

## ProductNews

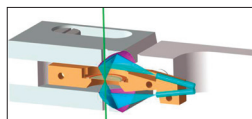
### EDAX Introduces Octane Series SDDs for TEMs



EDAX, Inc. introduced a new series of detectors for the TEM into its SDD family. Based on the company's Octane SEM series, the Octane TEM portfolio offers three models to meet the needs of all TEM applications—with modules sized from 30 mm<sup>2</sup> to 100 mm<sup>2</sup> that provide solid angles up to 1.1 steradian. With its on-detector electronics, the SDDs can produce resolutions as low as 123 eV and are optimized for windowless low-energy X-ray collection.

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

### Gatan Launches Vulcan, STEM Cathodoluminescence System



Gatan has launched Vulcan, a unique new capability to access cathodoluminescence (CL) 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. Vulcan can be used in conjunction with most standard imaging and analytical techniques including EELS and is compatible with most mainstream STEMs (TEM in STEM mode or dedicated STEM).

Gatan, Inc.  
www.gatan.com

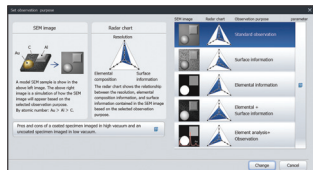
### Toshiba Imaging Introduces 3CMOS 1080p HD Video Camera with Enhanced Infrared Imaging Capabilities



Toshiba Imaging Systems Division announces the new IK-HD5, a progressive-scan, full HD 1080p/1080i, 2.1 Megapixel, 3CMOS camera for color-critical applications. The innovative CMOS video camera features 3G-SDI/HD-SDI and DVI-D outputs and a removable optical low-pass filter (OLPF) for dual-mode imaging applications in visible light and near-infrared (IR) spectrums. Other features include expanded menu functions for red filter IR mode and approximately 3 dB increased sensitivity in the near IR.

Toshiba Imaging Systems Division  
www.toshibacameras.com

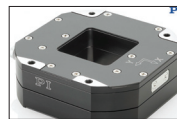
### Hitachi's New Schottky Emission SEM SU5000 with Groundbreaking Automated Technology



Pioneering developments at Hitachi will debut "EM Wizard" capability on the new SE-SEM SU5000. The all-new SU5000 hosts a variety of advanced automated features including EM Wizard operation technology that allows automated real-time electron beam axis alignment and other wizard modes assisting even the most inexperienced users to obtain nano-scale images at a magnification as high as 100,000 $\times$ , normally only produced by seasoned professionals.

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

### PI Press Release: Affordable High-Precision XY Nanopositioning Piezo Stage



PI's P-763 XY nanopositioning stage is a new, more affordable addition to PI's wide range of piezo stage positioners. The compact P-763 flexure-guided stage has a footprint of less than 3  $\times$  3 inches (70  $\times$  70 mm) while providing a 30  $\times$  30 mm aperture. With a large travel range of 200  $\times$  200 microns, this piezo positioning system is ideal for demanding applications such as image stabilization, microlithography, nano-alignment, surface metrology, super-resolution microscopy and bio-nanotechnology, and photonics and datacomm.

PI (Physik Instrumente) L.P.  
www.nanopositioning.net

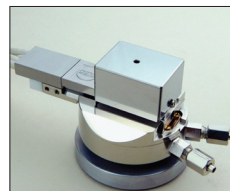
### Oxford Instruments Asylum Research Introduces the MFP-3D Infinity™ AFM



Oxford Instruments announces the new MFP-3D Infinity Atomic Force Microscope. The instrument features a large 90  $\mu$ m stage and entirely new control electronics that are located close to the AFM for fast, low-noise performance. Flexible signal switching and programmable logic enable future expansion options. The new head and scanner offer greatly improved sensor noise (<35 pm in Z and < 150 pm in X and Y) and higher bandwidth for improved force control and faster imaging.

Oxford Instruments Asylum Research  
www.asylumresearch.com

### Gatan Launches Murano Heating Stage, 950°C In-situ Heating Stage for SEM / FIB / EBSD



Gatan introduces the Murano Heating Stage, specially designed to interface with most SEM stages, comprising a thermally isolated interface that is suitable for SE imaging, EBSD, and FIB milling. The stage temperature range spans from ambient to 950°C. To aid catalysis, reduction, or oxidation reactions, gas injection is facilitated via an optional capillary adjacent to the sample and is controlled by a flange-mounted needle valve.

Gatan, Inc.  
www.gatan.com

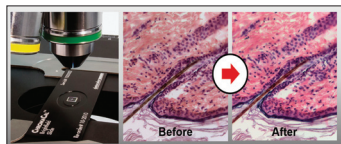
### Introducing the Cyclops



This versatile inspection scope connects directly to an HD monitor as well as to a computer. Operators see magnified views comfortably while looking straight ahead at a large screen, rather than hunching over a microscope. Cyclops has a large working distance to allow examination of sizable objects, as well as a magnification range up to 270 $\times$  on a 21.5" HD monitor or 534 $\times$  for PC viewing. These features increase accuracy and productivity while easing eye strain and user fatigue.

