

## **ASSET V1001**

### Surplus Lab Equipment For Sale

# Ultra-High Vacuum System-

## For Simulated Space Environments



- Ultra-high vacuum (UHV) system designed to simulate the space environment of a geosynchronous satellite; This includes considerations for vacuum, temperature, radiation, and other factors.
- Base Pressure: 1 x 10-9 to 1 x 10-10 torr
- Simulated Space Environment
  - · Electron Bombardment
  - Protons & Atomic Hydrogen
  - Ultraviolet Radiation

### FEATURES

Vacuum Chamber
Pumping System
Temperature Control
Monitoring and Control System
Safety System; interlocks

#### **CAPABILITIES**

Radiation simulations
Solar simulation

## POSSIBLE EXPANDED CAPABILITIES

Motion Simulation

Material outgassing studies

Integration with other simulation
systems; vibration
electromagnetic interference etc.



## **System Components**

# MOLECULAR DIFFUSION PUMP

Pfiffer

OXYGEN ION GUN

SPECS IQE 11-A

### **ULTRAVIOLET RADIATIOM**

SPECS Scientific Instruments/Kurt J. Lesker Model FG 15/49

Excited helium, simulates the UV radiation from the sun

### **ELECTRON BOMBARDMENT**

SPECS Scientific Instruments/Kurt
J. Lesker Model FG 15/49 flood
gun

The energy of the electrons can be varied by varying the potential on the sample and the accelerating potential of the electron gun

# PROTONS AND ATOMIC HYDROGEN

SPECS Scientific Instruments/Kurt
J. Lesker Model IQE 11/35

The proton beam is produced in the ion source by electron beam dissociation of molecular hydrogen, H<sub>2</sub>. The proton beam is accelerated towards the sample using an electrostatic potential.











