

ProductNews

New Xradia 810 Ultra X-ray Microscope Extends the Reach and Value of 3D Imaging for Science and Industry



Using a series of technical innovations to achieve better contrast, and in turn faster acquisition, the new ZEISS Xradia 810 Ultra optimizes the business case for XRM in both science and industry. Operating at 5.4 keV, the instrument offers the only lab-based non-destructive imaging solution to achieve resolution down to 50 nanometers.

Carl Zeiss X-ray Microscopy, Inc.
www.xradia.com/?page_id=798?Product=810

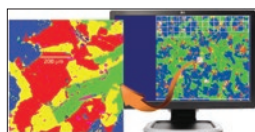
MIC-2500 Manual XY Stage with Micrometer Positioners



The MIC-2500 Manual Stage features spring-loaded micrometer positioners that push under tension for very precise and repeatable positioning. Mitutoyo micrometer heads have the following specifications: range: 0–25 mm; accuracy: $\pm 3 \mu\text{m}$; graduations: 0.01 mm, 0.001 mm, and .001" or .0001"; and spindle pitch: 0.5 mm, with a hard chrome-plated surface. The MIC-2500 stages have low drift with variations in temperature. Typical values range from $0.5 \mu\text{m}/^\circ\text{C}$ for the X axis and $0.25 \mu\text{m}/^\circ\text{C}$ for the Y axis.

Applied Scientific Instrumentation
www.asiimaging.com

Oxford Instruments Goes BIG at M&M 2013



Oxford Instruments launched four new modules for its AZtec Microanalysis System. The new modules are: "AZtec Large Area Mapping" that enables the unattended collection of high-resolution images and maps. "Up to four X-Max^N detectors" can now be used in parallel. In the new "Image Registration" module, AZtec can take control of the microscope stage to seamlessly relocate to a previously registered point of interest. Finally, a new and patent pending "Refined Accuracy" algorithm was launched.

Oxford Instruments plc
www.oxford-instruments.com

MAIA—A New High-Resolution Field Emission Scanning Electron Microscope from TESCAN



The MAIA FESEM delivers best-in-class high-resolution performance, ease of use by design, and unparalleled throughput for the most challenging materials. True to all TESCAN electron microscopes, the MAIA FESEM provides the most analytical and scanning mode flexibility with no compromises. Various chamber designs allow full customization for specific application requirements. MAIA incorporates numerous electron optical schemes contributing to outstanding low-voltage performance and flexibility down to 50 volts.

TESCAN USA
www.tescan-usa.com

The New Venus Series from Plasma Etch, Inc.



Plasma Etch introduced The Venus Series to its line of lost-cost plasma cleaners. Designed for Universities and R&D as well as production facilities, this new, innovative series offers many capabilities not found in other systems in the same class. The Venus is the only system in its class with fully automatic system control and process-sequencing capabilities. Our proprietary software enables advanced features, such as multiple recipe storage, data logging/trending, events/alarms, and multi-step sequencing.

Plasma Etch
www.plasmaetch.com

Lumen Dynamics Introduces the New X-Cite® 120LED



X-Cite® 120LED brings a completely new perspective to LED illumination with its innovative thermal management design, allowing direct coupling to the microscope for maximum power without adding mechanical vibration. An electronic shutter provides fast, sub-millisecond operation enabling extreme precision in vibration-sensitive imaging experiments. Featuring multiple control options for greatest flexibility, 120LED offers complete automation for multi-day time-lapse experiments and simple ergonomic manual control via speedDIAL.

Lumen Dynamics
www.LDGI.com

FEI Introduces Two New DualBeams for Materials Science



FEI introduced two new DualBeam systems that feature innovative detection suites that provide high-quality imaging and fast analysis over the broadest range of samples. The new Scios™ DualBeam™ is specifically positioned for fast two-dimensional (2D) and three-dimensional (3D) characterization. The Helios NanoLab™ 660 DualBeam adds capabilities for specialized applications, such as the fabrication of prototypes for nanometer-scale devices. These two new DualBeams join FEI's Versa 3D™ system, configurable for dynamic experiments.

FEI Company
www.fei.com/products/dualbeams

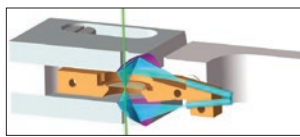
New 2.8-Megapixel CCD Cameras from JAI



JAI introduced the EL-2800M-PMCL and EL-2800C-PMCL, a pair of 2.8-megapixel industrial camera models incorporating high-fidelity ICX674 CCD imagers from Sony, featuring EXview HAD CCD II technology. The cameras are the first models in JAI's new Elite Series of high-fidelity industrial cameras designed for applications where image quality is paramount. The EL-2800 cameras deliver excellent sensitivity, improved NIR response, reduced smear, higher quantum efficiency, and large image uniformity with minimal shutter leakage and readout noise.

