ProductNews

New Product Release for Applied Scientific Instrumentation

The FTP-2000 Focusing Translation Platform is a high-resolution, and highly repeatable, means of controlling the *X*, *Y* and *Z* position of the stage. The complete *XY* stage is raised and lowered via two linear positioners with a resolution of 50 nm. Two standard *Z* travel ranges of 50 and 100 mm are offered. The unit is ideal for use with fixed stage microscopes or any application where ultra precise *XYZ* positioning is required.

Applied Scientific Instrumentation
www.ASIimaging.com

New PELCO® High-Performance Conductive Pastes

Ted Pella, Inc. announces three high-performance conductive pastes for demanding specimen preparation applications. The binder is an aqueous silicate solution without hydrocarbons; no outgassing and no contamination. The pastes are fully compatible with UHV applications, cryo, and heating stages. Available in three versions: Silver paste for best conductivity, excellent bonding, cryo and up 925°C; Carbon paste for up to 2,000°C; and Nickel paste is cost-efficient and used for temperatures up to 500°C.

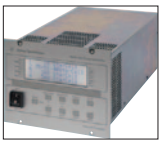
Ted Pella, Inc.
www.tedpella.com

Introducing the LumenLED System from Prior Scientific

Prior Scientific has released the LumenLED, which offers two modes of operation. In Constant Light Mode, a photodiode is used to provide a closed-loop feedback mechanism to ensure short- and long-term stability of illumination intensity, essential for quantitative experiments. For more general imaging applications, Constant Current Mode is available to assure maximum illumination intensity. The LumenLED is a modular system based around a two-position or four-position LED combiner.

Prior Scientific, Inc.
www.prior.com

New Agilent Ion Pump Controller Accommodates Four Pumps Independently



Agilent Technologies, Inc. introduced the 4UHV Ion Pump Controller, a flexible design able to power, control, and monitor independently up to four ion pumps, with capacities ranging from 20 to 500 liters per second each. The 4UHV is the new member of the Agilent VacIon Plus family, a complete line of ion pumps, controllers, options, and accessories dedicated to UHV. Applications include high-energy physics, research and development, and nanotechnologies (typically scanning electron microscopes).

Agilent Technologies Inc
www.agilent.com

New Versatility Added to the Revolution DSD Confocal

Andor Technology plc announced the launch of the DSD Uni. The DSD Uni brings with it the ability to add a confocal unit to almost any fluorescence microscope, upright or inverted, irrespective of manufacturer. A key part of its design is a universal mount that maintains camera and confocal unit stability. It keeps the unique DSD feature of filter set exchange without disassembly. The user benefits from alignment-free use of the confocal system.

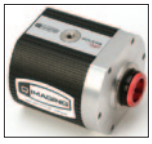
Andor Technology
www.andor.com/dsd

Lightswitch from CRAIC™: An Optical Multiplexer to Add Spectra and Imaging to Microscopes

CRAIC Technologies introduces Lightswitch by CRAIC™, an optical multiplexer for the ultraviolet, visible, and NIR regions. With the ability to switch between multiple paths, Lightswitch by CRAIC™ can be used to add additional imaging and spectroscopic capabilities to existing or future microscopes and microspectrometers. These currently include low-light level imaging, UV-visible-NIR spectroscopy, UV, and NIR microscopy. More add-on packages are currently being developed.

CRAIC Technologies, Inc.
www.microspectra.com

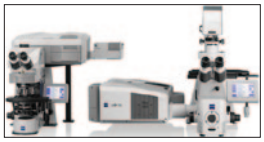
Qimaging® Introduces the Rolera™ Bolt Scientific CMOS Camera for High-Speed Fluorescence Imaging



QImaging announces the release of the Rolera Bolt Scientific CMOS camera, a high-speed imaging alternative that is less than half the cost of most scientific CMOS and CCD cameras. The Rolera Bolt is the latest addition to QImaging's high-speed, high-sensitivity family of cameras that also includes the recently released Rolera Thunder. Designed for low-light imaging, the Rolera Bolt is especially suited for biomedical imaging.

QImaging
www.qimaging.com

Carl Zeiss LSM 780 Imaging System Goes Beyond Traditional Confocal Limits



The LSM 780 from Carl Zeiss has an almost doubled rate of sensitivity and counting and increased speed and image quality that lets the user analyze single molecules at a new level. The confocal laser scanning microscope features a high-sensitivity GaAsP detector, innovative software functions for single-molecule and high-dynamic-range imaging, and a 355 nm CW laser. It is ideal for research in neurobiology, physiology, and developmental biology.

