

➤ **FEI Company Introduces the Class 1 Cleanroom-Compatible XL850 Defect Review and Inspection Tool**, a member of FEI's XL800 family of advanced defect review, analysis, and characterization tools. Now the industry's highest SEM imaging performance is achieved in a cleanroom-compatible system with a robot cassette loader. It is specifically designed for evaluation, yield management, and failure analysis applications supporting design rules to 0.18 microns and beyond.

**Cleanroom Compatibility:** The XL850 has dual cassette robotics for Class 1 cleanrooms. The ability to provide inline process monitoring and defect characterization means direct access to critical production and development process information and improved response time. Wafers do not need to be removed from the cleanroom for analysis, so results are immediate.

**Highest Resolution Available:** The XL850 offers the highest resolution available and low voltage operation, with 3 nm resolution from 1 to 30 kV. This performance is achieved even up to a 60° tilted view and at a very short 5 mm working distance. The operator can switch directly between field-free mode - offering large-area, low-magnification images with low distortion levels and large depth of field - and the immersion mode for the highest resolution imaging of sub-quarter-micron features and defects. The new electron column also offers balanced-field, in-lens detection of both backscattered and secondary electrons to provide exceptional topographic detail, down hole visibility, and enhanced grain boundary imaging.

**Simplicity of Operation:** For maximum simplicity of operation plus data integration, the XL850 incorporates predictive software control and a Windows® GUI. New operators can be trained to use it in just a few hours.

The software knows how the column behaves, even when various parameters are changed that affect beam position and intensity. Its multidimensional matrix includes more than a dozen variables, such as how position and focus change with kV, how scan rotation changes with working distance, and how contrast changes with spot size. The system software keeps the defect in the field of view and focused independent of wafer tilt and warp.

**Elemental Analysis:** Wafer SEMs are typically used to inspect and classify large numbers of defects into standard categories. Some defects require characterization with both high-resolution imaging plus EDS analysis for positive identification and classification. The XL850 has integrated EDX analysis, which provides spatial resolution down to 0.3 microns with optimized geometry for light elements and high count rates.

**FEI Company: (503)640-7500, Fax: (503)640-7509**  
**Circle Reader Response #40**

➤ **ASI SensIR Technologies announces the new MicroSAMPLIR™**, a diamond ATR microspectroscopy system, which provides a quick and easy method for analyzing small and challenging samples in a routine fashion. The MicroSAMPLIR is ideal for analyzing small, intractable solids or liquid microvolumes.

The MicroSAMPLIR contains an integral view-thru pressure device which allows for accurate positioning of very small samples and allows the user to verify contact with the sample. Sampling time is less than 1 minute with a dTGS detector. Samples analyzed to date include single hair fibers, single drug crystals, single paint chips and polystyrene beads for combinatorial chemistry applications. The viewing assembly raises for easy cleaning of the pressure tip and diamond element.

The MicroSAMPLIR is created by adding a ViewIR™ to either the standard DuraSAMPLIR or the DuraSAMPLIR-EL. DuraSAMPLIR technology is ideal for demanding qualitative and quantitative analysis as recalibration due to crystal damage and replacement is no longer a concern.

**ASI SensIR Technologies: (203)852-0112, Fax: (203)852-0730**  
**Circle Reader Response #41**

➤ **Burleigh Instruments introduces the Vista-100**, the first large sample SPM with a small footprint. The space saving design is enabled by an innovative mechanical design, and by integrating the SPM controller into the computer chassis. Laboratory instrument space is at a premium nowadays and the Vista-100 has the smallest footprint of any large sample SPM sample module and a controller that is full integrated into a standard Pentium™ computer tower.

The instrument is designed to accept samples of up to 6" x 6" x 1" (150 x 150 x 25 cm) onto the manual X-Y stage. The translator and support block can be easily removed without the use of tools, allowing the VISTA to accommodate samples up to 11" (280 mm) in width and 4" (100 mm) in height.

Since the 32-bit VISTA SPM software operates under Windows 95 and is compatible with standard network environments, printers and productivity software, incorporation and distribution of the results is easily accomplished, greatly enhancing user efficiency.

The VISTA-100 delivers the features and functions found on other commercially available large sample SPMs at about half the cost.

**Burleigh Instruments: (716)924-9355, Fax: (716)924-9072**  
**Circle Reader Response #42**

#### 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 JSM-U3 Scanning Electron Microscope** with secondary and backscattered electron imaging. Instrument has been refurbished and is in excellent working condition. Has rebuilt rotary vacuum pumps and parts are still available for this microscope. Comes with a Nuclear Diodes EDX detector that is non-functional, but can be refitted to be operational, video monitors and complete maintenance history. Asking \$6,000.00. Call Don Kierstead, Akron Rubber Development Laboratories, (330)794-6600, or e-mail: [donk@ARDL.com](mailto:donk@ARDL.com)

➤ **Philips EM-400T-FEG (field emission gun) TEM complete with EDAX ECON detector, EDAX PV 9800 analyzer, STEM (PW6585) unit and air cooled water chiller.** Also available: **Edax detector (with Be window) and Edax 9900 analyzer.** All items are in good working condition. For details call: (203)389-6065 or FAX (203)387-3574.

➤ **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 microdensitometer, Joyce Loebel microdensitometer and LECO sulfur analyzer. For specification sheets, call: (202)544-0836.

