-01	1.360E+03	1.360E+00
5.000E+04	1.283E+03	1.283E-01	1.283E+03	1.283E+00
6.000E+04	1.237E+03	1.237E-01	1.237E+03	1.237E+00
7.000E+04	1.207E+03	1.207E-01	1.207E+03	1.207E+00
8.000E+04	1.187E+03	1.187E-01	1.187E+03	1.187E+00
9.000E+04	1.174E+03	1.174E-01	1.174E+03	1.174E+00
1.000E+05	1.165E+03	1.165E-01	1.165E+03	1.165E+00
2.000E+05	1.160E+03	1.160E-01	1.160E+03	1.160E+00
3.000E+05	1.185E+03	1.185E-01	1.185E+03	1.185E+00
4.000E+05	1.208E+03	1.208E-01	1.208E+03	1.208E+00
5.000E+05	1.228E+03	1.228E-01	1.228E+03	1.228E+00

TABLE 183

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: MN Z= 25 A= 54.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	6.759E+03	6.759E-01	6.759E+03	6.759E+00
7.000E-01	7.303E+03	7.303E-01	7.303E+03	7.303E+00
8.000E-01	7.807E+03	7.807E-01	7.807E+03	7.807E+00
9.000E-01	8.280E+03	8.280E-01	8.280E+03	8.280E+00
1.000E+00	8.728E+03	8.728E-01	8.728E+03	8.728E+00
2.000E+00	1.235E+04	1.235E+00	1.235E+04	1.235E+01
3.000E+00	1.512E+04	1.512E+00	1.512E+04	1.512E+01
4.000E+00	1.746E+04	1.746E+00	1.746E+04	1.746E+01
5.000E+00	1.952E+04	1.952E+00	1.952E+04	1.952E+01
6.000E+00	2.137E+04	2.137E+00	2.137E+04	2.137E+01
7.000E+00	2.309E+04	2.309E+00	2.309E+04	2.309E+01
8.000E+00	2.468E+04	2.468E+00	2.468E+04	2.468E+01
9.000E+00	2.615E+04	2.615E+00	2.615E+04	2.615E+01
1.000E+01	2.749E+04	2.749E+00	2.749E+04	2.749E+01
2.000E+01	3.649E+04	3.649E+00	3.649E+04	3.649E+01
3.000E+01	3.993E+04	3.993E+00	3.993E+04	3.993E+01
4.000E+01	4.123E+04	4.123E+00	4.123E+04	4.123E+01
5.000E+01	4.161E+04	4.161E+00	4.161E+04	4.161E+01
6.000E+01	4.154E+04	4.154E+00	4.154E+04	4.154E+01
7.000E+01	4.122E+04	4.122E+00	4.122E+04	4.122E+01
8.000E+01	4.075E+04	4.075E+00	4.075E+04	4.075E+01
9.000E+01	4.021E+04	4.021E+00	4.021E+04	4.021E+01
1.000E+02	3.962E+04	3.962E+00	3.962E+04	3.962E+01
2.000E+02	3.372E+04	3.372E+00	3.372E+04	3.372E+01
3.000E+02	2.916E+04	2.916E+00	2.916E+04	2.916E+01
4.000E+02	2.573E+04	2.573E+00	2.573E+04	2.573E+01
5.000E+02	2.308E+04	2.308E+00	2.308E+04	2.308E+01
6.000E+02	2.096E+04	2.096E+00	2.096E+04	2.096E+01
7.000E+02	1.923E+04	1.923E+00	1.923E+04	1.923E+01
8.000E+02	1.779E+04	1.779E+00	1.779E+04	1.779E+01
9.000E+02	1.656E+04	1.656E+00	1.656E+04	1.656E+01
1.000E+03	1.551E+04	1.551E+00	1.551E+04	1.551E+01
2.000E+03	9.673E+03	9.673E-01	9.673E+03	9.673E+00
3.000E+03	7.157E+03	7.157E-01	7.157E+03	7.157E+00
4.000E+03	5.760E+03	5.760E-01	5.760E+03	5.760E+00
5.000E+03	4.872E+03	4.872E-01	4.872E+03	4.872E+00
6.000E+03	4.261E+03	4.261E-01	4.261E+03	4.261E+00
7.000E+03	3.813E+03	3.813E-01	3.813E+03	3.813E+00
8.000E+03	3.472E+03	3.472E-01	3.472E+03	3.472E+00
9.000E+03	3.202E+03	3.202E-01	3.202E+03	3.202E+00
1.000E+04	2.984E+03	2.984E-01	2.984E+03	2.984E+00
2.000E+04	1.985E+03	1.985E-01	1.985E+03	1.985E+00
3.000E+04	1.656E+03	1.656E-01	1.656E+03	1.656E+00
4.000E+04	1.500E+03	1.500E-01	1.500E+03	1.500E+00
5.000E+04	1.411E+03	1.411E-01	1.411E+03	1.411E+00
6.000E+04	1.356E+03	1.356E-01	1.356E+03	1.356E+00
7.000E+04	1.320E+03	1.320E-01	1.320E+03	1.320E+00
8.000E+04	1.296E+03	1.296E-01	1.296E+03	1.296E+00
9.000E+04	1.280E+03	1.280E-01	1.280E+03	1.280E+00
1.000E+05	1.269E+03	1.269E-01	1.269E+03	1.269E+00
2.000E+05	1.257E+03	1.257E-01	1.257E+03	1.257E+00
3.000E+05	1.281E+03	1.281E-01	1.281E+03	1.281E+00
4.000E+05	1.305E+03	1.305E-01	1.305E+03	1.305E+00
5.000E+05	1.327E+03	1.327E-01	1.327E+03	1.327E+00

TABLE 184

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: FE Z= 26 A= 55.84

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	6.855E+03	6.855E-01	6.855E+03	6.855E+00
7.000E-01	7.407E+03	7.407E-01	7.407E+03	7.407E+00
8.000E-01	7.918E+03	7.918E-01	7.918E+03	7.918E+00
9.000E-01	8.398E+03	8.398E-01	8.398E+03	8.398E+00
1.000E+00	8.853E+03	8.853E-01	8.853E+03	8.853E+00
2.000E+00	1.252E+04	1.252E+00	1.252E+04	1.252E+01
3.000E+00	1.533E+04	1.533E+00	1.533E+04	1.533E+01
4.000E+00	1.770E+04	1.770E+00	1.770E+04	1.770E+01
5.000E+00	1.980E+04	1.980E+00	1.980E+04	1.980E+01
6.000E+00	2.169E+04	2.169E+00	2.169E+04	2.169E+01
7.000E+00	2.342E+04	2.342E+00	2.342E+04	2.342E+01
8.000E+00	2.504E+04	2.504E+00	2.504E+04	2.504E+01
9.000E+00	2.655E+04	2.655E+00	2.655E+04	2.655E+01
1.000E+01	2.793E+04	2.793E+00	2.793E+04	2.793E+01
2.000E+01	3.732E+04	3.732E+00	3.732E+04	3.732E+01
3.000E+01	4.110E+04	4.110E+00	4.110E+04	4.110E+01
4.000E+01	4.263E+04	4.263E+00	4.263E+04	4.263E+01
5.000E+01	4.316E+04	4.316E+00	4.316E+04	4.316E+01
6.000E+01	4.320E+04	4.320E+00	4.320E+04	4.320E+01
7.000E+01	4.295E+04	4.295E+00	4.295E+04	4.295E+01
8.000E+01	4.255E+04	4.255E+00	4.255E+04	4.255E+01
9.000E+01	4.205E+04	4.205E+00	4.205E+04	4.205E+01
1.000E+02	4.150E+04	4.150E+00	4.150E+04	4.150E+01
2.000E+02	3.569E+04	3.569E+00	3.569E+04	3.569E+01
3.000E+02	3.106E+04	3.106E+00	3.106E+04	3.106E+01
4.000E+02	2.752E+04	2.752E+00	2.752E+04	2.751E+01
5.000E+02	2.475E+04	2.475E+00	2.475E+04	2.475E+01
6.000E+02	2.253E+04	2.253E+00	2.253E+04	2.253E+01
7.000E+02	2.071E+04	2.071E+00	2.071E+04	2.071E+01
8.000E+02	1.919E+04	1.919E+00	1.919E+04	1.919E+01
9.000E+02	1.790E+04	1.790E+00	1.790E+04	1.790E+01
1.000E+03	1.678E+04	1.678E+00	1.678E+04	1.678E+01
2.000E+03	1.053E+04	1.053E+00	1.053E+04	1.053E+01
3.000E+03	7.822E+03	7.822E-01	7.822E+03	7.822E+00
4.000E+03	6.300E+03	6.300E-01	6.300E+03	6.300E+00
5.000E+03	5.330E+03	5.330E-01	5.330E+03	5.330E+00
6.000E+03	4.662E+03	4.662E-01	4.662E+03	4.662E+00
7.000E+03	4.172E+03	4.172E-01	4.172E+03	4.172E+00
8.000E+03	3.797E+03	3.797E-01	3.797E+03	3.797E+00
9.000E+03	3.502E+03	3.502E-01	3.502E+03	3.502E+00
1.000E+04	3.263E+03	3.263E-01	3.263E+03	3.263E+00
2.000E+04	2.166E+03	2.166E-01	2.166E+03	2.166E+00
3.000E+04	1.802E+03	1.802E-01	1.802E+03	1.802E+00
4.000E+04	1.630E+03	1.630E-01	1.630E+03	1.630E+00
5.000E+04	1.533E+03	1.533E-01	1.533E+03	1.533E+00
6.000E+04	1.471E+03	1.471E-01	1.471E+03	1.471E+00
7.000E+04	1.431E+03	1.431E-01	1.431E+03	1.431E+00
8.000E+04	1.405E+03	1.405E-01	1.405E+03	1.405E+00
9.000E+04	1.387E+03	1.387E-01	1.387E+03	1.387E+00
1.000E+05	1.375E+03	1.375E-01	1.375E+03	1.375E+00
2.000E+05	1.359E+03	1.359E-01	1.359E+03	1.359E+00
3.000E+05	1.384E+03	1.384E-01	1.384E+03	1.384E+00
4.000E+05	1.410E+03	1.410E-01	1.410E+03	1.410E+00
5.000E+05	1.434E+03	1.434E-01	1.434E+03	1.434E+00

TABLE 185

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: CO Z= 27 A= 58.94

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	6.818E+03	6.818E-01	6.818E+03	6.818E+00
7.000E-01	7.366E+03	7.366E-01	7.366E+03	7.366E+00
8.000E-01	7.874E+03	7.874E-01	7.874E+03	7.874E+00
9.000E-01	8.352E+03	8.352E-01	8.352E+03	8.352E+00
1.000E+00	8.804E+03	8.804E-01	8.804E+03	8.804E+00
2.000E+00	1.244E+04	1.244E+00	1.244E+04	1.244E+01
3.000E+00	1.525E+04	1.525E+00	1.525E+04	1.525E+01
4.000E+00	1.761E+04	1.761E+00	1.761E+04	1.761E+01
5.000E+00	1.969E+04	1.969E+00	1.969E+04	1.969E+01
6.000E+00	2.157E+04	2.157E+00	2.157E+04	2.157E+01
7.000E+00	2.329E+04	2.329E+00	2.329E+04	2.329E+01
8.000E+00	2.490E+04	2.490E+00	2.490E+04	2.490E+01
9.000E+00	2.641E+04	2.641E+00	2.641E+04	2.641E+01
1.000E+01	2.782E+04	2.782E+00	2.782E+04	2.782E+01
2.000E+01	3.763E+04	3.763E+00	3.763E+04	3.763E+01
3.000E+01	4.193E+04	4.193E+00	4.193E+04	4.193E+01
4.000E+01	4.380E+04	4.380E+00	4.380E+04	4.380E+01
5.000E+01	4.459E+04	4.459E+00	4.459E+04	4.459E+01
6.000E+01	4.482E+04	4.482E+00	4.482E+04	4.482E+01
7.000E+01	4.472E+04	4.472E+00	4.472E+04	4.472E+01
8.000E+01	4.444E+04	4.444E+00	4.444E+04	4.444E+01
9.000E+01	4.404E+04	4.404E+00	4.404E+04	4.404E+01
1.000E+02	4.356E+04	4.356E+00	4.356E+04	4.356E+01
2.000E+02	3.808E+04	3.808E+00	3.808E+04	3.808E+01
3.000E+02	3.343E+04	3.343E+00	3.343E+04	3.343E+01
4.000E+02	2.981E+04	2.981E+00	2.981E+04	2.981E+01
5.000E+02	2.694E+04	2.694E+00	2.694E+04	2.694E+01
6.000E+02	2.461E+04	2.461E+00	2.461E+04	2.461E+01
7.000E+02	2.269E+04	2.269E+00	2.269E+04	2.269E+01
8.000E+02	2.108E+04	2.108E+00	2.108E+04	2.108E+01
9.000E+02	1.970E+04	1.970E+00	1.970E+04	1.970E+01
1.000E+03	1.849E+04	1.849E+00	1.849E+04	1.849E+01
2.000E+03	1.175E+04	1.175E+00	1.175E+04	1.175E+01
3.000E+03	8.758E+03	8.758E-01	8.758E+03	8.758E+00
4.000E+03	7.064E+03	7.064E-01	7.064E+03	7.064E+00
5.000E+03	5.980E+03	5.980E-01	5.980E+03	5.980E+00
6.000E+03	5.227E+03	5.227E-01	5.227E+03	5.227E+00
7.000E+03	4.674E+03	4.674E-01	4.674E+03	4.674E+00
8.000E+03	4.251E+03	4.251E-01	4.251E+03	4.251E+00
9.000E+03	3.917E+03	3.917E-01	3.917E+03	3.917E+00
1.000E+04	3.648E+03	3.648E-01	3.648E+03	3.648E+00
2.000E+04	2.401E+03	2.401E-01	2.401E+03	2.401E+00
3.000E+04	1.986E+03	1.986E-01	1.986E+03	1.986E+00
4.000E+04	1.788E+03	1.788E-01	1.788E+03	1.788E+00
5.000E+04	1.675E+03	1.675E-01	1.675E+03	1.675E+00
6.000E+04	1.604E+03	1.604E-01	1.604E+03	1.604E+00
7.000E+04	1.558E+03	1.558E-01	1.558E+03	1.558E+00
8.000E+04	1.526E+03	1.526E-01	1.526E+03	1.526E+00
9.000E+04	1.503E+03	1.503E-01	1.503E+03	1.503E+00
1.000E+05	1.488E+03	1.488E-01	1.488E+03	1.488E+00
2.000E+05	1.464E+03	1.464E-01	1.464E+03	1.464E+00
3.000E+05	1.488E+03	1.488E-01	1.488E+03	1.488E+00
4.000E+05	1.516E+03	1.516E-01	1.516E+03	1.516E+00
5.000E+05	1.540E+03	1.540E-01	1.540E+03	1.540E+00

C-2

TABLE 186

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: NI Z= 28 A= 58.71

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
6.000E-01	6.972E+03	6.972E-01	6.972E+03	6.972E+00
7.000E-01	7.532E+03	7.532E-01	7.532E+03	7.532E+00
8.000E-01	8.052E+03	8.052E-01	8.052E+03	8.052E+00
9.000E-01	8.540E+03	8.540E-01	8.540E+03	8.540E+00
1.000E+00	9.003E+03	9.003E-01	9.003E+03	9.003E+00
2.000E+00	1.273E+04	1.273E+00	1.273E+04	1.273E+01
3.000E+00	1.559E+04	1.559E+00	1.559E+04	1.559E+01
4.000E+00	1.800E+04	1.800E+00	1.800E+04	1.800E+01
5.000E+00	2.013E+04	2.013E+00	2.013E+04	2.013E+01
6.000E+00	2.205E+04	2.205E+00	2.205E+04	2.205E+01
7.000E+00	2.382E+04	2.382E+00	2.382E+04	2.382E+01
8.000E+00	2.546E+04	2.546E+00	2.546E+04	2.546E+01
9.000E+00	2.701E+04	2.701E+00	2.701E+04	2.701E+01
1.000E+01	2.845E+04	2.845E+00	2.845E+04	2.845E+01
2.000E+01	3.861E+04	3.861E+00	3.861E+04	3.861E+01
3.000E+01	4.315E+04	4.315E+00	4.315E+04	4.315E+01
4.000E+01	4.519E+04	4.519E+00	4.519E+04	4.519E+01
5.000E+01	4.608E+04	4.608E+00	4.608E+04	4.608E+01
6.000E+01	4.639E+04	4.639E+00	4.639E+04	4.639E+01
7.000E+01	4.635E+04	4.635E+00	4.635E+04	4.635E+01
8.000E+01	4.611E+04	4.611E+00	4.611E+04	4.611E+01
9.000E+01	4.574E+04	4.574E+00	4.574E+04	4.574E+01
1.000E+02	4.529E+04	4.529E+00	4.529E+04	4.529E+01
2.000E+02	3.983E+04	3.983E+00	3.983E+04	3.983E+01
3.000E+02	3.512E+04	3.512E+00	3.512E+04	3.512E+01
4.000E+02	3.140E+04	3.140E+00	3.140E+04	3.140E+01
5.000E+02	2.843E+04	2.843E+00	2.843E+04	2.843E+01
6.000E+02	2.601E+04	2.601E+00	2.601E+04	2.601E+01
7.000E+02	2.402E+04	2.402E+00	2.402E+04	2.402E+01
8.000E+02	2.234E+04	2.234E+00	2.234E+04	2.234E+01
9.000E+02	2.089E+04	2.089E+00	2.089E+04	2.089E+01
1.000E+03	1.963E+04	1.963E+00	1.963E+04	1.963E+01
2.000E+03	1.253E+04	1.253E+00	1.253E+04	1.253E+01
3.000E+03	9.364E+03	9.364E-01	9.364E+03	9.364E+00
4.000E+03	7.564E+03	7.564E-01	7.564E+03	7.564E+00
5.000E+03	6.405E+03	6.405E-01	6.405E+03	6.405E+00
6.000E+03	5.602E+03	5.602E-01	5.602E+03	5.602E+00
7.000E+03	5.010E+03	5.010E-01	5.010E+03	5.010E+00
8.000E+03	4.558E+03	4.558E-01	4.558E+03	4.558E+00
9.000E+03	4.201E+03	4.201E-01	4.201E+03	4.201E+00
1.000E+04	3.911E+03	3.911E-01	3.911E+03	3.911E+00
2.000E+04	2.577E+03	2.577E-01	2.577E+03	2.577E+00
3.000E+04	2.133E+03	2.133E-01	2.133E+03	2.133E+00
4.000E+04	1.920E+03	1.920E-01	1.920E+03	1.920E+00
5.000E+04	1.801E+03	1.801E-01	1.801E+03	1.801E+00
6.000E+04	1.724E+03	1.724E-01	1.724E+03	1.724E+00
7.000E+04	1.674E+03	1.674E-01	1.674E+03	1.674E+00
8.000E+04	1.640E+03	1.640E-01	1.640E+03	1.640E+00
9.000E+04	1.617E+03	1.617E-01	1.617E+03	1.617E+00
1.000E+05	1.600E+03	1.600E-01	1.600E+03	1.600E+00
2.000E+05	1.574E+03	1.574E-01	1.574E+03	1.574E+00
3.000E+05	1.601E+03	1.601E-01	1.601E+03	1.601E+00
4.000E+05	1.631E+03	1.631E-01	1.631E+03	1.631E+00
5.000E+05	1.656E+03	1.656E-01	1.656E+03	1.656E+00

TABLE 187

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: KR Z= 36 A= 83.80

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
9.000E-01	8.202E+03	8.202E-01	8.202E+03	8.202E+00
1.000E+00	8.647E+03	8.647E-01	8.647E+03	8.647E+00
2.000E+00	1.223E+04	1.223E+00	1.223E+04	1.223E+01
3.000E+00	1.498E+04	1.498E+00	1.498E+04	1.498E+01
4.000E+00	1.729E+04	1.729E+00	1.729E+04	1.729E+01
5.000E+00	1.934E+04	1.934E+00	1.934E+04	1.934E+01
6.000E+00	2.118E+04	2.118E+00	2.118E+04	2.118E+01
7.000E+00	2.288E+04	2.288E+00	2.288E+04	2.288E+01
8.000E+00	2.445E+04	2.445E+00	2.445E+04	2.445E+01
9.000E+00	2.594E+04	2.594E+00	2.594E+04	2.594E+01
1.000E+01	2.734E+04	2.734E+00	2.734E+04	2.734E+01
2.000E+01	3.852E+04	3.852E+00	3.852E+04	3.852E+01
3.000E+01	4.615E+04	4.615E+00	4.615E+04	4.615E+01
4.000E+01	5.090E+04	5.090E+00	5.090E+04	5.090E+01
5.000E+01	5.387E+04	5.387E+00	5.387E+04	5.387E+01
6.000E+01	5.578E+04	5.578E+00	5.578E+04	5.578E+01
7.000E+01	5.705E+04	5.705E+00	5.705E+04	5.705E+01
8.000E+01	5.789E+04	5.789E+00	5.789E+04	5.789E+01
9.000E+01	5.843E+04	5.843E+00	5.843E+04	5.843E+01
1.000E+02	5.876E+04	5.876E+00	5.876E+04	5.876E+01
2.000E+02	5.725E+04	5.725E+00	5.725E+04	5.725E+01
3.000E+02	5.365E+04	5.365E+00	5.365E+04	5.365E+01
4.000E+02	5.010E+04	5.010E+00	5.010E+04	5.010E+01
5.000E+02	4.690E+04	4.690E+00	4.690E+04	4.690E+01
6.000E+02	4.406E+04	4.406E+00	4.406E+04	4.406E+01
7.000E+02	4.157E+04	4.157E+00	4.157E+04	4.157E+01
8.000E+02	3.936E+04	3.936E+00	3.936E+04	3.936E+01
9.000E+02	3.738E+04	3.738E+00	3.738E+04	3.738E+01
1.000E+03	3.561E+04	3.561E+00	3.561E+04	3.561E+01
2.000E+03	2.460E+04	2.460E+00	2.460E+04	2.460E+01
3.000E+03	1.912E+04	1.912E+00	1.912E+04	1.912E+01
4.000E+03	1.578E+04	1.578E+00	1.578E+04	1.578E+01
5.000E+03	1.351E+04	1.351E+00	1.351E+04	1.351E+01
6.000E+03	1.187E+04	1.187E+00	1.187E+04	1.187E+01
7.000E+03	1.063E+04	1.063E+00	1.063E+04	1.063E+01
8.000E+03	9.659E+03	9.659E-01	9.659E+03	9.659E+00
9.000E+03	8.878E+03	8.878E-01	8.878E+03	8.878E+00
1.000E+04	8.237E+03	8.237E-01	8.237E+03	8.237E+00
2.000E+04	5.208E+03	5.208E-01	5.208E+03	5.208E+00
3.000E+04	4.153E+03	4.153E-01	4.153E+03	4.153E+00
4.000E+04	3.627E+03	3.627E-01	3.627E+03	3.627E+00
5.000E+04	3.321E+03	3.321E-01	3.321E+03	3.321E+00
6.000E+04	3.125E+03	3.125E-01	3.125E+03	3.125E+00
7.000E+04	2.992E+03	2.992E-01	2.992E+03	2.992E+00
8.000E+04	2.892E+03	2.892E-01	2.892E+03	2.892E+00
9.000E+04	2.820E+03	2.820E-01	2.820E+03	2.820E+00
1.000E+05	2.766E+03	2.766E-01	2.766E+03	2.766E+00
2.000E+05	2.599E+03	2.599E-01	2.599E+03	2.599E+00
3.000E+05	2.606E+03	2.606E-01	2.606E+03	2.606E+00
4.000E+05	2.637E+03	2.637E-01	2.637E+03	2.637E+00
5.000E+05	2.671E+03	2.671E-01	2.671E+03	2.671E+00
6.000E+05	2.704E+03	2.704E-01	2.704E+03	2.704E+00
7.000E+05	2.734E+03	2.734E-01	2.734E+03	2.734E+00
8.000E+05	2.761E+03	2.761E-01	2.761E+03	2.761E+00

TABLE 188

COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AG Z= 47 A= 107.87

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E+00	1.246E+04	1.246E+00	1.246E+04	1.246E+01
3.000E+00	1.526E+04	1.526E+00	1.526E+04	1.526E+01
4.000E+00	1.761E+04	1.761E+00	1.761E+04	1.761E+01
5.000E+00	1.970E+04	1.970E+00	1.970E+04	1.970E+01
6.000E+00	2.157E+04	2.157E+00	2.157E+04	2.157E+01
7.000E+00	2.330E+04	2.330E+00	2.330E+04	2.330E+01
8.000E+00	2.491E+04	2.491E+00	2.491E+04	2.491E+01
9.000E+00	2.642E+04	2.642E+00	2.642E+04	2.642E+01
1.000E+01	2.785E+04	2.785E+00	2.785E+04	2.785E+01
2.000E+01	3.939E+04	3.939E+00	3.939E+04	3.939E+01
3.000E+01	4.811E+04	4.811E+00	4.811E+04	4.811E+01
4.000E+01	5.495E+04	5.495E+00	5.495E+04	5.495E+01
5.000E+01	6.014E+04	6.014E+00	6.014E+04	6.014E+01
6.000E+01	6.388E+04	6.388E+00	6.388E+04	6.388E+01
7.000E+01	6.670E+04	6.670E+00	6.670E+04	6.670E+01
8.000E+01	6.884E+04	6.884E+00	6.884E+04	6.884E+01
9.000E+01	7.050E+04	7.050E+00	7.050E+04	7.050E+01
1.000E+02	7.181E+04	7.181E+00	7.181E+04	7.181E+01
2.000E+02	7.604E+04	7.604E+00	7.604E+04	7.604E+01
3.000E+02	7.493E+04	7.493E+00	7.493E+04	7.493E+01
4.000E+02	7.256E+04	7.256E+00	7.256E+04	7.256E+01
5.000E+02	6.991E+04	6.991E+00	6.991E+04	6.991E+01
6.000E+02	6.727E+04	6.727E+00	6.727E+04	6.727E+01
7.000E+02	6.473E+04	6.473E+00	6.473E+04	6.473E+01
8.000E+02	6.235E+04	6.235E+00	6.235E+04	6.235E+01
9.000E+02	6.012E+04	6.012E+00	6.012E+04	6.012E+01
1.000E+03	5.806E+04	5.806E+00	5.806E+04	5.806E+01
2.000E+03	4.347E+04	4.347E+00	4.347E+04	4.347E+01
3.000E+03	3.519E+04	3.519E+00	3.519E+04	3.519E+01
4.000E+03	2.982E+04	2.982E+00	2.982E+04	2.982E+01
5.000E+03	2.602E+04	2.602E+00	2.602E+04	2.602E+01
6.000E+03	2.318E+04	2.318E+00	2.318E+04	2.318E+01
7.000E+03	2.097E+04	2.097E+00	2.097E+04	2.097E+01
8.000E+03	1.919E+04	1.919E+00	1.919E+04	1.919E+01
9.000E+03	1.772E+04	1.772E+00	1.772E+04	1.772E+01
1.000E+04	1.651E+04	1.651E+00	1.651E+04	1.651E+01
2.000E+04	1.036E+04	1.036E+00	1.036E+04	1.036E+01
3.000E+04	8.103E+03	8.103E-01	8.103E+03	8.103E+00
4.000E+04	6.950E+03	6.950E-01	6.950E+03	6.950E+00
5.000E+04	6.261E+03	6.261E-01	6.261E+03	6.261E+00
6.000E+04	5.810E+03	5.810E-01	5.810E+03	5.810E+00
7.000E+04	5.497E+03	5.497E-01	5.497E+03	5.497E+00
8.000E+04	5.270E+03	5.270E-01	5.270E+03	5.270E+00
9.000E+04	5.100E+03	5.100E-01	5.100E+03	5.100E+00
1.000E+05	4.965E+03	4.965E-01	4.965E+03	4.965E+00
2.000E+05	4.480E+03	4.480E-01	4.480E+03	4.480E+00
3.000E+05	4.424E+03	4.424E-01	4.424E+03	4.424E+00
4.000E+05	4.446E+03	4.446E-01	4.446E+03	4.446E+00
5.000E+05	4.488E+03	4.488E-01	4.488E+03	4.488E+00
6.000E+05	4.533E+03	4.533E-01	4.533E+03	4.533E+00
7.000E+05	4.578E+03	4.578E-01	4.578E+03	4.578E+00
8.000E+05	4.621E+03	4.621E-01	4.621E+03	4.621E+00
9.000E+05	4.660E+03	4.660E-01	4.660E+03	4.660E+00
1.000E+06	4.696E+03	4.696E-01	4.696E+03	4.696E+00

TABLE 189

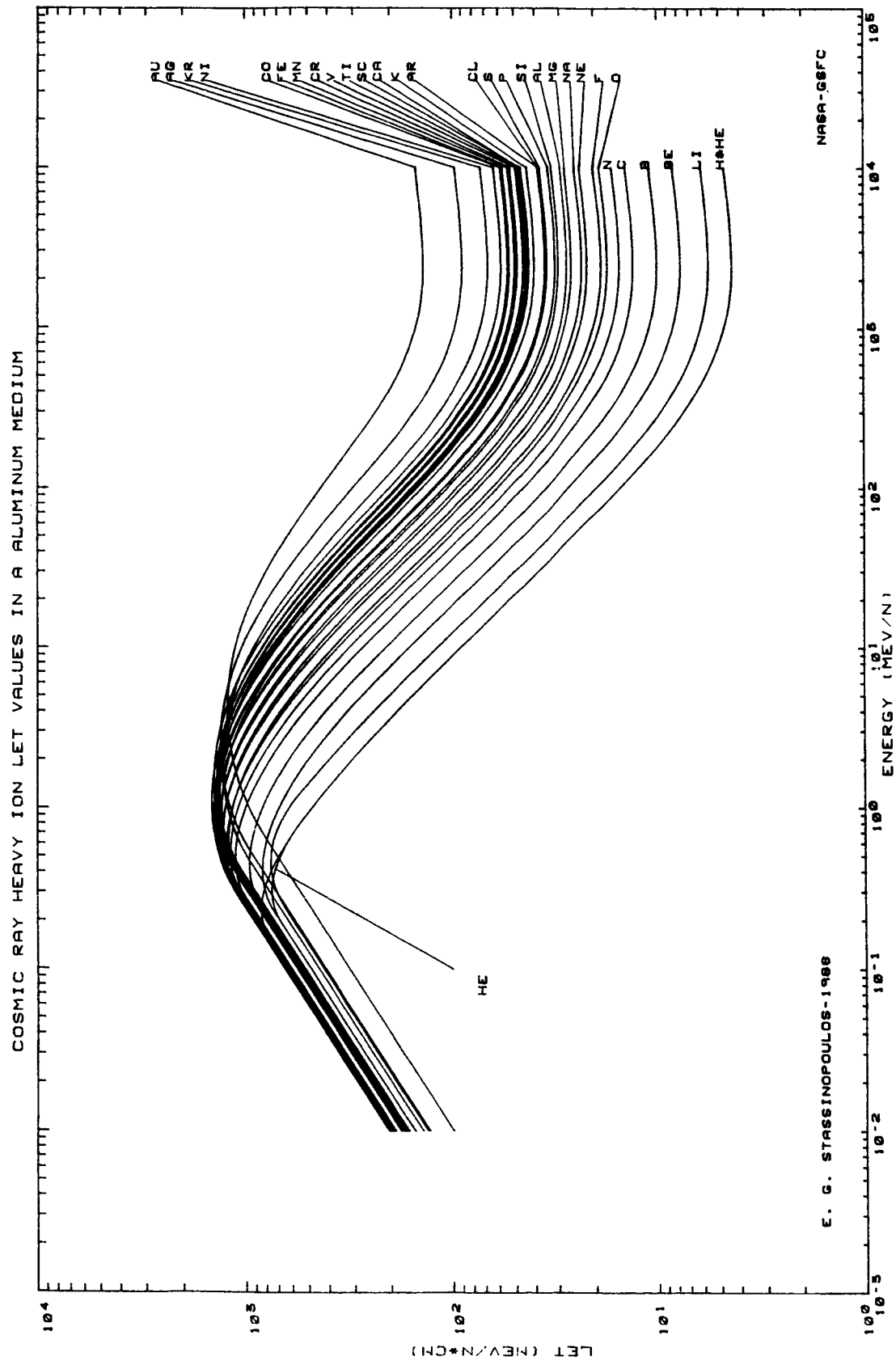
COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM

ELEMENT: AU Z= 79 A= 197.00

E.G. STASSINOPOULOUS-1985 NASA-GSFC

********** LET DATA IN UNITS OF: **********

ENERGY (MEV)	(MEV/CM)	(MEV/UM)	(MEV*SQCM/G)	(MEV*SQCM/MG)
2.000E+00	1.226E+04	1.226E+00	1.226E+04	1.226E+01
3.000E+00	1.502E+04	1.502E+00	1.502E+04	1.502E+01
4.000E+00	1.733E+04	1.733E+00	1.733E+04	1.733E+01
5.000E+00	1.938E+04	1.938E+00	1.938E+04	1.938E+01
6.000E+00	2.123E+04	2.123E+00	2.123E+04	2.123E+01
7.000E+00	2.293E+04	2.293E+00	2.293E+04	2.293E+01
8.000E+00	2.452E+04	2.452E+00	2.452E+04	2.452E+01
9.000E+00	2.601E+04	2.601E+00	2.601E+04	2.601E+01
1.000E+01	2.741E+04	2.741E+00	2.741E+04	2.741E+01
2.000E+01	3.877E+04	3.877E+00	3.877E+04	3.877E+01
3.000E+01	4.748E+04	4.748E+00	4.748E+04	4.748E+01
4.000E+01	5.482E+04	5.482E+00	5.482E+04	5.482E+01
5.000E+01	6.128E+04	6.128E+00	6.128E+04	6.128E+01
6.000E+01	6.714E+04	6.714E+00	6.714E+04	6.714E+01
7.000E+01	7.245E+04	7.245E+00	7.245E+04	7.245E+01
8.000E+01	7.724E+04	7.724E+00	7.724E+04	7.724E+01
9.000E+01	8.164E+04	8.164E+00	8.164E+04	8.164E+01
1.000E+02	8.566E+04	8.566E+00	8.566E+04	8.566E+01
2.000E+02	1.083E+05	1.083E+01	1.083E+05	1.083E+02
3.000E+02	1.175E+05	1.175E+01	1.175E+05	1.175E+02
4.000E+02	1.219E+05	1.219E+01	1.219E+05	1.219E+02
5.000E+02	1.240E+05	1.240E+01	1.240E+05	1.240E+02
6.000E+02	1.248E+05	1.248E+01	1.248E+05	1.248E+02
7.000E+02	1.249E+05	1.249E+01	1.249E+05	1.249E+02
8.000E+02	1.245E+05	1.245E+01	1.245E+05	1.245E+02
9.000E+02	1.238E+05	1.238E+01	1.238E+05	1.238E+02
1.000E+03	1.228E+05	1.228E+01	1.228E+05	1.228E+02
2.000E+03	1.104E+05	1.104E+01	1.104E+05	1.104E+02
3.000E+03	9.911E+04	9.911E+00	9.911E+04	9.911E+01
4.000E+03	8.993E+04	8.993E+00	8.993E+04	8.993E+01
5.000E+03	8.247E+04	8.247E+00	8.247E+04	8.247E+01
6.000E+03	7.632E+04	7.632E+00	7.632E+04	7.632E+01
7.000E+03	7.115E+04	7.115E+00	7.115E+04	7.115E+01
8.000E+03	6.674E+04	6.674E+00	6.674E+04	6.674E+01
9.000E+03	6.295E+04	6.295E+00	6.295E+04	6.295E+01
1.000E+04	5.965E+04	5.965E+00	5.965E+04	5.965E+01
2.000E+04	4.061E+04	4.061E+00	4.061E+04	4.061E+01
3.000E+04	3.201E+04	3.201E+00	3.201E+04	3.201E+01
4.000E+04	2.703E+04	2.703E+00	2.703E+04	2.703E+01
5.000E+04	2.381E+04	2.381E+00	2.381E+04	2.381E+01
6.000E+04	2.158E+04	2.158E+00	2.158E+04	2.158E+01
7.000E+04	1.994E+04	1.994E+00	1.994E+04	1.994E+01
8.000E+04	1.870E+04	1.870E+00	1.870E+04	1.870E+01
9.000E+04	1.775E+04	1.775E+00	1.775E+04	1.775E+01
1.000E+05	1.698E+04	1.698E+00	1.698E+04	1.698E+01
2.000E+05	1.374E+04	1.374E+00	1.374E+04	1.374E+01
3.000E+05	1.288E+04	1.288E+00	1.288E+04	1.288E+01
4.000E+05	1.259E+04	1.259E+00	1.259E+04	1.259E+01
5.000E+05	1.251E+04	1.251E+00	1.251E+04	1.251E+01
6.000E+05	1.250E+04	1.250E+00	1.250E+04	1.250E+01
7.000E+05	1.254E+04	1.254E+00	1.254E+04	1.254E+01
8.000E+05	1.260E+04	1.260E+00	1.260E+04	1.260E+01
9.000E+05	1.267E+04	1.267E+00	1.267E+04	1.267E+01
1.000E+06	1.274E+04	1.274E+00	1.274E+04	1.274E+01


COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
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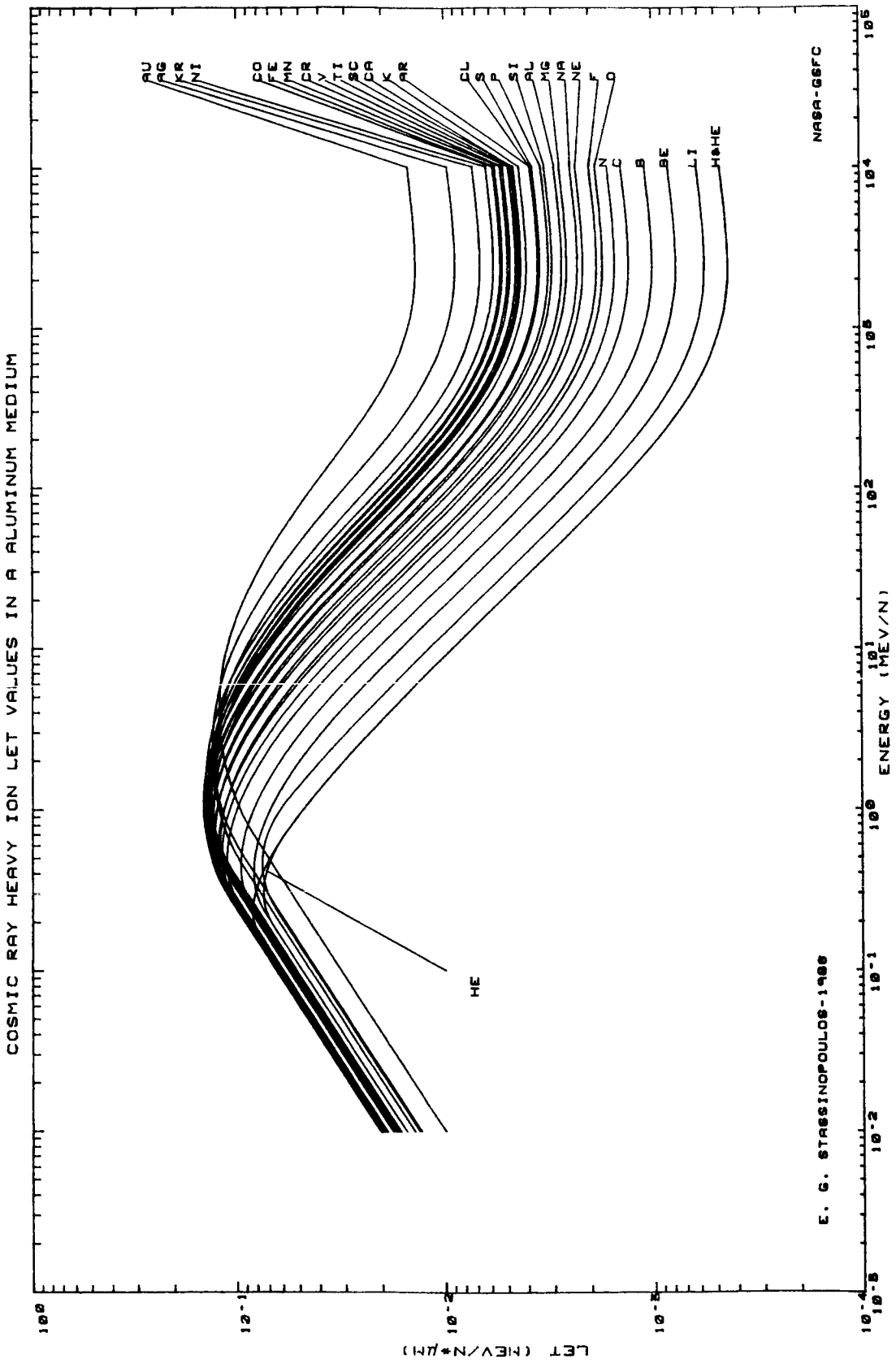
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (MEV/N*CM)
ENERGY (MEV/N)

FIGURE 1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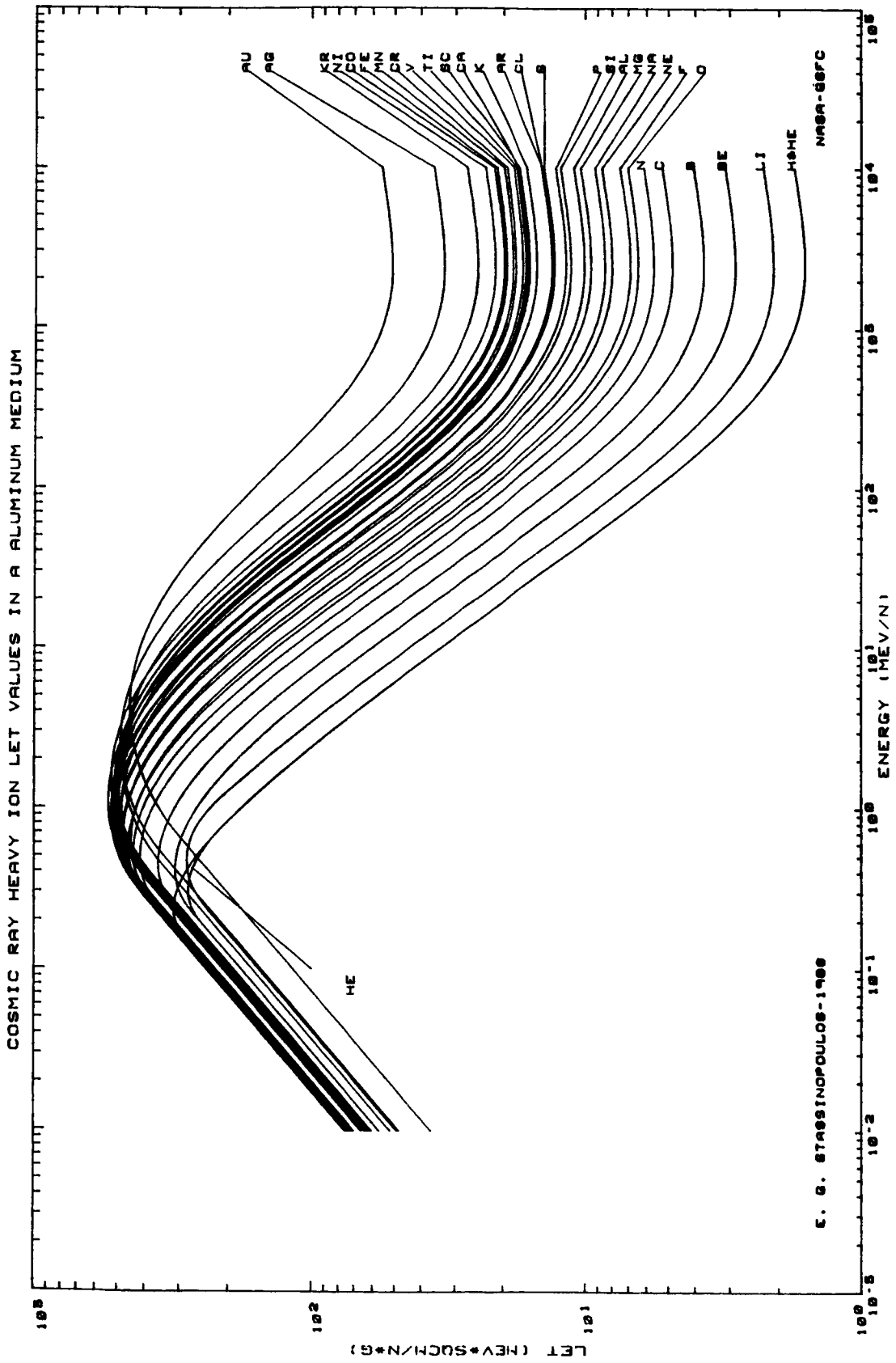
HE
NASA-GSFC
E. G. STASINOPOULOS-1988
LET (MEV/N*UM)
ENERGY (MEV/N)
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5

FIGURE 2


COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
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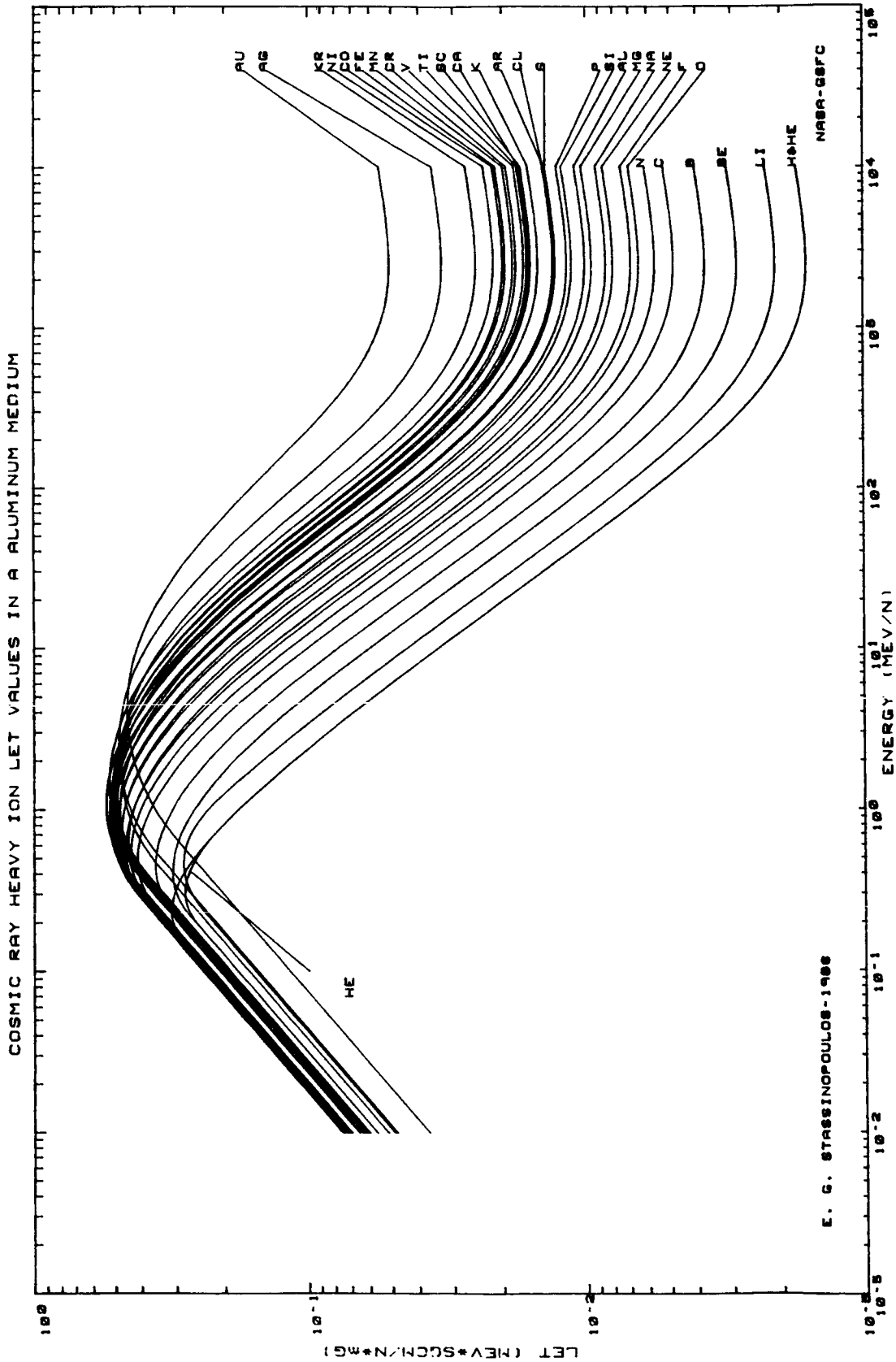
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (MEV*SQCM/N*G)
ENERGY (MEV/N)

FIGURE 3


COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
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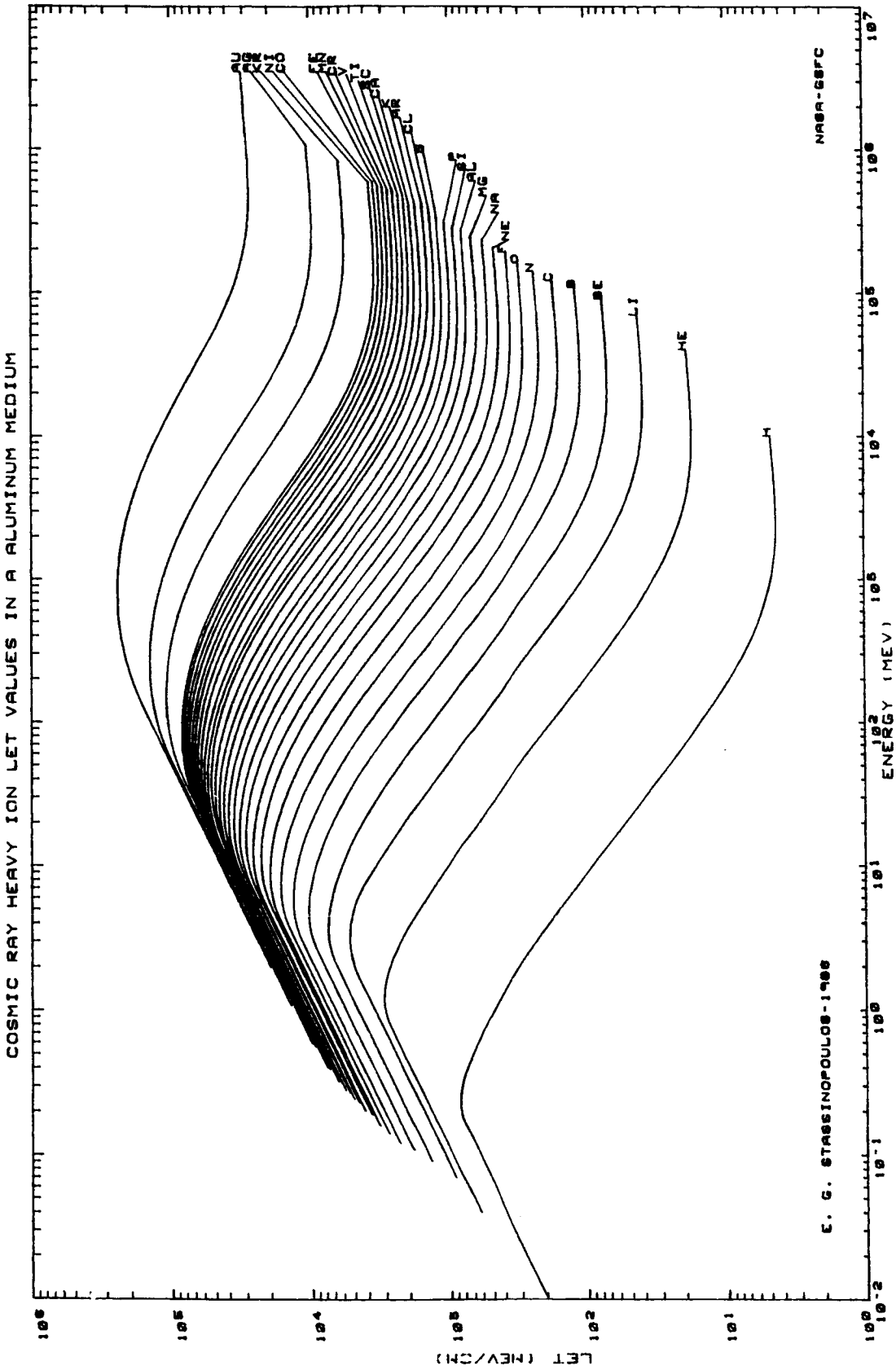
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (MEV*SQCM/N*MG)
ENERGY (MEV/N)
10^0
10^-1
10^-2
10^-3
10^-5
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5

FIGURE 4


COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
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LET (MEV/CM)
ENERGY (MEV)
E. G. STASSINOPOULOS-1988
NASA-GSFC

FIGURE 5

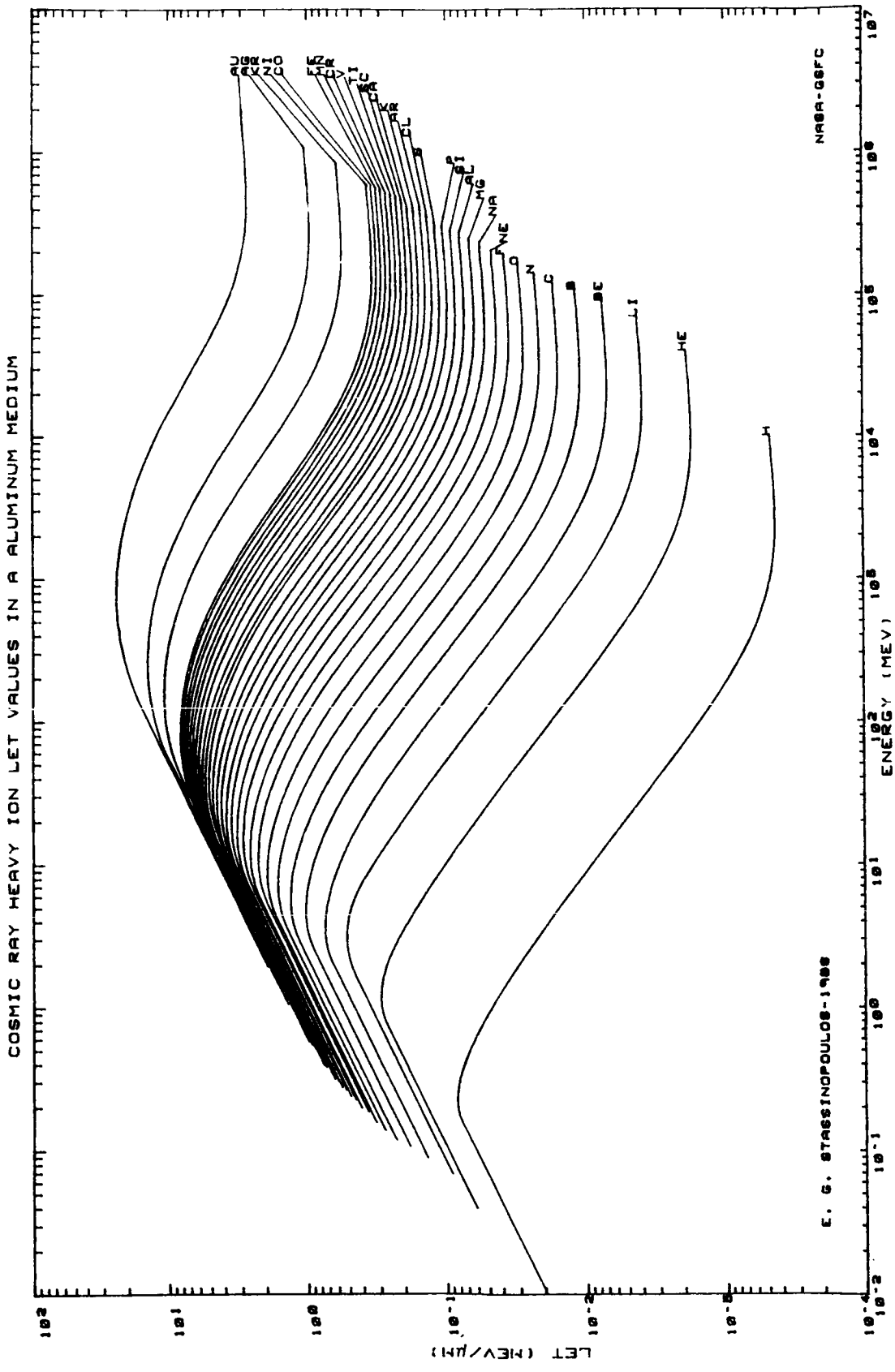
COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (MEV/μM)
ENERGY (MEV)
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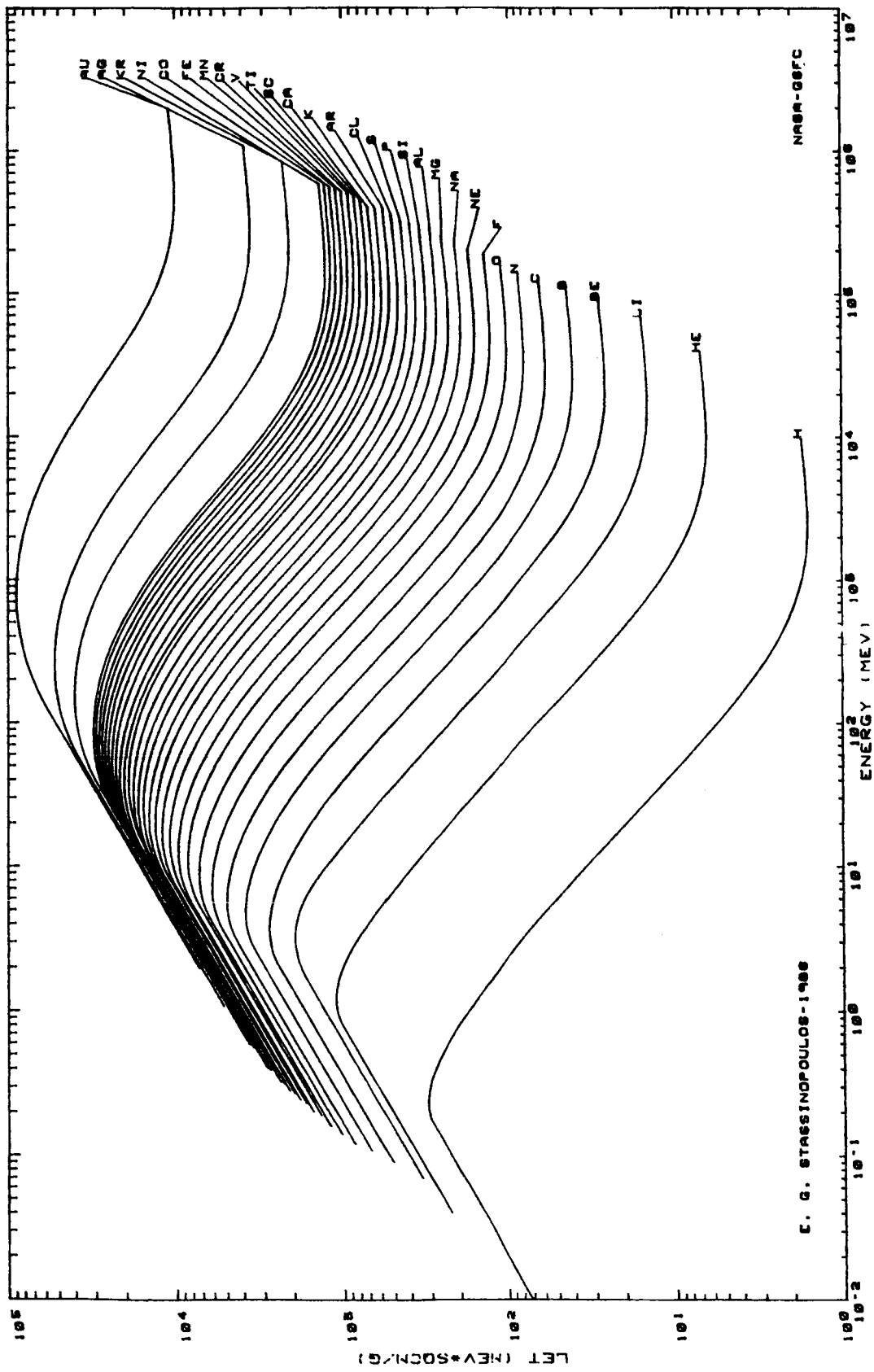
FIGURE 6


COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
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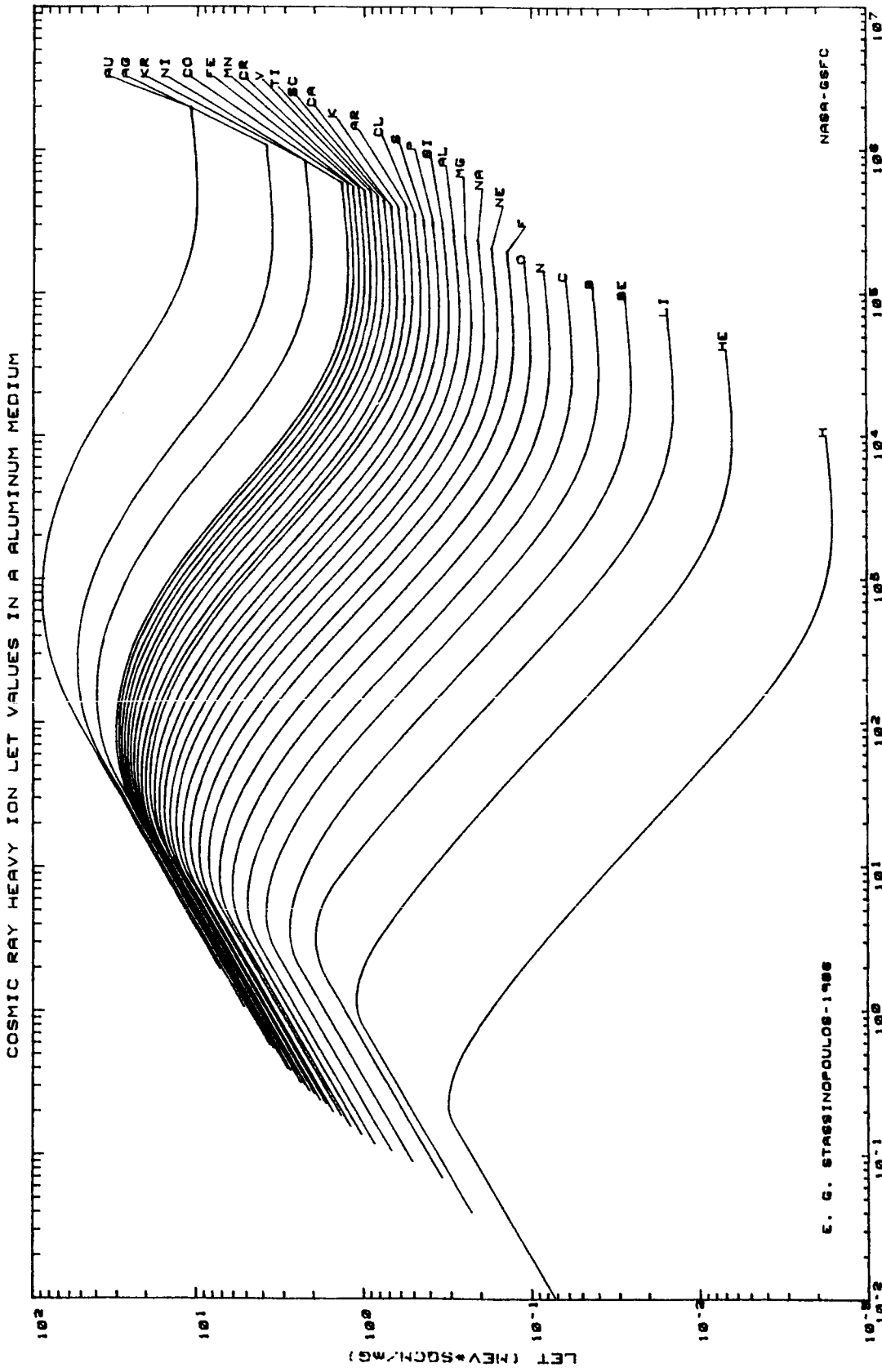
E. G. STASSINOPOULOS-1986
NASA-GSFC
ENERGY (MEV)
LET (MEV*SQCM/G)

FIGURE 7


COSMIC RAY HEAVY ION LET VALUES IN A ALUMINUM MEDIUM
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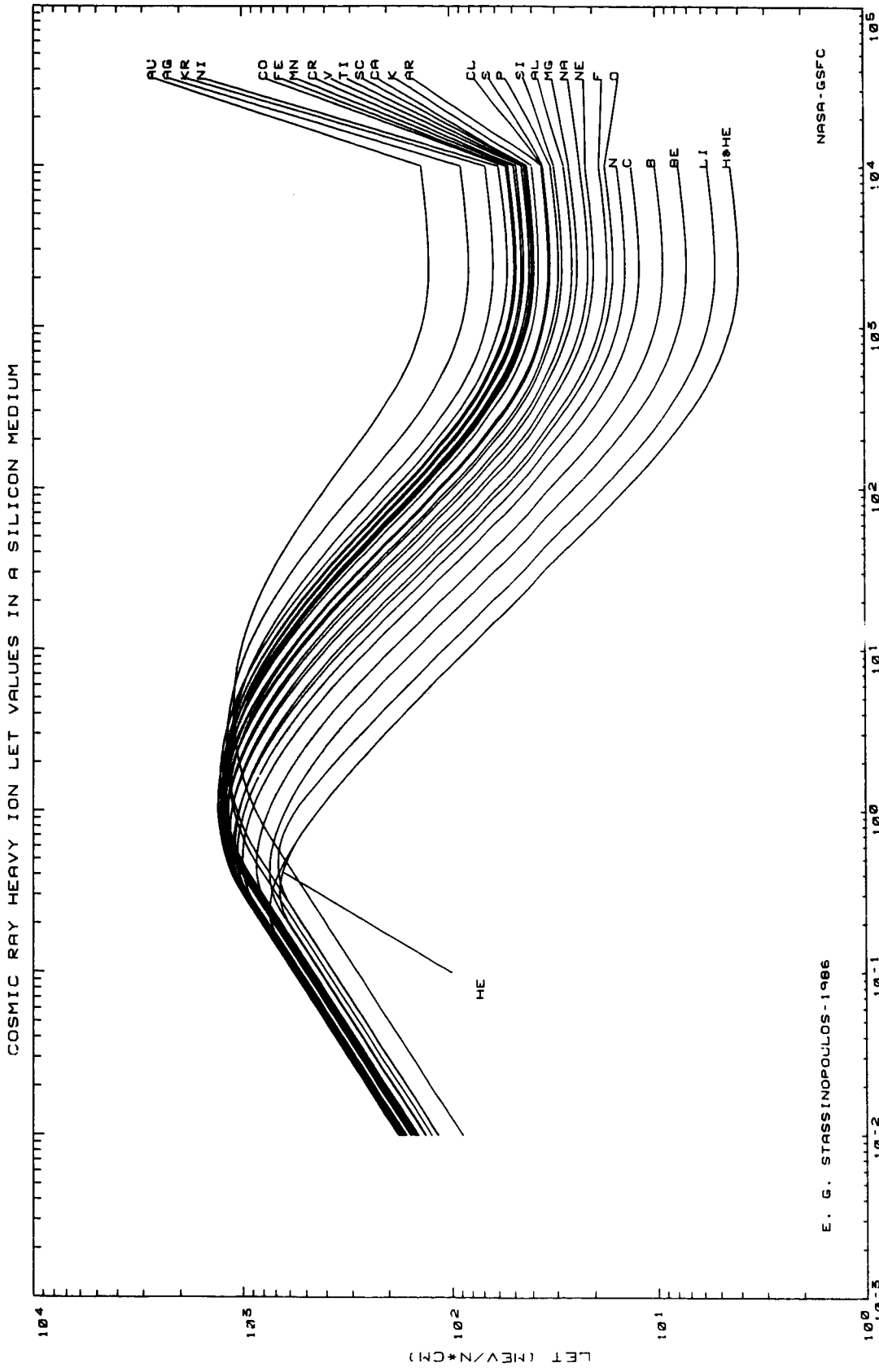
E. G. STASSINOPOULOS-1988
NASA-GSFC
LET (MEV*SQCM/MG)
ENERGY (MEV)

FIGURE 8


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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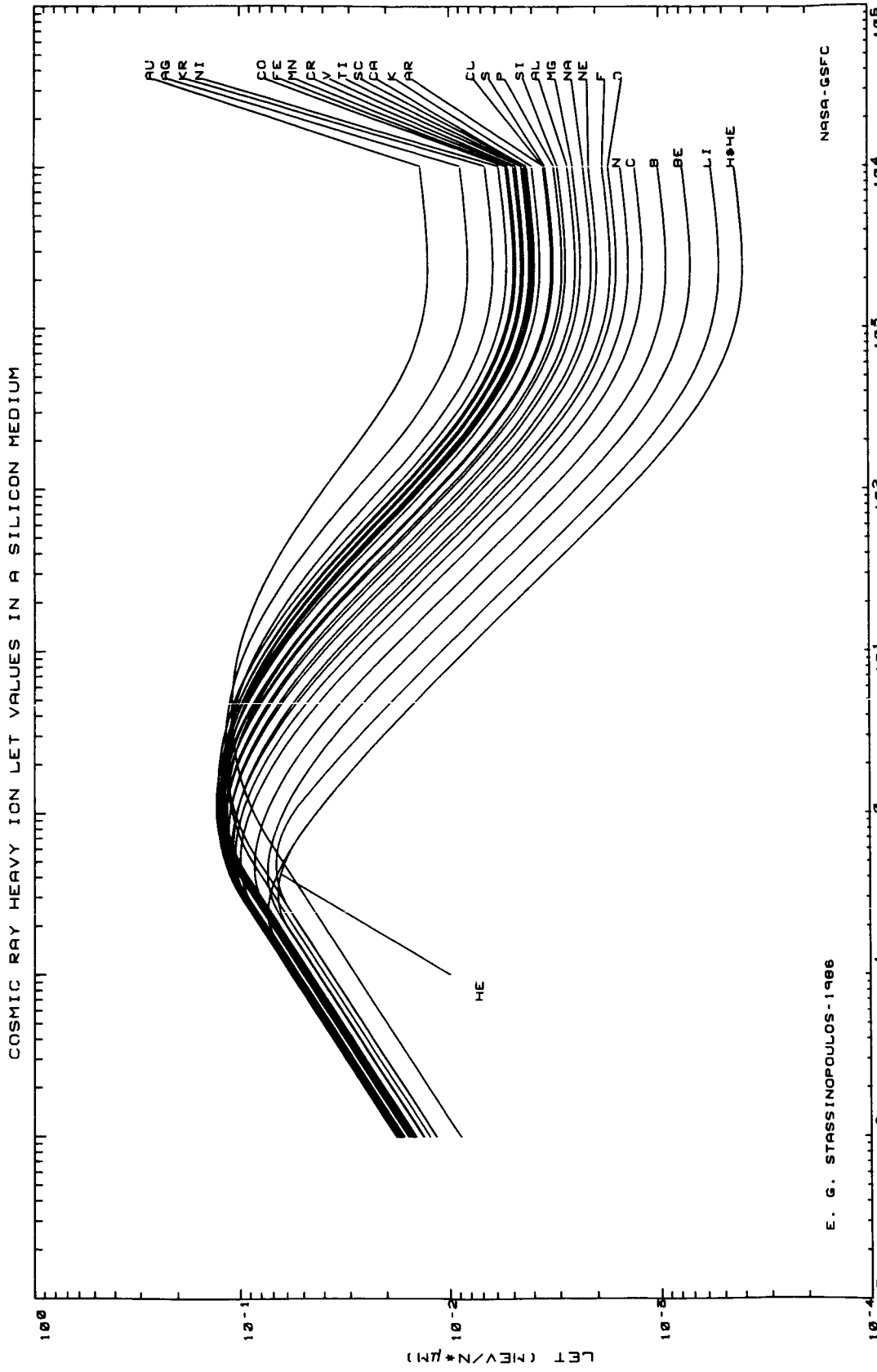
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV/N*CM)
ENERGY (MEV/N)

