ProductNews

Smart Microscopy from ZEISS Simplifies Biomedical Routine Lab Work

Smart Microscopy from ZEISS is a new concept where the microscopes ZEISS Axiolab 5 and ZEISS Axioscope 5, as well as the microscope cameras ZEISS Axiocam 202 mono and ZEISS Axiocam 208 color, can be combined to form a Smart Microscopy system that takes away a large share of the workload from the users. It automatically adjusts many of the required settings, thus digital documentation of microscopic specimens becomes easier and more efficient.

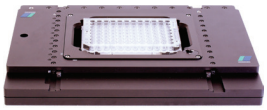
ZEISS Research Microscopy Solutions
www.zeiss.com

New Mako G-508 with Polarized Sensor

Equipped with a Polarsens™ 5.0 MP IMX250MZR monochrome CMOS sensor, the Mako G-508B POL incorporates latest four-directional on-chip polarization filter technology from Sony so that each pixel of the sensor captures polarized light in relation to its specific wire-grid axis. Four pixels together build a calculation unit to determine for each pixel the intensity and angle of polarization. By using pseudo-color look-up tables for each angle of polarization, defects and areas of stress can be visualized.

Allied Vision Technologies GmbH
www.alliedvision.com

Scanius-Line – Moving into a New Direction



piezosystem jena presents its newest piezobased long travel stages, the SCANIUS-LINE. The movements of the table are stable and consistent, while the moving axis is prevented from slipping. The new SCANIUS^{two} table combines technical features that were previously in conflict: a travel speed of up to 160 mm/s with a resolution of 40 nm. In addition, the SCANIUS^{two} offers a travel range of 150 mm in the *x*-axis and 72 mm in the *y*-axis.

piezosystem jena GmbH
www.piezosystem.de

KEYENCE Announces New 4K Ultra-High-Accuracy Microscope

KEYENCE Corporation of America released the world's first 4K ultra-high-accuracy microscope. By incorporating 4K resolution, the VHX-7000 has become KEYENCE's greatest microscope hardware advancement to date. This versatile system incorporates the capabilities of multiple microscopes: stereoscope, metallurgical, measuring, and entry-level SEM. The VHX-7000 is a fully automatic XYZ system. Even magnification can be easily controlled due to its motorized turret. The VHX-7000 has a 20× larger depth-of-field.

KEYENCE Corporation of America
www.keyence.com/vhxpr

JAI Introduces 4K Prism Line Scan Camera with 10 GigE Interface

JAI introduced a new industrial color line scan camera in the Sweep+ Series. The Sweep+ SW-4000T-10GE is a prism-based color line scan camera equipped with three CMOS sensors and a 10 GigE interface including backwards compatibility to 5, 2.5, and 1 Gbps Ethernet standards. The 3-CMOS prism design features three separate imagers that simultaneously capture red, green, and blue spectral wavebands for very high color imaging accuracy.

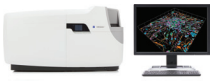
JAI, Inc.
www.jai.com

X Line™ Objective Lenses Break Optical Barriers

Designed with new manufacturing technology that creates lenses with shapes that are difficult to fabricate using other methods, Olympus's new X Line™ series objectives and the UPLAPO-HR objectives for super-resolution and TIRF microscopy improve optical performance in three critical areas: expanded flatness for uniform images from the center to the edge, exceptional color accuracy during bright-field and multicolor fluorescence imaging, and excellent image quality with weak excitation light and a higher numerical aperture.

Olympus Corporation
www.olympus-lifescience.com

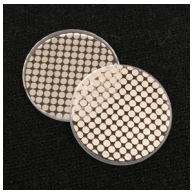
Automated Microscope for Gentle and Fast Confocal 4D Imaging



The ZEISS Celldiscoverer 7 is a fully integrated high-end imaging system with various incubation and detection options. It combines the easy-to-use automation of a boxed microscope with the image quality and flexibility of a classic inverted research microscope. To get better data from three-dimensional samples, it is now possible to add ZEISS LSM 900 with Airyscan 2 for confocal imaging. ZEISS Celldiscoverer 7 simplifies the laboratory setup and makes work more comfortable.

ZEISS Research Microscopy Solution
www.zeiss.com

New Polka-Dot Beamsplitters by Teledyne Acton Optics Delivers Unrivaled Broadband Performance



Teledyne Acton Optics introduced a series of new polka-dot beamsplitters capable of delivering broadband performance that is unmatched in the marketplace. By employing a patented UV coating process, Teledyne Acton Optics can now provide broadband beamsplitter performance down to 120 nm, depending on the coating and substrate selected. Also available are standard UV-NIR broadband polka-dot beamsplitters that offer performance from 190 nm to 2.5 µm via the Acton #1900 coating process.

