

## HUMMER 6.2 SPUTTERING SYSTEMS



Hummer 6.2 Basic System

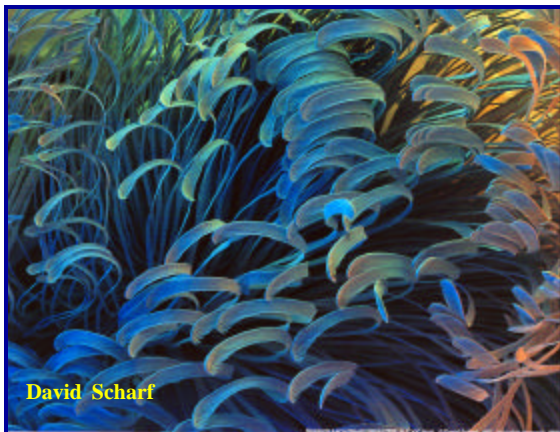


Hummer 6.2 with Carbon Evaporation Accessory and Thickness Monitor

### COLD DEPOSITION/ETCH SYSTEMS FOR SEM SAMPLE PREPARATION

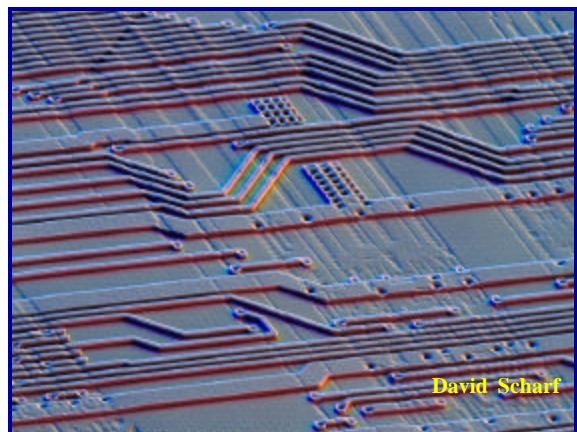
**SPECIFICS FOR THE HUMMER 6.2**  
 Economical entry level unit  
 Ideal for low-to moderate volume sputtering applications  
 Integral timer terminates processes at preset duration's  
 from 0-15 min so that operator can work on other tasks  
**US Domestic and Euro CE Compliant models**

**APPLICATIONS:**  
 SEM, R&D, FA, Materials Research,  
 Medical /Biological Research  
 and other Thin Film Requirements



David Scharf

Mosquito Larva Hairs



David Scharf

68040 Computer Chip

Introducing electron microscope images by scientist/photographer David Scharf.

HUMMER® IS A REGISTERED TRADEMARK OF  
**ANATECH USA**  
US Domestic and Euro CE Compliant models

## ANATECH HUMMER 6.2

Performs sputter coating, a cold process in which ions impacting a metal source dislodge metal atoms. The atoms disperse throughout the process chamber to uniformly coat irregularly shaped specimens without thermal damage. Sputter coating produces high quality coatings whose thickness is repeatable and easily controlled. Cold, fast sputter rates require less time, giving you more time for microscope examinations.

### STANDARD FEATURES

Grain size of less than 2 nanometers for SEM preparation.

Magnetically enhanced sputter-head minimizes sample heating.

Automatic slow venting at power-down.

Sample stage accommodates up to 3" diameter substrates or 12 SEM stubs. Stage adjusts 1.375" vertically.

Self-contained two-stage direct drive rotary pump assures rapid pump-down. Requires less lab space than systems with remote pumps.

Easy access to pump oil fill and drain ports simplify maintenance.

### OPTIONS

Tilt Stage.

Digital Thickness Monitor.

Wide selection of Targets made from precious metals.

Carbon Evaporation Accessory (**CEA**) for producing conductive coatings on samples for x-ray studies.

### SPECIFICATIONS

Power consumption - 120 VAC, 60 Hz, 10 amps

Optional: (**CE**) 220-250 VAC, 50 Hz, 5 amps

Power output - 300-1500 volts, 0-30 milliamps

Dimensions (Cabinet) - 22" W x 20" D x 14" H

Shipping weight - 110 lbs. estimated

### PLATING WITH A HUMMER®

Depending on the metal source installed, Hummers can deposit thin films of gold, gold/palladium, silver, platinum and other noble metals. To use a different noble metal target, simply pull out one the target, and push in another.

The HUMMER top plate lifts off for easy sample loading and retrieval. The stage accepts many types of SEM stubs. A magnet inside the metal source ring and a dark space shield eliminate heating by deflecting electrons away from the specimen. The cool, Omni-directional shower of secondary ions and neutrals produces finer grain deposits than thermal coating processes.

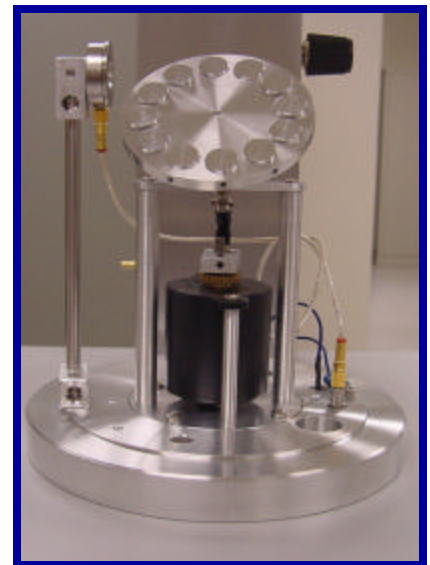
When processing is finished and power-down begins, a solenoid controlled vent valve slowly brings the process chamber to atmospheric pressure, preventing turbulence. This also assures that oil cannot migrate from pump to process chamber, as can happen with manually vented systems.

### RUGGED, RELIABLE DESIGNS

Hummer systems are built to deliver many years of faithful service. Since that first system was made in 1971, more than 5000 Hummers have been installed all over the world.

Each Hummer 6.2 is totally enclosed in a single cabinet, so it occupies less space and produces less noise than systems with remote pumps. Vacuum pump is near the process chamber, for fast pump down. Vacuum connections are made and checked for leakage during manufacture, assuring vacuum integrity and allowing you to start working sooner because little assembly is required. Safety interlocks protect both operator and equipment. Anatech USA backs Hummer products with excellent customer service and support. A full line of spare parts is available for product maintenance.

Rotatable-Tilt Stage  
with  
Thickness Monitor



CALL ANATECH USA TODAY TO DISCUSS YOUR APPLICATION

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