JAI, Inc.
www.jai.com

Vulcan™ Cathodoluminescence Detection and Analysis for Scanning TEMs



Gatan has launched Vulcan: new capability to access cathodoluminescence in the STEM. CL offers unique insights into the luminescence properties of materials by

capturing and analyzing the low-energy photons emitted by many specimens when interacting with a high-energy electron beam. High-energy resolution spectroscopy and STEM resolution mapping are available. Vulcan can be used in conjunction with most standard imaging and analytical techniques including EELS and is compatible with most mainstream instruments sold today.

Gatan, Inc.
www.gatan.com

New Extended-Pressure SEM from JEOL



JEOL introduces a new Scanning Electron Microscope with expanded pressure range, large specimen chamber, and unsurpassed resolution for imaging and characterizing a wide variety of sample types and sizes. The JSM-IT300LV is the latest addition to JEOL's popular series of tungsten

low-vacuum SEMs. This all-new design builds upon the award-winning platform of the company's InTouchScope™, analytical SEM with intuitive touch screen control, and the widely used high-performance analytical SEM, the JSM-6610LV.

JEOL USA
www.jeolusa.com

TEC Microscopes Announce the MICROTEC ScopePad 5-Megapixel Digital Microscope Camera



TEC Microscopes, suppliers of the MICROTEC range of light microscopes and accessories, announced the MICROTEC ScopePad, a 5-megapixel digital microscope camera combined with a 9.7-inch display screen. It provides digital imaging, storage, and transmitting and is equipped with stable, easy-to-use software. The camera has a 1/2.5 CMOS sensor offering 5 megapixels with selectable resolution, for example it may capture images at thirty frames per second at full resolution.

TEC Microscopes
www.tecmicroscopes.co.uk

Automated UV-Visible-NIR Spectroscopy of Microscopic Features with the 20/30 PV™



CRAIC Technologies introduced the automated version of the 20/30 Perfect Vision™ UV-visible-NIR microspectrophotometer. This system is fully programmable with touch-screen controls so that it can automatically analyze microscopic samples with UV-visible-NIR spectroscopy and microscopy. Imaging and spectroscopic analysis of samples can be done by

absorbance, reflectance, and fluorescence from the deep UV to far into the near infrared. The 20/30 PV is a cutting-edge microanalysis tool for any laboratory or manufacturing facility.

CRAIC Technologies, Inc.
www.microspectra.com

Hitachi SU8200 Series Ultimate Cold Field Emission SEM



Hitachi's next-generation CFE-SEM offers low-voltage imaging and comprehensive analytical microanalysis with the uncompromised performance of CFE. The SU8200 Series CFE-SEM employs a novel cold-field emission gun for improved imaging and analytical performance.

New Source and Detection Technology from Hitachi features: increased probe current for S/N and analytical performance, unparalleled imaging throughput with improved CFE beam stability, enhanced deceleration and selective energy filtering providing fine-contrast differentiation at low accelerating voltages.

Hitachi High Technologies America, Inc.
www.hitachi-hita.com

FEI Introduces Three New TEM Systems



FEI introduced three new systems that tailor the power of transmission electron microscopy (TEM) to specific application and industry needs. The new systems provide efficient and effective application-specific workflows for

semiconductor manufacturing and scientific research. They include the new Metrios™ TEM for advanced semiconductor manufacturing metrology, Talos™ TEM that provides high-speed imaging and analysis for materials and life sciences applications, and the Titan™ Themis™ TEM for enhanced atomic-scale measurements of material properties.

FEI Company
www.fei.com/tembyfei

Z-Axis Piezo Elevator Stage Made for Microscope Integration

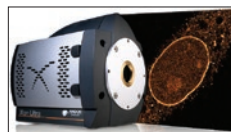


piezosystem jena is proud to present the PZ 250 SG Z-axis piezo elevator stage designed for highly precise positioning of probes and components under a

microscope. The PZ 250 SG consists of a bottom plate prepared according to the microscope stage footprint size making integration easy. One footprint is made for the NIKON LV 3x2 microscope stand series and the second is for the Marzhauser Scan 100x100 stage. Other footprints are available on demand.

piezosystem jena
www.piezo-usa.com

Andor Launches Optically Centered Crop Mode for Live Cell Super-Resolution Microscopy



Andor Technology plc announced the launch of their Optically Centered Crop Mode on the market-leading iXon Ultra EMCCD platform. This offers extremely fast frame rate performance from Regions

of Interest Available on the iXon Ultra 897 camera, a camera that is already inherently speed-boosted through overclocking of the sensor. The new Optically Centered Crop Mode facilitates centrally located ROI performance that significantly outstrips that available through conventional ROI means.

Andor Technology plc
www.andor.com/ixonultra