FIGURE 9


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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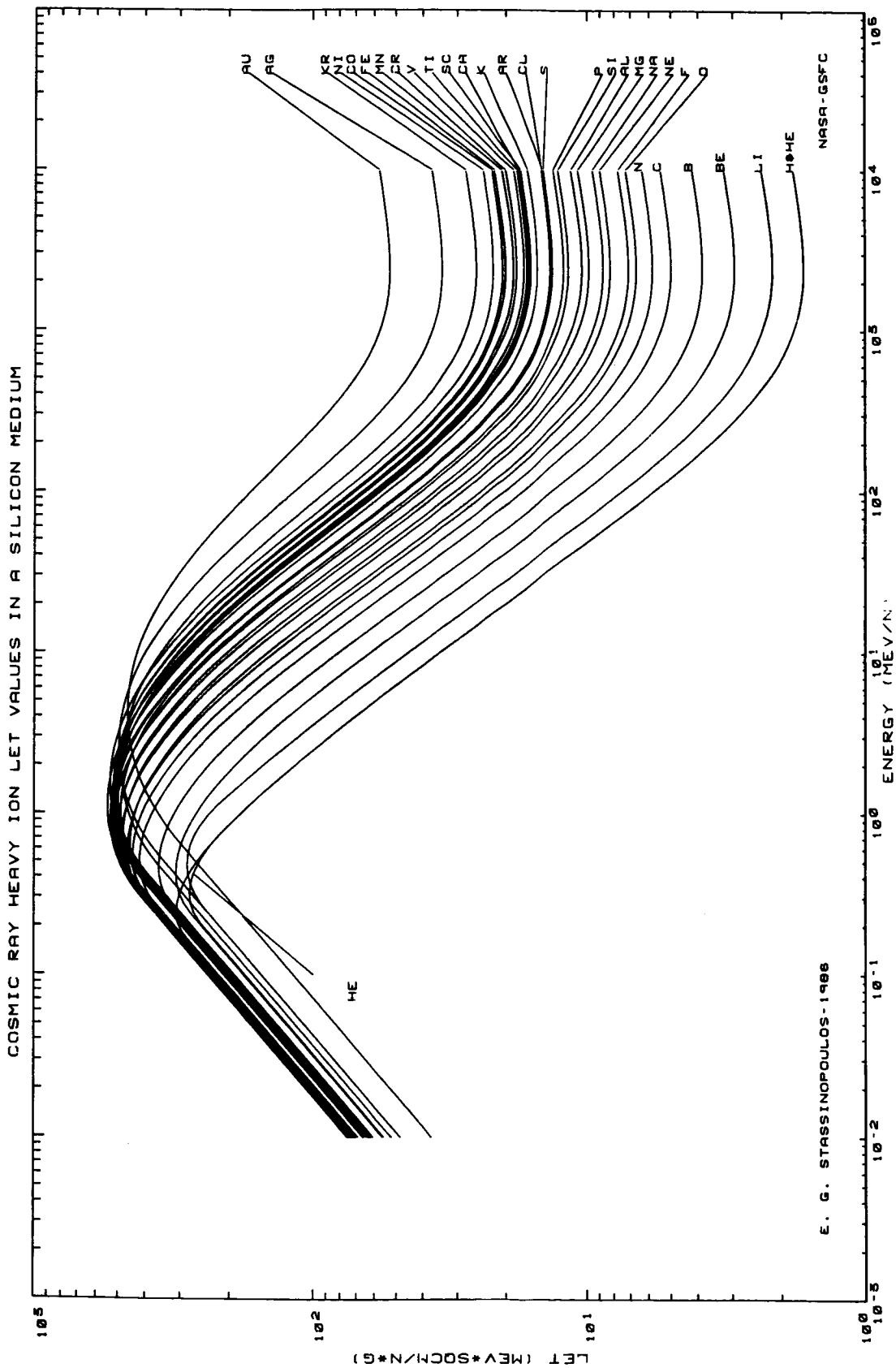
BE
LI
H&HE
HE
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV/N*μM)
ENERGY (MEV/N)
10^0
10^-1
10^-2
10^-3
10^-4
10^-5
10^-2
10^-1
10^0
10^1
10^2
10^3
10^4
10^5

FIGURE 10


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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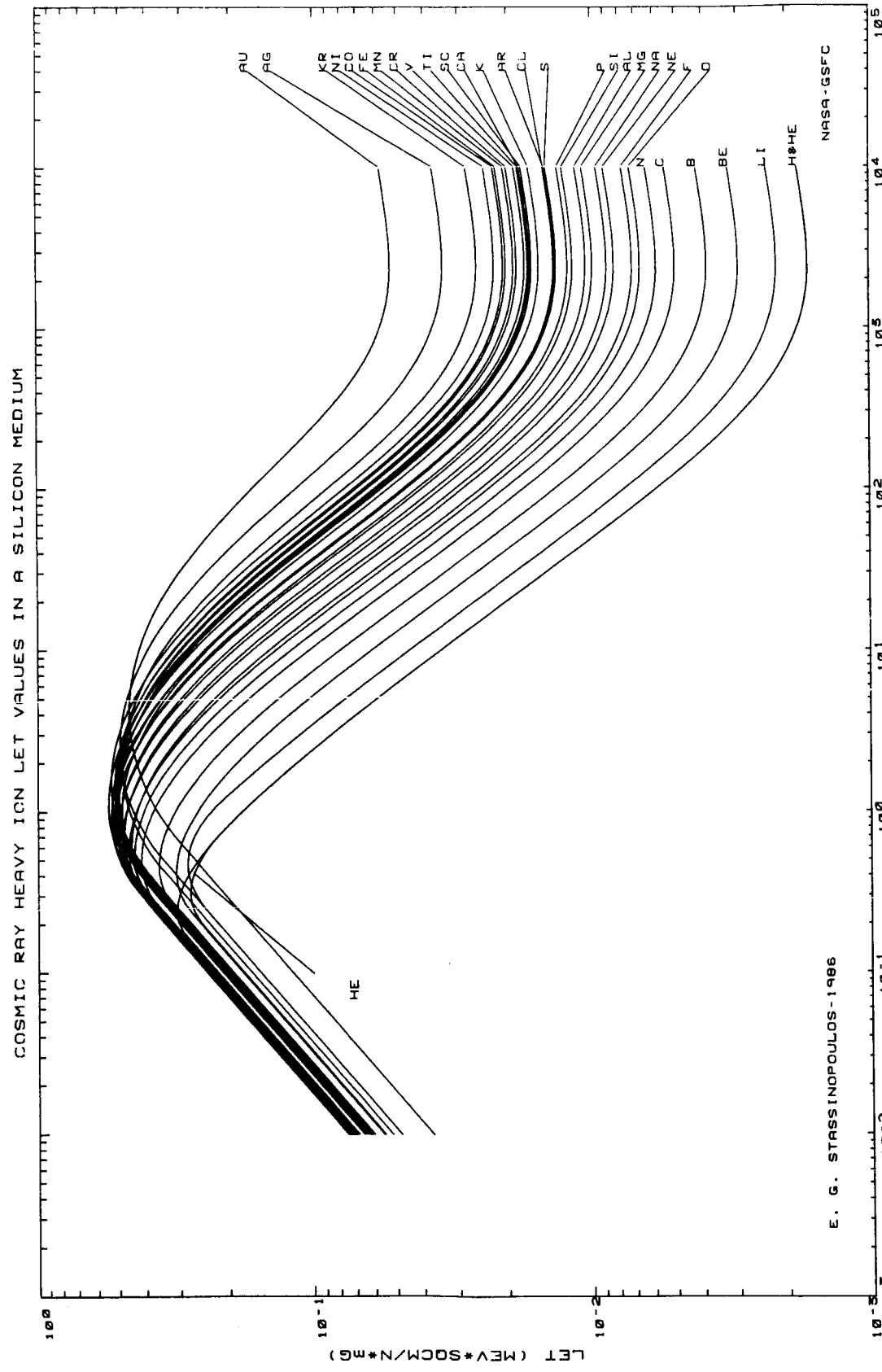
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (MEV*SQCM/N*G)
ENERGY (MEV/N)

FIGURE 11


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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HE
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV*SQCM/N*MG)
ENERGY (MEV/N)

FIGURE 12

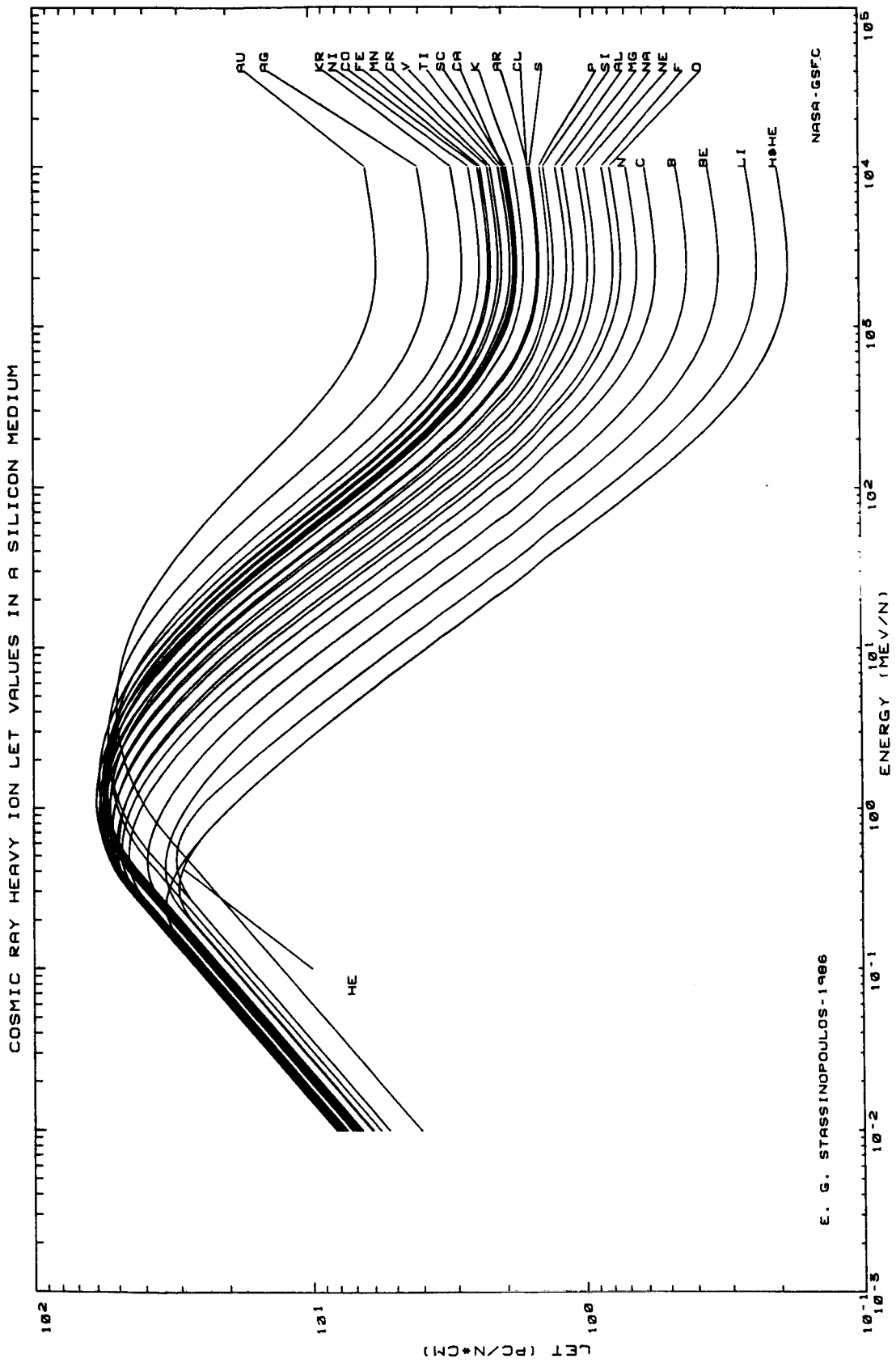
COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
LET (PC/N*CM)
ENERGY (MEV/N)
E. G. STASSINOPOULOS-1986
NASA-GSFC
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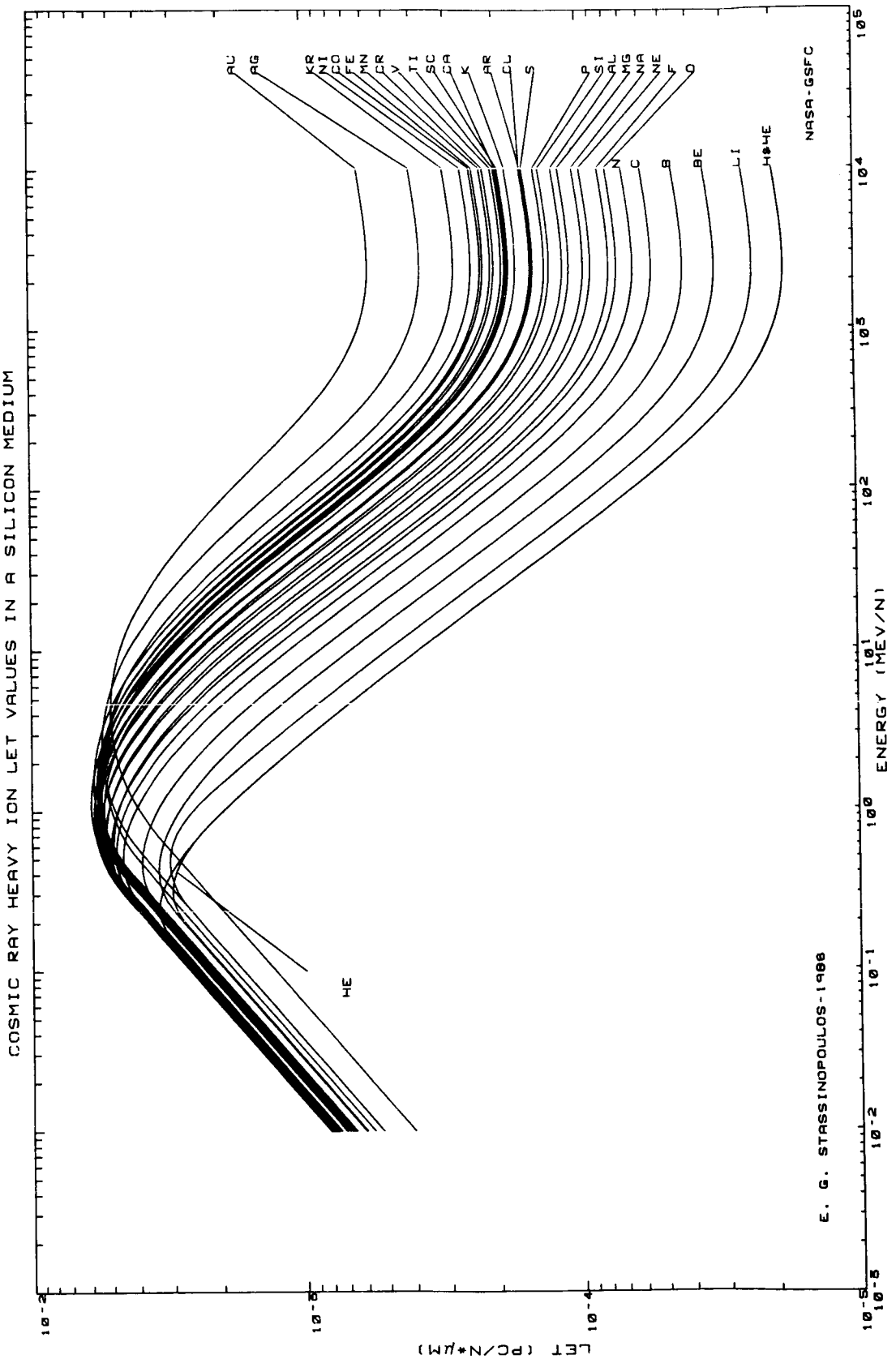
FIGURE 13


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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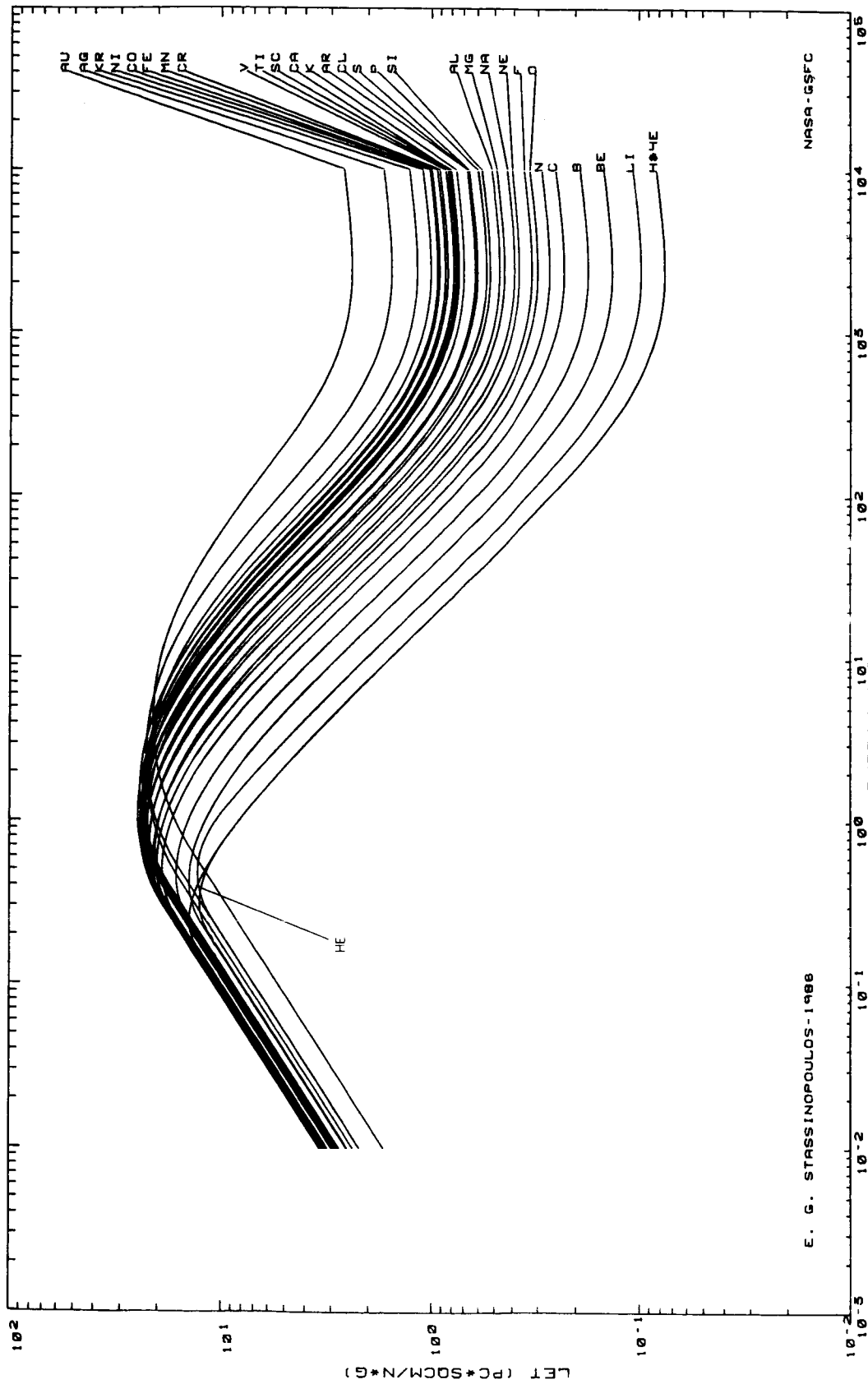
LI
H&HE
HE
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (PC/N*UM)
ENERGY (MEV/N)
10-2
10-3
10-4
10-5
10-5
10-2
10-1
100
101
102
103
104
105

FIGURE 14


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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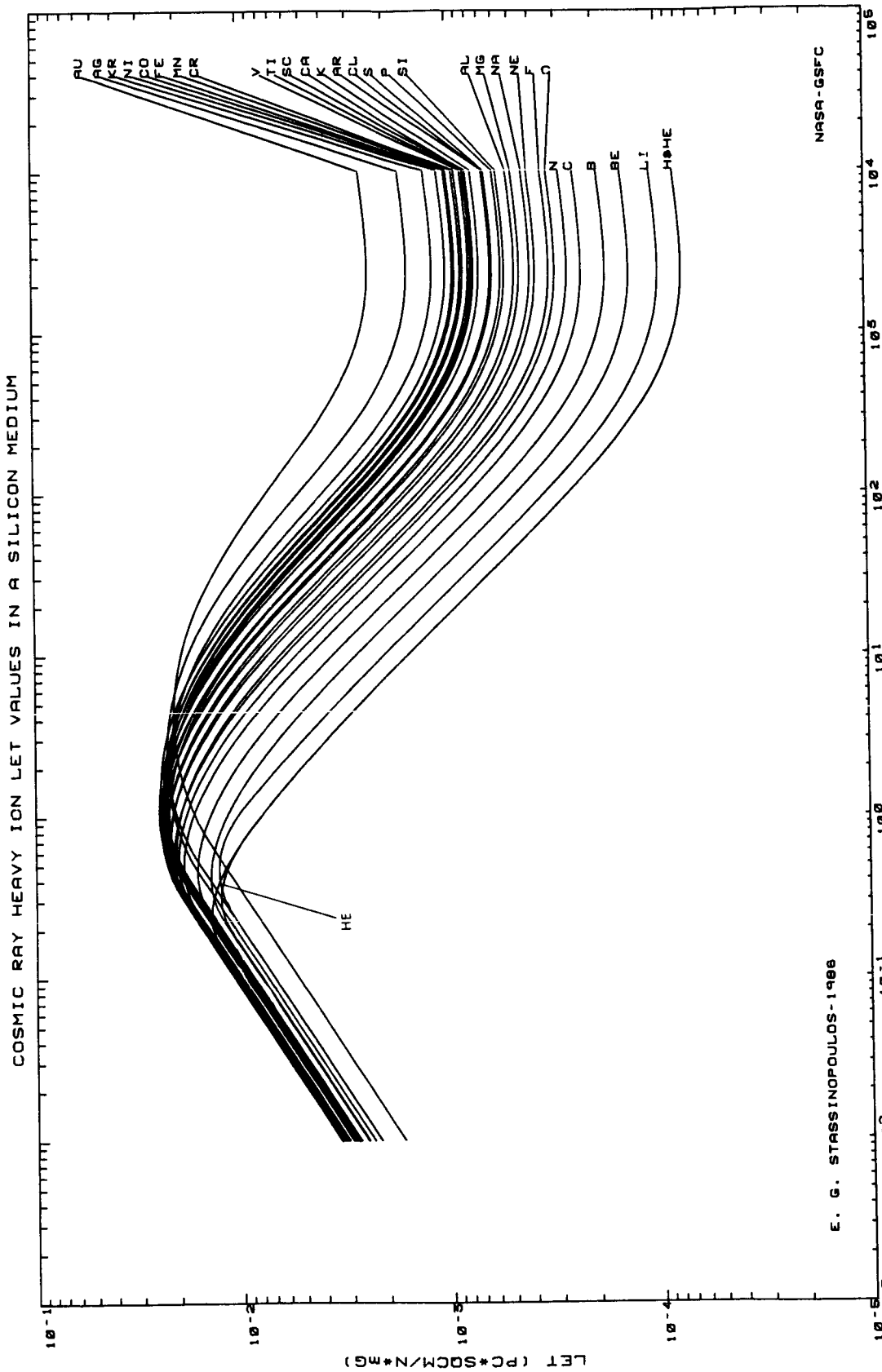
NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (PC*SQCM/N*G)
ENERGY (MEV/N)

FIGURE 15


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (PC*SQCM/N*MG)
ENERGY (MEV/N)
10-1
10-2
10-3
10-4
10-5
10-5
10-1
100
101
102
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104
106

FIGURE 16

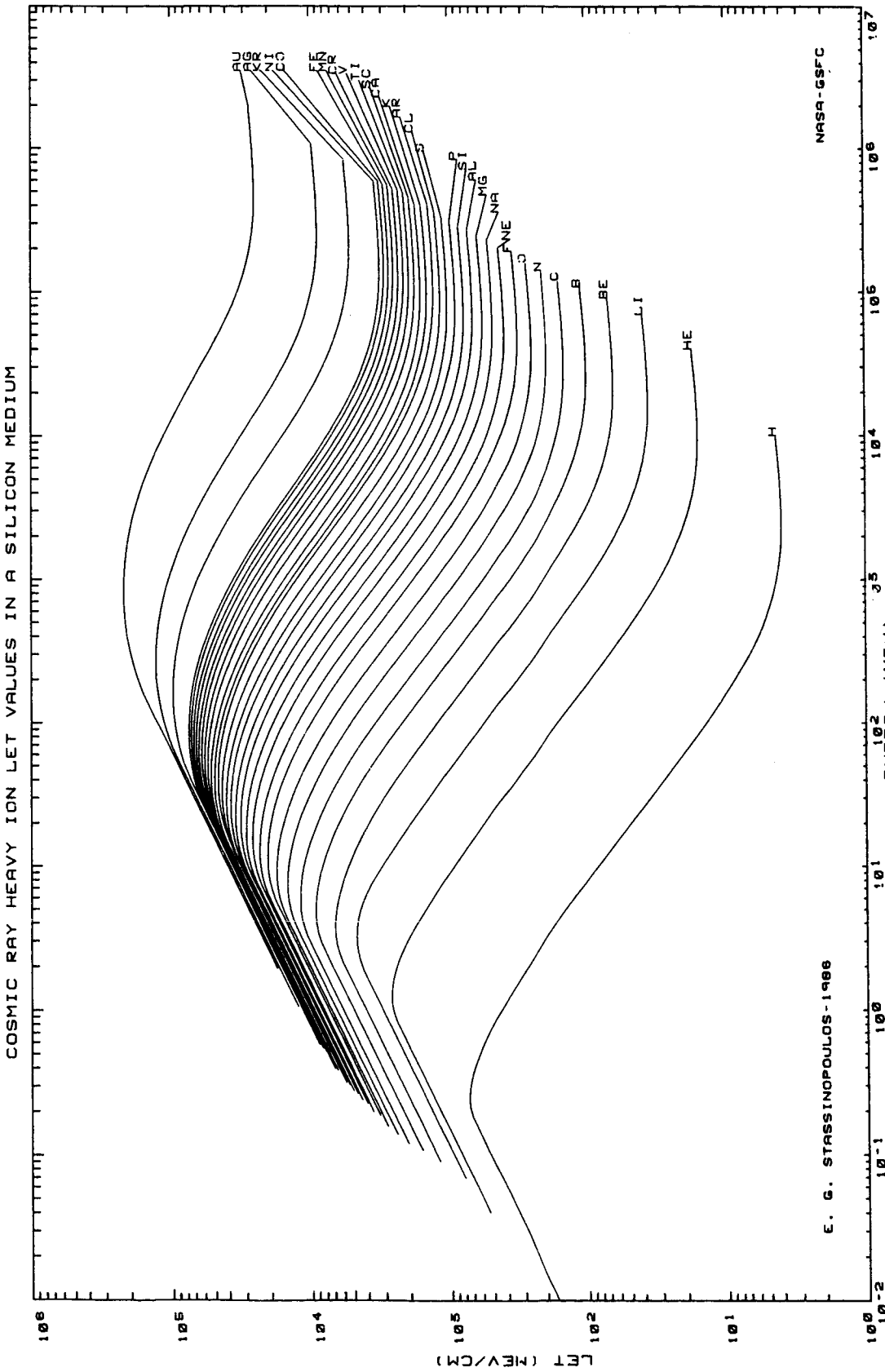
COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
LET (MEV/CM)
ENERGY (MEV)
E. G. STASSINOPOULOS-1986
NASA-GSFC
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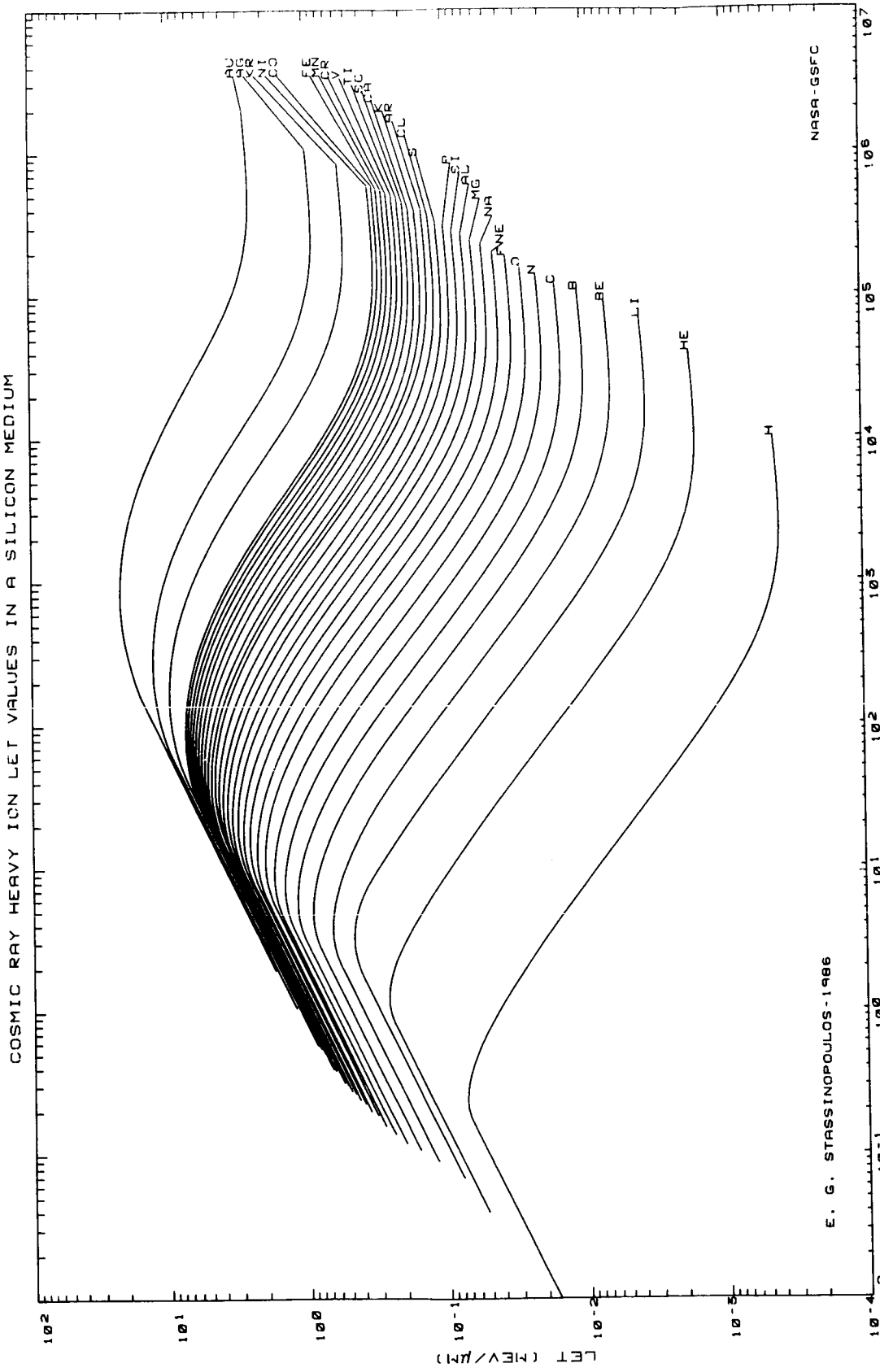
FIGURE 17


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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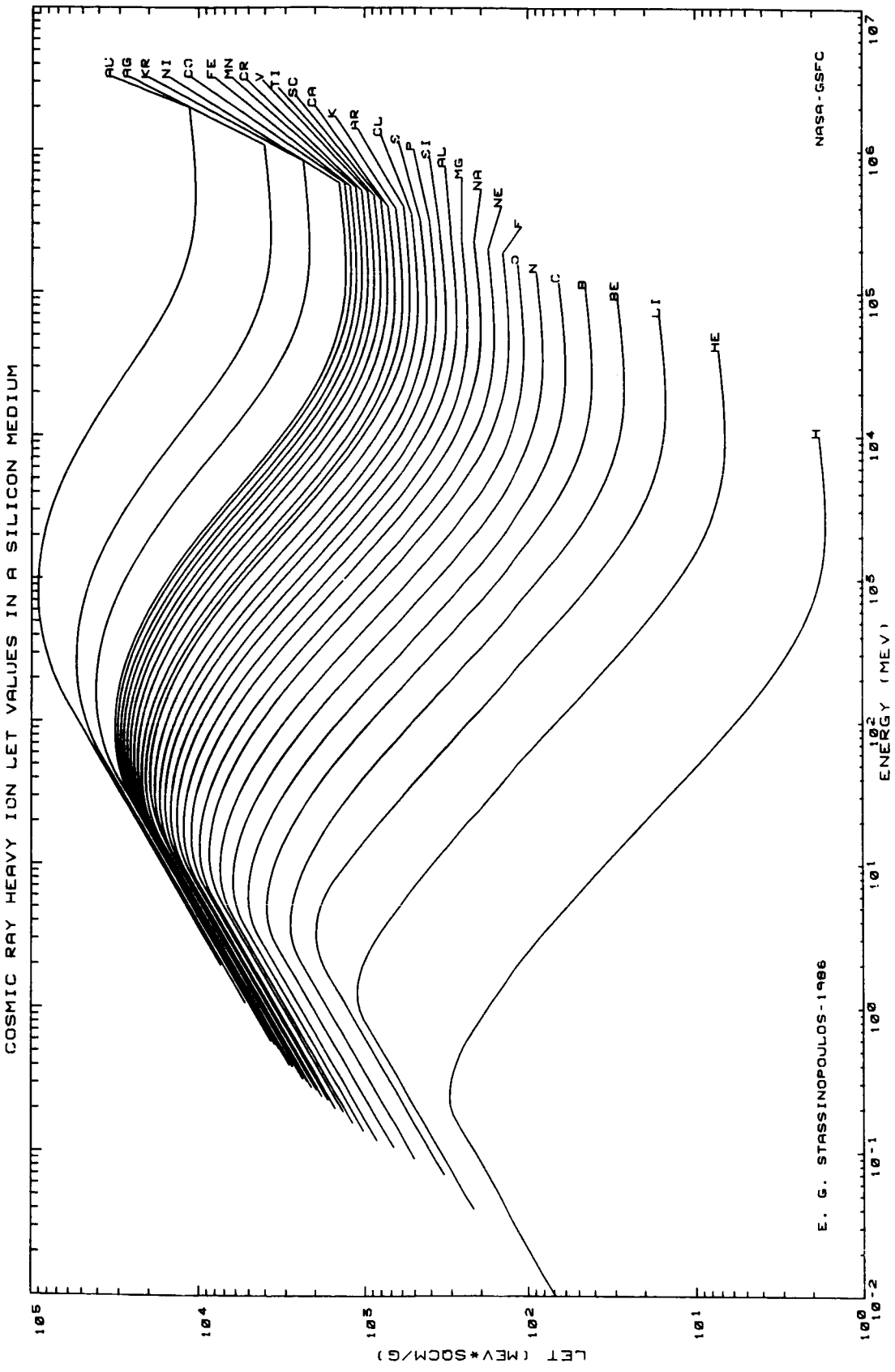
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV/MG)
ENERGY (MEV)