Aven, Inc.  
www.aveninc.com

## Datacolor to Demonstrate New Features of CHROMACAL Microscope Color Calibration Software

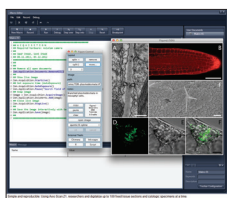


Datacolor® CHROMACAL image calibration software now offers expanded features in delivering color accuracy for bright-field microscope images. Version 1.1 of CHROMACAL includes auto

white balance, the ability to handle JPEG images and more. Due to its new automated white balance capability, microscopists may avoid the common practice of subjectively post-processing images. The white balance feature allows CHROMACAL to deliver an even more robust color-calibration solution and simplifies the image capture environment.

Datacolor  
www.datacolor.com

## Zeiss Axio Scan.Z1 Digital Slide Scanner Achieves Optimal Image Quality



The Axio Scan.Z1 can digitalize fixed tissue sections and cytologic specimens in bright-field and fluorescence and is ideal for a range of applications from basic research to tasks in the pharmaceutical industry. As many as 100 microscope slides can be digitalized at one time. Using an innovative tray design, the Axio Scan.Z1 captures the entire specimen area of

the microscope slide. For fluorescence applications, filter wheels switch wavelengths in just 50 milliseconds.

The Carl Zeiss Group  
www.zeiss.com

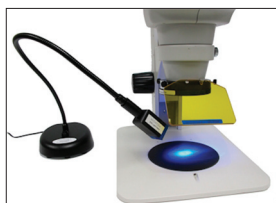
## TESCAN ORSAY and WITec Launch the RISE Microscope



RISE Microscopy combines confocal Raman imaging and scanning electron (RISE) microscopy within one integrated microscope system. Electron microscopy is an excellent technique for visualizing the sample surface structures in the nanometer range; confocal Raman imaging is an established spectroscopic method used for the detection of the chemical and molecular components of a sample. It can also generate 2D and 3D images and depth profiles to visualize the distribution of the molecular compounds within a sample.

TESCAN ORSAY HOLDING, a.s. and WITec GmbH  
www.witec.de and www.tescan.com

## Nightsea Fluorescence Viewing Systems

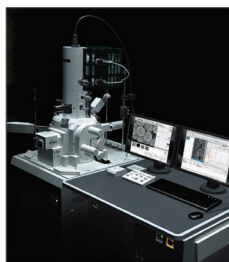


Electron Microscopy Sciences proudly announces the addition of the entire line of Nightsea fluorescence viewing systems, flashlights, and filters to its catalog of microscopy equipment. Fluorescence research is rapidly expanding in laboratories worldwide. Practical uses of fluorescence include

sorting fluorescent transgenics, dissecting FP-labeled structures, and repairing circuit boards to name a few. Nightsea offers a solution—an easily interchangeable system that requires no modification to existing equipment.

Electron Microscopy Sciences  
www.emsdiasum.com

## New FE-SEM from JEOL



The JSM-7800F PRIME is JEOL's new flagship model field emission SEM, with the market's highest resolution at both high and low kV. This versatile extreme-resolution analytical SEM offers unprecedented imaging capability with 7-Angstrom resolution at 1 kV and 15 kV, and high probe current greater than 500 nA. It uses an in-lens Schottky PLUS field emission gun and a Super Hybrid

Lens, and it can be configured for low vacuum. JSM-7800F images and analyzes any type of material and accommodates multiple analytical attachments.

JEOL USA  
www.jeolusa.com

## TECHSPEC® Variable Magnification Lenses Provide Selectable Field of View

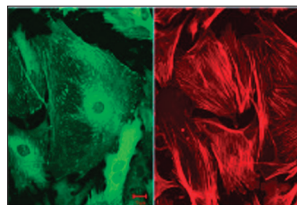


Edmund Optics's TECHSPEC Variable Magnification Lenses provide the exact field of view required to satisfy a given application. TECHSPEC Variable Magnification Lenses include an adjustable iris for depth of field control. They feature a C-mount compatible design with 2/3 inch sensor coverage for ease of system integration. Providing low-distortion images,

the lenses are an excellent choice for use in semiconductor or electronics inspection and factory automation.

Edmund Optics  
www.edmundoptics.com

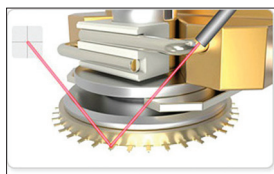
## ibidi Elastically Supported Surfaces (ESS) for Cell Culture



ibidi has created 35 mm cell culture plates to provide cells with *in vivo*-like biophysical cues for live cell imaging. Surfaces range in biologically relevant stiffness from 1.5 kPa to 28 kPa as quantified in most tissues. The thin layer of biocompatible PDMS over a 100 µm glass cover is ideal for high-resolution or live cell imaging of various cell types, including cardiomyocytes, fibroblasts, and others.

ibidi – cells in focus  
www.ibidi.com

## NT-MDT Launches the Titanium AFM with Automated Multiple Tip Exchange



NT-MDT announced Titanium, the first AFM with a self-aligning, multiple-probe cartridge for fast, automated tip exchange. Titanium's unique Revolution Cartridge simplifies one of the most challenging steps in AFM workflow: tip exchange and alignment.

The cartridge holds an amazing 38 tips. As each new probe moves into position, Titanium automatically centers and aligns the probe and laser, dramatically cutting downtime for tip exchange, as well as opening AFM to less-experienced users.

NT-MDT Europe BV  
www.ntmdt.com/titanium