

NASA TECH BRIEF



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Nickel-Silver Composition Shows Promise as Catalyst for H₂-O₂ Fuel Cells

In a continuing program of testing selected materials as catalysts for anodic oxidation of hydrogen in alkaline hydrogen-oxygen fuel cells, a carburized 3:1 Ni-Ag preparation was found to exhibit considerable catalytic activity. The uncarburized 3:1 Ni-Ag material showed only slightly less catalytic activity. The catalytic activity of the Ni-Ag materials tested, however, is not as high as that of the more costly and scarcer platinum black normally used in H₂-O₂ fuel cells.

Since low cost and ready availability of catalytic materials are important factors in the development of H₂-O₂ fuel cells for commercial use, further evaluation of the Ni-Ag materials with regard to various other properties (e.g., chemical and structural stability, long-term activity, and sensitivity to poisoning) would be warranted.

Note:

Requests for further information may be directed to:
Technology Utilization Officer
Headquarters
National Aeronautics
and Space Administration
Washington, D.C. 20546
Reference: TSP70-10035

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: J. A. Magerl and J. N. Murray of
Allis-Chalmers Research Division
under contract to
NASA Headquarters
(HQN-10565)

Category 01

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Development of a New Type of...

The purpose of this research was to develop a new type of... The results of the study are as follows:...

The first part of the study was to determine the... The second part was to determine the... The third part was to determine the...

The results of the study show that the new type of... is more effective than the old type of... The new type of... is also more durable and easier to use.

The study was conducted by the... at the... The study was supported by the... The study was published in the...