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Product News

New Widefield Confocal Microscope ZEISS Smartproof 5 for Industrial Applications.



The new ZEISS Smartproof 5 widefield confocal microscope system provides 3D reconstructions and roughness measurements for a wide range of work piece surfaces. The integrated and robust design of ZEISS Smartproof 5 offers the option of installing and running it

in different working environments without additional anti-vibration equipment. The optics, electronics and camera are all embedded in the microscope with the number of cables minimized to eliminate clutter.

ZEISS Microscopy www.zeiss.com/microscopy

Microscope Stage for Precision Mapping of Large Samples.



The H105 ProScan Microscope stage is designed for precision mapping of large specimens including scanning of a wide range of semiconductor wafers (up to 150 mm / 6 inches), photo masks,

printed circuit boards, etc. Delivering precise motorized movement in steps as small as 0.04 microns, the H105 stage is adaptable with a variety of sample holders, and the stage can be used with many of the larger upright microscopes or optical systems.

Prior Scientific Instruments Ltd www.prior.com

Cameca Launches Two New Ultra-High-Sensitivity SIMS.



Specifically developed to address the growing demand from environmental and geo scientists for small-scale, *in-situ* isotopic measurements at high precision and productivity, the **IMS 1300**-HR3 is the latest generation

of CAMECA's large geometry magnetic sector SIMS design. It offers the scientific community a unique combination of high reproducibility, spatial resolution, and mass resolution. KLEORA, which is derived from the IMS 1300-HR3 and released simultaneously, is a fully optimized ion microprobe for advanced mineral dating.

CAMECAa unit of AMETEK Inc. cameca.info@ametek.com

RMC-Boeckeler AmbiTome PC-Controlled Ultramicrotome.



The RMC-Boeckeler AmbiTome PC-controlled ultramicrotome features dual-hand wheels that allow users to operate the equipment with either hand. Having this choice typically frees the dominant hand for the more intricate task of manipulating sections. The AmbiTome features a high-stability, zero-backlash cutting arm drive system; a high-precision, manually operated knife stage; an ergonomic photo stereomicroscope system with constant radial

focus; an eucentric tilt control adjustment with unique "Scan and Tilt" control; and more.

RMC-Boeckeler www.rmcboekeler.com

Protochips Releases Newly Developed Fusion System.



Protochips announced the release of FusionTM a multi-functional heating and electrical system for *in-situ* electron microscopy. Fusion offers scientists the ability to study and image materials at elevated temperatures with electrical biasing, or both heating and electrical, using one universal TEM or SEM holder. Fusion was engineered

to provide superior thermal uniformity, ultra-low drift, and attoamp electrical sensitivity. The large family of available inter-changeable E-chipsTM sample supports means research possibilities are infinite.

Protochips www.protochips.com/products/fusion

EDAX Launches SMX-ILH Process Metrology PlaTFORM.



EDAX Inc. launched the XLNCE SMX-ILH, the latest XRF analyzers for rapid, non-destructive coating thickness and composition analysis. The SMX-ILH process metrology system is an in-line process metrology tool capable of integration into a production conveyor system or manual loading. Like the SMX-BEN bench-top

analyzer, it is able to quickly and easily measure the thickness and composition of simple to complex multi-layer coatings and metal treatments as well as the composition of bulk materials.

EDAX is a unit of AMETEK, Inc. www.edax.com

FEI Launches Three New Tools for Next-Generation Semiconductor Manufacturing.



FEI announced the release of three new tools for process control and defect/failure analysis in advanced semiconductor manufacturing. Two of the tools are specifically targeted at the 7 nm node. The Helios[™] G4 DualBeam EXL is a flexible, full-wafer, in-lab or in-fab DualBeam system. The Metrios[™] DX TEM incorporates new high-speed X-ray compositional analysis to improve defect analysis throughput. The ExSolve[™] 2 WTP is a dedicated,

automated full-wafer DualBeam TEM sample preparation system.

FEI Company

fei.com/advanced-semiconductor-manufacturing

"Two-in-One" Transilluminators Provide Both Ultraviolet and White Light Illumination.



The advanced Spectroline[®] Bi-O-Vision[™] Series transilluminators feature two workstations, producing both 312 nm ultraviolet and white light. The TD-1000R model offers fixed-intensity while the TVD-1000R model offers variable-intensity control of either UV or white light. These units are continuously

adjustable from 100% down to 50%. This enables researchers to select medium-wavelength ultraviolet or white-light illumination to view fluorescent gels or visible blots with a filter area of $8^{\circ} \times 8^{\circ}$.