FIGURE 18


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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E. G. STASSINOPOULOS-1986
NASA-GSFC
LET (MEV*SQCM/G)
ENERGY (MEV)

FIGURE 19

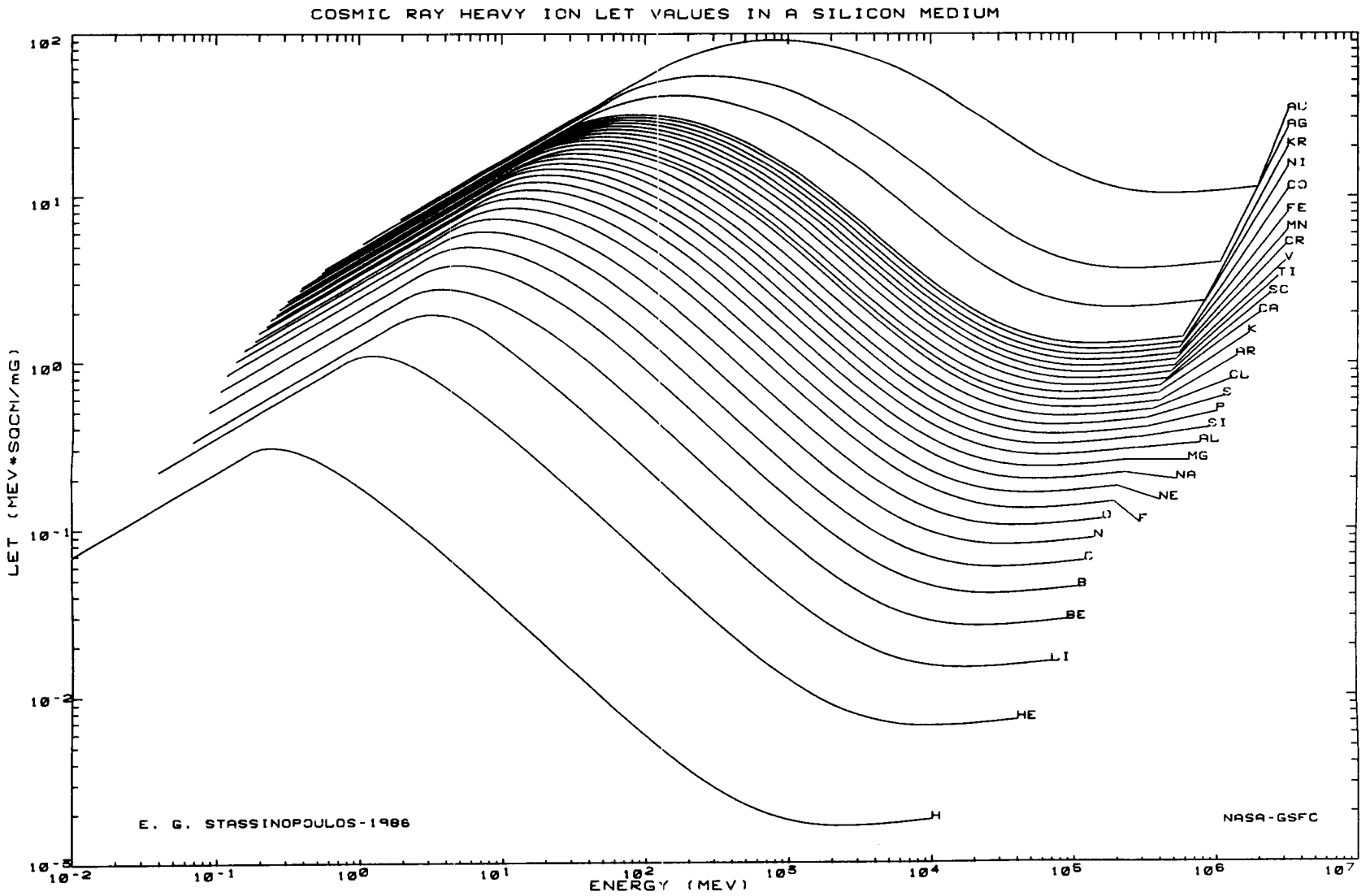
COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
LET (MEV*SQCM/MG)
ENERGY (MEV)
E. G. STASSINOPOULOS-1986
NASA-GSFC
AU
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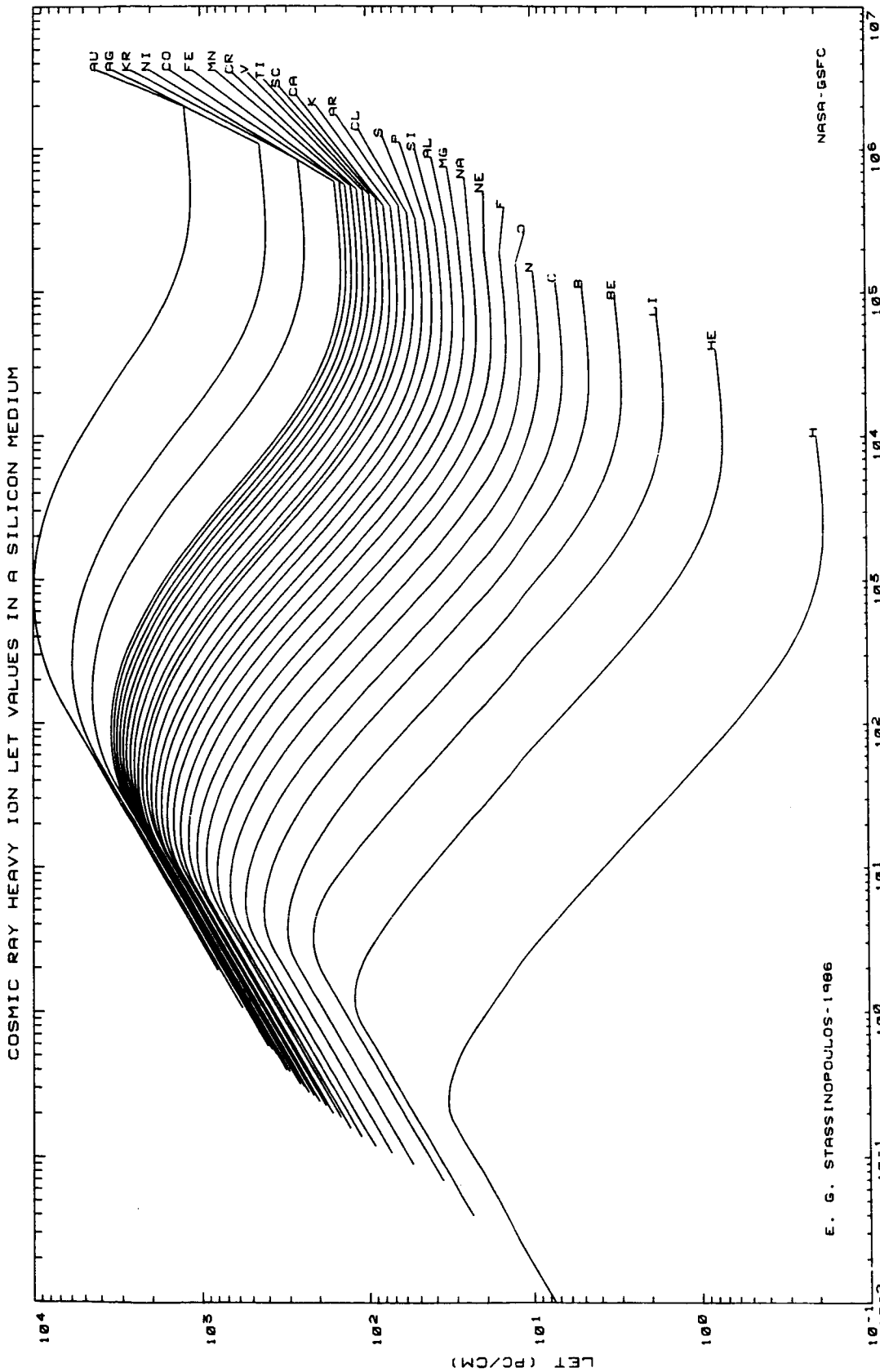
FIGURE 20


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (PC/CM)
ENERGY (MEV)

FIGURE 21

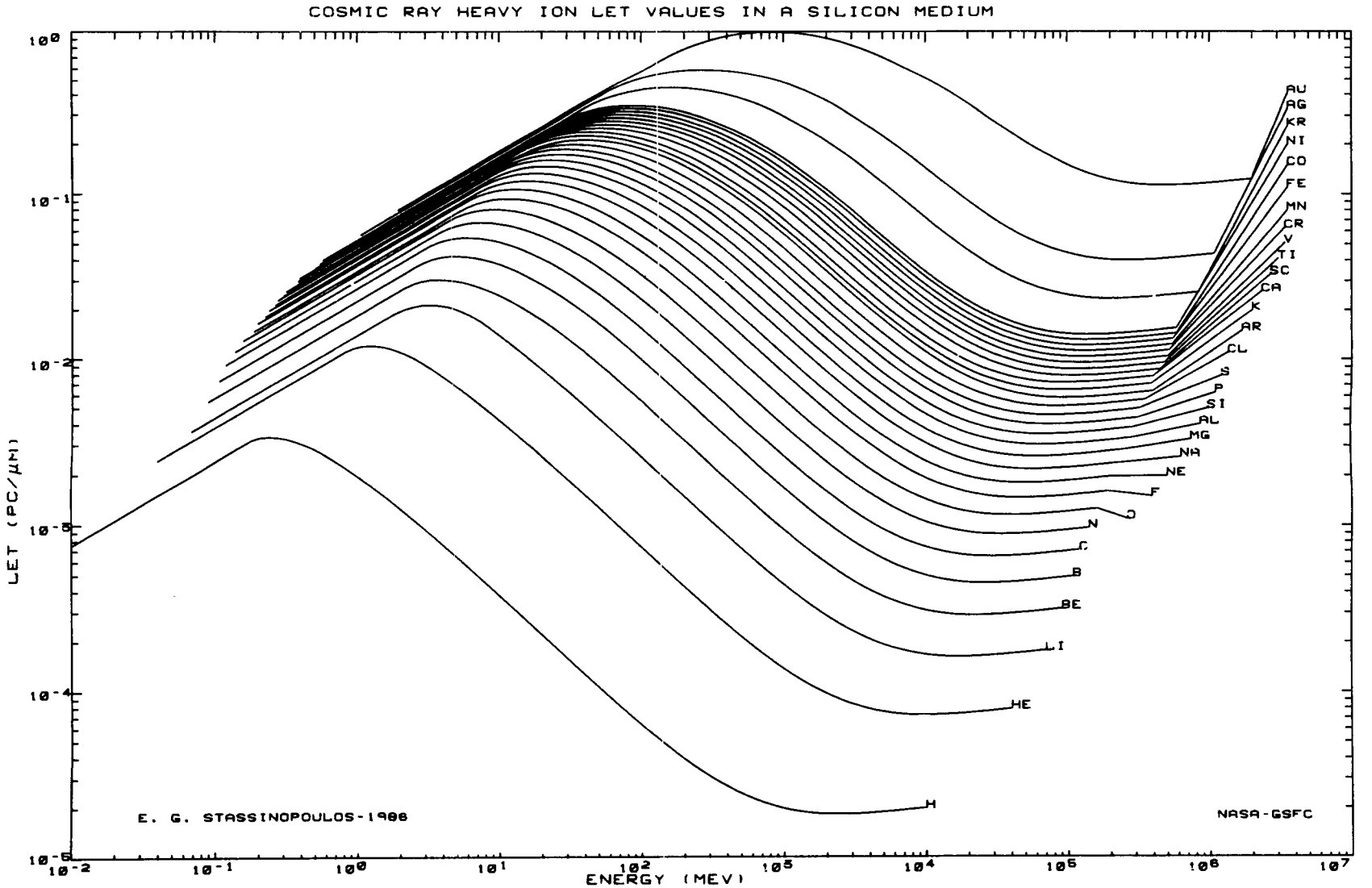
COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
LET (PC/μM)
ENERGY (MEV)
E. G. STASSINOPOULOS-1986
NASA-GSFC
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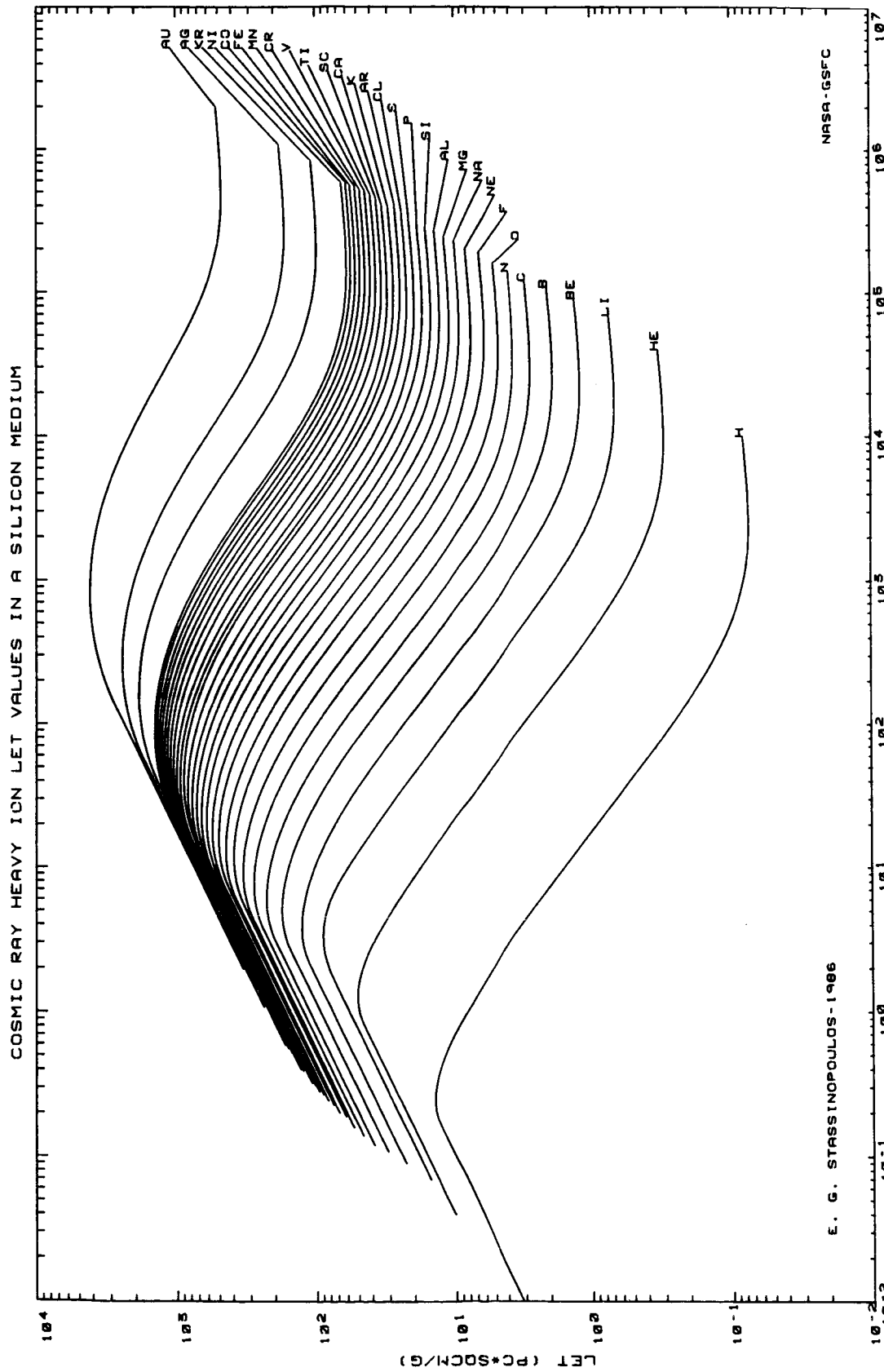
FIGURE 22


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
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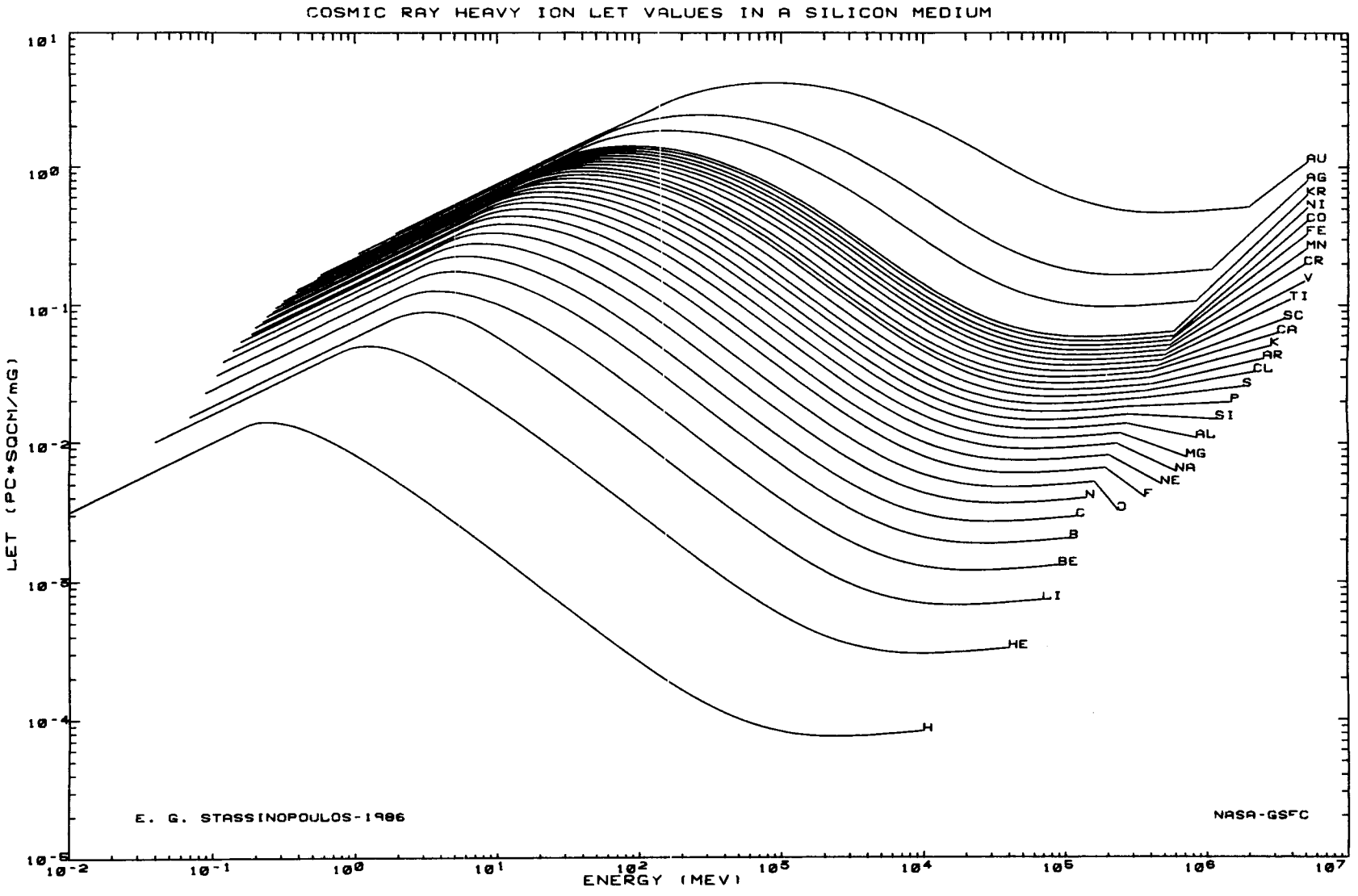
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (PC*SQCM/G)
ENERGY (MEV)

FIGURE 23


COSMIC RAY HEAVY ION LET VALUES IN A SILICON MEDIUM
LET (PC*SQCM/MG)
ENERGY (MEV)
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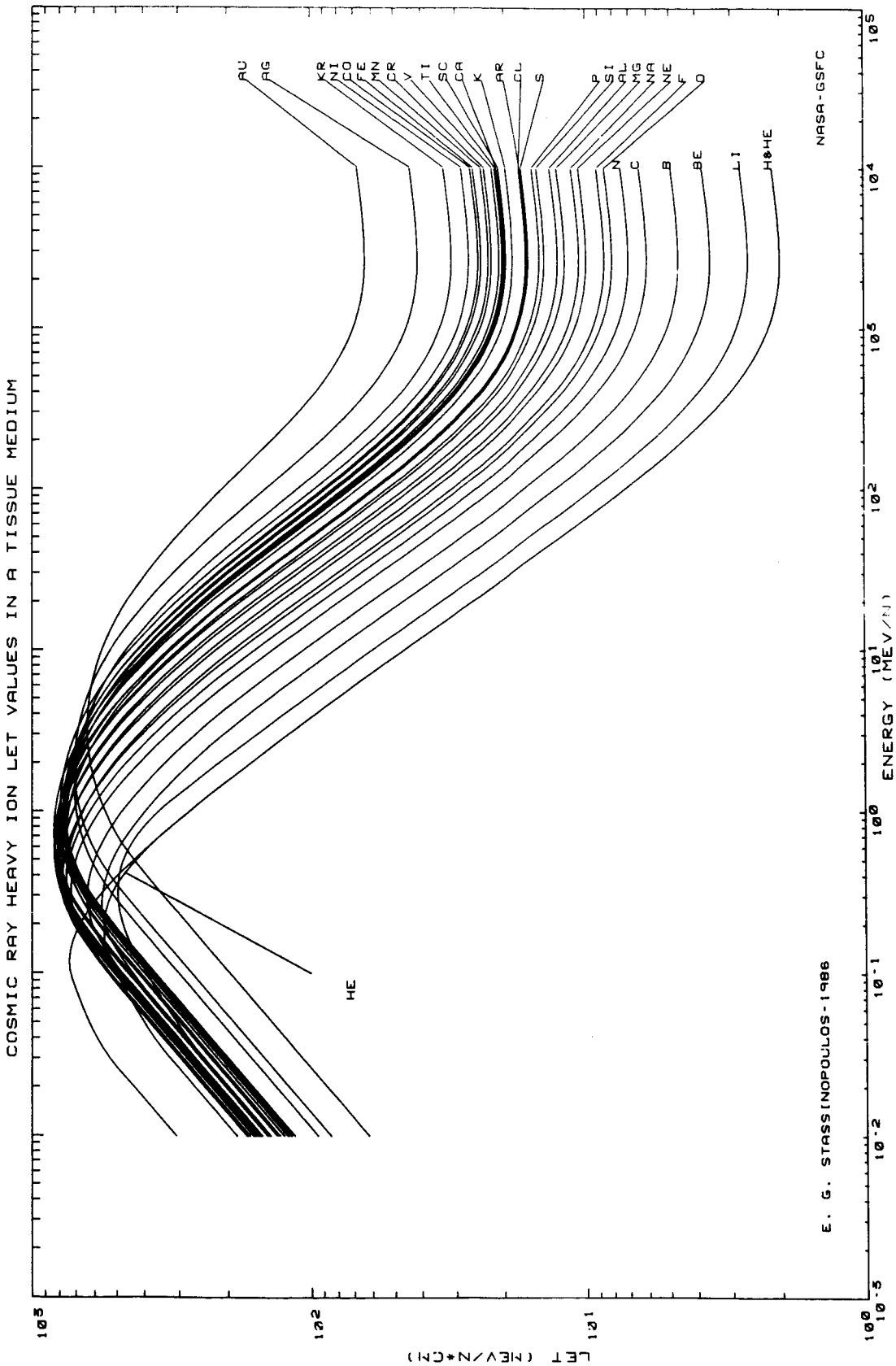
E. G. STASSINOPOULOS-1986
NASA-GSFC

FIGURE 24


COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
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H&HE
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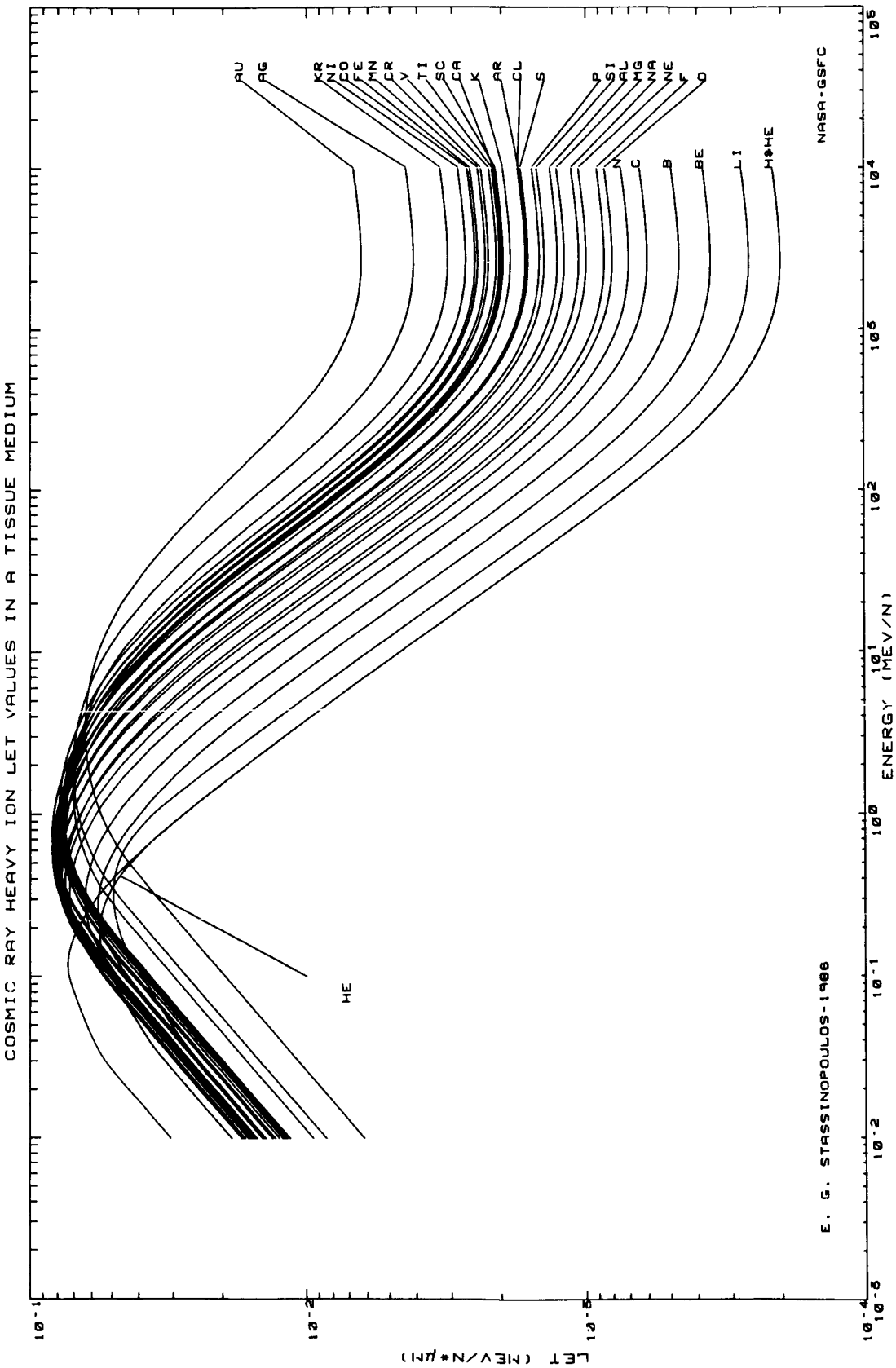
NASA-GSFC
E. G. STASS(NOPOULOS-1986
LET (MEV/N*CM)
ENERGY (MEV/N)

FIGURE 25


COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
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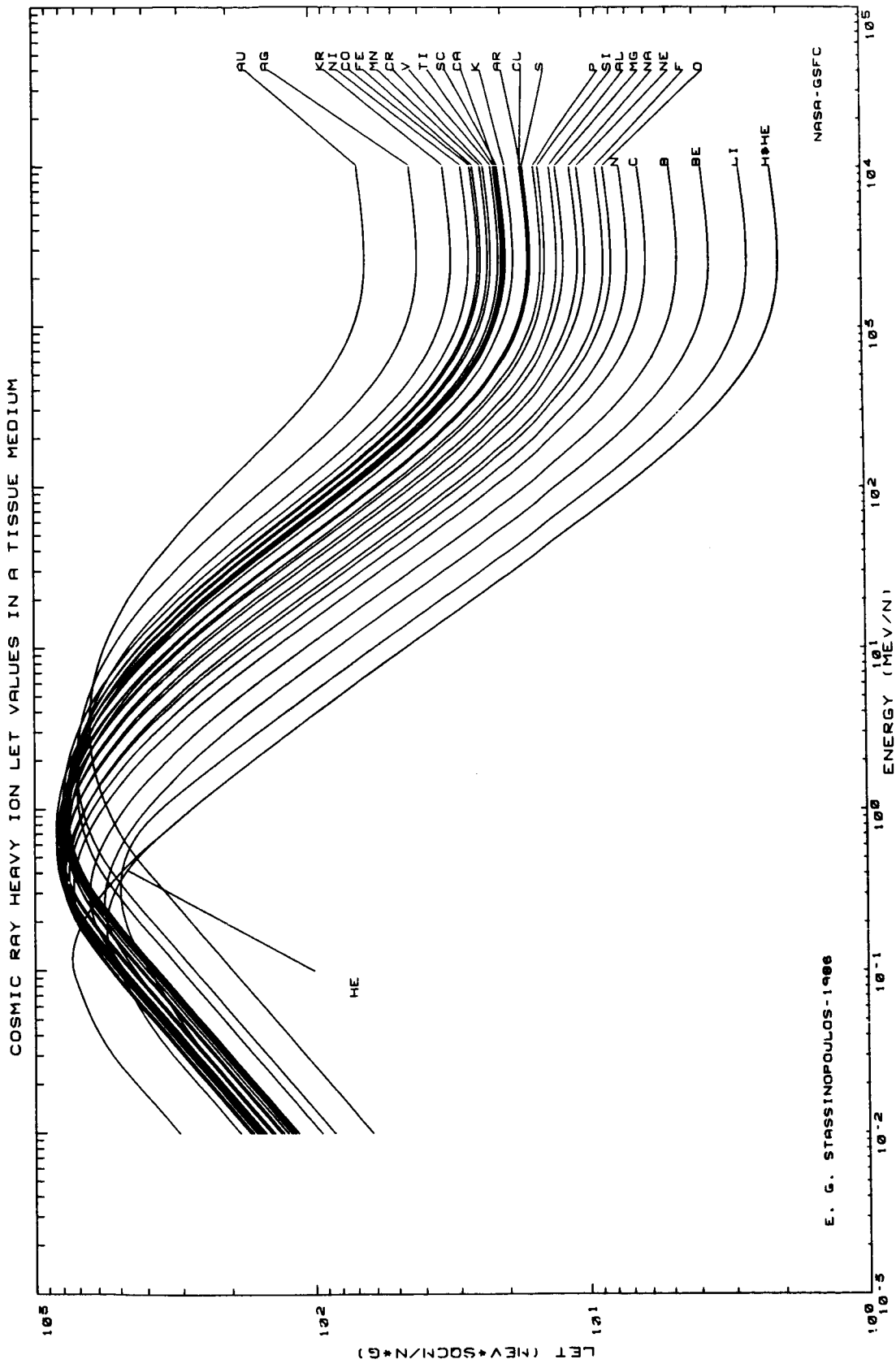
LI
H&HE
HE
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV/N*μM)
ENERGY (MEV/N)
10-1
10-2
10-3
10-4
10-5
10-1
100
101
102
103
104
105

FIGURE 26


COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
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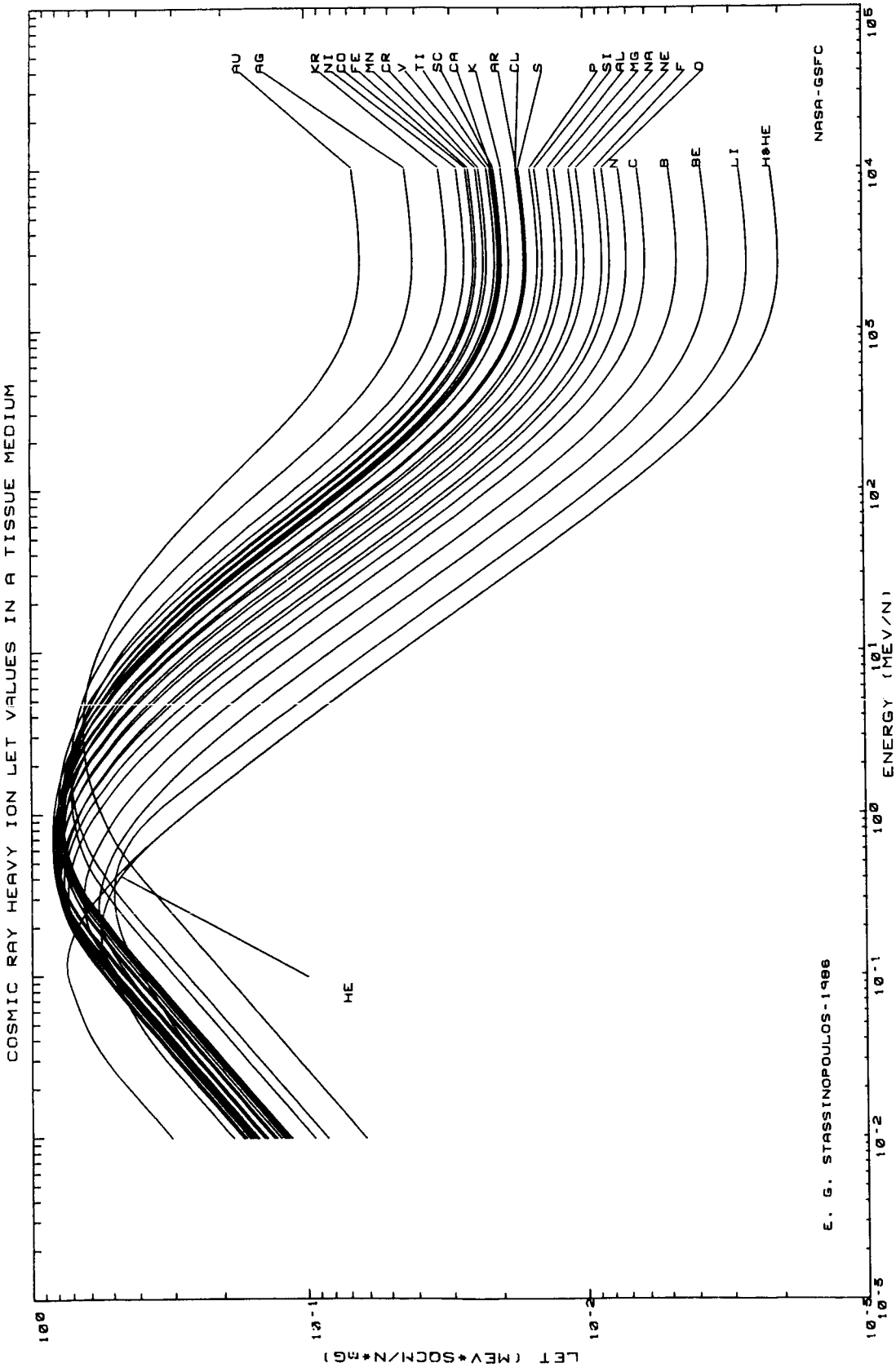
BE
LI
H&HE
HE
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV*SQCM/N*G)
ENERGY (MEV/N)

