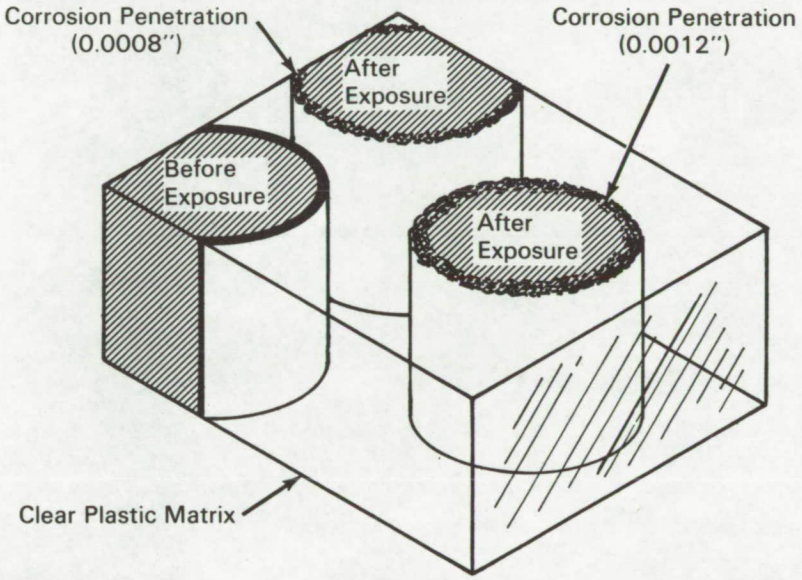
NASA TECH BRIEF

Corrosion of Metal Samples Rapidly Measured



50× MAGNIFICATION

The problem:

To devise a method for accurately and rapidly measuring the extent of corrosion of a large number of metal samples that have been exposed to controlled environments.

The solution:

A method of microexamination of wire samples of the metal before and after exposure to a controlled corrosive environment.

How it's done:

Cross sections of the wire samples are microexamined prior to exposure to the corrosive environment, in order to establish a reference. After exposure, the wires are embedded in a quick-curing clear plastic. The plastic matrix (with the embedded wires) is then cut into suitable lengths, leaving the ends of the wires flush with the plastic surface. Micromeasurements on the ends of the wires indicate the amount of corrosion penetration that has occurred.

(continued overleaf)

Note:

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
AEC-NASA Space Nuclear Propulsion Office
U.S. Atomic Energy Commission
Washington, D.C., 20545
Reference: B66-10140

Patent status:

No patent action is contemplated by NASA.

Source: C. E. Maskell
of the Aerojet-General Corporation
under contract to
AEC-NASA Space Nuclear Propulsion Office
(NU-0041)