

NEW PRODUCT NEWS

☎ **Modular Deflection System for 1 to 500 Beam or Positioning Units, Such as Electron or Ion Beam**

Deschutes Corporation (Portland OR) has released a new Modular Deflection System, targeted to the SEM, FIB, laser and piezo drive industry. The new system, which includes an optional scanning unit and an optional Blanking unit, can support up to 500 Electron Columns or Ion Columns.

The support for more than one beam makes the system ideal for integrated FIB/SEM systems, dual beam systems, or systems with arrays of columns, micro-positioners, and/or lasers in any combination.

The modularity of the system also applies to single beam systems very well, allowing 50 MHz positioning within a programmable size field. Vibration cancellation and diagnostics are included.

The system comes with control software implemented as a component that can easily be integrated into other software.

For more information, call (503)443-3602 or visit:
<http://www.deschutescorporation.com>

Circle Reader Inquiry #40

☎ **PreSet System Increases Throughput and Accuracy of Cross-Sectional Analysis by SEMs.**

Surface/Interface designed the PreSet system for cross-section sample prealignment to increase productivity/throughput and accuracy for critical dimension measurements by field emission scanning electron microscopes (FE – SEMs). S/II's Preset system ensures precise 90° alignment of the sample to the electron beam prior to insertion in the SEM. This procedure takes about a minute, replacing a trial-and-error procedure that can take up to 30 minutes.

The 90° alignment is an essential requirement for accuracy to prevent the edge blooming effect in edge-on SEM images. A 5-degree misalignment will result in up to a 10% uncertainty in the measurement. The PreSet aligner system can be adapted to SEMs with limited sample rotation capabilities.

The Analytical Laboratory at Lucent Technologies uses PreSet with a Hitachi 4000. One of Lucent's applications is measuring the width of photoresist lines to determine whether they meet specifications and to ensure that the stepper/resist combination is working correctly. Accuracy is essential for process stability.

The PreSet can also be used for sample prealignment prior to FIB cross-sectioning, where a misaligned sample will cause problems with sputtering and metal deposition. Mounting and demounting to obtain alignment is not desirable, due to the fragility of many samples cross-sectioned by FIB.

For further information contact Judy Ackeret at (408)732-7111 or by eMail: sil@surfaceinterface.com

Circle Reader Inquiry #41

☎ **Molecular Imaging Announces the release of Pulsed Force Mode**

Pulsed Force Mode brings increased flexibility and increased power in polymer analysis to the already superb family of SPM products.

Scientists in research and industry will enjoy the only method available for acquiring data about stiffness, and adhesion, while imaging topography all from a single SPM instrument. Complicated materials such as adhesives, or sticky materials, can be analyzed. Pulsed Force Mode can evaluate and identify phase distribution in blended polymers and microstructural integrity at sub-micron resolution, as well as differentiate between crystalline and amorphous areas in polymers. High resolution imaging is carried out under controlled conditions. Users may also image delicate samples with control of normal forces without lateral force damage to samples.

Molecular Imaging: (800)819-2519, <http://www.molec.com>

Circle Reader Inquiry #42

☎ **"Digital Darkroom" acquires high-quality TEM images.**

FEI Company's new digital imager takes photographs of TEM samples with a quality matching that of the darkroom. The EM208A has a slow-scan CCD camera that generates high-resolution images. These images have many advantages over conventional photographs, for example, by allowing more accurate quantitative intensity measurements, and also by giving better low-dose results. The imager works with all Philips' TEMs, and comes with extensive archiving, imaging and analysis software.

Electrons falling on a scintillator in the EM208S are converted to light that is detected by a slow-scan CCD camera. Image resolution is in the range of 1280 x 1024 pixels, with a pixel size of 7 µm, and a dynamic range of 4096 gray values for a 12-bit deep image. The cameras can capture images at low magnifications, often needed in life science applications.

FEI Company: (503)640-7500, <http://www.fei.com>

Circle Reader Inquiry #43

EMPLOYMENT OPPORTUNITIES

- ☉ **Post Doc Positions:** High resolution *in situ* microscopy. Corrosion, advanced battery, electrochemistry, polymer, materials science, biology-SPM. Several locations: U.S., Japan, Europe.
<http://www.molec.com/jobs/postdoc.html>

USED EQUIPMENT FOR SALE

☎ **JEOL 1200EX and 2000FX TEMs, and an ISI DS130, refurbished,** and with service contracts. For details, call Mark Rigler at (800)421-8451 or email at mrigler@mastest.com.

☎ **MILITARY RESEARCH LAB IS CLOSING** Military contractor is selling at drastically reduced prices its Reichart Polycut S motorized sliding microtome, refrigerated and rotary microtomes, Sorvall ultramicrotome, LKB knife cutter, Gatan Model 600 dual ion mill, stereo microscopes, Perkin Elmer microdensitomer, Joyce Loebel microdensitometer and LECO sulfur analyzer. For specification sheets, call: (202)544-0836.

☎ **Bio-Rad MRC600 Laser Scanning Confocal Microscope Unit.** System includes a krypton/argon mixed gas laser, scan head with associated PC and 2 monitors. This system was formerly attached to a Zeiss IM-35M light microscope. The instrument is in excellent working order and has been kept on comprehensive service contracts since originally installed in 1991 until disconnected from the Zeiss. Suitable for attaching to quality inverted or upright microscope. Please direct all offers to Malcolm Wood, Box MB-32, The Scripps Research Institute, 10550 N. Torrey Pines Rd., La Jolla, CA 92037

☎ **Electron Microscopes and Accessories for Sale:** Philips CM12 TEM with EDAX detector/PV9800 analyzer and Haskris chiller in excellent working condition (9 yrs/\$55K), All parts for Philips EM400 TEM. GATAN 600 dual ion miller with LN2 stage (8 yrs/\$10K), VCR D500i dimpler (8 yrs/\$2K), Olympus optical microscope with Polaroid camera (\$3K), Haskris chiller (10 yrs/\$1K), Haskris chiller (5 yrs/\$3K), EDAX ECON (windowless) detector with PV9800 analyzer (15 yrs/\$2K), Sorvall ultramicrotome with diamond knives – 1 brand new and 2 used (\$4K), All instruments (except EM400) are in excellent working condition. Inquiries: (203)389-6065 or e-mail: ayerr@aol.com