

#### **ProductNews**

### Nikon Revolutionizes Imaging, Doubles Field of View with New Inverted Research Microscope



The ECLIPSE Ti2 delivers an unprecedented 25 mm field of view as well as improved stability and usability powered by an intelligent microscope operation guide. With this FOV, the ECLIPSE Ti2 maximizes the sensor area of large-format CMOS cameras and significantly improves data throughput.

The Ti2's stable, drift-free platform is designed to meet the demands of super-resolution imaging, while its unique hardware-triggering capabilities enhance even the most challenging, high-speed imaging applications.

Nikon Instruments Inc www.nikoninstruments.com

### Simplify Cleanliness Analysis with the OLYMPUS CIX100 Turnkey Technical Cleanliness Solution



The OLYMPUS CIX100 technical cleanliness control system is designed to meet the cleanliness requirements of both modern industry and national and international directives for evaluating particulate contamination of manufac-

tured components and parts. The fully motorized system is optimized for high-throughput, accuracy, and repeatability. Step-by-step user guidance minimizes human errors, maximizes productivity, and helps ensure that manufacturers can maintain the highest quality standards.

Olympus Corporation www.olympus-ims.com

### New Multi-Scale Imaging System Provides Insight into a Material's Internal 3D Structure



A new multi-scale imaging solution that is designed to provide large-scale, high-fidelity 3D images of materials samples: HeliScan is a critical component of a multi-scale, multi-modal workflow, which begins with a MicroCT scan using HeliScan and progresses through higher-resolution imaging with, for example,

a Helios plasma-focused ion beam (PFIB) DualBeam, to atomic-scale analysis in a transmission electron microscope (TEM), such as a Titan system.

Thermo Fisher Scientific Inc www.thermofisher.com

#### SOPHIA-XO: A Direct X-Ray Detection Camera



Princeton Instruments introduced its SOPHIA-XO:2048 high-speed, ultra-low-noise camera, engineered to address very low flux scientific applications. The camera features a 2048×2048, 15 µm<sup>2</sup> pixel CCD and provides >3 fps with 16MHz readout speed at full resolution. Proprietary

new  $\operatorname{ArcTec^{TM}}$  ultra-deep-cooling technology minimizes dark noise by thermoelectrically cooling the CCD to less than -90°C using only air assist. High frame rates and outstanding sensitivity make the SOPHIA-XO ideal for a diverse range of x-ray applications.

Princeton Instruments www.princetoninstruments.com

#### Basler's First 3D Camera Enters Series Production



The Basler ToF Camera operates on the pulsed time-of-flight principle. It is equipped with eight high-power LEDs in the NIR range and generates 2D and 3D data in one shot with a multipart image, comprised of a range, intensity, and confidence

map. It is the first industrial ToF Camera with VGA resolution in the mid-range price segment. It delivers distance values in a working range of 0 to 13.3 meters, 20 frames per second.

Basler AG www.baslerweb.com

#### Bruker Introduces Nanoscratch Capability for Nanomechanical Testing



Bruker announced the release of a nanoscale scratch option for its NanoForce Nanomechanical Testing System. The new option brings the precision and stability of the NanoForce to controlled lateral displacement between tip and sample during nanoindentation. This significantly expands the

platform's capabilities to characterize the resistance of thin films and coatings to scratching, cracking, chipping, scuffing, and delamination, without compromising its ability to accurately investigate the uniformity of mechanical properties over large sample areas.

Bruker Corporation www.bruker.com/nanoforce

# The Olympus DP74 Microscope Camera Provides Real-Time and Fluorescence Imaging



The new Olympus DP74 color fluorescence microscope camera combines advanced image processing technology, a low-noise design, and easy-to-use software to deliver smooth, true-to-life images in demanding life science and industrial applications. The DP74

microscope camera is an excellent choice for capturing vivid fluorescence images. The cooled CMOS sensor helps make fluorescence images clear and bright. Multi-frame noise reduction reduces signal noise so users can capture sharp images, even with a weak signal.

Olympus Corporation www.olympus-ims.com

#### Aven's SharpVue Digital Microscope System



Aven's SharpVue system combines advanced digital microscope technology with comfort and ease of use. The SharpVue features an auto-focus HD camera with optical magnification of up to 30× and digital up to 300×. Featuring

a working distance of 9 inches, the SharpVue is capable of inspecting objects large and small. The SharpVue produces stunning high-quality HD images without any distortion of delay and excellent depth of field. Built-in LED lighting provides even, shadow-free illumination.

