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NEW AND INTERESTING AT M&M 2003

fraction of competing techniques. The software functionality is comprehensive and extensive, and open-architecture facilitates user modifications. Samples need not be flat, and include homogenous dielectrics, polymers, biological materials, and many metals. Applications include optical and magnetic data storage QC, pre-fab wafer inspection, QC of industrial polymer substrates, cell adhesion and chemotaxis, optical fabrication metrology, and optical thin film roughness inspection. PTM can be purchased complete with an optical microscope of your choice; alternatively, purchase an upgrade kit to convert your reflected light microscope into a photon tunneling microscope. Nanoptek Corporation (www.nanoptek.com, Concord, MA) develops nano and near-field optical technology and instrumentation. For more information contact John M. Guerra at jguerra@nanoptek.com or (978)-371-7339.

Hacker Instruments introduced the Milestone REM Rapid Electron Microscopy Tissue Processing System, the first dedicated laboratory microwave processing system for transmission electron microscopy specimen preparation. The new system features noncontact, infrared temperature control, built-in magnetic stirring, closed modules for safe containment of toxic vapors, and a touch-screen color terminal. With this system, up to 24 specimens can be fixed and processed from fresh tissue to polymerized resin in capsules in about 3 hours. Steven E. Slap, hackerlab@aol.com

Radiant Detector Technologies, LLC features an excellent, 50mm², resolution Silicon Multi-Cathode X-Ray Detector, (SMCD) typically achieving ~130 eV FWHM at 12µs. At >1 Mcps, at an energy resolution of < 200 eV, FWHM the output count rates are greater than 600 Kcps at 0.25µs. Adapted for SEM and TEM, microanalysis applications, this unprecedented detector operates at near room temperature and is cooled thermoelectrically (NO LN2). It can thus be cycled without degradation in the detector's performance with cool down times < 3 minutes. A unique feature is the ability to process high-count rates with virtually zero loss in resolution and no peak shift with count rate. Contact: Gordon Myers,818-709-2468, www.radiantdetectors.com.

XEI Scientific showed 3 new models of the Evactron® Anti-Contamination systems for removing Organics from SEMs and FIBs. The Evactron 10A-C has a user set timer and automatically adjusts to the correct pressure and RF power for optimum plasma cleaning of any instrument. The Evactron B A-C is a low-cost, manually operated and adjusted model with analog vacuum meter. The Evactron C A-C has a digital vacuum meter and is CE compliant for European sales. All Evactron systems models use the Evactron RF Plasma Anti-Contaminator to make oxygen radicals from air to ash Hydrocarbons out of the vacuum chambers and off specimens. The Evactron is available internationally from distributors overseas. See www.Evactron.com for details.

Minitool, Inc. introduced a new line of Special Stainless Steel Microtools at the Microscopy and Microanalysis 2003 Exhibition in San Antonio, TX in August. These innovative precision instruments are available in sizes from .120mm/.005" to .400mm/.016" in diameter. A wide range of applications include: specimen placement and manipulation in medical research, microscopy, micro-biology, and cell biology. Minitool, founded in 1965, continues to provide the finest in precision, under-microscopy micro-investigatory instruments which are available in high speed steel. stainless steel, micro-grain carbide and tungsten. These tools provide the microscopist with the ultimate in precise and realistically proportioned tools. Contact: Renate Schaller, Minitool, Inc., 408 395 1585, www.minitoolinc.com

INDUSTRY NEWS

Media Cybernetics Inc., the leading analytical image analysis software provider announces an upgrade release of SharpStack. This plug-in module for Image-Pro Plus allows microscopists to obtain clear images from a stack of hazy images. Unlike other deconvolution solutions, SharpStack integrates seamlessly with image capture, 2D processing, analysis, and reporting within Image-Pro Plus. SharpStack's algorithm options include Nearest Neighbor, No Neighbor, Inverse Filter, and Spherical Aberration Correction. For more information about Media Cybernetics, visit www.mediacy.com.

Surface coatings protect materials from corrosion and wear, Soft Imaging System offers a series of solutions for determining the various thickness parameters. The analySIS software has a new add-in. Itm (layer thickness measurement) is a tool for determining layer thickness when analyzing porous or compact coatings. It also provides extremely precise measurement of crack width. Itm measures layer thickness of single and multiple coatings for a cut specimen using the concept of neutral fibers. Neutral fibers predefine the direction of the measurement. Each measurement is executed perpendicular to the user-definable neutral fibers. Straight lines, curves or circles can be neutral fibers. This means that complex coating structures and any modelled surfaces can be evaluated. Itm's full integration into the analySIS® software provides many needed capabilities and advantages for facing various image processing and analysis challenges. New software packages specifically for materials science metallographic applications have been introduced. The analySIS LabFlow package provide image acquisition, archiving and documentation, in compliance with common inspection and lab routines. The software controls motorized microscopes and/or stages, and acquires high quality images with a mere click of the mouse. The analySIS Castiron Solver package analyzes cast iron automatically or manually with regard to shape and size and determines the ferrite/ pearlite ratio in accordance with international and national standards such as EN ISO, JIS or ASTM. Contact: Dr. Mike Bode, Soft Imaging System Corp. (303) 234-92 70 www.soft-imaging.com

LW Scientific, Inc. has two solutions to end your RPM guessing - the Ultra Select and Ultra Tach Centrifuges. The Ultra Select features a 4-position speed dial to select the correct speed for various fluids including: urine, semen, fecals, blood and other fluids. The Ultra Tach features a variable speed dial and built-in digital tachometer to view rotor speed. The 4-position speed dial will ensure fluids will spin at the correct CLIA-recommended speed for complete separations and that cell structures will not be damaged due to excessive g-forces. For more information, log on to: www.lwscientific.com or 1-800-726-7345.

