

ProductNews

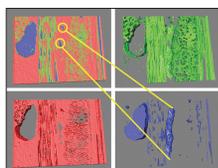
FEI's New Themis Z S/TEM



FEI's new Themis™ Z scanning/transmission electron microscope is an automated STEM that offers improvements in system stability and automated tuning routines that allow the Themis Z to reproducibly deliver high image resolution at high and low beam energies in both STEM and TEM mode. A portfolio of energy dispersive x-ray (EDX) systems allows users to configure their system. The new iDPC detector uses up to 90 percent of transmitted electrons to offer higher sensitivity to lighter elements.

FEI Company
www.fei.com/themis-z

Robo-Met.3D: 3D Material Characterization, a UES Product



Robo-Met.3D is an automated serial sectioning system generating 2D microstructural data for 3D characterization. High-resolution three-dimensional investigation of: grain size, grain shape, porosity, pore interconnectivity, cracks, and failure points. Robo-Met.3D applications include: petrology porosity analysis, aerospace

materials characterization, automotive cast components, and coatings analysis. As demonstrated in the image, relying on 2D image analysis would have resulted in miscalculating porosity by more than 50%.

UES, Inc.
UES.com

Introducing ZEISS Xradia Versa with FPX for Extended "Scout and Zoom" Imaging



The new ZEISS FPX flat panel extension for the ZEISS Xradia Versa 500-series of 3D x-ray microscopes delivers large-sample, high-throughput scanning. ZEISS Xradia Versa with FPX enables engineering, development, and researchers to scout large samples 2–5× faster to identify a region of interest and

then zoom to image areas at high resolution with the exclusive ZEISS Xradia Versa RaaD dual-magnification microscope objectives that enable resolution at a distance.

Carl Zeiss Microscopy
www.zeiss.com/microscopy

Cooling Cross Section Polisher with Air Isolation



JEOL offers a new Cooling Cross Section Polisher for preparation and polishing of SEM samples of materials that are sensitive to exposure to air or thermal damage. The CCP allows long cooling periods while conserving liquid nitrogen. An isolation and transfer system allows processing to be

performed without exposure to air. This addition to JEOL's suite of sample preparation instruments is based on the JEOL Cross Section Polisher that uses a broad Argon beam for polishing.

JEOL USA Inc.
www.jeolusa.com

EDAX Introduces New Silicon Drift Detectors



EDAX is now offering two new detectors for its Octane Elite Silicon Drift Detector Series. The Elite Plus and Elite Super detectors both include new, cutting-edge electronics and advanced sensor designs with multi-channel architecture that ensures the fastest acquisition rates, high collection efficiency, and unmatched throughput levels and performance. They include the next generation of CMOS preamplifiers, based on widely praised CUBE technology, which offers low noise at high count rates.

EDAX, Inc.
www.edax.com

TESCAN Increases UH Resolution in the New Triglav™ Column



TESCAN, a global company in the field of charged particle optics, is releasing Triglav™, the next generation of its ultra-high resolution (UHR) electron column technology with significant improvement in quality imaging and analytical capabilities. The Triglav™ column—equipped with unique electron optics and a robust detection system—achieves uncompromised ultra-high resolution for resolving nano-sized features in samples and provides enhanced surface sensitivity and image contrast at low beam energies.

TESCAN ORSAY HOLDING, a.s.
www.tescan.com

EDAX Pairs Element Silicon Drift Detector with New APEX Software Package for Tabletop Scanning Electron Microscopes



EDAX, Inc. introduced new APEX Analysis software for its Element Silicon Drift Detector for tabletop SEMs. The APEX software package for Element was developed with a primary focus on industrial needs and ensures high-end results, combined with ease of use. Built on new quantification algorithms, APEX accelerates and simplifies compositional analysis and delivers high-quality data processing with accurate and reliable results.

EDAX, Inc.
www.edax.com

Advanced Software Package Designed to Reduce Sample Analysis Time for Analytical Microscope Users



Analytical microscope users conducting research and routine analysis can now perform more comprehensive and efficient microscopic studies on complex samples using a new x-ray microanalysis software package that complements electron microscopy imaging instruments. Thermo Scientific Pathfinder X-ray microanalysis software is designed to process incoming data from X-ray detector technology and provide a real-time statistical map of the chemical constituents within a sample.

Thermo Fisher Scientific
www.thermofisher.com/pathfinder

Park Systems NX20 300mm Research Atomic Force Microscope



Park Systems announced Park NX20 300 mm, the first and only research AFM on the market capable of scanning the entire sample area of 300 mm wafers using a 300 mm vacuum chuck with system noise level below 0.5 Å RMS. The automated measurements over a 300 mm wafer dramatically improve user convenience and

productivity in the industrial lab setting where comparisons within site-to-site and sample-to-sample surface morphologies (height, surface roughness measurements) are extremely important.

