

IndustryNews

Real-Time 3D Imaging of Living Organisms at Sub-Cellular Resolution

Leica has entered into an exclusive, worldwide licensing agreement with Columbia University to commercialize swept confocally aligned planar excitation (SCAPE) microscopy. SCAPE microscopy forms 3D images of living samples by scanning them with a sheet of laser light. SCAPE's unique capabilities allow scientists to perform new kinds of experiments, from imaging individual neurons firing throughout the brain of adult fruit flies, to tracking calcium waves through cells in the beating heart of a zebrafish.

Leica Microsystems GmbH and Columbia University
www.leica-microsystems.com

Update to Olympus cellSens® Microscope Imaging Software



Olympus cellSens v. 1.16 software introduces a new instant multiple image alignment (MIA) feature that further streamlines users' imaging workflow.

Version 1.16 of cellSens software includes new features and improvements to existing functions, enhancing the software's speed, quality, and performance, including: real-time image stitching, open microscopy environment support, independent configurations, improved multi-position workflow for quick adjustment of the target focal plane and position, and easy creation of sample focus maps

Olympus Corporation
www.olympus-lifescience.com

Innovative Approach for Tracing Filaments in Dense 3D Neural Networks

Bitplane announced the launch of Imaris 8.4, which introduces a new approach to tracing neuron structures in 3D images. Torch™, a patent-pending tool that intuitively highlights structures in close proximity to the cursor while darkening the rest of the image, enables users to efficiently and accurately trace individual neurons within dense and thick samples. Improved depth visibility makes tracing in thick samples easier, allowing for the selection of a dynamic region of interest for tracing.

Bitplane, an Oxford Instruments Company
www.imaris.com/newrelease

Bruker Introduces All-Optical, Simultaneous 3D Stimulation and Multiphoton Imaging for Optogenetics

Bruker announced the release of the Ultima NeuraLight 3D™ simultaneous, all-optical stimulation and imaging platform for neuroscience applications. The NeuraLight 3D module is the most advanced 3D holographic solution for multi-cell brain research to decode neural connectivity and neural networks. Bruker's spatial light module technology enables the mapping of neural networks on an unprecedented level with respect to stimulation frequency and spatial resolution on both *in vivo* and *in vitro* experimental models.

Bruker Corporation
www.bruker.com/FM

Linkam Launches the Optical DSC450 for the Simultaneous Visualization of Thermal Transition Experiments

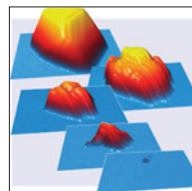


The Optical DSC450 enables the user to measure glass transitions and melting behavior of a wide range of substances while accurately controlling temperature from -196 °C to 450 °C. The atmosphere of the stage can also be purged with gas as required by the user.

A new feature which will increase the characterization capabilities of the DSC system is to combine it with imaging capability.

Linkam Scientific Instruments Limited
www.linkam.co.uk

Oxford Instruments Asylum Research Announces the New Electrochemistry Cell for the Cypher ES Atomic Force Microscope



Electrochemistry capabilities are now available on the Cypher ES atomic force microscope (AFM), the highest-resolution, fast scanning AFM with environmental control. Oxford Instruments Asylum Research announces the availability of the new Electrochemistry Cell for studying electrochemical reactions *in situ*,

including processes such as deposition, oxidation, corrosion, and mass transfer of metals and other materials at the nanoscale.

Oxford Instruments Asylum Research, Inc.
http://oxinst.com/AFM

Compact Linear Piezo Stages Offer Nanometer Resolution and Extended Travel Ranges

PI provides its compact linear piezo positioners—P-620.1 to P-629.1—of the PIHera family consisting of 60 stages available in a large variety of travel ranges. Flexure-guided piezo positioning stages deliver vibration-less motion, with virtually unlimited resolution, and fast response in comparison to mechanical bearing-guided motorized systems. The lack of rolling elements means there is no bearing rumble to affect the uniformity or straightness of the linear motion.

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

Nikon Small World in Motion 2016 Winners

Nikon Small World in Motion is the video component of the long-standing Nikon Small World still photography competition. First Place: William Gilpin, Vivek Prakash, and Manu Prakash Stanford: "An eight-week-old starfish larva creates vortices in order to capture its main food source, swimming algae." Second Place: Charles Krebs Charles Krebs Photography, "The predatory ciliate (*Lacrymaria olor*)." Third Place: Wim van Egmond, Micropolitan Museum Berkel en Rodenrijs, Netherlands, "The fungus *Aspergillus niger* growing fruiting bodies."