Teledyne Acton Optics
www.actonoptics.com/products/polka-dot-beamsplitters

CELESTA Light Engine

Lumencor's CELESTA incorporates seven independent lasers with advanced electronic control and ~1000 mW optical power per laser from the distal end of an optical fiber. Output stability is actively governed by an onboard computer. Excitation bands align with the peak absorption of the key fluors for biotechnology applications. Microsecond switching of color-bands is enabled by TTL triggering. High brightness, ease-of-use, and stability make CELESTA ideal for even the most demanding applications.

Lumencor, Inc.
lumencor.com

Next-Generation Confocal Platform for Super-Resolution Live Cell Imaging in Multicolor

Leica Microsystems announced the launch of a new generation of its leading SP8 confocal microscope platform, now with built-in LIGHTNING detection technology. The next-generation SP8 LIGHTNING confocal microscope offers five highly sensitive detection channels for super-resolution live cell imaging in multicolor. As all channels operate in parallel, there is no trade-off between speed and resolution. This allows for simultaneous observation of fast biological processes in living cells.

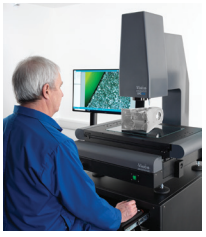
Leica Microsystems GmbH
www.leica-microsystems.com

Basler ace 2: Next Generation of the ace Camera Series

Basler launches the next generation of its ace camera series: ace 2. An optimized hardware design, the latest CMOS sensors, and powerful features such as Compression Beyond, Pixel Beyond, and PGI ensure higher frame rates, reduced data volumes, and superior image quality. The new ace 2 series has four models each in the ace 2 Basic and ace 2 Pro product lines. They feature Sony's IMX392 sensor and 2.3 megapixels resolution, and they deliver up to 160 frames per second.

Basler AG
www.baslerweb.com

Fully Automated 3-Axis Video Measurement System from Vision Engineering



Ideal for measuring large components or multiple small components, the LVC400 offers faster measurements and high accuracy levels, a larger (400 × 300 mm) stage than comparably priced products, a large measuring capacity, and fully automated movement in all 3 axes. Non-stop measurement routines are possible that can have magnification changes built in. Multiple components can be loaded onto the stage and measured easily and automatically in a single program.

Vision Engineering
www.visioneng.us/products/non-contact-measurement-systems-us/lvc400-cnc-large-capacity

Olympus DSX1000 Digital Microscope Offers Advanced Tools for Faster Analysis

The DSX1000 digital microscope offers guaranteed high- and low-magnification accuracy and precision in a single instrument for users in the electronics, metal, semiconductor, automotive, aerospace, and medical device manufacturing industries. Users can change lenses by pushing a button and quickly go from macro-scale inspections to micro-level observations. High numerical aperture lenses provide high resolution at high magnification, so users can see the fine details in their samples.

Olympus
www.olympus-ims.com/en/microscope/dsx

EDAX Adds a New Detector to the Elite T EDS Analysis System for TEM

The Elite T EDS System utilizes fast Silicon Drift Detectors, now with 70 mm^2 and 160 mm^2 options, and state-of-the-art integrated electronics. The unique geometry and powerful quantification routines of the Elite T EDS System provide comprehensive analysis solutions for all TEM applications. The geometric design of the Elite T EDS System provides an optimized solid angle that increases the count rates for the best possible performance.

AMETEK EDAX, Inc.
www.edax.com/products/eds/elite-t-eds-system

Leica EM ACE600 Sputter Coater

Coat with simplicity, reproducibility, performance, and confidence with the ACE600 sputter coater from Leica Microsystems. The ACE600 is a one-touch, automated coating system that saves lab space while delivering easy operation. The EM ACE600 sputter coater is a versatile high-vacuum film-deposition instrument for FE-SEM and TEM applications capable of depositing a fine-grained metal layer, producing nanometer-thin but robust carbon films, and performing glow discharge operations.

Leica Microsystems Inc.
www.leica-microsystems.com

New Low-Height, Low-Frequency Vibration Isolation Platform

Minus K Technology released its latest Negative-Stiffness vibration isolation platform—the ultra-thin, low-height model CT-1 passive isolator—designed for low-frequency vibration isolation in critical micro- and nano-microscopy applications where space constraints are critical. The completely passive tabletop unit is just 2-1/4 inches in height, yet it delivers 1/2 Hz vertical natural frequency, and 2 to 2-1/4 Hz horizontal natural frequencies. This is considerably more low-hertz vibration isolation performance compared to air tables and active systems.

Minus K® Technology, Inc.
www.minusk.com