Carl Zeiss, Inc.
www.zeiss.com/micro

FEI Introduces QEMSCAN WellSite Analysis Solution

The Natural Resources Business Unit of FEI Company announces the QEMSCAN® WellSite™ analysis solution. Rock cuttings, returned in the drilling fluid on every well, are the most cost-effective method of obtaining valuable data on the underlying geological stratigraphy. The QEMSCAN WellSite solution can quickly separate and classify the rock types (lithologies) represented in a cuttings sampling interval with much greater accuracy, analytical sensitivity, and textural resolution than existing manual methods.

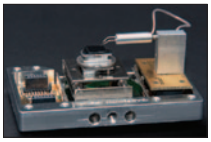
FEI Company
www.fei-natural-resources.com

Seamless, Rapid TEM EDS Analysis with JEOL Centurio

JEOL has transformed chemical analysis using Transmission Electron Microscopy and has now made it faster and more efficient due to a new large-angle SDD EDS system. The Centurio EDS system enables seamless chemical mapping with rapid data collection on JEOL TEMs, including the new high-throughput nanoanalysis JEM-2800 model S/TEM. Centurio rapidly collects X rays from samples at an unprecedented large solid angle of up to 0.98 steradians from a detection area of 100 mm^2.

JEOL USA
www.jeolusa.com

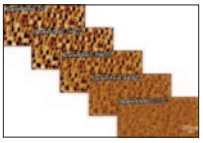
Agar Scientific Announces the Kleindiek Nanotechnik Lift-Out Shuttle for Use with Electron Microscopes



Agar Scientific, working with Kleindiek Nanotechnik, offers the Lift-Out Shuttle, LOS, for the UK and Irish markets. *In-situ* lift-out techniques have become reliable methods for preparation of samples requiring TEM and atom probe inspection. However, they remain more expensive than *ex-situ* lift-out techniques and require much time in the FIB. Time and cost factors call for a faster, simpler procedure while further improving the reliability of the technique.

Agar Scientific Limited
www.agarscientific.com

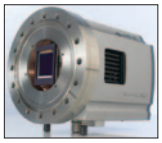
Asylum Research Introduces VFM2™ Variable Field Module for Magnetic Fields



Asylum Research introduced the new Variable Field Module2 for the MFP-3D Atomic Force Microscope. The VFM2 is ideal for researchers who want to apply magnetic fields to their atomic force microscopy experiments and apply continuously adjustable magnetic fields parallel to the sample plane approaching one Tesla with one Gauss resolution. The module is useful for magnetic force microscopy, conductive AFM, and other applications where the sample's properties are magnetic-field dependent.

Asylum Research
www.AsylumResearch.com

Andor Launchs Comprehensive High-Energy Detection Capability



Andor announced the availability of a new high-energy detection portfolio. Andor's versatile range of high-performance camera detection solutions span the vacuum UV, extreme UV, soft X-ray, hard X-ray, and gamma energy ranges, via either "direct detection" of incoming high-energy photons or "indirect detection" of photons emitted from a fiber-optic or lens-coupled phosphor/scintillator. Andor's high-energy detection solutions are built around an extensive range of imaging and spectroscopy camera platforms and sensor options.

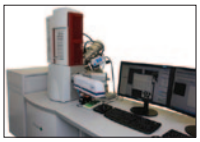
Andor Technology plc
www.andor.com/highenergy

Electron Microscopy Sciences Releases the Proscope HR™ Digital Handheld Microscope

The ProScope HR™ Handheld Digital Microscope is a USB-interface, handheld digital microscope with a high-quality 1.3-megapixel CCD and universal lens mount. This unit includes a 50× lens that incorporates a built-in light source and is ideal for field applications in biology, ecology, and forensics. A range of ProScope lenses are available from a 1×–10× zoom lens, to an incredibly powerful magnification of 400×.

Electron Microscopy Sciences
www.emsdiasum.com

Plasma FIB-FESEM Workstation



TESCAN, a manufacturer of scanning electron microscopes and focused ion beam workstations, has introduced the FERA3 XMH—the first high-resolution Schottky Field Emission scanning electron microscope with a fully integrated Plasma-source focused ion beam. The FERA 3 XMH PFIB-SEM is well suited for applications requiring the removal of large volumes of material, particularly in the semi-conductor packaging corridor where TSV technology is being used.

TESCAN
www.tescan-usa.com

Olympus SCALEVIEW-A2 and 25× Objective Allows 4 mm Deep Microscope Tissue Imaging

Scientists often study life processes by peering into biological organisms to see their structure and function. However, brains and other tissues are almost all opaque, making it difficult to see deep inside. Now, thanks to a liquid that can literally make tissue transparent and minimizes light scatter, along with a new super-long-working-distance Olympus microscope objective, scientists are producing vivid 3D images of structures deep inside mouse brains and other animal organs.

Olympus America Inc.
www.olympusamerica.com/neuro2011