Aven, Inc. www.aventools.com

### The New FLUOVIEW FV3000 – Faster, Simpler, and Better Confocal Imaging



The Olympus FLUOVIEW FV3000 confocal laser scanning microscope combines usability with high-performance imaging capabilities. The system's new optical design offers unique macro to micro imaging capabilities with objectives ranging

from  $1.25\times$  to  $150\times$  magnification. Users can choose either the FV3000 with galvanometer scanner or the FV3000RS with a hybrid resonant/galvanometer scanner. The high-speed resonant scanner enables users to acquire high-resolution images at up to 438 frames per second.

Olympus Corporation www.olympus-lifescience.com

#### The Super-Long-Range Nanopositioner SLR1500



The SLR1500 is the longest travel range piezostage available: it can move 1,500 microns in closed-loop mode. This stage is exceptionally reliable due to a totally frictionless assembly. This piezostage also uses special piezostacks tolerant to any damage and offers highest reliability for critical application.

Contrary to traditional nanopositioners, if the piezostack is damaged, the remaining ceramic elements continue to operate. The SLR1500 can be combined to form 2- or even 3-axis nanopositioning systems.

PIEZOCONCEPT www.piezoconcept.com

#### Microscopic Imaging of Large or Irregularly Shaped Samples



The ProZ motorized focus stand is the ideal solution for viewing and imaging samples that may be too large, or irregularly shaped. Offering a large travel range of 250 mm and flexible mounting adapters, and accommodating most microscopes, means when using the ProZ you are no longer restricted by the small focus travel of standard microscope frames and stands. The ProZ stand enables the imaging of samples that until now could not easily be analyzed.

Prior Scientific Instruments Ltd www.prior-scientific.co.uk

### CRAIC Technologies Offers Superior Glass Refractive Index Measurements



rIQ<sup>TM</sup> is an automated system that uses the thermal immersion method, as defined by the standard ASTM E1967, to measure the refractive index of microscopic glass fragments. This system allows the user to analyze the refractive index of multiple glass fragments simultaneously and with sophisticated analytical techniques. The rIQ<sup>TM</sup> offers up to 20 resizable measurement probes and video recording of the measurement process, with the ability to reanalyze the previously recorded measurement process in seconds.

CRAIC Technologies, Inc. www.microspectra.com/products/riq

### Anasys Instruments Introduces the nanoIR2-FS High-Speed Nanoscale IR Spectroscopy System



Anasys Instruments announced its new nanoscale IR spectroscopy and chemical imaging system, the nanoIR2-FS<sup>TM</sup>. The nanoIR2-FS, with new *FAST*Spectra<sup>TM</sup> technology, offers superior measurement speed,

resolution, sensitivity, and multi-modal characterization capabilities, while extending its Resonance Enhanced AFM-IR technology to a broader spectroscopic range to provide unrivalled correlation to FTIR at the nanoscale across a wider range of samples. Multi-modal capabilities are enhanced with new updates for the integrated atomic force microscopy technology, afm+.

Anasys Instruments www.anasysinstruments.com

### Universal Motorized Translation Stage for Neuroscience Microscopy



Providing a method to precisely move microscopes while allowing the sample to remain stationary, the new ZDP50K Translation Stage from Prior Scientific is compatible with all modern research

microscopes. By using the translation stage from Prior Scientific, researchers can quickly, yet precisely, move any modern research microscope of up to 60 kg in weight to a desired position and quickly return to areas of interest without moving the sample.

Prior Scientific Inc. www.prior.com

#### KURO Scientific CMOS Camera



Princeton Instruments introduced its KURO:1200B, the first scientific CMOS camera system to implement back-illuminated sensor technology. Until now, this key technology had been leveraged almost exclusively by CCD camera systems, which, despite their excellent sensitivity, are unable

to match CMOS frame rates. The KURO:1200B camera delivers both the fast frame rates and the exceptional sensitivity needed for many applications while liminating the drawbacks commonly associated with front-illuminated scientific CMOS cameras.

Princeton Instruments www.princetoninstruments.com

## EVO Cam Digital Microscope Now Enhanced with Stunning Full-HD 360° Rotating Views



Now enhanced with the option of a 360° rotating viewer, Vision Engineering's new EVO Cam digital microscope delivers stunning all-round views of engineered, electronic, or precision parts—the fastest, simplest way to inspect. By combining stunning 360° rotating views (up to 105× magnification) with the power and convenience of ultra-sharp full-HD imaging, Vision Engineering

has created a supremely capable digital inspection solution, making it fast and easy to inspect any component.

Vision Engineering Ltd. www.visioneng.com