ProductNews

The Gatan Precision Ion Polishing System II

The PIPS™II incorporates the patented Whisperlok® with the *X*,*Y* positioning stage for precise centering of the milling target. The PIPS™II incorporates a 10-inch touch screen for ease of use and increased control and reproducibility of the milling process. The Digital Zoom Microscope monitors the polishing process in real time, and the color images can be stored in Gatan's Digital Micrograph® software for review and analysis while the sample is in the TEM.

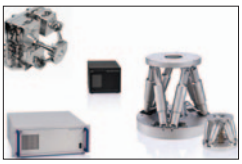
Gatan, Inc.
www.gatan.com/products/specimen_prep/products/695_PIPSII.php

New Automated Plasma Cleaner Turns Heads with Quality and Price

Plasma Etch, Inc. released the PE-25-jw. It has a low starting price of $6900. Equipped with PLC control, the system comes with a single gas channel and has the option of a second. It is fully automated. The system is the smallest of the Plasma Etch, Inc. line of plasma cleaners and holds true to the Plasma Etch, Inc. reputation as being durable, reliable, and having consistent, repeatable results.

Plasma Etch, Inc.
www.plasmaetch.com

Robotic Nano Positioning Systems Have Applications in Many High-Tech Fields



PI (Physik Instrumente) LP provides a complete line of highly accurate 6-axis robotic parallel positioners (Hexapod/SpaceFAB) for advanced applications in fields as diverse as bio/nano-technology, aerospace, medical technology, and lasers/photonics. In a hexapod positioner, all six actuators always work together, affecting the common motion output platform. This design principle increases the stiffness while reducing the size and the moving mass significantly.

PI (Physik Instrumente) LP
www.pi-usa.us

Olympus Launches IX3® Microscope Series

Olympus has premiered its IX3® line of inverted research microscopes. The systems offer precision, stability, and optical performance to meet the most challenging quantitative measurement applications. Newly introduced are the IX83, a fully automated high-end research microscope platform; the IX73 modular microscope system that can be configured in manual, semi-motorized, or motorized versions to benefit an extraordinary range of research applications; and the IX53 system microscope, designed for quick and efficient routine examination of multiple tissue samples.

Olympus America Scientific Equipment Group
www.olympusamerica.com/ix3

FERA 3 Plasma FIB-FESEM Workstation

TESCAN has introduced the FERA3 XMH Plasma FIB-FESEM workstation. In addition to the electron and ion column, the FERA3 can be configured with EDS, EBSD, a gas injection system, and a wide variety of detectors. True to form of all TESCAN products, the FERA3 provides flexibility and can be customized according to end users' specific requirements. The use of a Xenon plasma source for the focused ion beam allows for ultra-fast removal rates of material.

TESCAN USA
www.tescan.com

FEI Announces New Titan ETEM G2: Imaging Dynamic Processes at the Atomic Scale

FEI released the new Titan™ ETEM G2—an environmental transmission electron microscope that enables time-resolved, *in-situ* studies of processes and materials exposed to reactive gases and elevated temperatures. Developers of energy and environmental products, such as catalysts, fuel cells, and nanomaterials, can use the Titan ETEM G2 to study the relationships between structure and performance by observing atomic-scale processes and gas-solid interactions.

FEI Company
www.fei.com/ETEM

Bruker Announces Dimension FastScan Bio AFM for Biological Dynamics

The design of the FastScan Bio system has resulted in a fast scanning AFM that allows temporal investigation under physiological operating environments in fluid while exceeding the diffraction limits of optical microscopy. The user interface offers significant strides in ease of use and productivity for biologists. The combination of these and other innovative features makes FastScan Bio the first commercial AFM that can provide temporal resolution in frames-per-second for live biological sample observations.

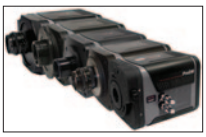
Bruker Corporation
www.bruker.com

Carl Zeiss Reveals High-Definition FE-SEM SIGMA HD

The high-definition Field Emission Scanning Electron Microscope SIGMA HD offers customers high resolution, fast imaging, and easy sample navigation for nanoscale analytics in addition to the performance of the established SIGMA series. It incorporates advances in electronics, detectors, and chamber design for imaging resolution as small as one nanometer. It is available in both high-vacuum and variable-pressure modes of operation. Finally, a 5-axis eucentric stage makes navigation around even large samples easy.

