

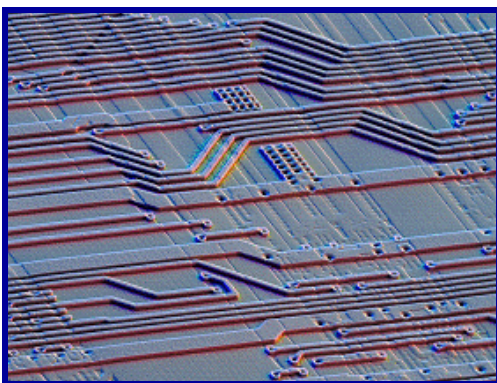
Hummer® 8.0

Cold deposition sputtering for WAFER & SEM sample preparation



Three Target Array
Hummer 8.0

**SPUTTER SYSTEMS FOR WAFER, SEM PREPARATION, R&D,
AND THIN FILM DEPOSITION APPLICATIONS**



APPLICATIONS
Medical/Biological Research
Microelectronics Research
Materials research
Textiles sciences
Food sciences

68040 Computer Chip — Photo by: David Scharf, Scientist / Photographer

Anatech Hummer® 8.0

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.

PLATING WITH A HUMMER®

Depending on the metal targets installed, Hummer's can deposit thin films of Noble gold, gold/palladium, silver, platinum and other noble alloys. To use a different metal target, simply pull out one, and push in another.

The HUMMER top plate lifts off for easy sample loading and retrieval. The stage accepts many types of SEM stubs and up to 200 mm diameter substrates. The 8.0 stage rotates under **three (3) sputter heads** to achieve uniformity over a 200-mm (8-inch) diameter substrate.

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, 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.

STANDARD FEATURES

Grain size of less than 2 nanometers for SEM preparation.
Three (3) magnetically enhanced sputter-heads minimizes sample heating.
Automatic slow venting at termination of process.
Sample stage accommodates up to 200-mm substrates or multiple SEM stubs.
Stage adjusts 2" 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 simplifies maintenance.

OPTIONS

Wide selection of targets made from precious metals.
Carbon Evaporation Accessory for producing conductive coatings on samples for x-ray studies.
Dedicated carbon evaporation system

RUGGED, RELIABLE DESIGNS

Since that first systems built in 1970, more than 5000 Hummers have been installed all over the world. Each Hummer 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.

SPECIFICATIONS

3 Sources for noble metals
Power consumption - 115 VAC, 60 Hz, 6 amps
220-250 VAC, 50 Hz, 3 amps
Power output - 0-3000 volts, 0-30 milliamps
Dimensions - 22" L x 20" W x 22" H
Shipping weight - 120 lbs.

CALL ANATECH USA TODAY TO DISCUSS YOUR APPLICATION !!!

ANATECH USA

2947 Whipple Road
Union City, CA 94587

Toll Free : **800-390-4449** Tel : **510-401-5990** Fax: **510-401-5994**

www.anatechusa.com