

ProductNews

Raptor Launches Eagle V, 4 MP Ultra-Sensitive Deep-Cooled Vacuum



Raptor launched the Eagle V, deep cooled vacuum based CCD using Raptor's vacuum technology PentaVac™. The Eagle V uses a 4 MP CCD42-40 Back Illuminated AIMO sensor from e2v technologies. The sensor is 2048×2048 pixels with

13.5µm×13.5µm pixels, with full well capacity of 100,000 e, enabling optimum photon collection and a large field-of-view imaging. The Eagle V achieves a QE greater than 90% at 525 nm and 50% at 380 nm and 720 nm.

Raptor Photonics Ltd
www.raptorphotonics.com

RMC Products Launches ATUMtome to Automate Serial Sectioning



With 3D imaging, there is a growing requirement to increase efficiency in volume imaging of samples. RMC answered part of this need by launching the ATUMtome (Automatic Tape-collecting Ultramicrotome), in partnership with ZEISS. The ATUMtome offers efficient sectioning and handling of thousands of sections that permit 3D reconstruction of large volumes of biological materials. It also provides a unique tape-collecting method that allows sections to be stored for later processing and examination.

RMC Products by Boeckeler Instruments and Zeiss
www.rmcprouducts.com

XEI Scientific Launches the Revolutionary Evactron EP Plasma Cleaning System

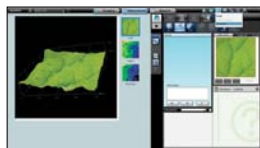


The Evactron EP Remote Plasma Source from XEI Scientific uses flowing afterglow cleaning with air to clean carbon compounds from vacuum chambers operating with turbo-molecular pumps. The unique new system has instant ignition from any vacuum level.

It uses a low-wattage hollow cathode electrode to produce plasma. It is compact and affordable. Unlike most commercially available remote plasma sources, the Evactron systems were specifically designed for cleaning electron microscopes safely.

XEI Scientific, Inc
www.evactron.com

Olympus DSX100 Opto-Digital System



The Olympus DSX100 opto-digital imaging system is a free-angle wide-zoom microscope that combines cutting-edge optical performance with the operational convenience of a smartphone. The DSX100 comes with a handy touchscreen, quick

zoom via pinch/unpinch, multiple observation modes, a best-image selection preview option, an easy stitching function, the ability to image specimens with uneven depth and curved surfaces, a rotating free-angle LED ring light, and a built-in macro map so users always know exactly where in the specimen they are.

Olympus Scientific Solutions Americas
www.olympusamerica.com

Carl Zeiss Microscopy Highlights ZEN Browser Image Database



Carl Zeiss Microscopy introduced its new server-based image databasing software, ZEN browser. The ZEN browser technology aids users in storage, filing, and organization, and backup of large digital data sets. This technology, invaluable to users in fields such

as pathology research, provides storage and organization, both in the lab and on the go, for large virtual slide databases. The intuitive web interface allows users to organize virtual microscopy data online and across platforms.

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

Bruker Enters High-Performance Nanoindenting Market



Bruker introduced the NanoForce Nanoindenting and Nanomechanical Testing System to enable new discoveries in nanoscience. Determining their suitability for use in specific applications requires robust analysis of their unique capabilities. The new NanoForce system supports complete investigations of nanomechanical properties, enabling both academic research and product development to go beyond nanoindentation into full-scale studies of nanoscale material behavior on a wide range of specimen geometries, including thin films, nanostructures, MEMS and various device components.

Bruker Corporation
www.bruker.com

Oxford Instruments Introduces Innovative Product for SEM-Based Particle Analysis



Oxford Instruments introduced AZtecFeature, which can automatically detect and characterize particles present in a sample, reporting on each particle's position, morphology, and chemical composition with nanometre resolution. Typical applications of AZtecFeature include the analysis of particles trapped in filters to monitor air quality or determine engine health, the detection of asbestos, and production process cleanliness quality control. Other applications cover steel inclusion analysis and analysis of trace evidence collected at crime sites.

Oxford Instruments NanoAnalysis
www.oxford-instruments.com

High-Power LED Light Engines for Large FOV Fluorescence Imaging Systems



Innovations in Optics, Inc. offers high-power LED Light Engines as excitation illuminators for large field-of-view fluorescent imagers used in life science instruments. Specific OEM applications are

life science instruments such as gel and Western blot documentation systems, real-time PCR thermocyclers, automated colony counters, chlorophyll fluorescence imagers, low density microarray analyzers, and small animal *in vivo* fluorescence imaging systems. The light engines support easy integration into OEM or end-user systems.