FIGURE 27


COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
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HE
NASA-GSFC
E. G. STASSINOPOULOS-1986
ENERGY (MEV/N)
LET (MEV*SQCM/N*MG)

FIGURE 28

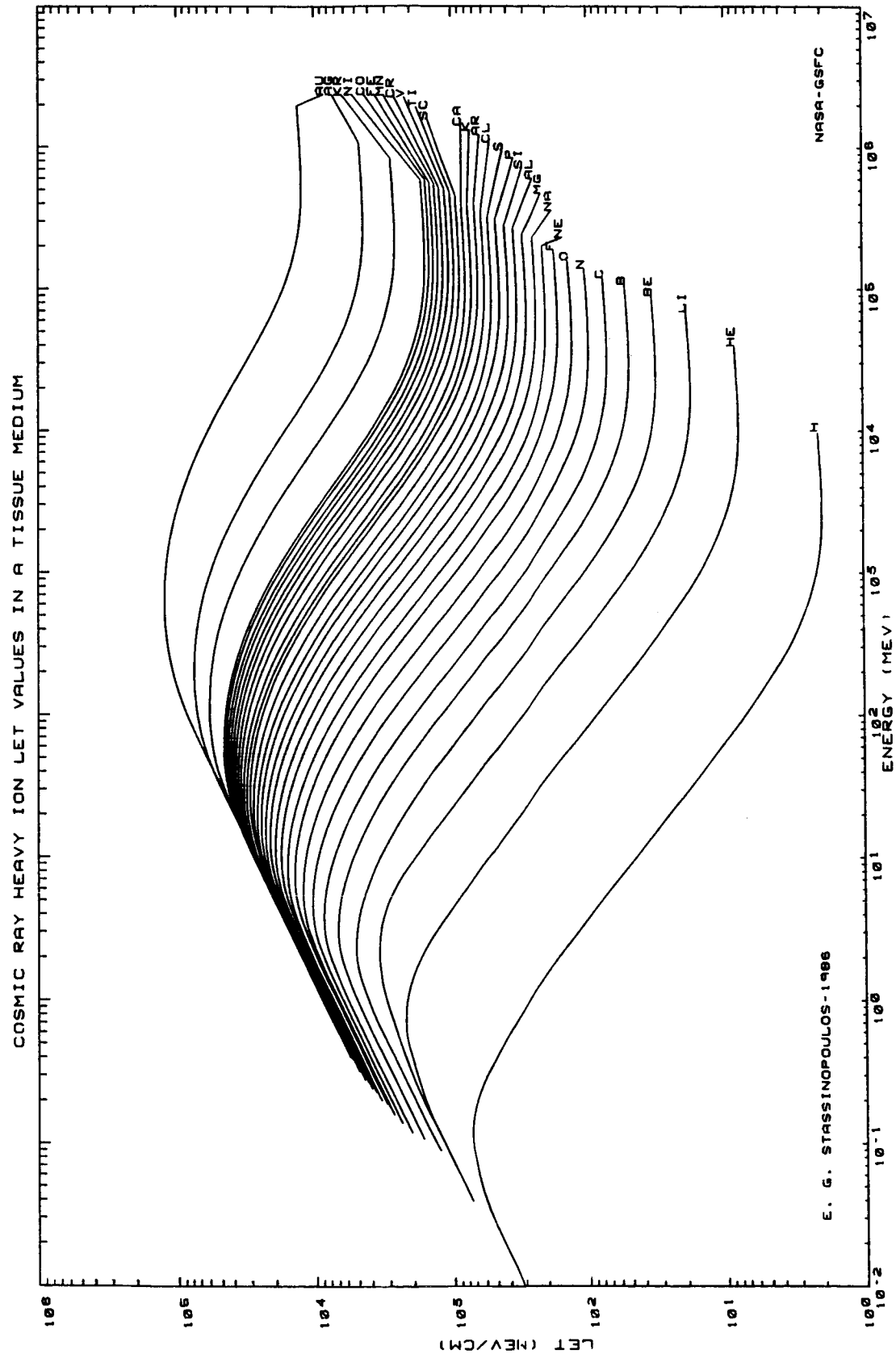
COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV/CM)
ENERGY (MEV)
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FIGURE 29

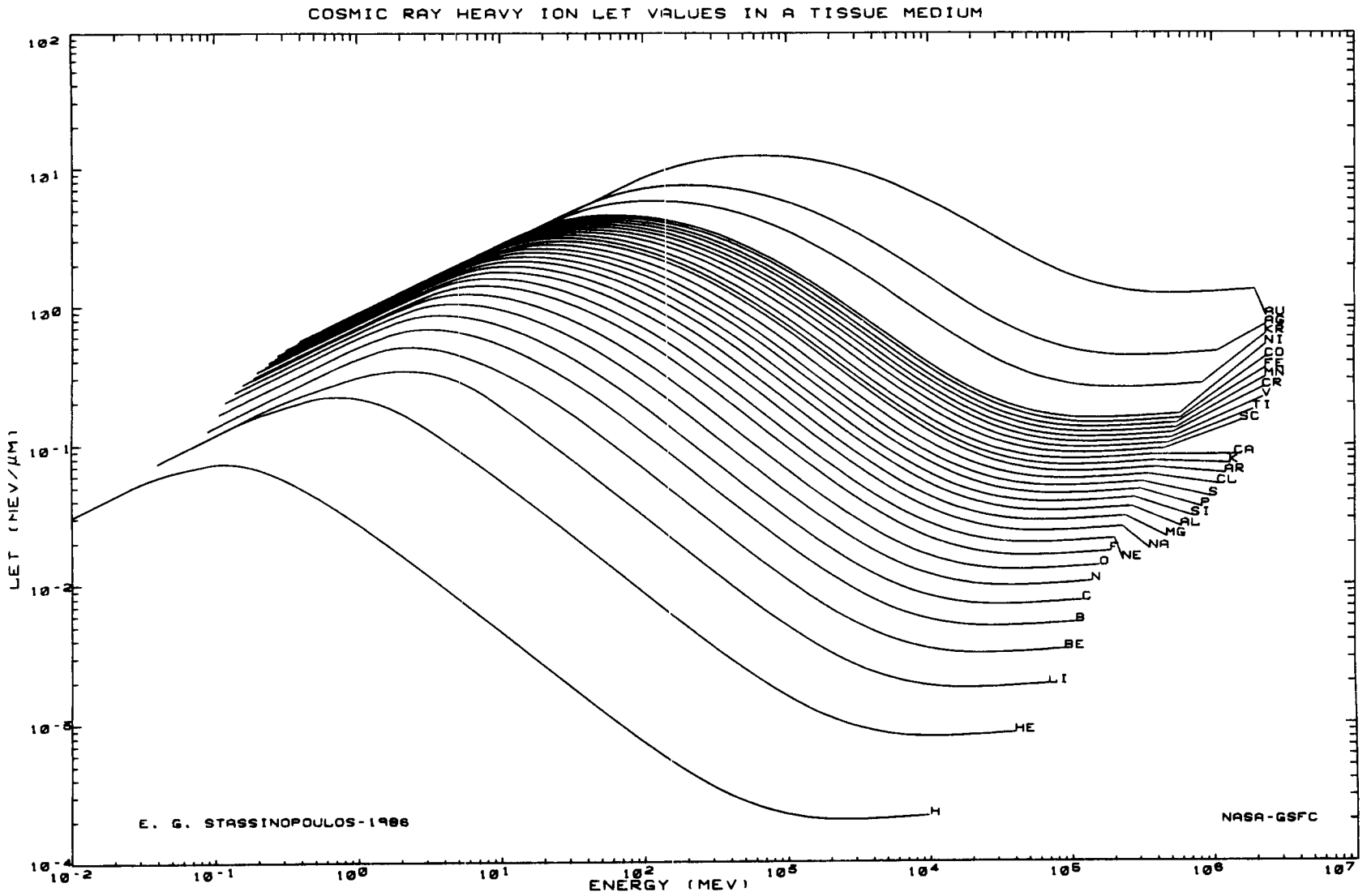
COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
LET (MEV/μM)
ENERGY (MEV)
E. G. STASSINOPOULOS-1986
NASA-GSFC
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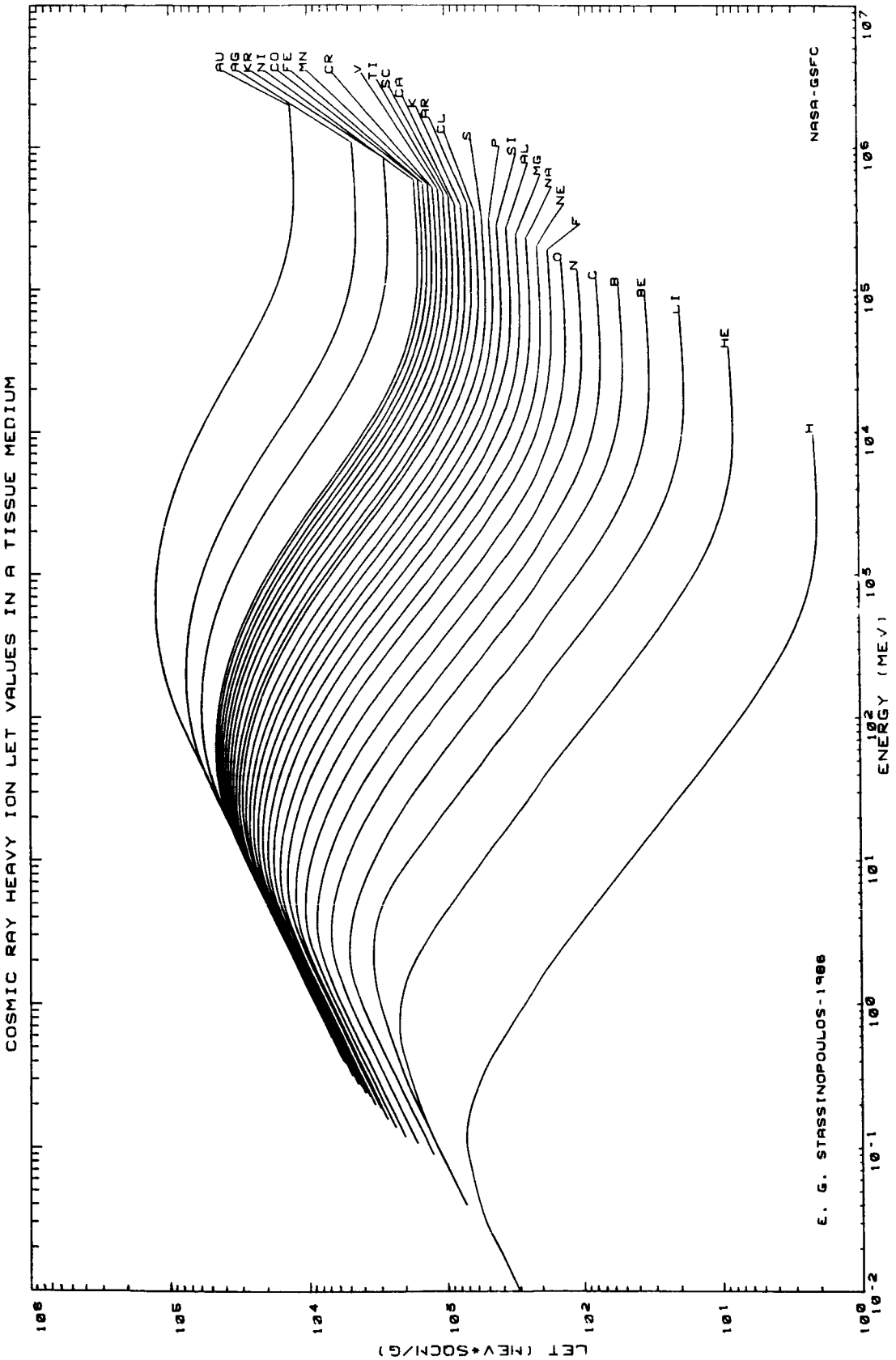
FIGURE 30


COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
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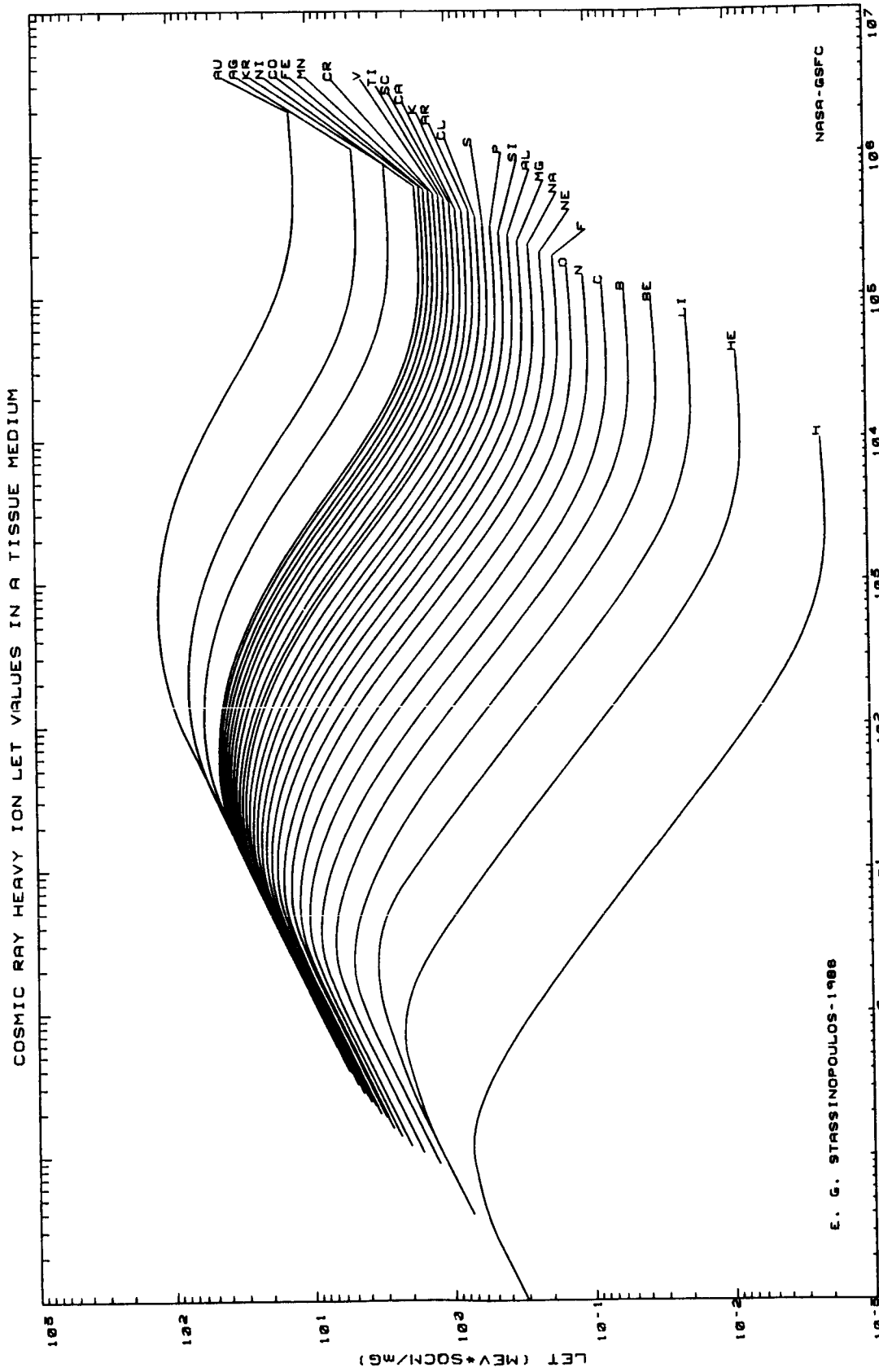
NASA-GSFC
E. G. STASSINOPOULOS-1986
LET (MEV*SQCM/G)
ENERGY (MEV)

FIGURE 31


COSMIC RAY HEAVY ION LET VALUES IN A TISSUE MEDIUM
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NASA-GSFC
E. G. STASSINOPOULOS-1988
LET (MEV*SQCM/MG)
ENERGY (MEV)

FIGURE 32

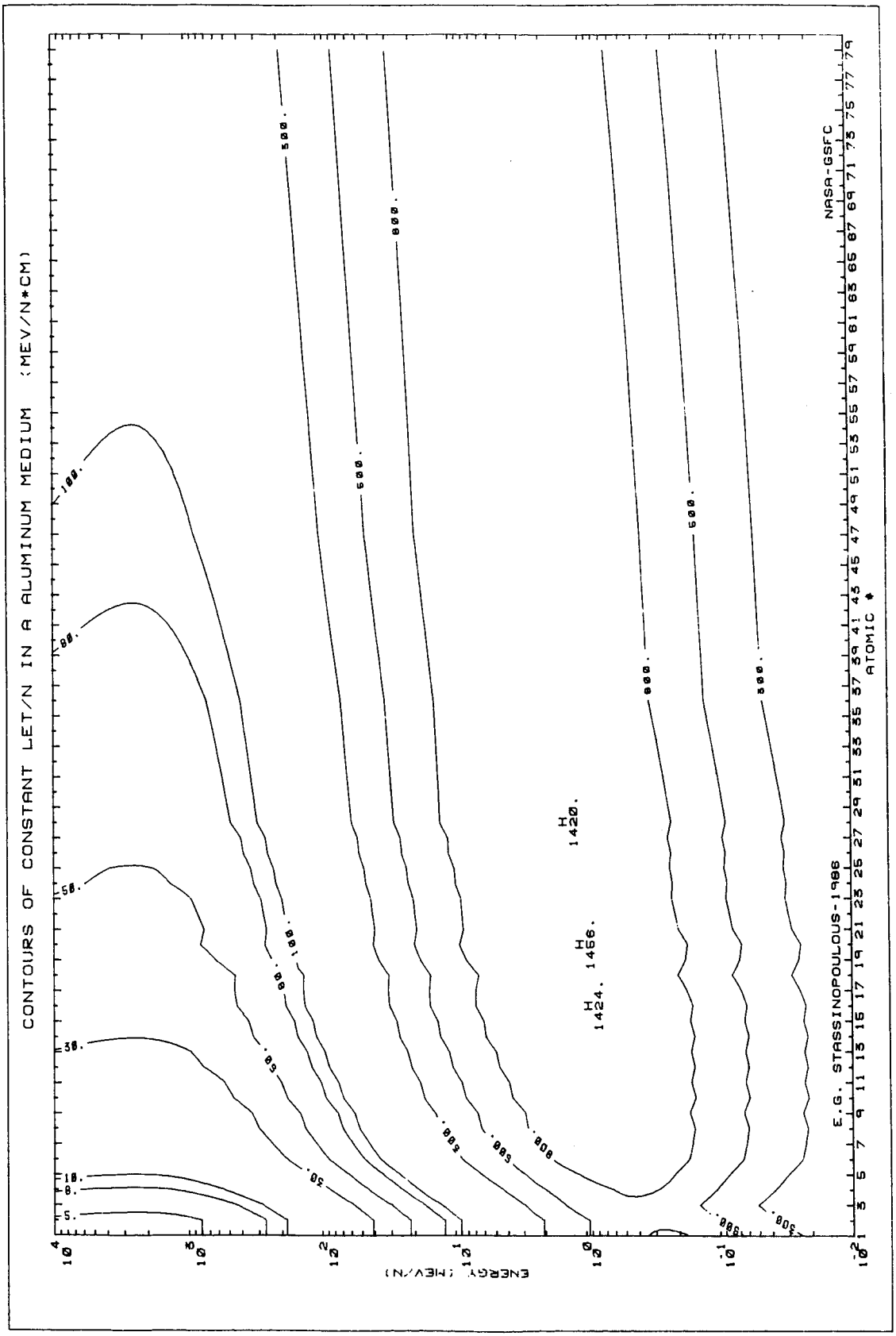
CONTOURS OF CONSTANT LET/N IN A ALUMINUM MEDIUM (MEV/N*CM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
H 1420.
H 1424. 1486.

FIGURE 33

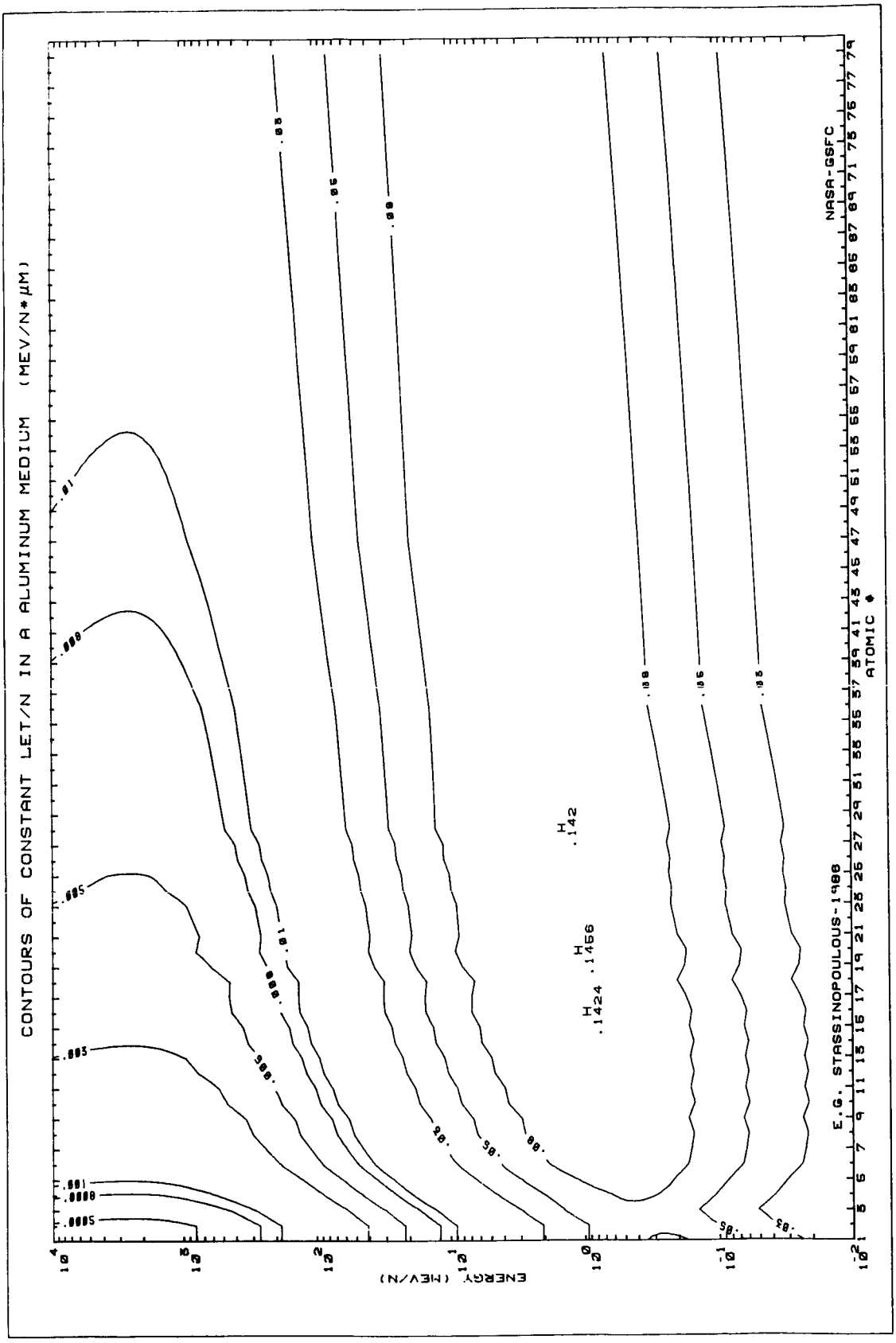
CONTOURS OF CONSTANT LET/N IN A ALUMINUM MEDIUM (MEV/N*μM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1988
NASA-GSFC
H .142
H .1466
H .1424

FIGURE 34

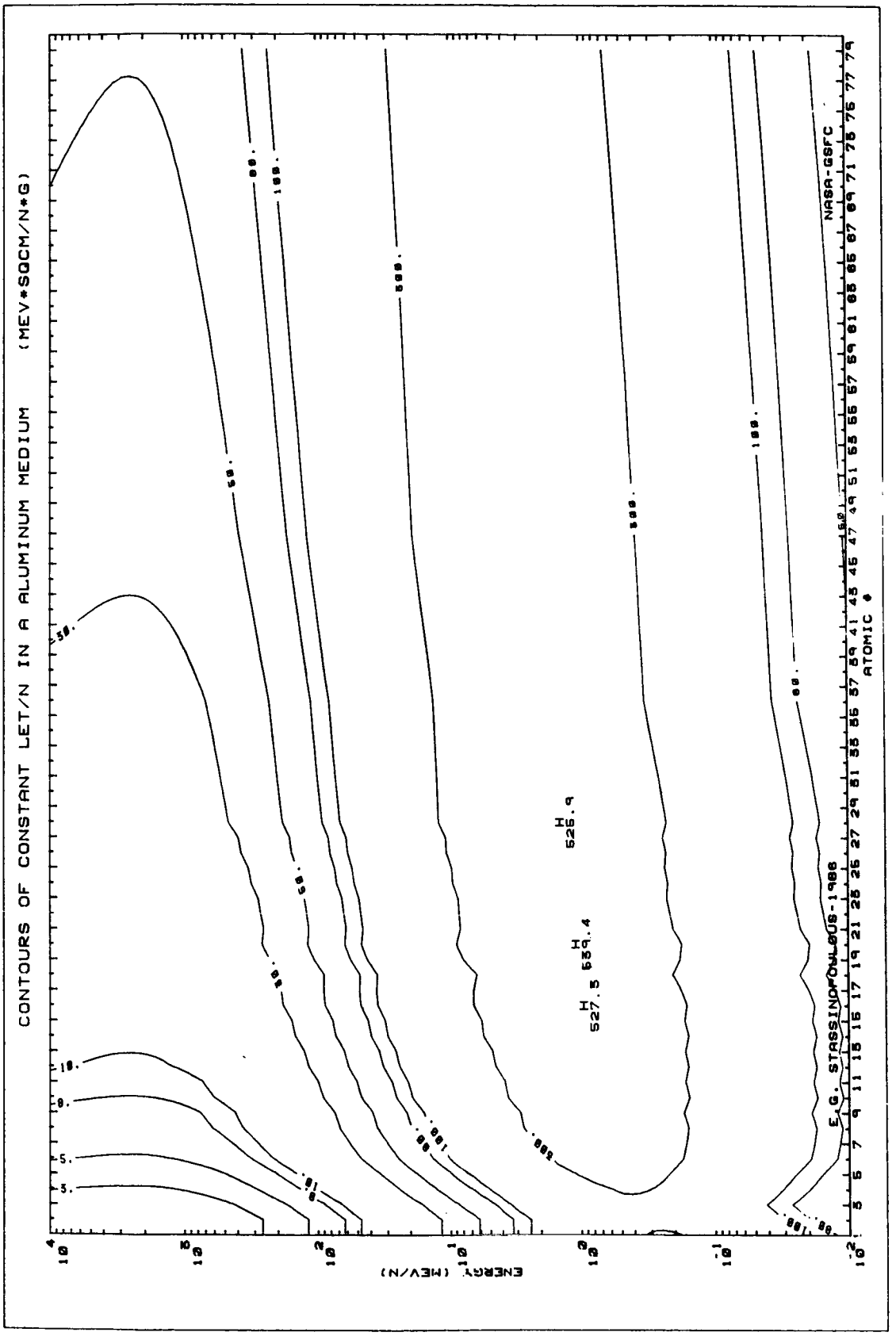
CONTOURS OF CONSTANT LET/N IN A ALUMINUM MEDIUM (MEV*SQCM/N*G)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOS-1988
NASA-GSFC
H 526.9
H 539.4
H 527.5

FIGURE 35

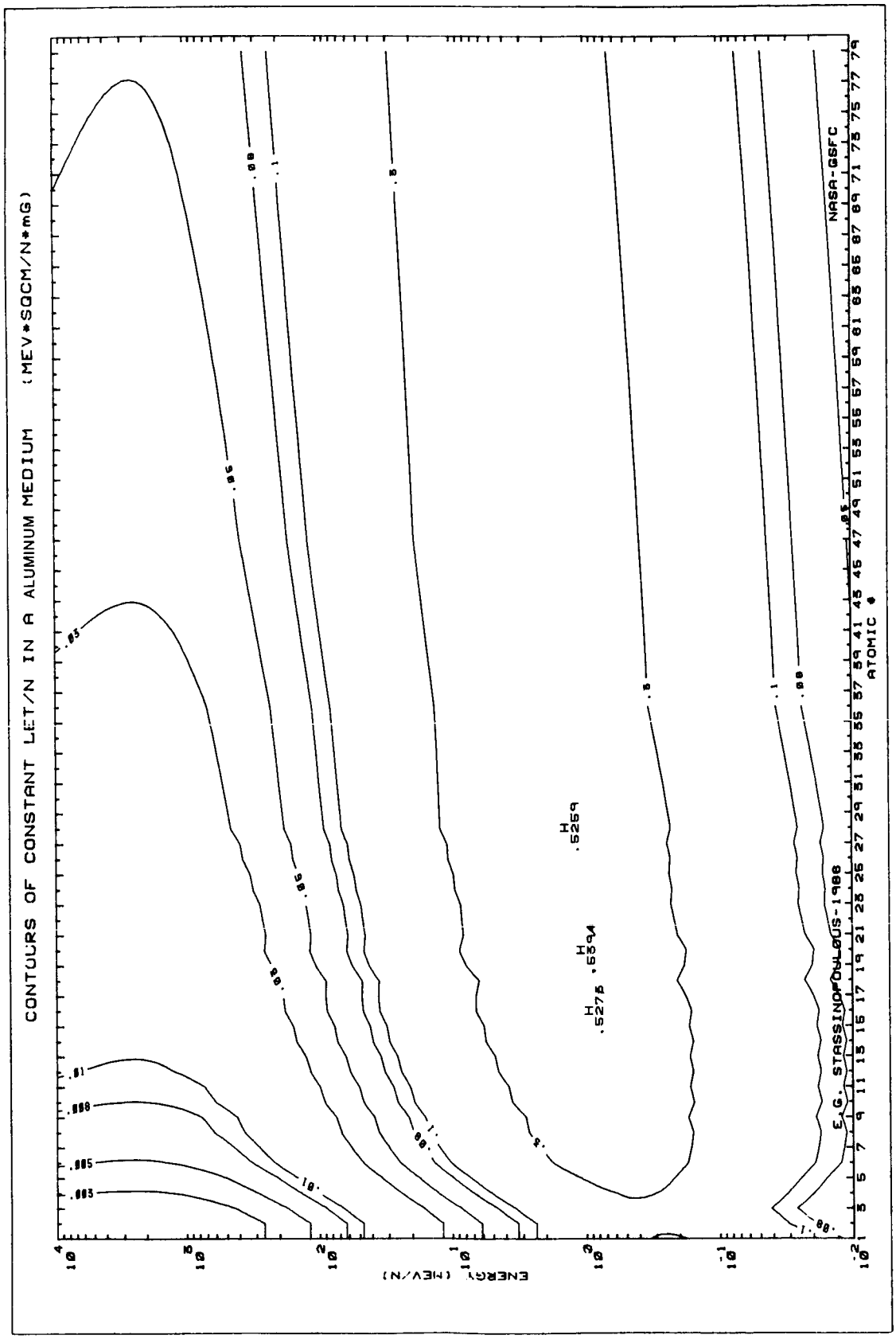
CONTOURS OF CONSTANT LET/N IN A ALUMINUM MEDIUM (MEV*SQCM/N*mG)
ENERGY (MEV/N)
ATOMIC #
NASA-GSFC
E.G. STASSINOPOULOS-1986
H .5269
H .6894
H .5275

FIGURE 36

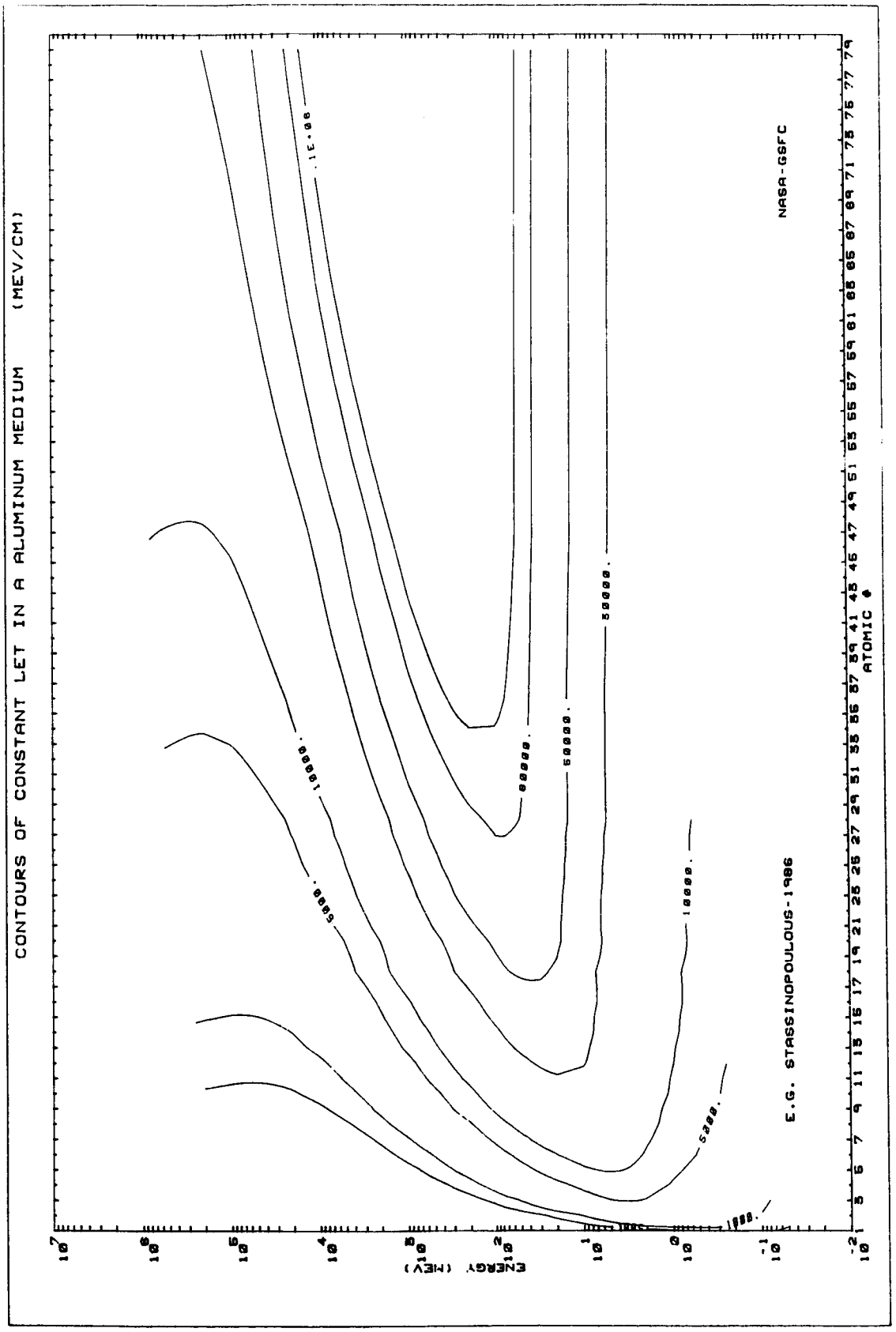
CONTOURS OF CONSTANT LET IN A ALUMINUM MEDIUM (MEV/CM)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
ENERGY (MEV)
ATOMIC #

