Materials Analysis

Johnson Space Center (JSC) materials laboratories provide analytical capabilities used in the analysis and evolution of space flight hardware. Test and evaluation capabilities include metallography, material properties testing, microscopy, environmental testing, nondestructive evaluation, and analytical chemistry. JSC offers expertise in development, evaluation and test of metallics, polymers, composite materials, and textile and insulation materials.

Services Provided

- Materials properties evaluation and test
- Failure Analysis
- Nondestructive Evaluation
  - Real-time, digital, and film x-ray
  - Automated ultrasonic (conventional and phased array)
  - Fluorescent penetrant
  - Magnetic particle
  - Infrared thermography
  - Eddy current
- Development and test of textile and insulation materials for space environments – evaluation of thermal, mechanical, and comfort properties
- Characterization of nanomaterials
- Chemical analysis
- Thermal analysis
- Metallography
- Scanning Electron Microscopy
  - Cold field emission
  - Variable pressure Schottky
We have developed customer-friendly agreements to streamline business relationships and are eager to share our unique facilities and expertise with new customers. We invite your inquiries regarding application or adaptation of our capabilities to satisfy your special requirements. Briefings on general or specific subjects of mutual interest can be arranged at JSC or at your business site.