Innovations in Optics, Inc.
www.innovationsinoptics.com

Edge-3D Introduces Multi-Function Microscope with Z-Axis Stacking



Edge-3D is introducing their cost-effective and sophisticated digital 3D microscopes for research, industry, biomedicine, and education. Edge delivers stereo and motion parallax viewing in real-time with automated Z-focus stacking with other modes of 3D imaging. Transmitted, reflected, and epi-fluorescence illumination is provided with magnification range 2× to over 5,000× and 200 nm of resolution. It is compatible

with most optical systems, including brightfield, darkfield, phase contrast, D/C, polarization, and epi and oblique illumination.

Edge-3D, LLC
www.Edge-3D.com

Leica Microsystems Presents Universal Hybrid Detector for Single Molecule Detection and Imaging

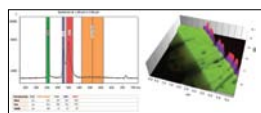


The Leica HyD SMD is an advancement of the proven Leica HyD, the hybrid detector for super-sensitive confocal imaging with the Leica TCS SP8. The hybrid detector combines the best characteristics of the classic photomultiplier tube (PMT) with the highly sensitive avalanche photodiodes

(APD). This results in super-sensitivity and a large dynamic range combined with rapid detection speed and low dark noise.

Leica Microsystems GmbH
www.leica-microsystems.com

The Cathodoluminescence Revolution Goes 3D



New AttoMap software, based on Digital Surf's Mountains Technology®, brings 3D imaging of spectroscopic information obtained using Attolight's cathodoluminescence technology that

integrates a scanning electron microscope and a light microscope into high-resolution spectroscopy instruments used by scientists to characterize semiconductors, solar cells, and other nano devices. 3D visualization of spectroscopic information in AttoMap makes it easier for researchers and quality engineers to locate and characterize features and defects on these devices and other nanoscale objects.

Attolight and Digital Surf
www.attolight.com and www.digitalsurf.com

New Element Silicon Drift Detector from EDAX



EDAX, Inc. introduced the Element Silicon Drift Detector, a new product line focused on serving the needs of the industrial market segment. The Element SDD delivers powerful analytical capability in a compact package, maximizing performance and flexibility while providing streamlined operation to guarantee fast results and easy operation.

It offers excellent resolution and market-leading throughput, and it is designed with a silicon nitride (Si_3N_4) window to optimize low-energy X-ray transmission for light element analysis.

EDAX is a unit of AMETEK
www.edax.com

Nanomechanics iNano Nanoindenter Available from Nanoscience Instruments



Nanoscience Instruments announced an exclusive distribution agreement with Nanomechanics. Nanoscience Instruments will market and sell the iNano in North America through an exclusive partnership that teams the strengths of each company. The new iNano is a cutting-edge instrument that provides accessible and user-friendly acquisition of mechanical properties

through nanoindentation. The iNano is an easy-to-use nanoindenter, providing superior displacement measurements using leading-edge technology.

Nanomechanics, Inc. and Nanoscience Instruments
www.nanoscience.com

Olympus Introduces New Microscope Objectives for Ultra-Deep Biological Imaging



Two dedicated microscope objectives optimized for deep, high-resolution imaging of life science specimens up to 8 mm beneath the surface have been introduced by Olympus. The new 10× and 25× objectives are designed for multiphoton imaging using clearing techniques such as CLARITY, SCALEVIEW and SeeDB, along with live-cell imaging and light sheet microscopy. Both objectives, featuring super-long working distances of 8 mm, are designed to boost the capability of multiphoton microscopy.

Olympus Scientific Solutions Americas
www.olympusamerica.com/seg_section/product.asp?product=1104&c=8

ZEISS Presents World's Fastest Scanning Electron Microscope



The ZEISS MultiSEM 505 features 61 beams working in parallel and a capture speed of 1,220 megapixels per second at a pixel size of 4 nm. Conventional SEMs use a single electron beam to acquire an image of the sample. ZEISS MultiSEM uses 61 beams simultaneously, making it possible to acquire 61 images in parallel. Thus large areas can now be imaged very quickly, and acquisition times are reduced from years to weeks.

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

Electron Microscopy Sciences Releases LYNX II



EMS announced the release of the LYNX II tissue processor that is compatible with all plastic resins and paraffin waxes. The LYNX II is the successor of the Lynx Tissue Processor with several enhancements, including capabilities to perform optional processing of larger size samples for

histology. The LYNX II holds 24 reagent vials for EM processing. Optional histology processing may be done with 12 larger-size reagent vials and there are two independently controlled, heating/cooling stations.

Electron Microscopy Sciences
www.emsdiasum.com