Technical Manufacturing Corporation (TMC) has introduced the TableTop™ A-P, a lightweight, modular vibration isolation system that combines exceptional low-frequency passive isolation with an optional Q-Damp™ active damping module. Its compact design (less than 50 pounds) is portable, and its passive vibration isolation is comparable to TMC's full-size industry standard 63-500 Series high-performance lab table. The patented TableTop A-P Active-Passive High-Performance Isolation System is compatible with TMC's BenchTop Faraday Cage. The newly designed, 40-inch-tall cage includes a baseplate of reinforced stainless steel that supports the compact A-P. The cage also features a "window-shade" type retracting panel and 2-inch diameter holes for cable passage. Contact: Steve Ryan, 978-532-6330 sryan@techmfg.com

Ambios Technology, Inc. announced the introduction of a 400 micron vertical scan range capability to its low cost, high performance stylus profilometers. The XP Series Profilers are designed for precision step height, thin film stress, film thickness, and surface roughness measurements. The extended vertical scan range allows measurements of large steps on a variety of samples including MEMS devices, thick film hybrid semiconductor circuits, glass substrates, microlenses and other optical waveguides, precision machined surfaces, and polymers. The total Z range of 400 microns makes the XP Series Profilers ideal for surface measurements from nanometers to microns. Additional information on Ambios Technology can be found at http://www.ambiostech.com.

Thermo Electron Corporation and HKL Technology have entered a cooperative agreement to combine HKL's CHANNEL 5 Electron Backscatter Diffraction (EBSD) System and Thermo Electron's NORAN System SIX X-ray Microanalysis System, providing an ideal tool for materials characterization. This combined instrument easily determines elemental compositions, microstructures and crystal structures in scanning electron microscopes. Developed by HKL, CHANNEL 5 offers the latest EBSD system, providing a sophisticated combination

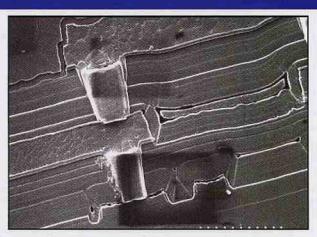
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of speed, accuracy and flexibility: Rapid EBSD data acquisition: up to 200,000 patterns per hour Accurate and reliable pattern analysis for all crystal types Thermo Electron's premier x-ray microanalysis system, the NORAN System SIX offers new high-throughput acquisition and digital beam control electronics, and state-of-the-art x-ray detectors. The NORAN System SIX features a single, unified software program for all acquisition, analysis, and reporting, providing sample-in, knowledge out solutions. As part of the cooperation agreement between the companies, both CHANNEL 5 and the NORAN System SIX will be offered by Thermo Electron.

Thermo Electron Corporation announced release of Version 1.4 software for its world class x-ray microanalysis system at Microscopy and Microanalysis 2002, the NORAN System SIX quickly set a new standard for throughput, ease of use, and comprehensive sample in/knowledge out solutions. Featuring Spectral Imaging for sample archiving, COMPASS statistical analysis software for "pure" component extraction, and a variety of hands-off automatic features that eliminate guesswork and assure data accuracy, the NORAN System SIX uses a single user interface for all analytical modes. NORAN System SIX Version 1.4 includes several new features and options for easy data management, accurate acquisitions, automation, and extended analyses: Project Explorer allows the user easily visualize and manage data in project folders, and quickly move or copy data between projects. Version 1.4 now enables extraction of quantitative x-ray maps and quantitative linescans from elements identified from Spectral Imaging data. Drift Compensation automatically corrects for sample movement during acquisitions. This feature is a life saver for long time acquisitions or acquisitions at high magnifications where sample movement may occur. Feature Sizing measures features, or particles of interest, in electron images of the sample, providing size, shape and chemical type measurements. For more information, contact us at 608-831-6511 or visit our Web site at www.thermo.com/nss.



Carbon **Build-up?**



Scan marks and e-beam induced, organic deposits can hide features during SEM imaging.

The **Evactron**®RF Plasma **Anti-Contaminator** cleans it up

NEW! Evactron® Model 10

Designed for easy cleaning of any SEM or FIB with little operator adjustment. Select a cleaning time (2-5 minutes typical) and partially vent chamber and restart evacuation in roughing mode. When the pressure reaches 0.6 Torr, the Evactron A-C opens an air leak into plasma chamber and a RF plasma makes Oxygen radicals to flow into main chamber to ash organics away. Pressure and RF power are automatically adjusted to optimum cleaning condition at factory preset levels.

- · Removes organics from any source! Specimen born, pump oils, GIS gases, instrument sources, and vacuum accidents.
- Gentle cleaning action is proven safe for EDS and other sensitive windows.

Evactron® Models B & C

Improving on the original Evactron Sem-CleanTM A-C these models have manual pressure and RF control to provide Evactron cleaning at a budget price. Model C is CE marked for Europe.

M&M 2003 Booth 707

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