ProductNews

Optimized Image Quality with Basler's New Feature, Vignetting Correction

With "Vignetting Correction" Basler expands the image processing options of its ace U and ace L product lines with a feature that enables the correction of edge shadowing. Vignetting is a well-known phenomenon in image processing and describes the decrease in image brightness toward the edge. If the image circle of the lens used is too small in relation to the camera sensor, this effect can manifest strongly and affect the image quality accordingly.

Basler AG
www.baslerweb.com/new-ace-features

ZEISS Axio Imager M2m Light Microscope

The ZEISS Axio Imager M2m light microscope is a preconfigured package for materials research, featuring motorized filter wheels and diaphragm sliders in reflected light. ZEISS Axio Imager features brilliant optics and homogeneous illumination. The contrast manager and light manager ensure defined conditions and reproducible results at all times. The ZEISS Axio Imager can be customized to enable particle analysis and correlative microscopy. Contrast choices enable analysis of a variety of materials and surfaces.

ZEISS Research Microscopy Solutions
www.zeiss.com/microscopy

EDAX Launches New Velocity™ Super EBSD Camera

AMETEK added a new, faster, low-noise CMOS camera to its Velocity™ EBSD Camera Series. Powered by a CMOS sensor, the Velocity™ EBSD Camera Series combines indexing speeds up to 4,500 indexed points per second with indexing success rates of 99% or better. At these speeds, the Velocity™ cameras use 120 × 120 pixel EBSD patterns for improved band detection. This image resolution, combined with proven EDAX triplet indexing routines, provides orientation precision values of less than 0.1°.

EDAX, Inc.
www.edax.com/velocity

Spectra III Light Engine

Lumencor's next-generation Spectra light engine incorporates eight independently addressable solid-state light sources, each delivering ~500 mW at the end of a light guide. Spectral content is optimized for DAPI, CFP, GFP, YFP, Cy3, mCherry, Cy5, and Cy7 excitation. Optical power is stabilized for exceptional reproducibility and quantitation. Microsecond switching between color bands is enabled by TTL triggering. Spectra III is not only bright, but undeniably reliable, stable, and consistent.

Lumencor, Inc.
lumencor.com/products/spectra-light-engine

Laboratory Evaluation of a Robotic Operative Microscope

Several novel robotic functions integrated into the KINEVO 900 provide improved ergonomics, with a potential to increase the viewing quality of neurosurgical procedures, including illumination and visualization. There is no need to constantly adjust the parameters of the microscopic visualization during surgery. Considering that up to 40% of total surgery duration is spent adjusting the microscope, this technology could serve to decrease operative time.

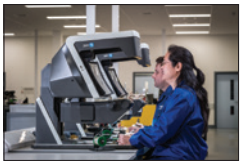
Carl Zeiss Meditec AG
www.zeiss.com/kinevo

JAI Introduces 4-CMOS Prism-Based RGB+NIR Line Scan Camera with 10 GigE Interface

JAI added a second 10 GigE prism line scan camera to its Sweep+ Series. The Sweep+ SW-4000Q-10GE is equipped with four prism-mounted CMOS sensors and a 10 GigE interface that also supports backward compatibility to 5 Gbps, 2.5 Gbps, and 1 Gbps Ethernet standards. The 4-CMOS prism design simultaneously captures red, green, blue, and near-infrared spectral wavebands for both high color accuracy and multi-spectral analysis via the NIR channel.

JAI Inc.
www.jai.com

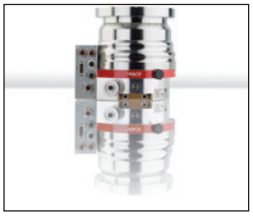
Vision Engineering Unveils New 3D Digital Display Technology



Vision Engineering's DRV (Deep Reality Viewer) creates stereo high-definition 3D images without using a monitor or requiring operators to wear headsets or specialist glasses: images "float" in front of a mirror. Using Vision Engineering's globally patented TriTeQ³ digital 3D display technology, the DRV Z1 (Zoom model 1) incorporates a zoom microscope module and is the first device of its class to be launched by the manufacturer.

About Vision Engineering Limited
www.visioneng.us

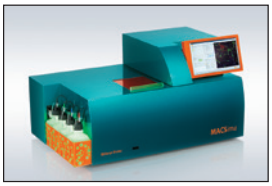
Pfeiffer Vacuum Introduces New HiPace 700 H Turbopumps



Featuring extremely high-compression models with its new turbopumps and a compression ratio of $\geq 2 \cdot 10^7$ for hydrogen, they are suitable for generating high and ultra-high vacuum. Due to the high compression ratio, a low residual gas spectrum, which is desirable for certain mass spectrometry applications, is created in the chamber. Due to their advanced rotor designs, HiPace 700 H turbopumps have an exceptionally high critical backing pressure capability of 22 hPa.