Nikon, Inc.
www.nikonsmallworld.com

The Agricultural Research Service of the USDA Uses a Quorum Cryo-SEM Preparation System

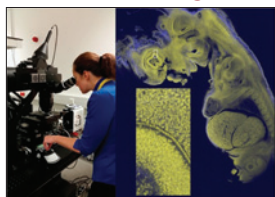


Quorum Technologies reports on the work of the Agricultural Research Service of the US Department of Agriculture where their PP2000 Cryo-SEM preparation system is in use to prepare soft bodied organisms, including mites and ticks, for

study using cryo-SEM. The PP2000 is one of Quorum's highly automated, easy-to-use, column-mounted, gas-cooled cryo-SEM preparation systems suitable for most makes and models of SEM, FE-SEM, and FIB/SEM.

Quorum Technologies Limited
www.quorumtech.com

Groundbreaking 3D Imaging of Biomedical Samples



Prior Scientific reports on how its precision stages and focusing systems have been adopted by Mesolens Ltd. as part of their groundbreaking microscope system that makes it possible to image relatively large

biomedically important specimens, such as embryos, brain areas, or tumors, with full 3D recording of many thousands of cells. Prior Scientific's control system, motorized stage, and focus motor were chosen by Mesolens Ltd because of their outstanding stability and reliability.

Prior Scientific Instruments Ltd and Mesolens Ltd.
www.prior.com and www.mesolens.com

Olympus Launches Stream 2.2 Image Analysis Software

Olympus has launched its Stream 2.2 image analysis software package that intuitively combines digital image acquisition, image processing, analysis and evaluation, image archiving, document management, and report generation. As a result, Stream software provides all the tools needed for users to easily control, collect, calculate, and communicate their work in complete compliance with international and national standards. This updated software is compatible with Windows 10 and supports MS Office 2016.

Olympus Corporation
www.olympus-ims.com/en/microscope/stream2

Cetim Facility Receives Bruker Contour CMM Dimensional Analysis System

Bruker's Nano Surfaces Division and Cetim announced that Bruker has delivered its Contour CMM™ Dimensional Analysis System to the Cetim Carnot Institute in France. In a collaborative agreement, Cetim will validate the system's measurement accuracy and performance across a wide variety of applications at their Picard facility. The new instrument enables one to perform simultaneous nanoscale surface height, roughness, texture, and 3D form measurements for geometric dimensioning and tolerancing.

Bruker Corporation and Cetim
www.bruker.com/CMM and www.cetim.fr/en

Basler Releasing Development Kit for Embedded Vision Applications



The Basler PowerPack for Embedded Vision is a development kit for integrating a Basler dart camera with a BCON for LVDS interface. It contains a dart camera module, a processing board based on the Xilinx ZYNQ®-7010,

and additional accessories and offers a complete sample setup for an LVDS-based camera connection. Basler's development kit simplifies the often-complex and time-intensive task of integrating LVDS-based camera modules into embedded vision applications.

Basler AG
www.baslerweb.com/embedded

WITec Establishes a New Office in China



WITec GmbH opened a new office in Beijing. The facility in the capital of the fastest growing large economy in the world will enable WITec's current market presence to be expanded while better serving its growing client base. The direct local representation will offer sales and after-sales technical support along with customer event organization. On-site product demonstrations and sample measurements will provide an opportunity for scientists to witness WITec's Raman, AFM, SNOM, and correlative microscopy solutions.

WITec GmbH
www.WITec.de

New ZEISS Celldiscoverer 7 for Live Cell Imaging



ZEISS Celldiscoverer 7 combines the user-friendly automation features of a boxed microscope with the image quality and flexibility of a classic inverted research microscope. Scientists acquire better data in shorter times with 2D or 3D cell cultures, tissue sections, or small model organisms. In contrast to other boxed microscopes with limited flexibility, ZEISS Celldiscoverer 7 can be adapted to a whole range of tasks and applications. The system comes with various incubation and detection options.

ZEISS Microscopy
www.zeiss.com/microscopy

UV-visible-NIR Microspectroscopy Available with Windows 10®

CRAIC Technologies announced that its UV-visible-NIR microspectroscopy software now runs on Windows 10®. You will immediately notice a more fluid response, with Windows 10's newly enhanced stability and advanced memory management. Windows 10® will further improve the usability of CRAIC's LambdaFire™ spectroscopy software, with such features as better windows usability, multiple desktops, speedy access to often-used documents, and spectra with "Home" view.

CRAIC Technologies, Inc.
www.microspectra.com/products/2030-microspectrophotometer