Park Systems, Inc.
www.parkafm.com

New Basler PowerPack with Microscopy pulse 3.3 MP



Basler has launched an additional Basler PowerPack for Microscopy and an enhanced version of Basler Microscopy Software. The new PowerPack includes the Microscopy pulse 3.3 MP camera, which offers impressive image quality as well as an attractive sensor format. With its 4:3 sensor format, the pulse 3.3 MP fits perfectly to the image circle of

a microscope. With its CMOS sensor by Aptina, this pulse model reaches up to 20 frames per second.

Basler AG
www.baslerweb.com/MicroscopyPowerPack

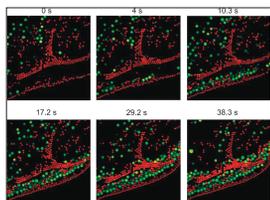
New Automated Infrared Microscope Provides a Macro View on Micro Analysis



Shimadzu Scientific Instruments (SSI) announces the release of the AIM-9000 infrared microscope. With automated analysis functions and an enhanced wide field camera option, the microscope enables analysts of all experience levels to observe, measure, and analyze micro samples quickly and efficiently. Laboratories can use this microscope system to perform high-sensitivity analysis in fields such as electrical/electronics, forensics, pharmaceuticals, life science, foods, and chemicals.

Shimadzu Scientific Instrument
www.ssi.shimadzu.com

rapidFLIM – Redefining The Standards For Dynamic FLIM Imaging



PicoQuant introduces rapidFLIM, a novel, dynamic fluorescence lifetime imaging (FLIM) method, along with practical applications. The rapidFLIM approach allows image acquisition with more than 10 to 15 frames per second (depending on sample brightness and image size), thus opening the way for studying dynamic

processes in living cells or other materials. It is ideally suited for observing fast processes, like protein interactions, following highly mobile species including cells, moving organelles, or nanoparticles.

PicoQuant GmbH
www.picoquant.com

FEI Introduces New Talos S/TEM for Life and Materials Sciences



FEI's new Talos™ L120C transmission/scanning transmission electron microscope for life and materials sciences. It provides the high-resolution, 3D imaging and analysis capabilities of an S/TEM, yet is designed to enable all users to access excellent scientific results regardless of their microscope experience. It offers a completely updated design that incorporates well-proven, advanced technologies from FEI's high-end Titan Krios™ and

Themis™ S/TEM families to improve performance and usability in laboratories with multiple users.

FEI Company
fei.com/Talos-L120C-for-Materials-Science or fei.com/
Talos-L120C-for-Life-Sciences

High-Load Piezo Stage for Vertical Positioning

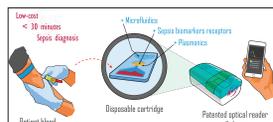


Nanopositioning high loads or requiring large travel ranges can be a difficult task. attocube's ECSz5050 piezo drive has been especially developed to meet these demands: it offers an orientation independent force of 8 N over a travel

range of 8 mm, without adding to the small footprint of the ECSz5050 series (50 mm²). The ECSz5050 can be easily combined with the whole range of rotators, goniometers, and linear positioners of attocube's Industrial Line portfolio.

attocube systems AG
www.attocube.com

New Compact Microscope to Tackle Sepsis



A group of European scientists, coordinated by the Photonics Public Private Partnership, invented a new compact microscope. It can simultaneously detect more than one million biomarkers. By sending polarized beams of light through birefringent crystals and a cartridge containing a blood drop and an array of receptors, the system is able to detect the interaction of light with the bacteria or proteins captured by the receptors. The intensity of the transmission image is then analyzed to provide the physician with an accurate detection of "what" and "how much" bacteria or proteins are present.

Photonics21 is the European Technology Platform (ETP) for photonics
www.photonics21.org/index.php

Compact, Lightweight, Visible Range Spectrophotometer



Biochrom manufactures scientific instruments for applications in the clinical, life science, and industrial market. Biochrom is pleased to announce the release of two new products to the Libra Visible Spectrophotometer Range, the Libra S4+ and S6+ spectrophotometers. The new Libra

spectrophotometers are ideal for education and QC laboratories. Both models are compact, lightweight, and ergonomically designed. They also each include a large display that is easy to read and a simple user interface for rapid set up and analysis.

Biochrom is a wholly owned subsidiary of Harvard Bioscience, Inc
www.biochromspectros.com