FIGURE 37

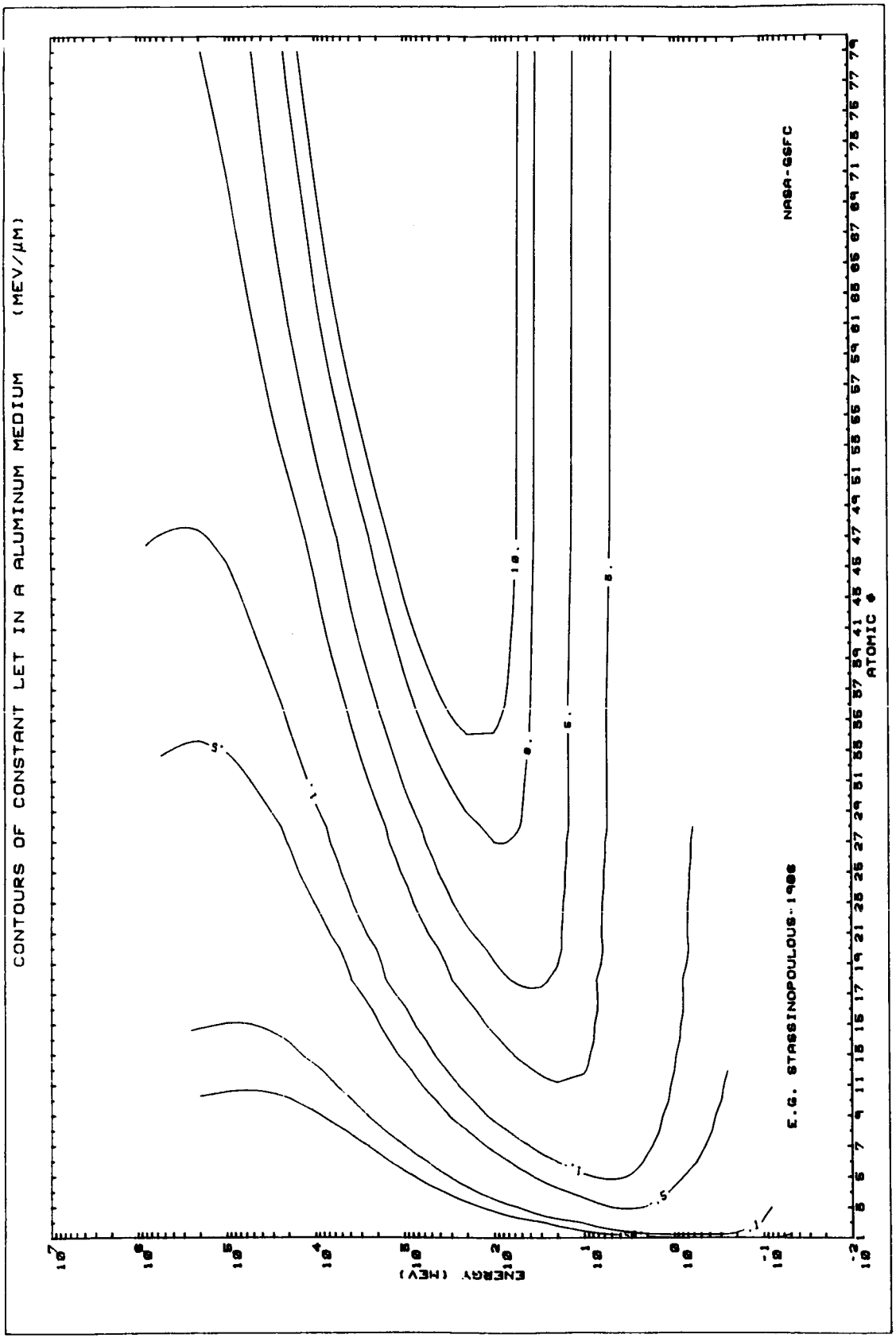
CONTOURS OF CONSTANT LET IN A ALUMINUM MEDIUM (MEV/μM)
ENERGY (MEV)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
10.
5.
1.
.5
.1

FIGURE 38

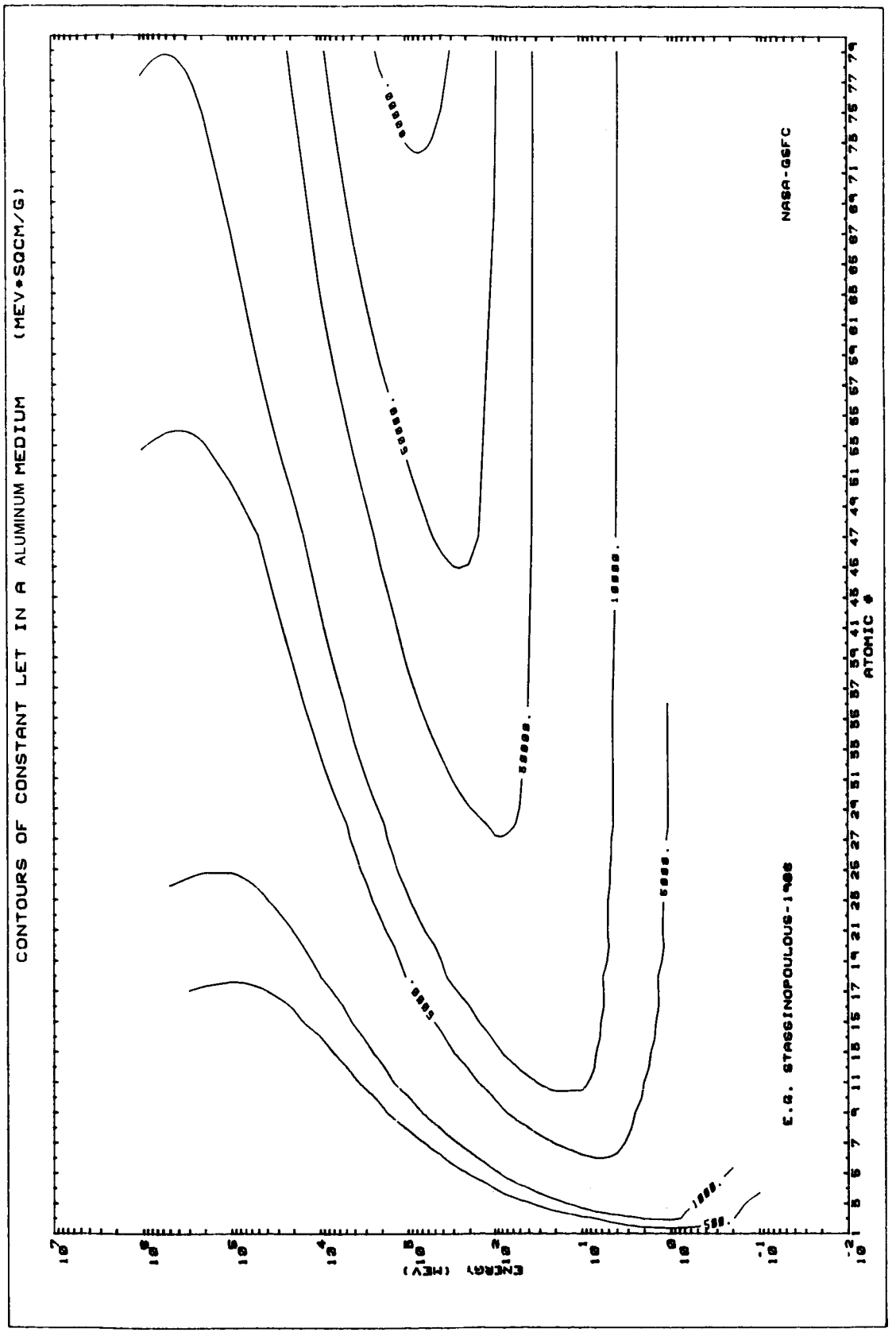
CONTOURS OF CONSTANT LET IN A ALUMINUM MEDIUM (MEV•SQCM/G)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
ENERGY (MEV)
ATOMIC #

FIGURE 39

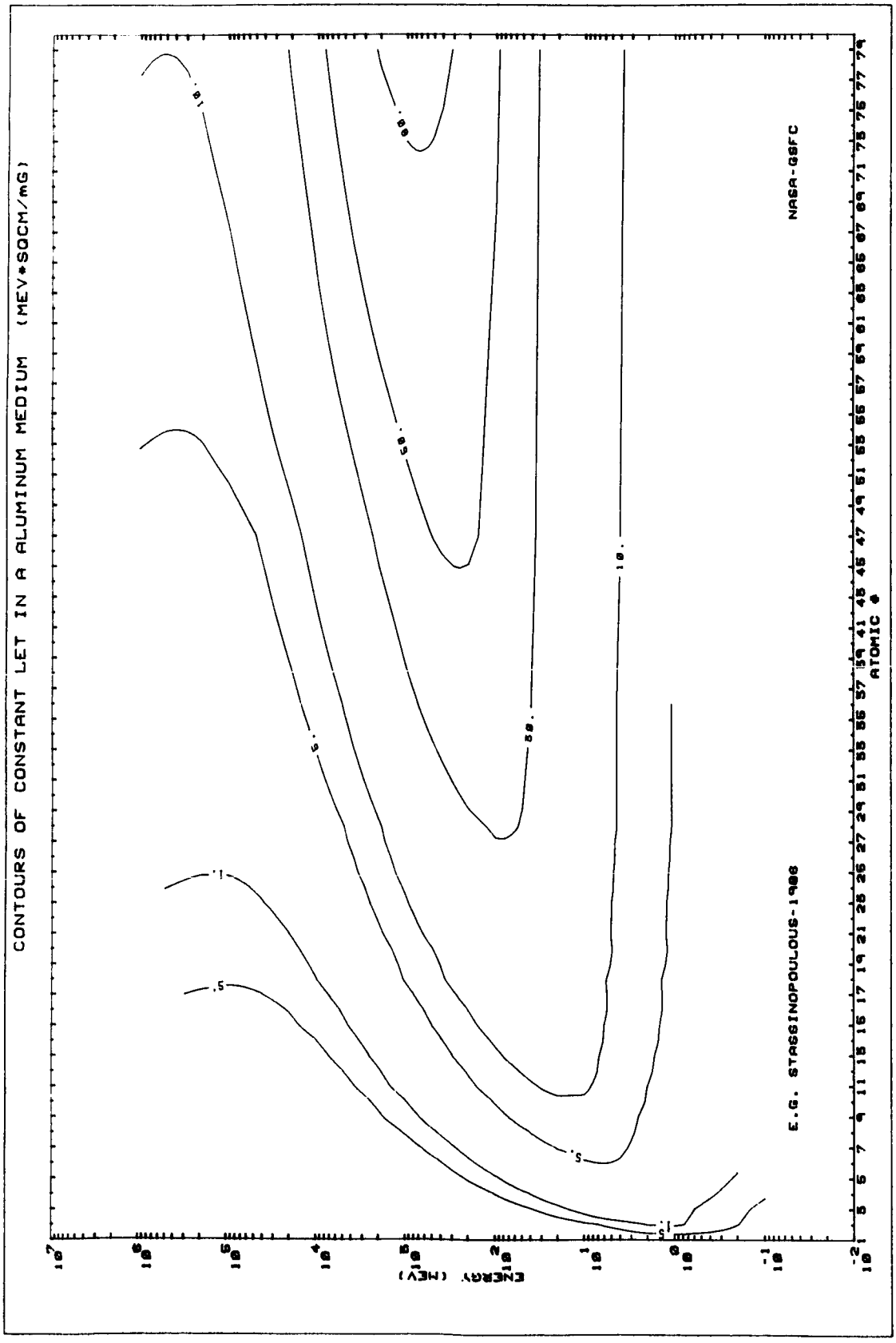
CONTOURS OF CONSTANT LET IN A ALUMINUM MEDIUM (MEV*SQCM/MG)
E.G. STASSINOPOULOUS-1988
NASA-GSFC
ENERGY (MEV)
ATOMIC #

FIGURE 40

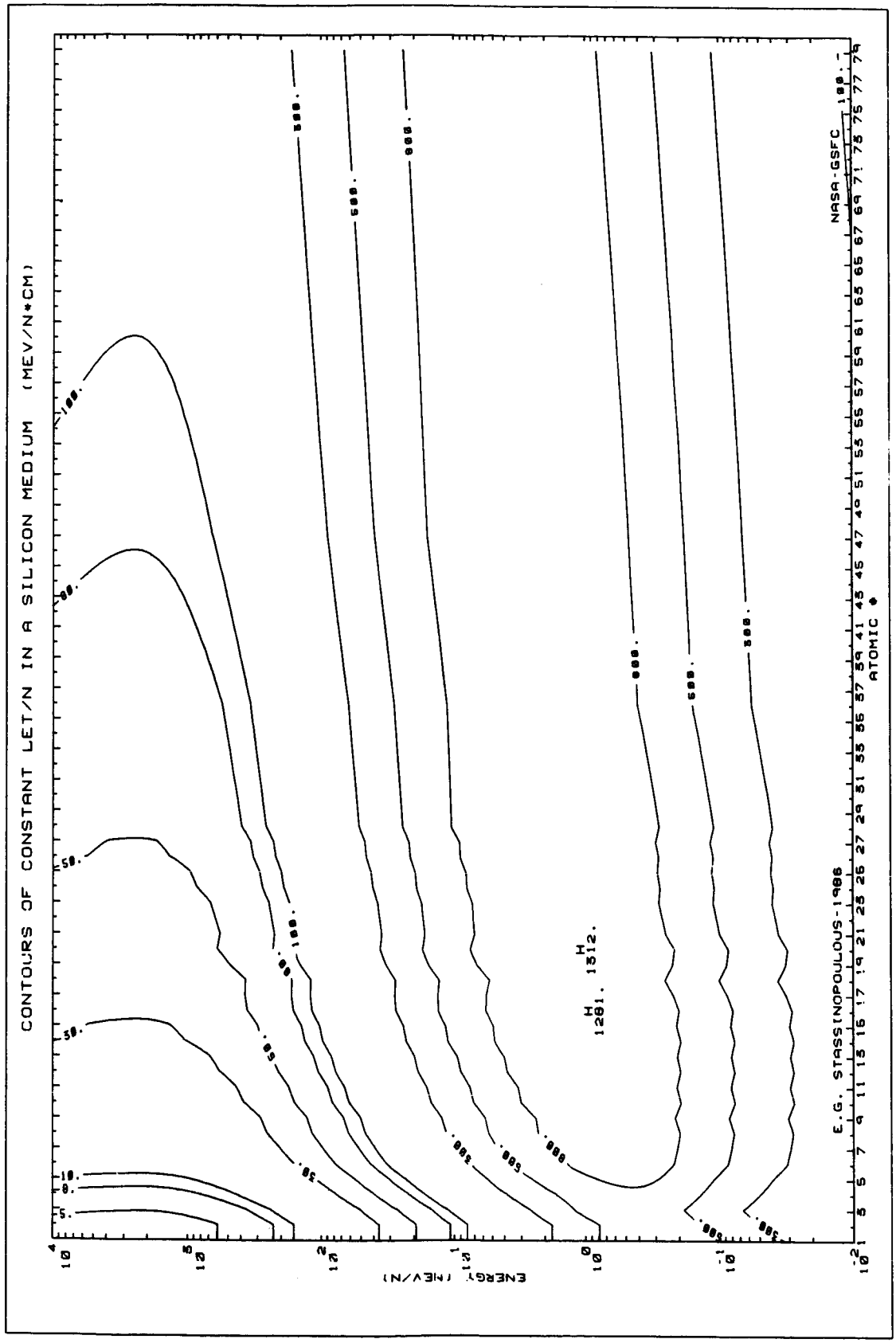
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (MEV/N*CM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASS(NOPOULOUS-1986
NASA-GSFC
H 1281. H 1312.

FIGURE 41

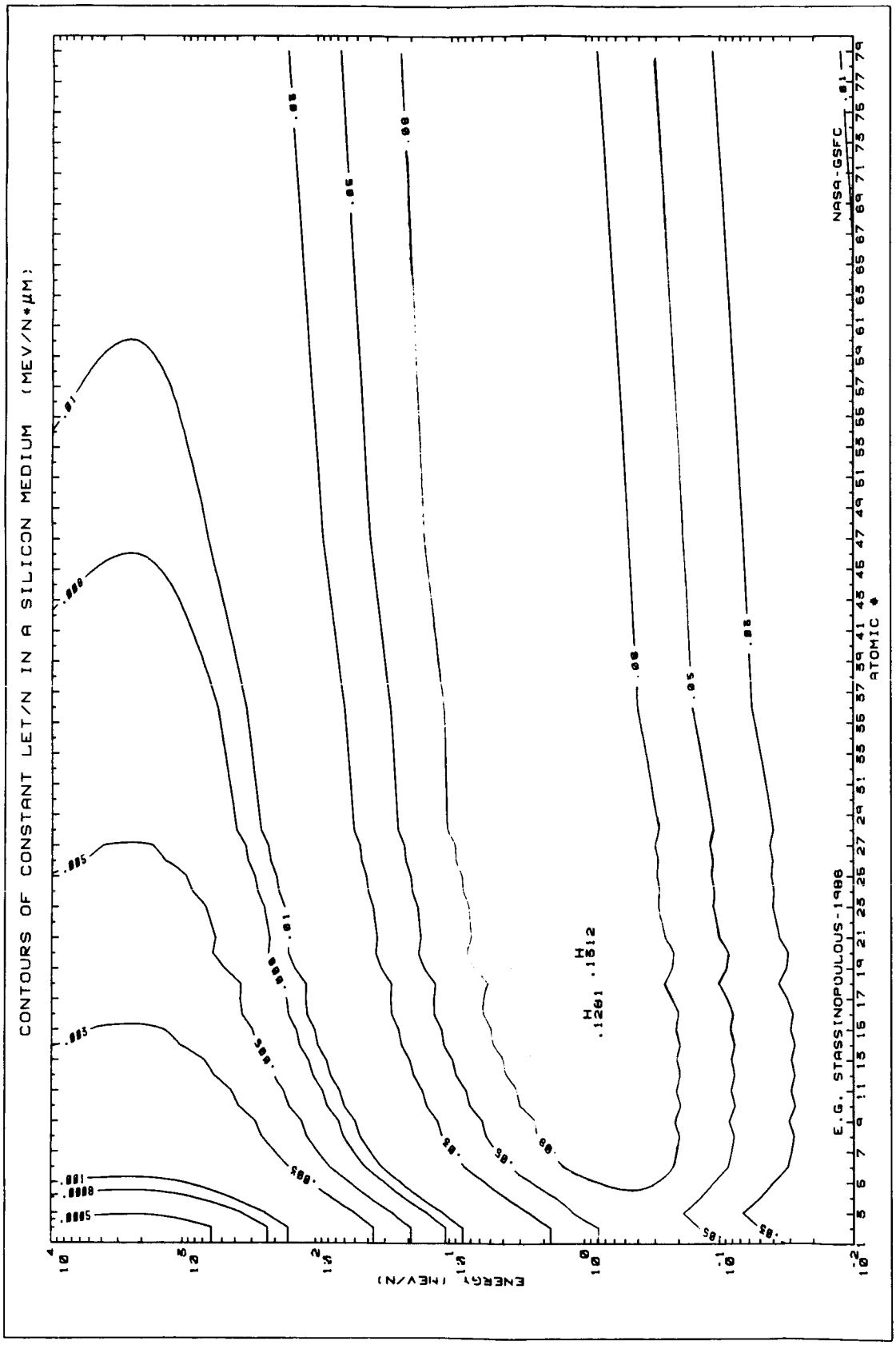
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (MEV/N*μM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
H .1261
H .1812

FIGURE 42

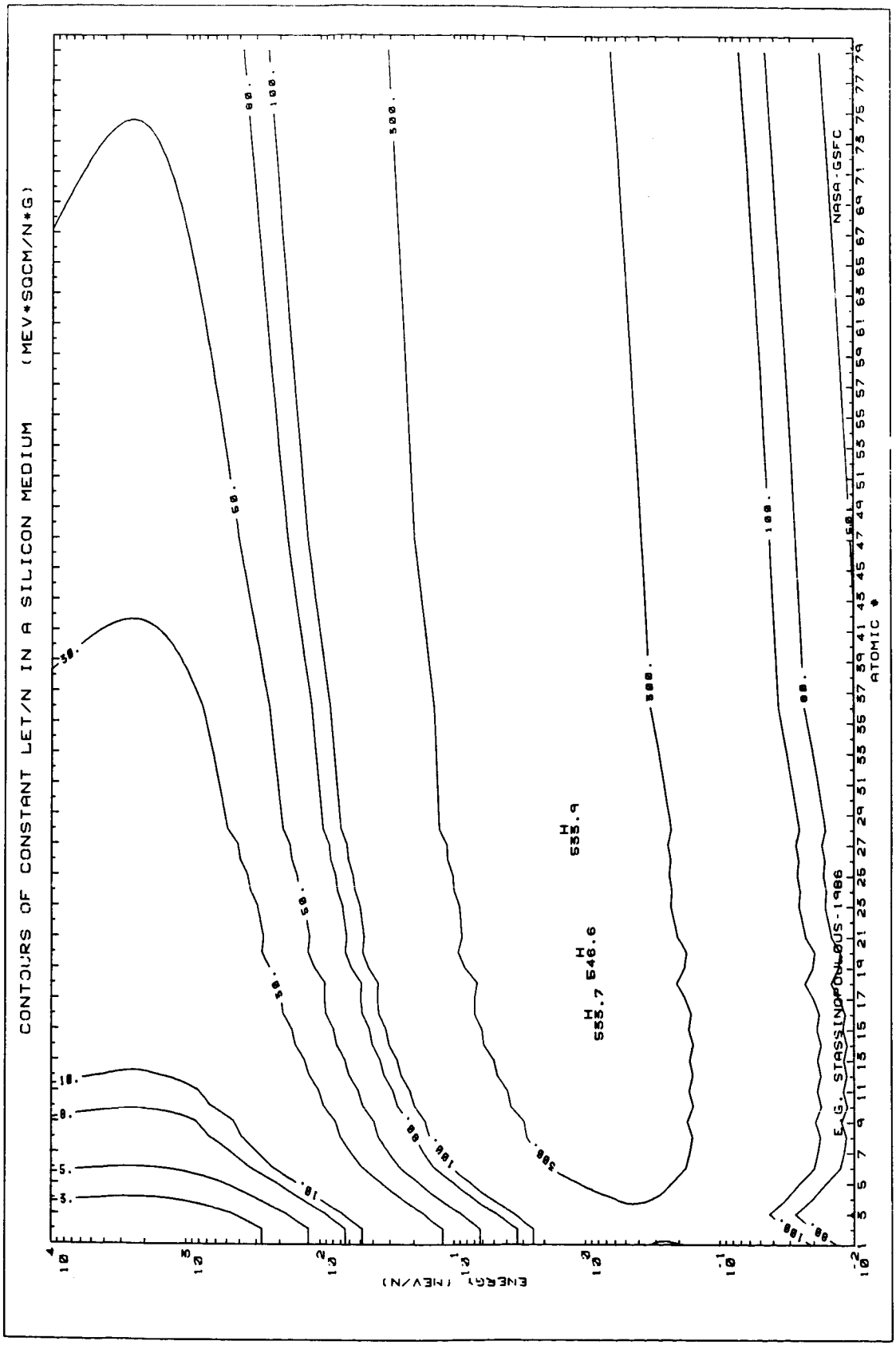
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (MEV*SQCM/N*G)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOS-1986
NASA-GSFC
H 535.9
H 548.6
H 555.7

FIGURE 43

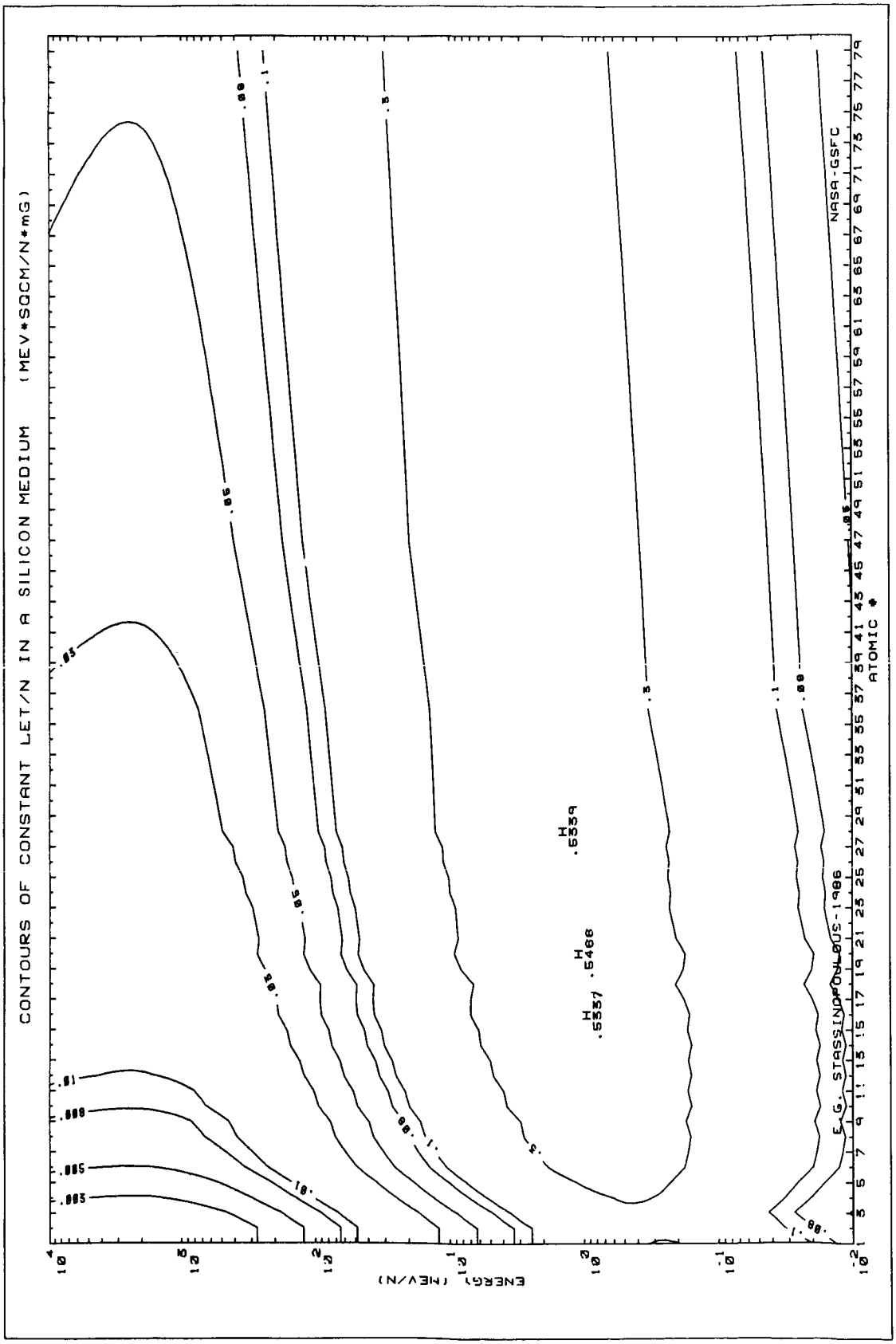
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (MEV*SQCM/N*mG)
ENERGY (MEV/N)
ATOMIC #
NASA-GSFC
E.G. STASSINOPOULOS-1986
.5339
.5466
.5537

FIGURE 44

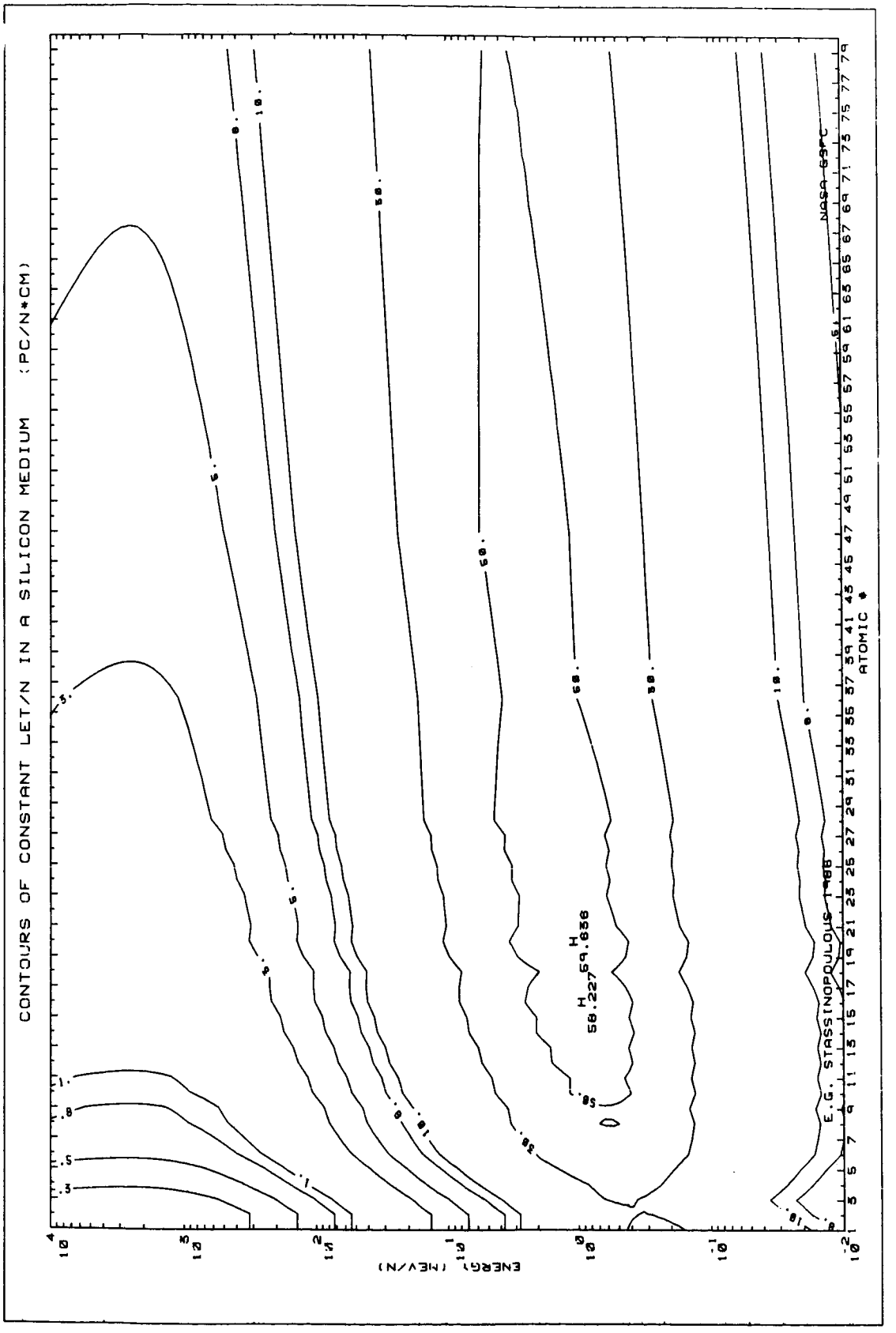
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (PC/N*CM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS 1988
NASA GSFC
H 58.227
H 59.656

FIGURE 45

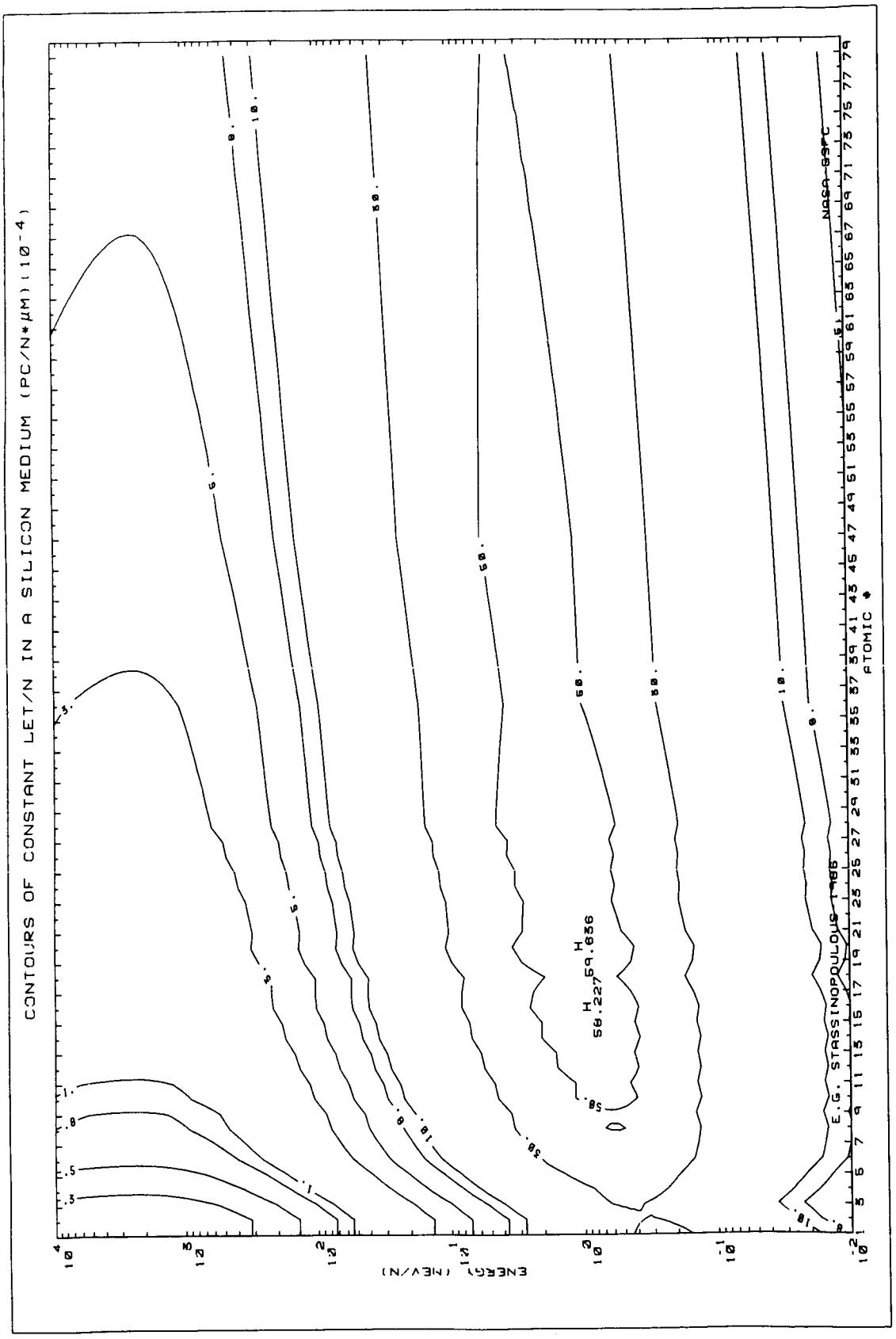
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (PC/N*μM)(10⁻⁴)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOS 1985
NASA GSFC
H 56.227
H 59.856