Pfeiffer Vacuum GmbH
www.pfeiffer-vacuum.com

MACSima™ Imaging Platform Revolutionizes High-Content Imaging



The MACSima™ Imaging Platform is the latest addition to Miltenyi Biotec's imaging portfolio. The benchtop instrument performs a fully automated iterative fluorescent staining, imaging, and signal-erasing process, using multiple fluorochrome-conjugated antibodies per cycle. A harmonized portfolio including Miltenyi Biotec's range of validated antibodies, e.g., REAfinity™ Recombinant Antibodies, specifically designed disposables, and the MACSima™ Software ensure a failure-free automated process. Resulting image stacks can then be analyzed on the fly, even when the iterative process is still running.

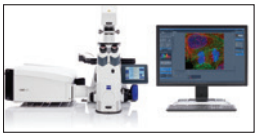
Miltenyi Biotec GmbH
www.miltenyibiotec.com

JEOL Demonstrates Next-Generation Benchtop Scanning Electron Microscope

JEOL USA introduces our fourth-generation benchtop scanning electron microscope (SEM) that delivers many powerful features of a full-sized SEM in a small package. The new NeoScope produces high magnification up to 100,000× with large depth of field. It features a large sample chamber, high and low vacuum modes, secondary and backscatter electron detectors, real-time 3D imaging, highly-advanced auto functions, and the option to add a fully embedded EDS with real-time, "Live" analysis.

JEOL USA, Inc.
www.jeolusa.com

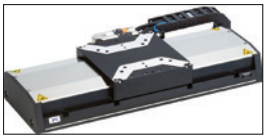
New Multiplex Mode for ZEISS Airyscan 2 Enables Fast and Gentle Confocal Microscopy



The new Multiplex mode for ZEISS Airyscan 2 can deliver more information in less time. Smart illumination and detection schemes allow parallel pixel acquisition for fast and gentle confocal microscopy. The Multiplex mode is available for the whole ZEISS LSM 9 family: ZEISS LSM 980 is the flexible research platform with complementary multiphoton and super-resolution capabilities, and ZEISS LSM 900 is a very compact system that delivers image quality without complexity.

ZEISS Research Microscopy Solutions
www.zeiss.com/microscopy

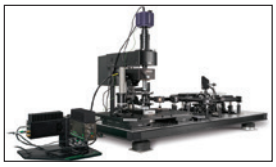
Long Travel Linear Motor Stage – 32" Travel, Nanometer Resolution



The new linear translation stage from PI is engineered for industrial applications with high demands on dynamics, precision, smooth scan motion, short settling times, and low tracking error. PI is offering the new V-417.336025E1 long travel linear motor stage, providing 32 inches of travel (813mm). The direct drive stage achieves high velocities to 79"/sec (2m/sec) based on a direct drive ironless linear servo motor. The integrated absolute-measuring linear position encoder features 1 nm sensor resolution.

PI (Physik Instrumente)
www.pi-usa.us

PicoQuant Welcomes Scientifica to the LSM Upgrade Kit Family



PicoQuant's Laser Scanning Microscope Upgrade Kit now expands the capabilities of Scientifica's multiphoton imaging microscopes with Fluorescence Lifetime Imaging. The integrated and FLIM solution for both HyperScope and VivoScope multiphoton microscopes from Scientifica enables users to simultaneously acquire fluorescence intensity and lifetime images in up to two color channels. This combination of imaging techniques allows for the acquisition of highly quantitative information regarding molecular interactions, quantification of biosensor measurements, or determination of absolute ion concentrations.

PicoQuant GmbH
www.picoquant.com

Light Sheet Microscopy and High-Quality Optics in One Affordable System

Olympus Corporation announced the addition of the Alpha³ light sheet microscope to its Life Sciences line of optics products in partnership with PhaseView, an advanced 3D microscopy and scientific imaging company. Combining Olympus's BX43 upright frame and optics with PhaseView's advanced multiview selective plane illumination technology, the Alpha³ is a cost-effective light microscopy solution. This collaboration aims to facilitate the distribution of the Alpha³ light sheet system in the Americas.

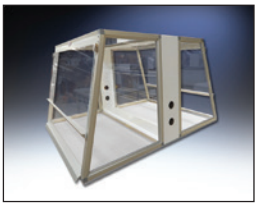
Olympus Corporation
www.olympus-lifescience.com

New TESCAN S9000 G FIB-SEM

The TESCAN S9000 G features the Triglav™ SEM column for ultra-high resolution with excellent performance, especially at low electron beam energies, and improved in-beam detection system, with electron filtering capabilities, which opens the window to new contrasts and enhanced surface sensitivity. The TESCAN S9000 G is equipped with the Orage™ FIB column that delivers the highest standard in precision for nanofabrication, but also the possibility to use high ion beam currents, making it feasible to conduct large-volume sample analyses.

TESCAN USA Inc.
www.tescan.com

SSE Balance Enclosure Workstations



The SSE is designed to be located on an island or peninsula location with access on two sides for student labs and light-duty procedures. It is constructed of chemical-resistant metal framing and 1/4" thick clear acrylic side panels and viewing sash. Efficient air flow design with airfoil and bypass directs contaminates to baffled exhaust thereby providing superior air flow and containment performance for user protection. The ergonomic sash is angled 15 degrees for ease of viewing comfort.

HEMCO Corporation
www.HEMCOcorp.com