Carl Zeiss Microscopy, LLC
www.zeiss.com/sigma

The Next Generation of Professional-Grade EMCCD Cameras



Princeton Instruments announced the launch of its ProEM+ series of professional-grade EMCCD cameras for scientific imaging and spectroscopy applications. These cameras deliver unprecedented sensitivity, temporal resolution, and quantitative stability in very low-light applications. ProEM+ cameras are available in four different pixel formats: 512 × 512 or 1024 × 1024 for imaging, and 1600 × 200 or 1600 × 400 for spectroscopy. The new cameras provide ~95% peak quantum efficiency as well as single-photon sensitivity via built-in EM gain functionality.

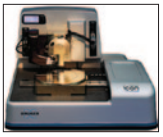
Princeton Instruments
www.princetoninstruments.com

TENGRA–Universal 5.3-Megapixel Bottom On-Axis TEM CCD Camera

The TENGRA combines high resolution, high sensitivity, superior contrast, and a large field of view. This makes the TENGRA the ideal choice for all materials and life science applications. With supreme image quality, high frame rates, fast navigation tools, and various saving options, the camera meets the highest quality demands and covers all market needs. The TENGRA camera comes with a 2:1 fiber-optical taper, resulting in an effective pixel size of 18 μm^2.

Olympus Soft Imaging Solutions GmbH
www.soft-imaging.net

Bruker Introduces New Nanoelectrical AFM Mode



Bruker's new PeakForce Kelvin Probe Force Microscopy mode for its line of atomic force microscopes uses frequency-modulation detection to provide the highest spatial resolution Kelvin probe data. It builds on Bruker's exclusive PeakForce Tapping™ technology, which improves the sensitivity of the frequency-modulation measurement and eliminates artifacts. In addition, PeakForce KPFM provides a completely automated parameter setup with ScanAsyst®. The result is a significant improvement in quantitative surface potential data for materials research as well as semiconductor applications.

Bruker Corporation
www.bruker.com

New EXpress^X—the Fastest Automated Bench-Top SEM

ASPEX has launched its EXpress^X SEM. Powered by OmegaMax technology, which combines the energy dispersive X-ray (EDX) detectors and SEM in a single unit, EXpress^X offers dramatic gains in both sensitivity and productivity—at an affordable cost. EXpress^X operates on customizable Perception 2 software and provides meaningful reports, with an easy-to-use graphic interface. EXpress^X speeds the detection, identification, and characterization of contaminants and defects for research and manufacturing applications.

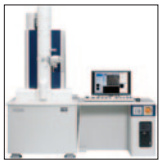
ASPEC Corp.
www.aspexcorp.com

FEI Launches New Helios NanoLab HP Platform for High-Productivity TEM Sample Preparation

FEI announced new Helios NanoLab™ DualBeam™ systems. The 450HP and 1200HP DualBeam systems include a new capability that meets the critical requirements for semiconductor process development at the 28 nm device geometry node and below. The Helios NanoLab 450HP and 1200HP DualBeam systems can prepare 15 nm thick samples with less than a 2 nm damage layer in 90 minutes, two times faster than competitive alternatives. iFast™ automation software maximizes ease-of-use.

FEI Company
www.FEI.com/TemPrep

Hitachi Introduces HT7710 BF/DF STEM for Nanoscale Analysis



Expanding the HT7700 experience, Hitachi offers BF/DF STEM imaging at 40–120 kV and 100× to 800,000× magnification. The innovative HT7710 BF/DF STEM features high-resolution STEM for lattice imaging and nanoparticle analysis as well as low magnification/wide field of view for bulk crystal structure/orientation. All of the necessary STEM operations are conducted through the main HT7710 GUI, creating a clean and user-friendly operation panel.

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

Photometrics® Launches the Next Generation of Scientific CCD Cameras

Photometrics introduces the CoolSNAP™ MYO and the CoolSNAP™ KINO CCD cameras. Designed to discern finer details in biological samples under lower light levels, the MYO and KINO enable scientists to achieve higher quality and higher-resolution images than previous CCD technology. Packing twice as many pixels (2.8 M) with a 15% improvement in peak quantum efficiency (75%), the MYO and KINO offer scientists the ability to visualize much finer details at much higher sensitivity.

Photometrics
www.photometrics.com

Thermo Fisher Scientific Launches Expanded and Improved UltraDry Silicon Drift Detector for NORAN System 7 X-Ray Microanalysis System

Thermo Fisher Scientific Inc. announced the new Thermo Scientific UltraDry silicon drift X-ray detector offering faster, more accurate interpretation of X rays for industries such as metals and mining, advanced materials, and semiconductors. The new detector further improves the performance of the widely acclaimed Thermo Scientific NORAN System 7 X-ray Microanalysis System. The UltraDry detector achieves a spectral resolution of 123 eV at Mn-Kα.

Thermo Fisher Scientific Inc.
www.thermofisher.com