FIGURE 46

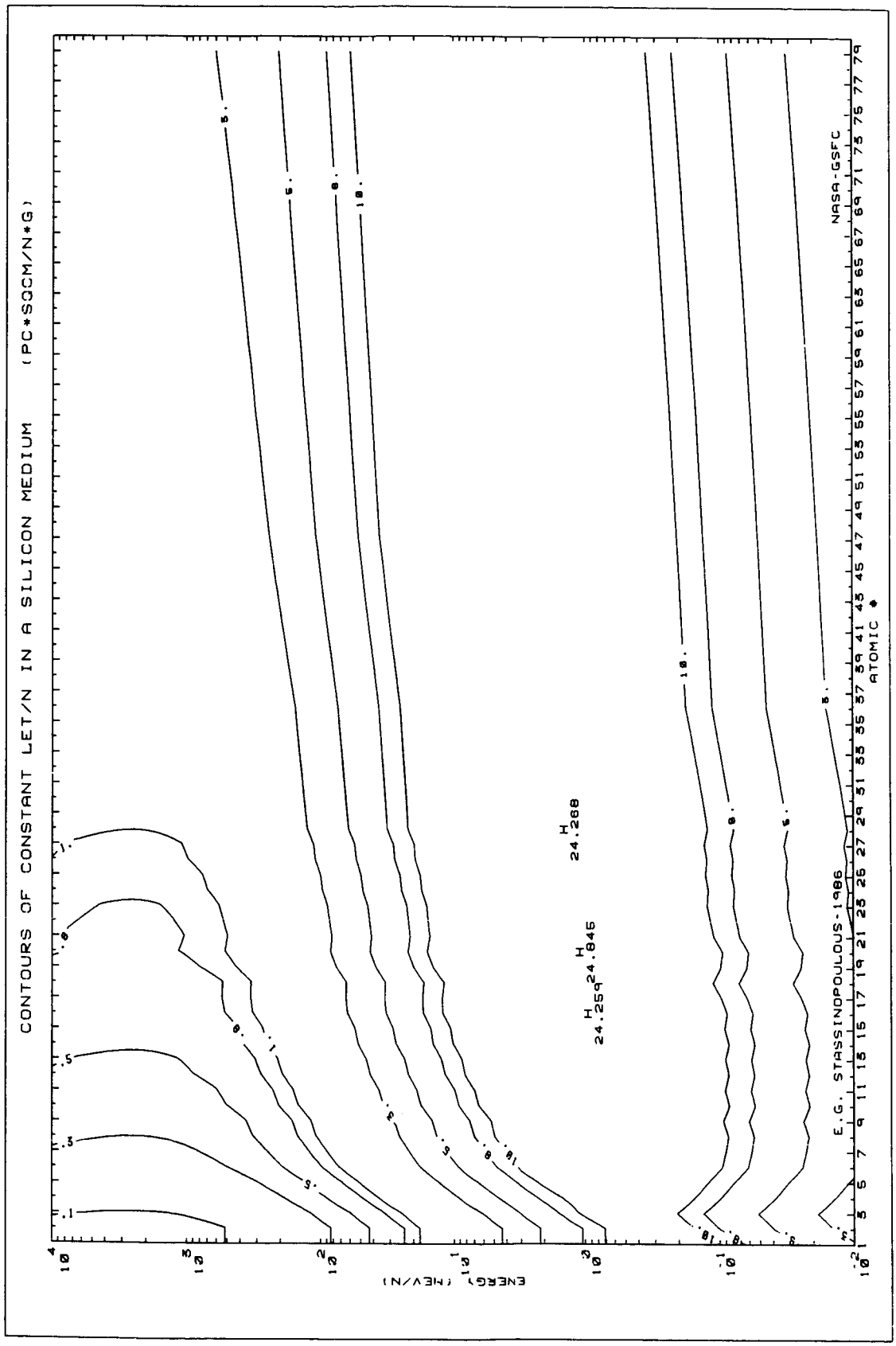
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (PC*SQCM/N*G)
ENERGY (MEV/N)
ATOMIC #
NASA-GSFC
E.G. STASSINOPOULOUS-1986
H 24.288
H 24.259
H 24.846

FIGURE 47

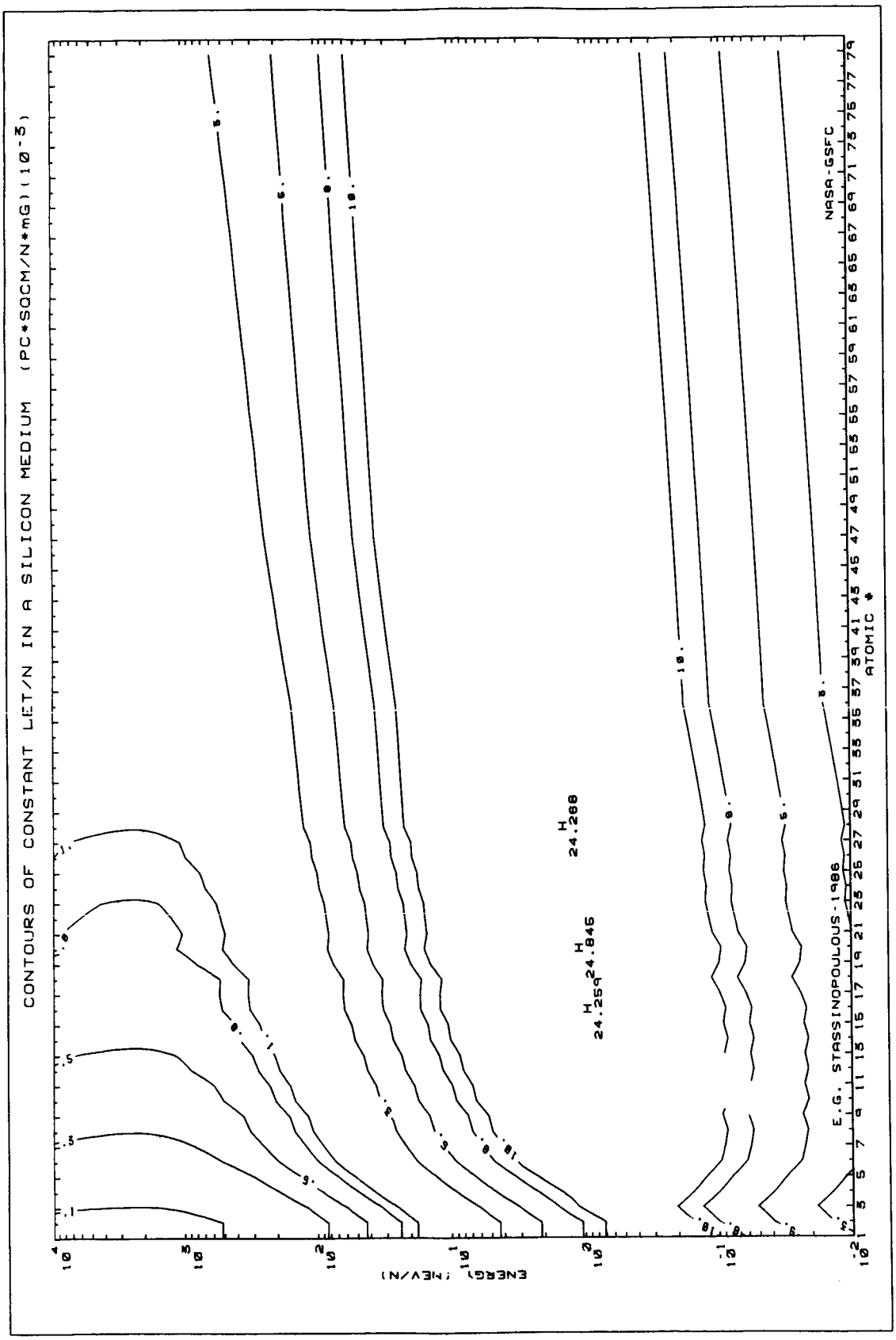
CONTOURS OF CONSTANT LET/N IN A SILICON MEDIUM (PC*SQCM/N*mG)(10**3)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
H 24.268
H 24.846
H 24.259

FIGURE 48

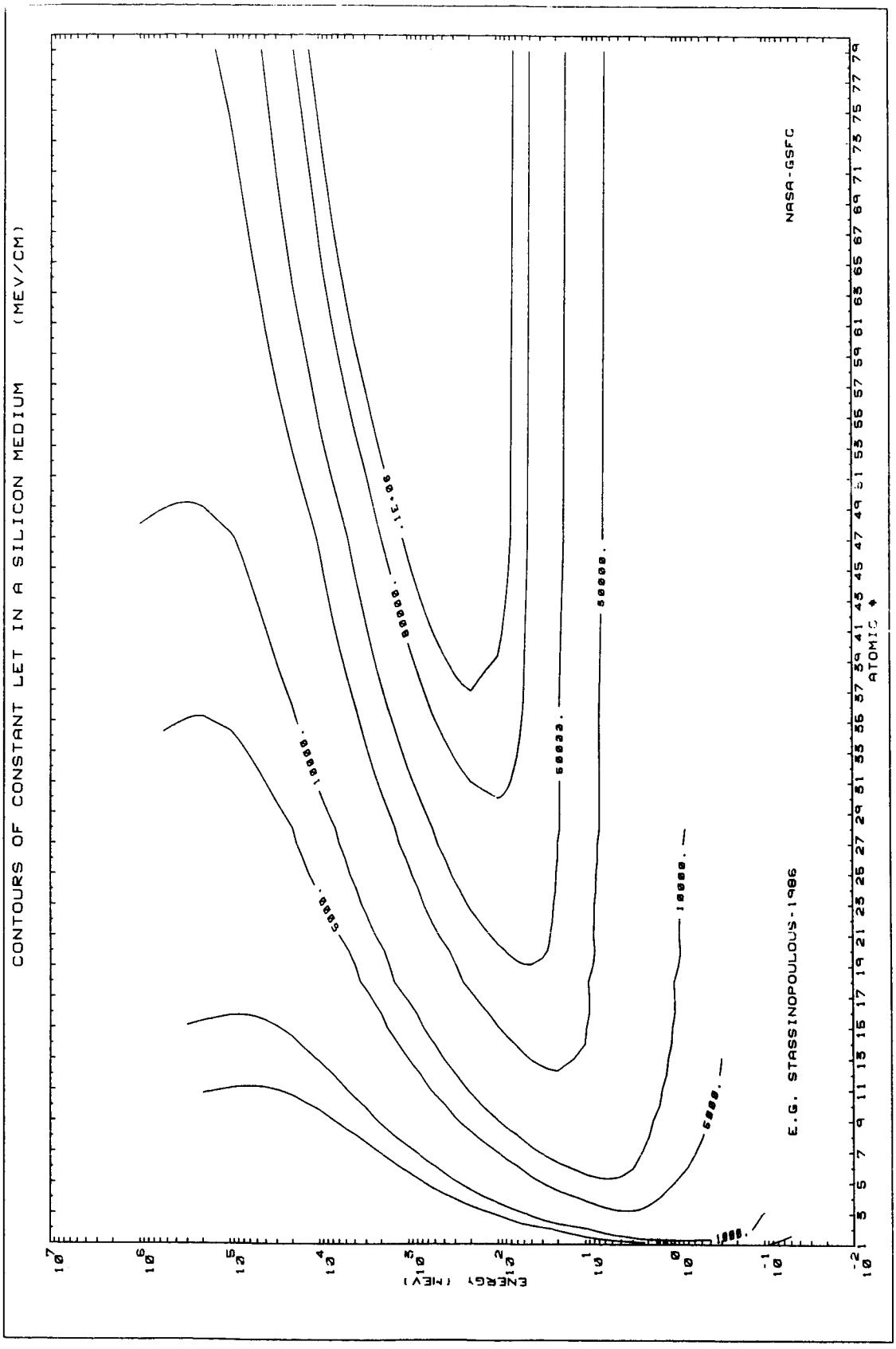
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (MEV/CM)
ENERGY (MEV)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC

FIGURE 49

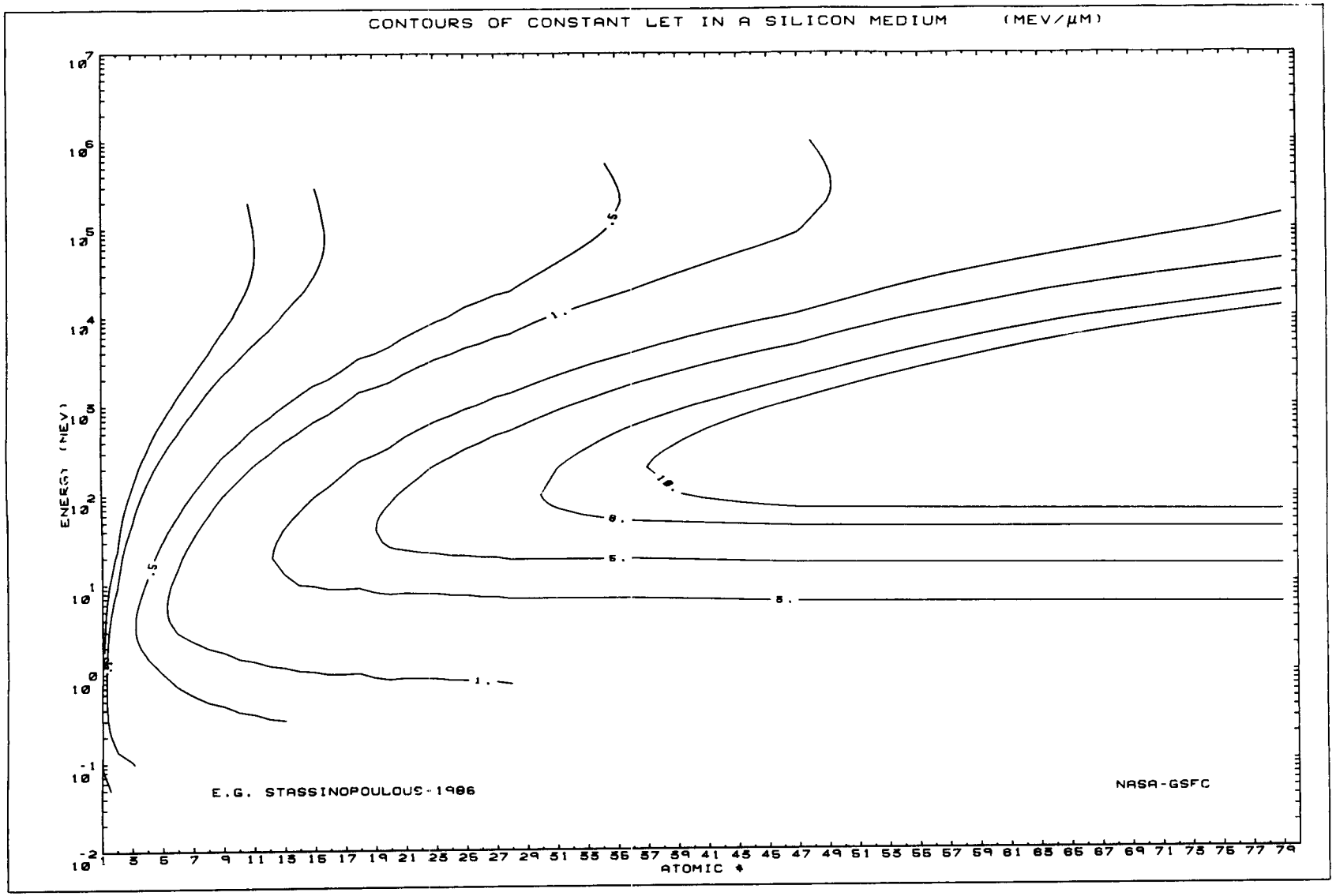
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (MEV/μM)
ENERGY (MEV)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC

FIGURE 50

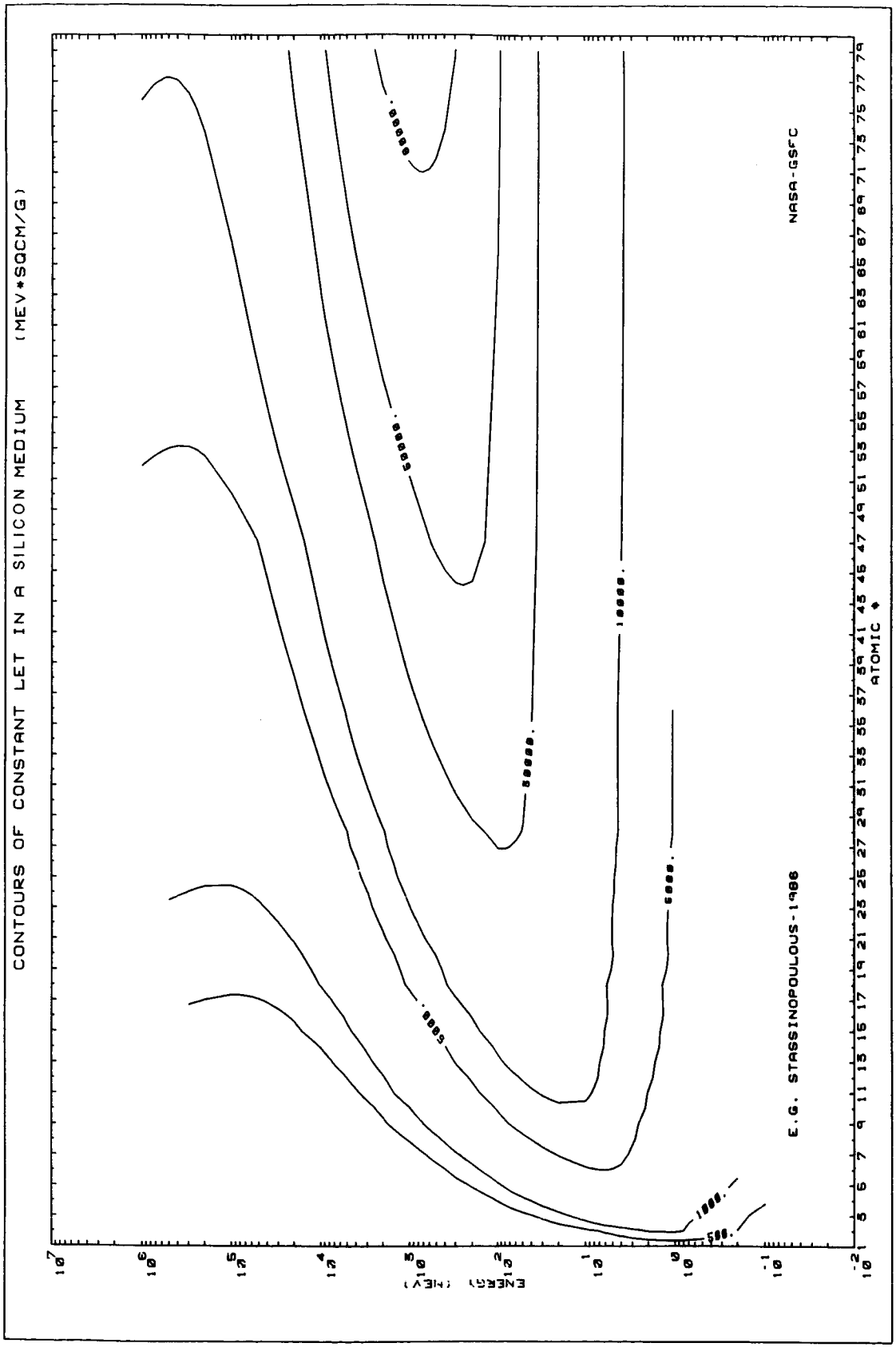
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (MEV*SQCM/G)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
ENERGY (MEV)
ATOMIC #
500.
1000.
5000.
10000.
50000.
100000.

FIGURE 51

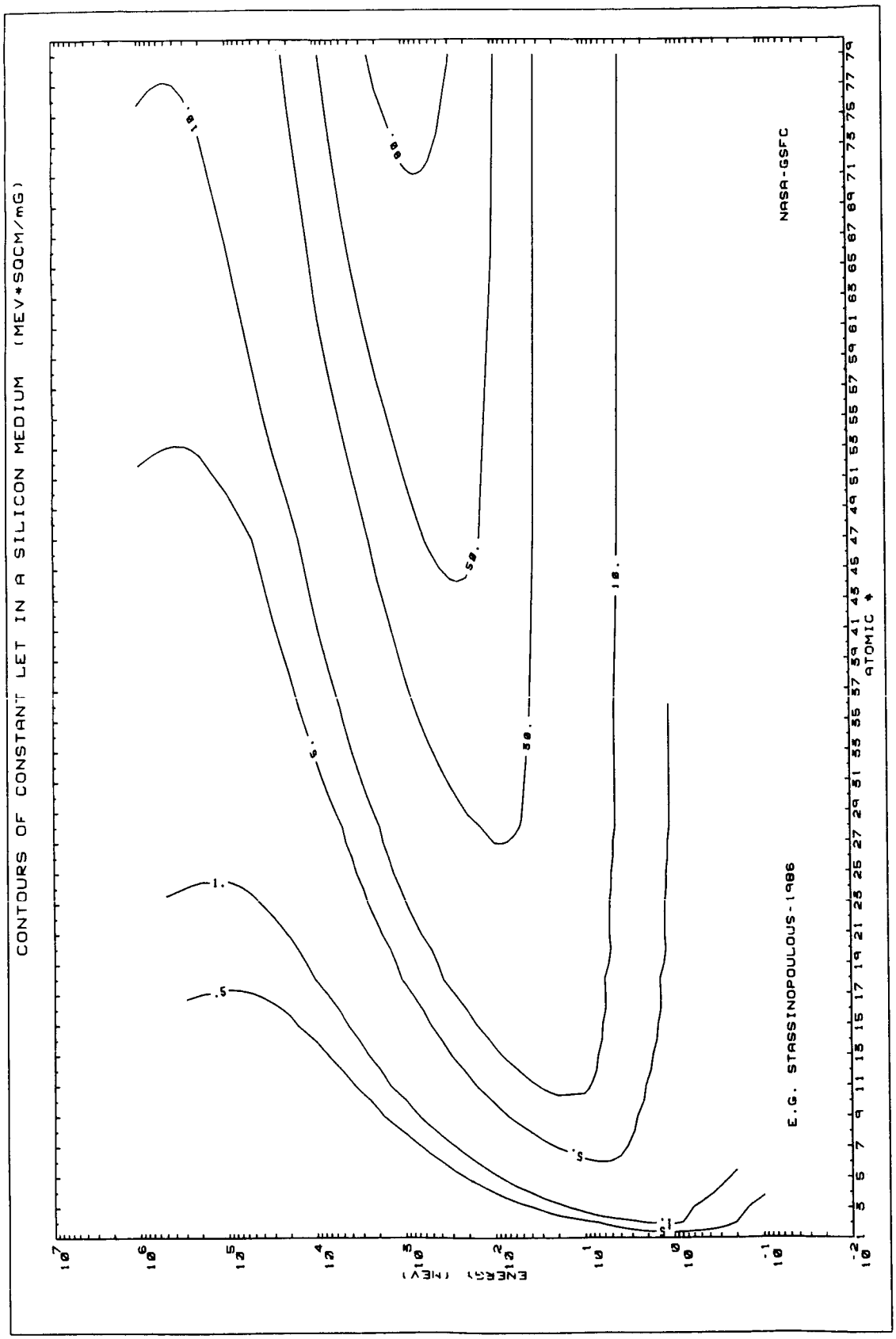
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (MEV*SQCM/mG)
E.G. STASSINOPOULOUS-1986
NASA-GSFC
ATOMIC #
ENERGY (MEV)
.1
.5
1.
5.
10.
50.
100.

FIGURE 52

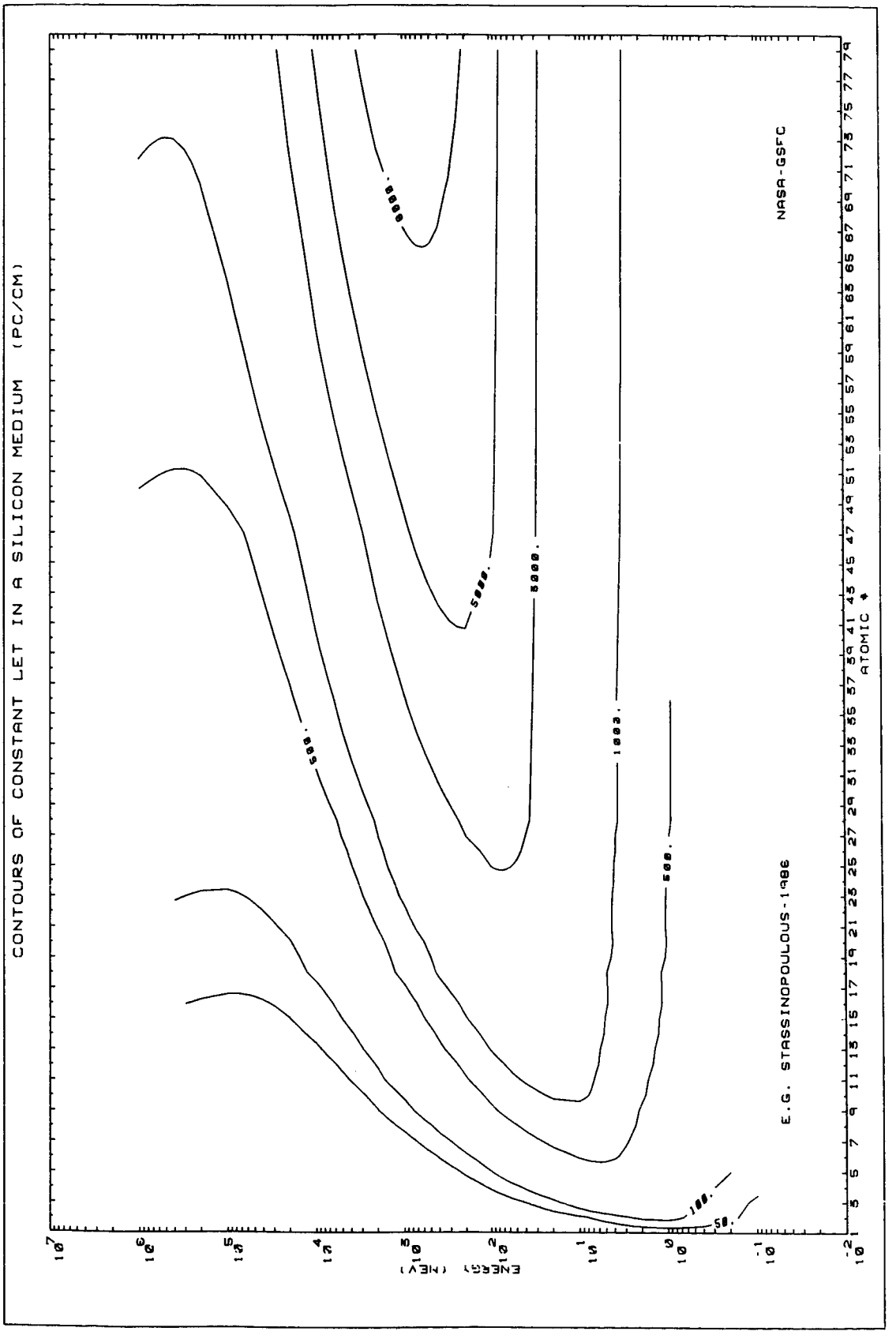
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (PC/CM)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
ENERGY (MEV)
ATOMIC #
100.
50.
500.
1000.
5000.
10000.

FIGURE 53

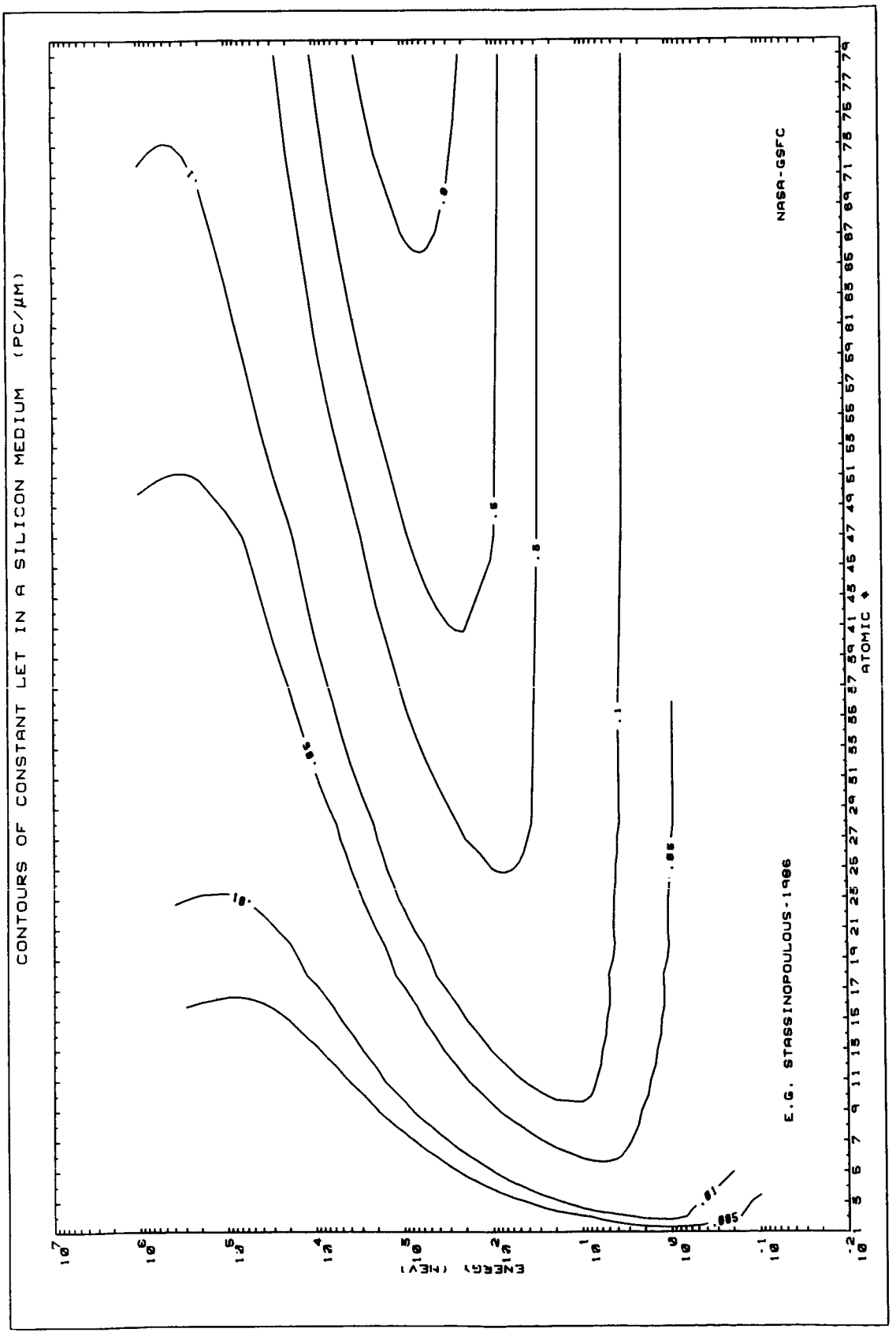
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (PC/μM)
E.G. STASSINOPOULOUS-1986
NASA-GSFC
ENERGY (MEV)
ATOMIC #

FIGURE 54

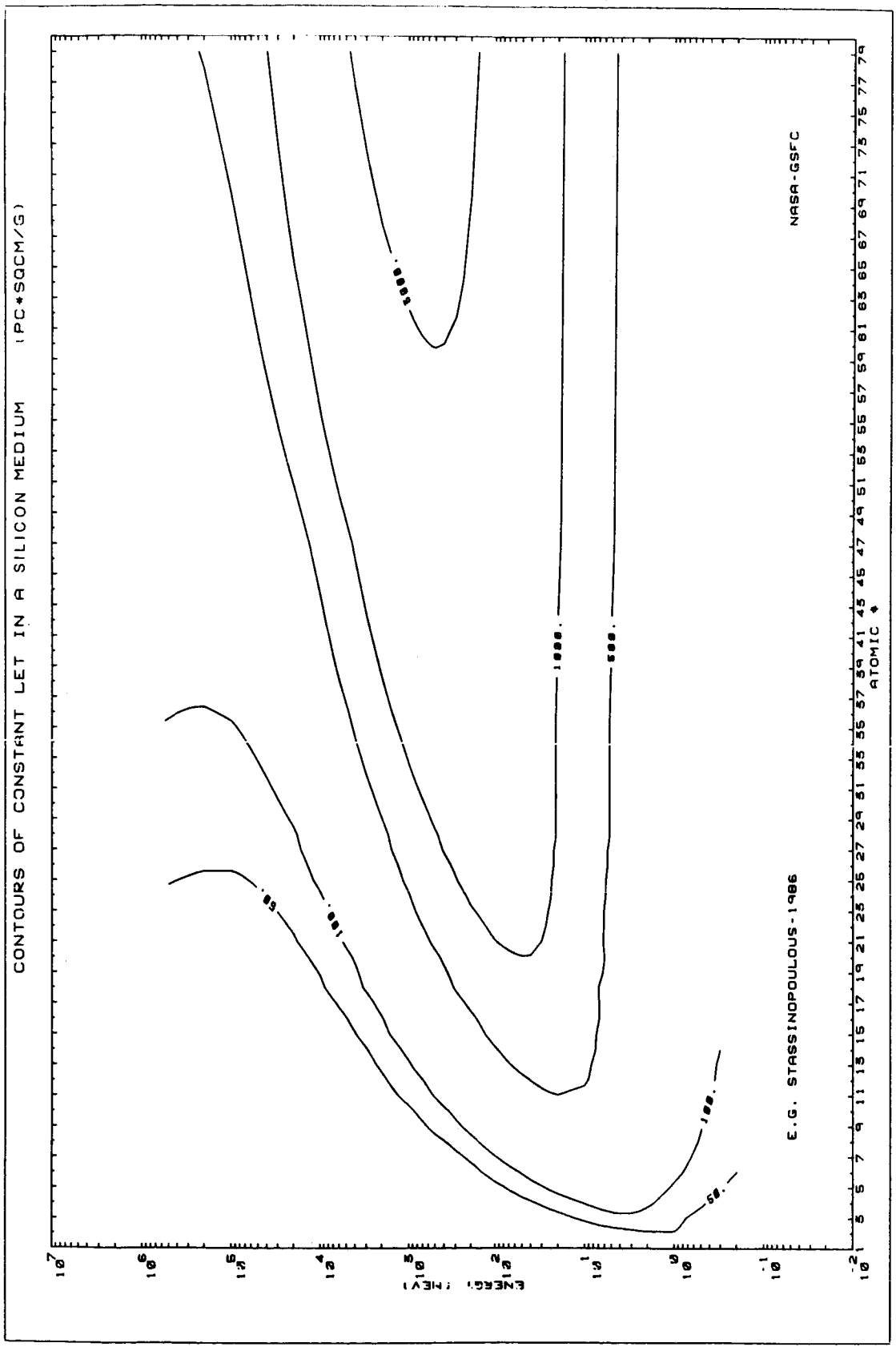
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (PC*SQCM/G)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
ENERGY (MEV)
ATOMIC #

FIGURE 55

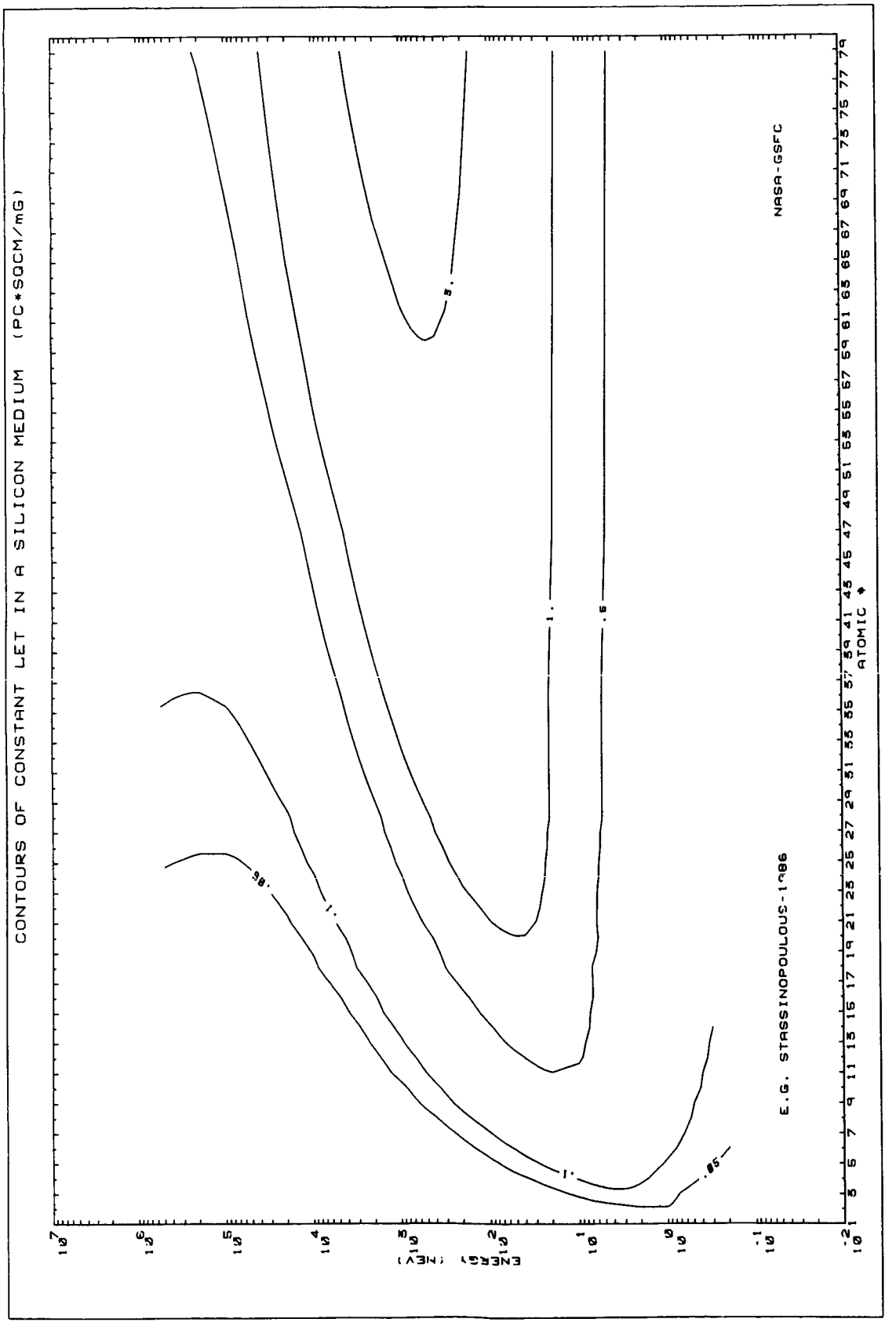
CONTOURS OF CONSTANT LET IN A SILICON MEDIUM (PC*SQCM/MG)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
ENERGY (MEV)
ATOMIC #
98.
1.
.85
1.
.5
3.