Spectronics Corporation www.spectroline.com

50 Microscopy today

Andor Launches Dragonfly – A High-Speed Confocal Imaging Platform.



Andor announced the launch of Dragonfly, a high-speed confocal imaging platform supporting multiple high-contrast imaging techniques. Dragonfly integrates Andor's industryleading cameras with patented illumination technologies, and optimized optical design, to deliver outstanding

image quality characterized by: low noise, wide dynamic range, high resolution, and exceptional sensitivity. The Borealis Perfect Illumination DeliveryTM system provides exceptional stability, uniformity, and spectral range, extending into the NIR region, where autofluorescence can be largely avoided.

Andor Technology, an Oxford Instruments company www.andor.com/microscopy-systems/dragonfly

Daybook Quality System, the First Complete Solution for Diagnostic and Quality Control of Fluorescence Microscopes.



Daybook Quality System combines the most stable diagnostic hardware and efficient image processing software to provide a quick and reliable quality management solution for fluorescence microscopes. This solution replaces a set of diagnostic tools by a single

multifunction tool that allows one to automatize the quality control process of equipment. Hence, 5 minutes with Daybook Quality System equals one hour with a series of different tools.

Argolight www.argolight.com

Unique 16-LED Wavelength Illumination for Microscopy.



The CoolLED pE-4000 is designed specifically with microscopy core facilities and high-end researchers in mind. CoolLED's pE-4000, delivered with 16 wavelengths from 365 nm to 770 nm, means there is never a compromise when selecting the wavelength to use. With its unique patent-

pending wavelength grouping concept, there is always a combination suitable for your sample and your filter sets whether it's something "everyday" such as DAPI/FITC/TRIC/Cy5 or something more exotic such as CFP/YFP/RFP/Cy7.

CoolLED www.coolled.com

FEI Launches Helios G4 DualBeam Series for Materials Science.



FEI launched the Helios[™] G4 DualBeam Series for materials science, offering highly automated and precise sample preparation for transmission electron microscopy (TEM) and three-dimensional sample characterization. The Helios G4 features FEI's most advanced scanning electron microscope (SEM) and focused ion beam (FIB) technology with a new level of automation and ease-of-use. The Helios G4 DualBeam Series also includes the FX model—a flexible system that delivers dramatic sub-three Ångström STEM resolution.

FEI Company www.fei.com/products/dualbeam/helios-nanolab

5D Hyperspectral Mapping with Microscopic Spatial Resolution.



CRAIC Technologies announced 5D Hyperspectral MappingTM capabilities for its UV-visible-NIR and Raman microspectrometers. 5DMTM gives CRAIC microspectrometer users the ability to map the spectral responses across of surfaces of their samples by point scanning. With microscopic

spatial resolution between each point, high-resolution maps may be created representing all three dimensions, the two axes of the spectra, and of time. These represent the five dimensions, hence the 5D Hyperspectral MappingTM name.

CRAIC Technologies, Inc. www.microspectra.com

The New HS1500 Stage from Linkam is Ideal for Volatile Emitting Samples At Ultra-High Temperatures.



Linkam high-temperature stages are used in a wide variety of applications. When some samples are heated to high temperatures, they can release volatile components that condense on the window, obscuring the optical path. To

overcome this, Linkam engineers have developed a simple but extremely effective solution. The new HS1500 stage incorporates a large window that can be rotated to move a clear area into the optical path.

Linkam Scientific Instruments Ltd. www.linkam.co.uk

Microscope Stage Extension Wings.



Prior Scientific has introduced accessory mounting wings for its popular H117 stage for inverted microscopes, enabling simple and precise integration of tools such as

microfluidic pumps, micro-injectors, micromanipulators, probes, and sensors. Mounting accessories close to your stage facilitates the precise sample positioning required to create the optimal experimental setup for the application under study. The breadboard format of these wings (M6 tapped holes with 25 mm spacing) allows the easy mounting of a wide range of accessories.

Prior Scientific Instruments Ltd www.prior.com

Oxford Nanoimaging Nanoimager.



Oxford NanoimagingTM announced the release of the exciting desktop fluorescence microscope, the NanoimagerTM, designed to deliver nanoscale-resolution imaging of live cells. This innovative approach from the Kapanidis Gene-Machines team aims to democratize the use of

powerful single-molecule imaging and super-resolution microscopy technology. With a low cost of entry and ease of use, Nanoimager opens opportunities for nanoscale research without the need for a large, specialist laboratory and without a daunting training and operating burden.

Oxford Nanoimaging www.oxfordni.com