FIGURE 56

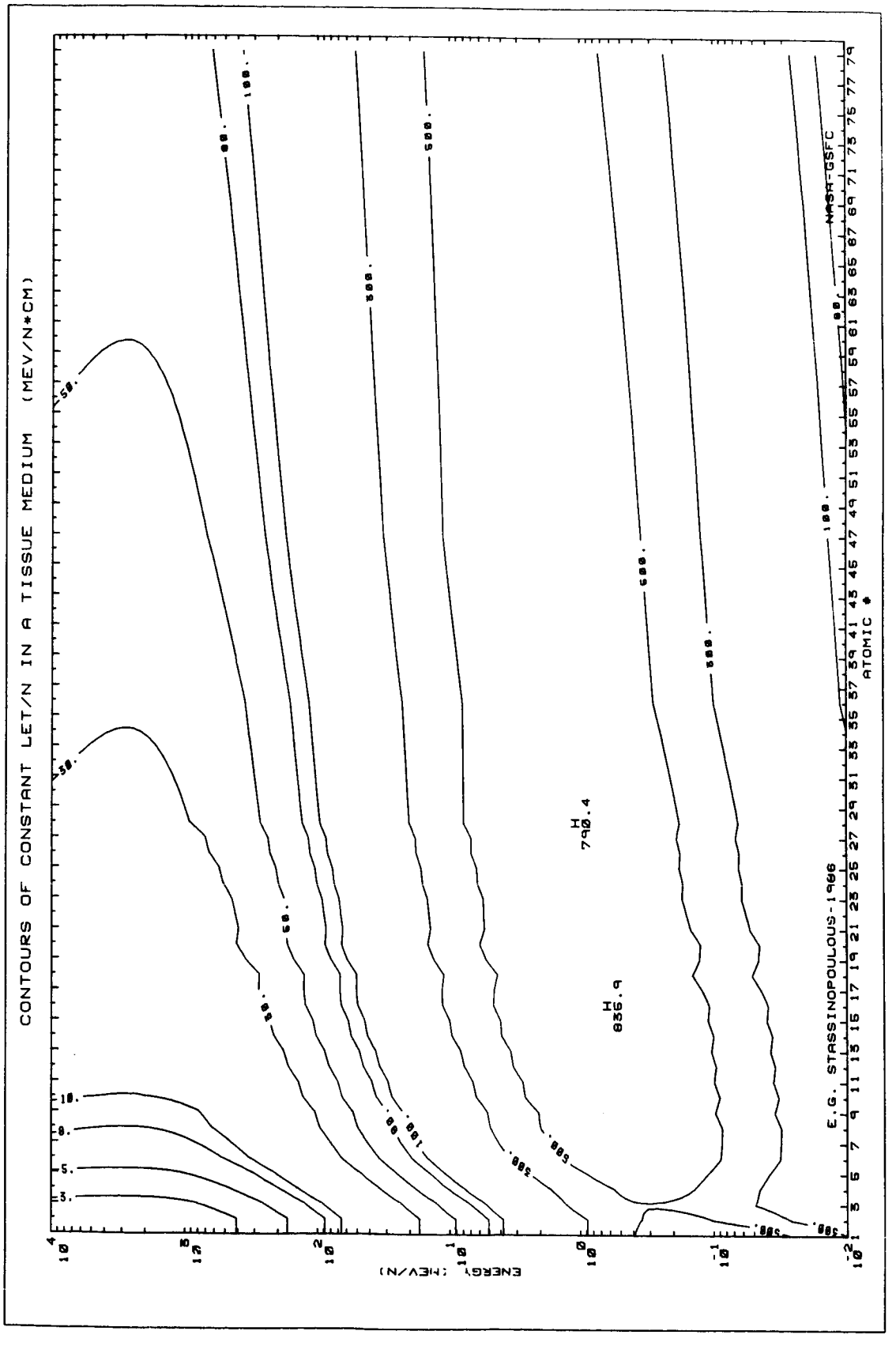
CONTOURS OF CONSTANT LET/N IN A TISSUE MEDIUM (MEV/N*CM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
H 790.4
H 836.9

FIGURE 57

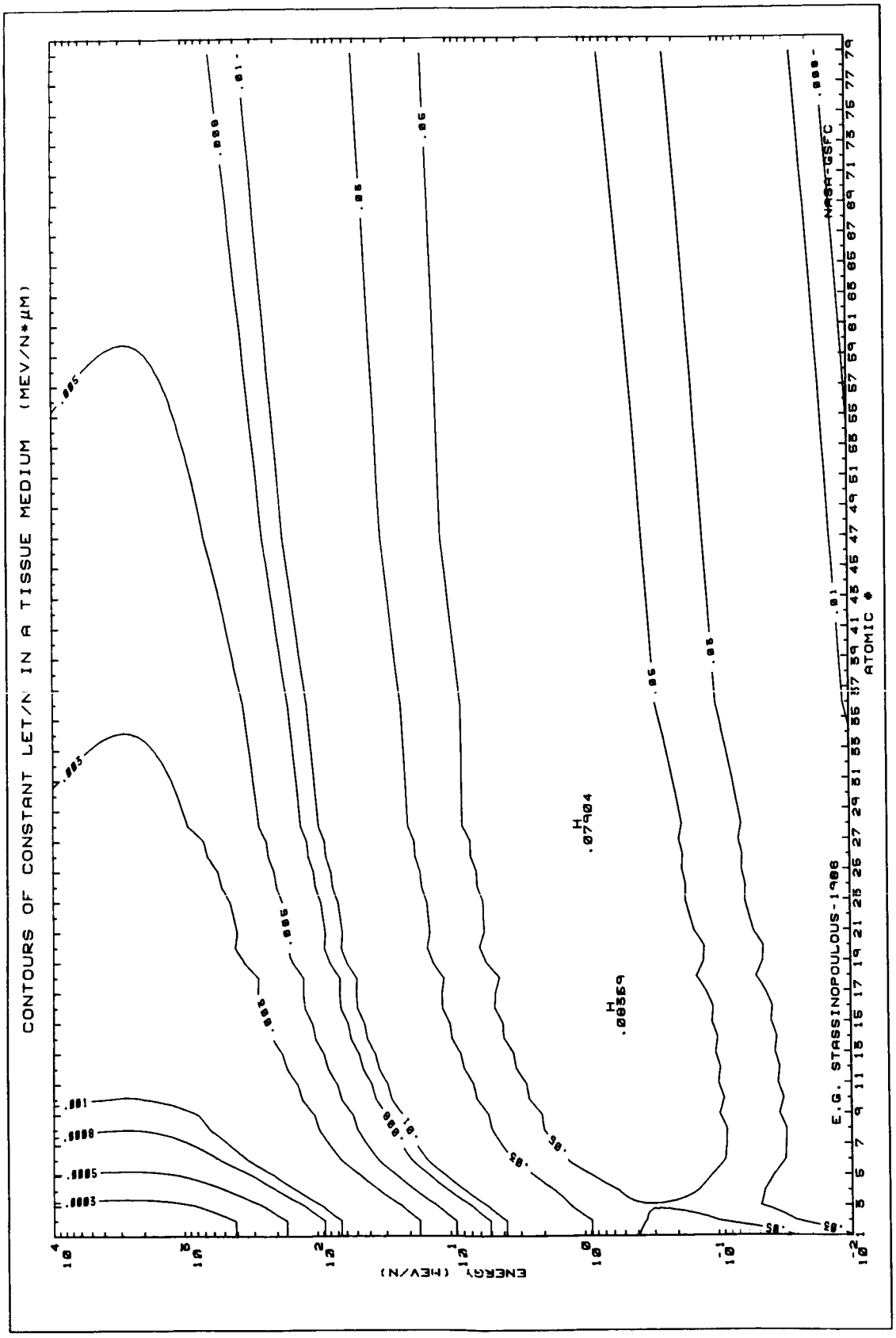
CONTOURS OF CONSTANT LET/N IN A TISSUE MEDIUM (MEV/N*μM)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
.07904
.00369

FIGURE 58

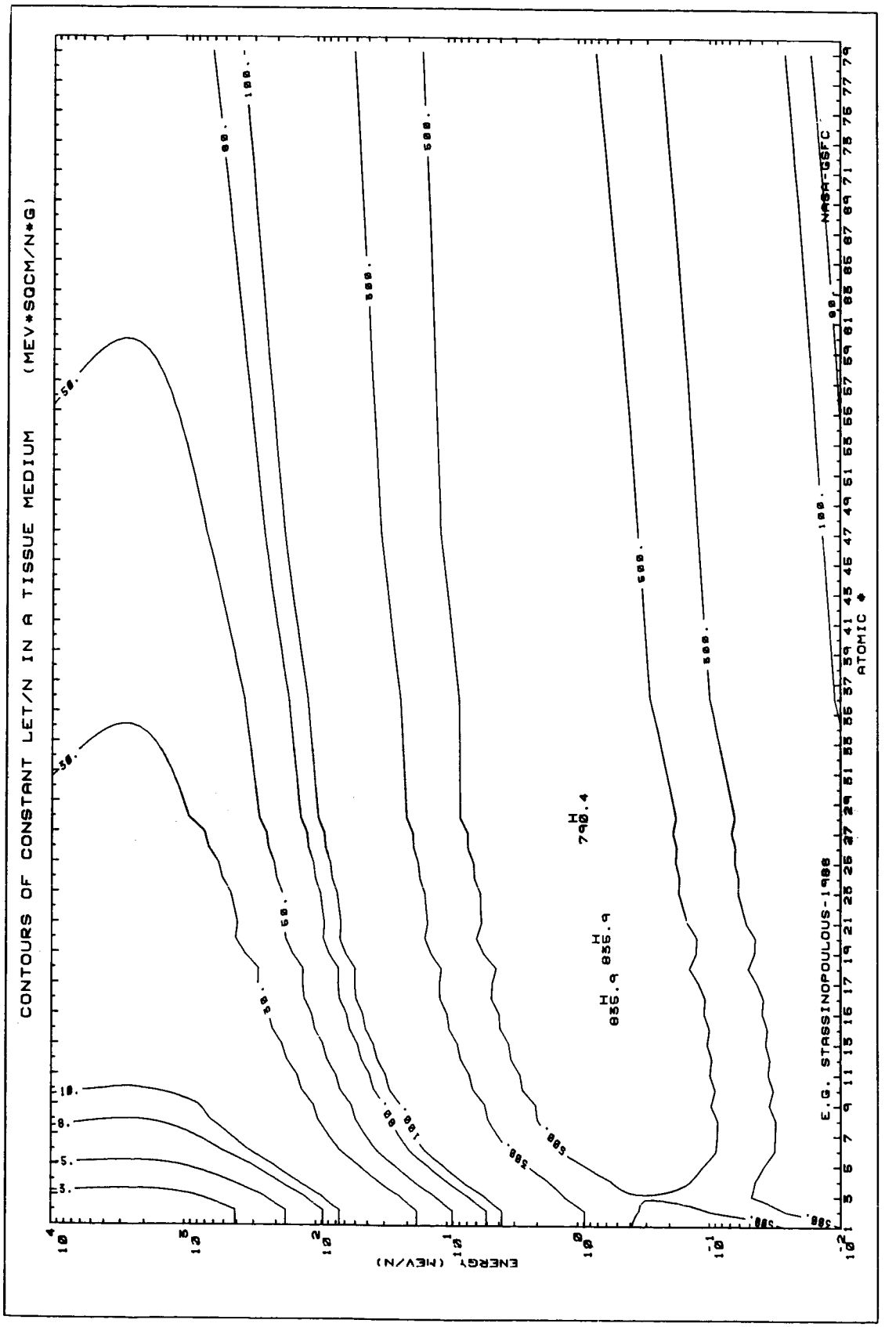
CONTOURS OF CONSTANT LET/N IN A TISSUE MEDIUM (MEV*SQCM/N*G)
ENERGY (MEV/N)
ATOMIC #
E.G. STASSINOPOULOUS-1986
NASA-GSFC
H 740.4
H 835.9
H 835.9

FIGURE 59

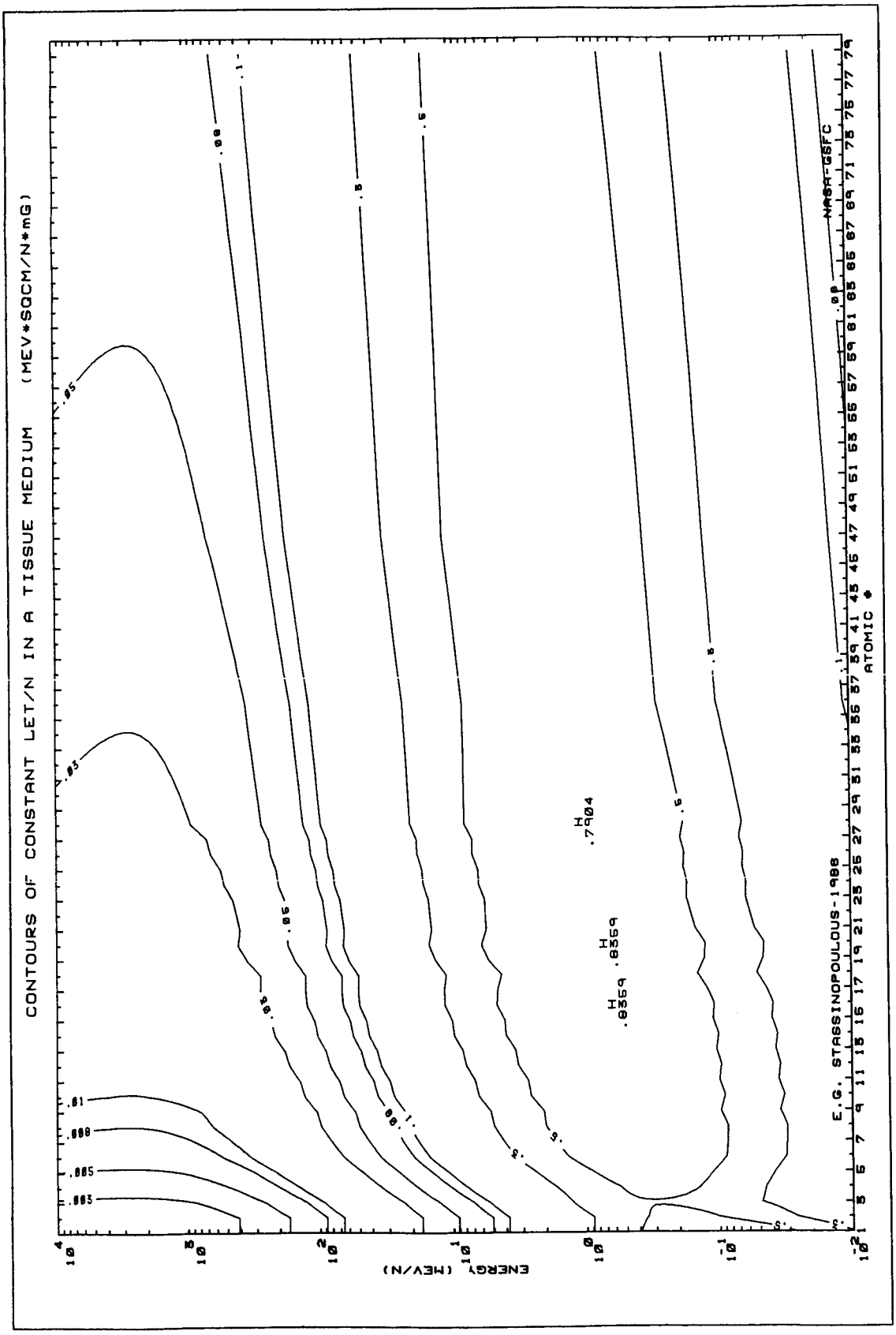
CONTOURS OF CONSTANT LET/N IN A TISSUE MEDIUM (MEV*SQCM/N*mG)
.01
.008
.005
.003
.05
.03
.08
.1
.5
.7904
.8369
.8369
E.G. STASSINOPOULOUS-1988
NASA-GSFC
ATOMIC #
ENERGY (MEV/N)

FIGURE 60

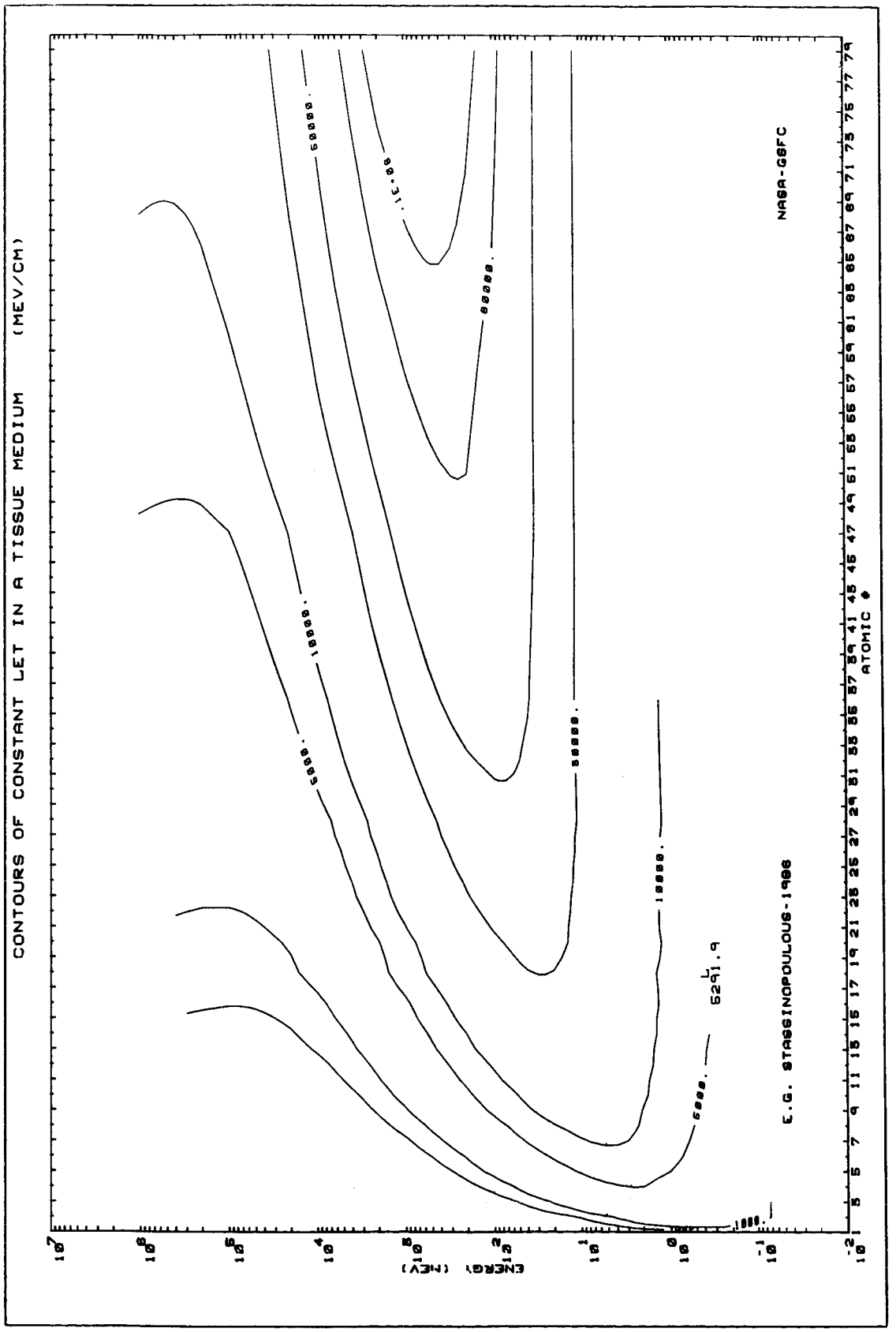
CONTOURS OF CONSTANT LET IN A TISSUE MEDIUM (MEV/CM)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
5291.9
ENERGY (MEV)
ATOMIC #

FIGURE 61

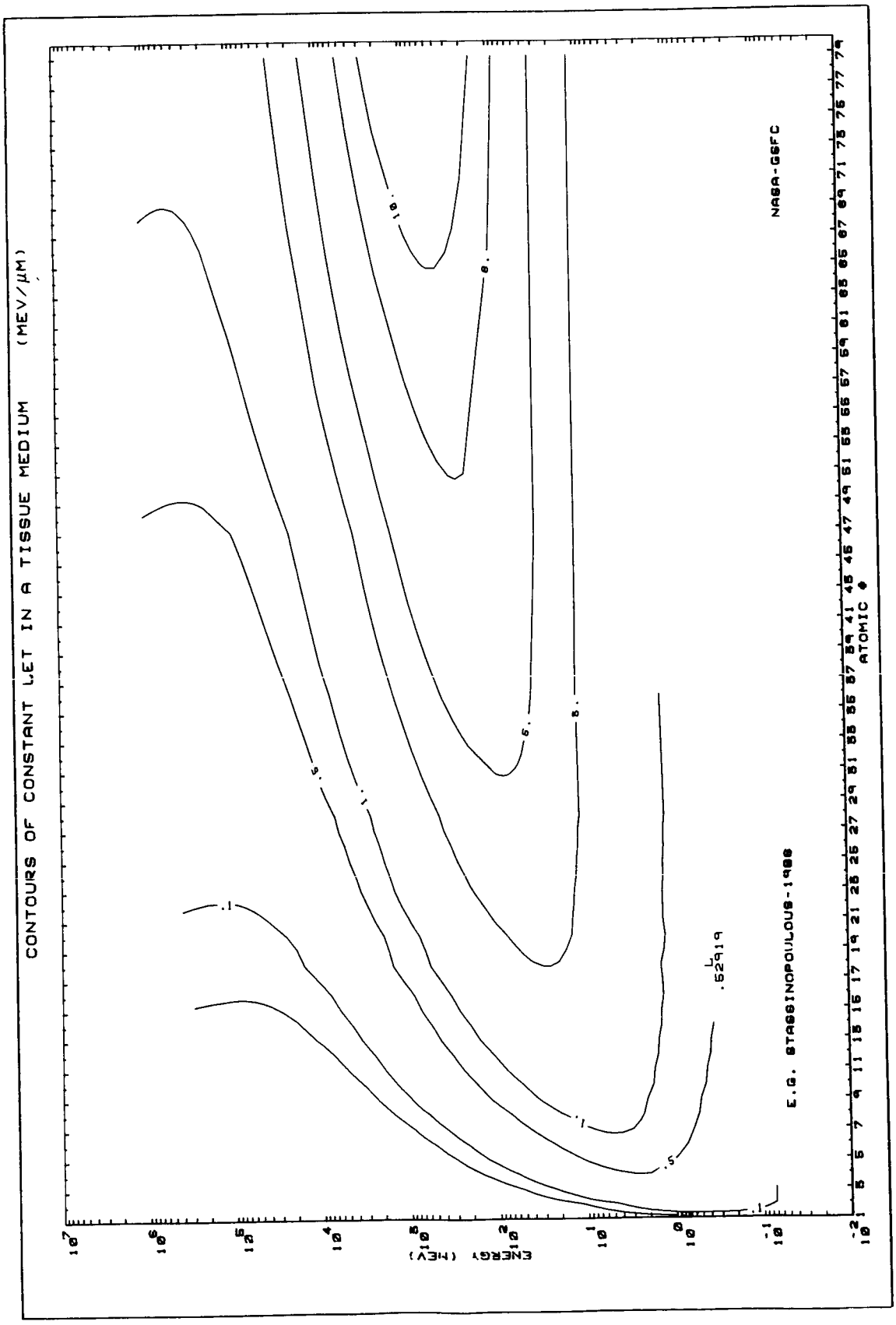
CONTOURS OF CONSTANT LET IN A TISSUE MEDIUM (MEV/μM)
NASA-GSFC
E.G. STASSINOPOULOUS-1988
ENERGY (MEV)
ATOMIC #
.52919

FIGURE 62

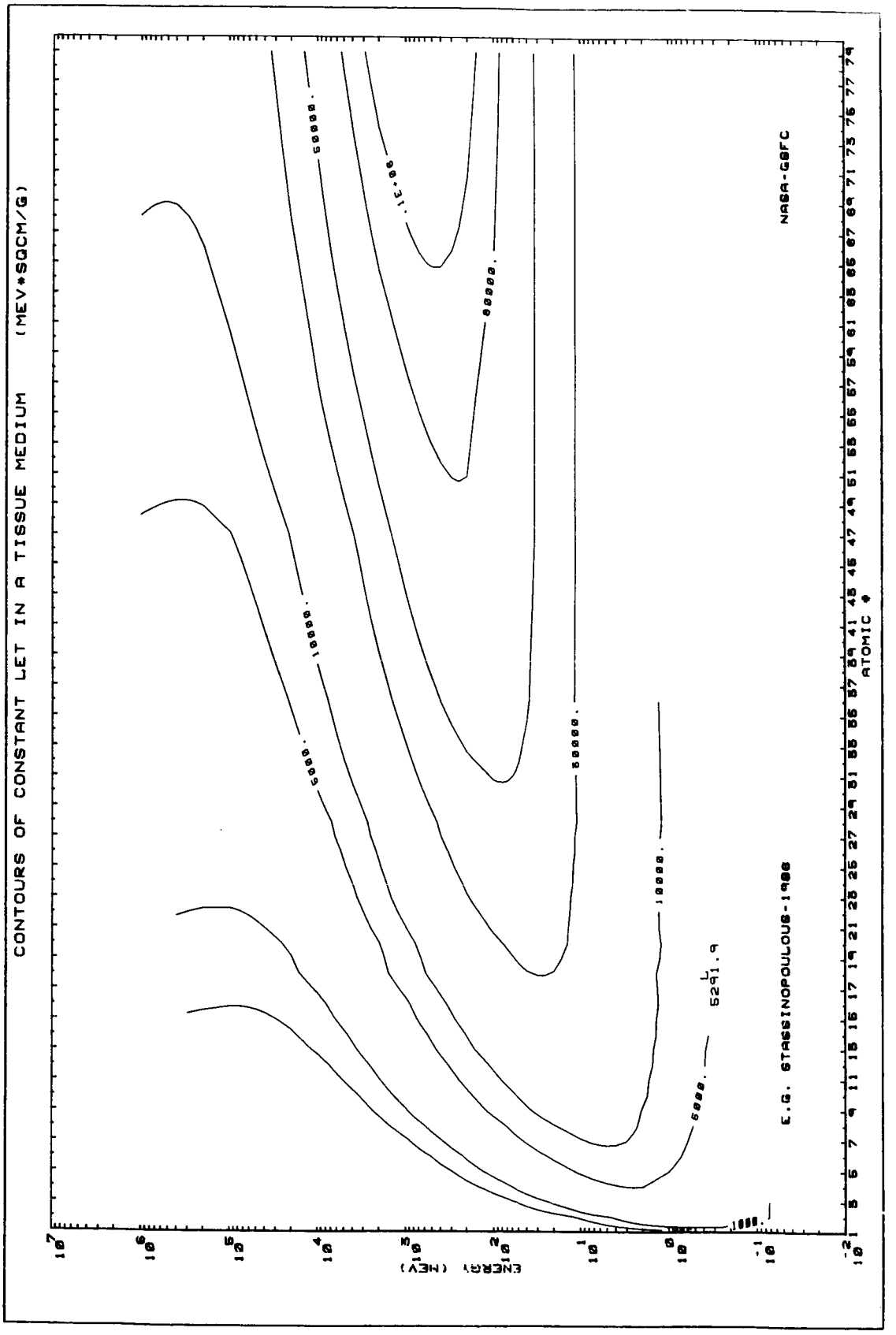
CONTOURS OF CONSTANT LET IN A TISSUE MEDIUM (MEV*SQCM/G)
NASA-GSFC
E.G. STASSINOPOULOUS-1986
5291.9
ENERGY (MEV)
ATOMIC #

FIGURE 63

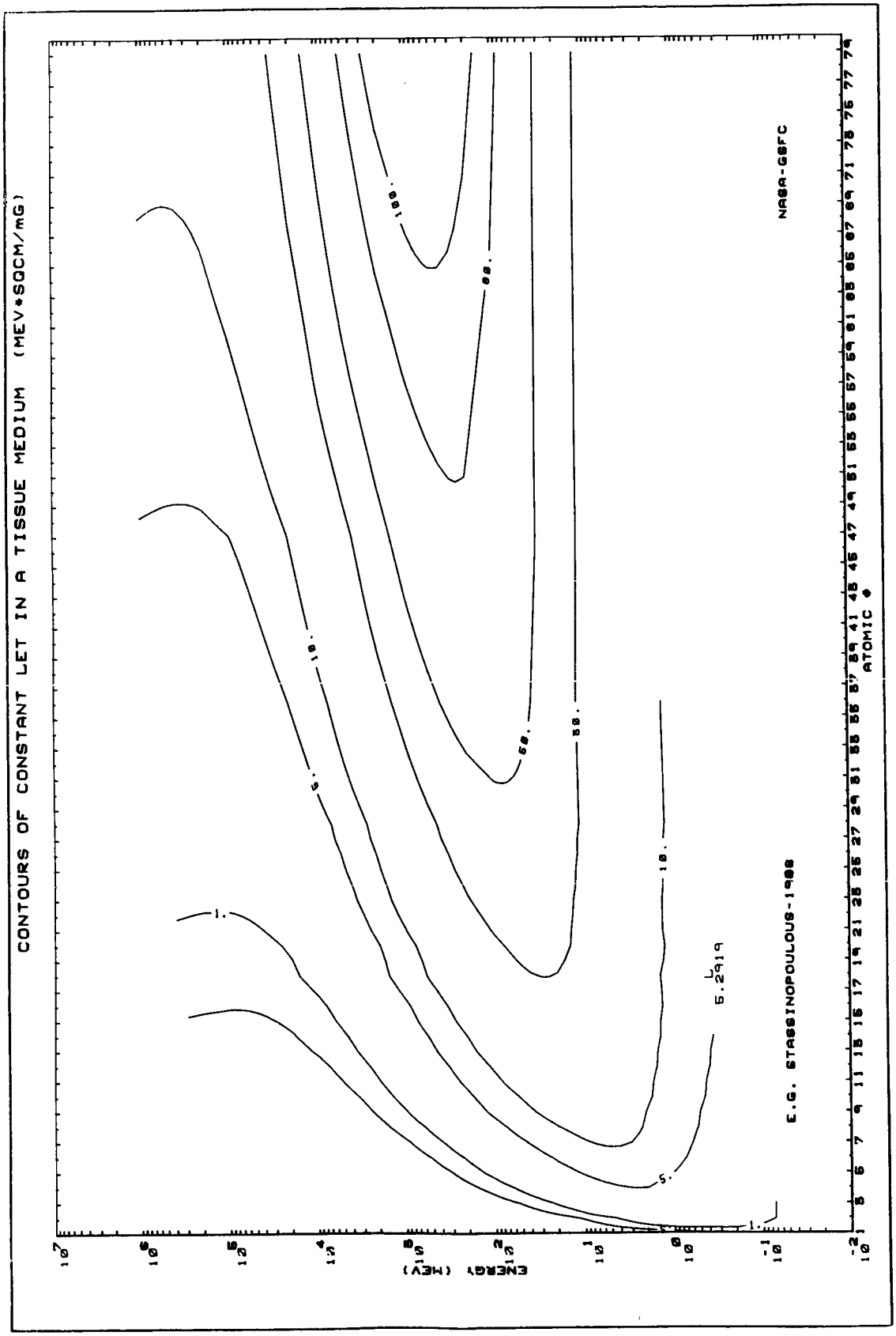
CONTOURS OF CONSTANT LET IN A TISSUE MEDIUM (MEV*SQCM/mG)
NASA-GSFC
E.G. STASINOPOULOUS-1988
ENERGY (MEV)
ATOMIC #
1.
5.
10.
50.
100.
5.2919

FIGURE 64

BIBLIOGRAPHIC DATA SHEET

1. Report No. NASA RP-1180	2. Government Accession No.	3. Recipient's Catalog No.
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E. G. Stassinopoulos: Goddard Space Flight Center, Greenbelt, Maryland
J. M. Barth: Science Systems and Applications, Inc., Seabrook, Maryland
T. M. Jordan: EMP Consultants, Northridge, California.

16. Abstract

Linear Energy Transfer (LET) values in aluminum, silicon, and tissue targets have been calculated for 31 galactic cosmic ray ion species in eight different units. The data are presented in graphical and tabular form.

17. Key Words (Selected by Author(s))	18. Distribution Statement
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