

ProductNews

JEOL Introduces New Best-in-Class Field Emission SEM

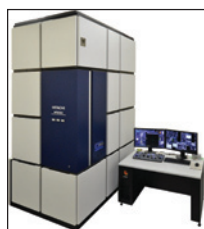


The new JSM-7200F is an FE SEM with ultrahigh spatial resolution of 1.6 nm at 1.0 kV and high probe current of 300 nA. Featuring through-the-lens detectors that can collect a variety of signals by varying the built-in energy filter, the JSM-7200F produces a large amount of data in a very short amount of time. The JSM-7200F is an all-in-one SEM designed for any type of sample or analysis, including magnetic samples, non-conducting

materials, biological specimens, and semiconductor devices.

JEOL USA, Inc.
www.jeolusa.com

Hitachi 200 Kv Aberration-Corrected TEM/STEM/SEM

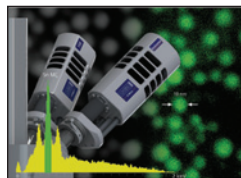


Hitachi announced the all-new HF5000 electron microscope with three imaging modes, including TEM, STEM, and SEM. The automatic probe-forming aberration corrector makes sub-Å resolution imaging routinely achievable. The state-of-the-art cold field-emission gun delivers high brightness, long-time probe current stability, and high-energy resolution. The dual-SDD windowless detectors provide

the largest solid angle in the market for fast and high-sensitivity EDS analytical work. EELS and many other options are available.

Hitachi High Technologies America, Inc.
www.hitachi-hightech.com

Oxford Instruments Launches Revolutionary EDS Detector: X-Max Extreme



Oxford Instruments has launched X-Max Extreme, a Silicon Drift Detector for ultrahigh resolution FEG and FIB-SEM applications. This unique detector for the first time enables EDS data collection at very low kV (for example, between 1kV and 3kV) and a very short working distance to provide elemental

analysis under the conditions used to analyze nano-materials and surfaces at the highest SEM resolution. For the first time, EDS resolution approaches that of the SEM.

Oxford Instruments NanoAnalysis
http://oxford-instruments.com

The Leica DM2500 LED Microscope for Clinical Laboratories and Research Applications

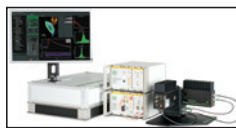


The Leica DM2500 LED is suitable for demanding tasks in clinical laboratories. The ultra-bright LED illumination of the Leica DM2500 LED was developed in cooperation with pathologists and research scientists and offers a constant color temperature at all light

intensities, enabling particularly fine differentiation of colors in stained specimens. The LED illumination is also suitable for unstained or low-contrast specimens and high magnifications, for example, for light-intensive phase or differential interference contrast applications.

Leica Microsystems GmbH
www.leica-microsystems.com

Picoquant's LSM Upgrade Kit Supports the Zeiss LSM 880



The new FLIM and FCS upgrade kit expands the capabilities of the Zeiss LSM 880 confocal laser scanning microscope with time-resolved analysis techniques such as fluorescence lifetime imaging (FLIM),

fluorescence correlation spectroscopy (FCS), or advanced time-resolved Förster resonance energy transfer (FRET) analysis. The broad range of laser sources available, high photon sensitivity, and time resolutions ranging from pico- to microseconds make it possible to analyze all types of commonly used fluorophores.

PicoQuant GmbH
www.picoquant.com

Long-Life Metal Halide Illumination System



The Lumen 200S is a powerful 200 Watt, cost-effective alternative to standard 100 Watt mercury and halogen lamp houses traditionally used for fluorescence imaging. The built-in shutter of the Lumen 200S is able to close in 30 ms, allowing very brief exposure periods thereby minimizing the risks of photobleaching damage even to sensitive

samples. A wide variety of control options are available for the Lumen 200S including RS232, USB, TTL, and via the ProScan® III controller.

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

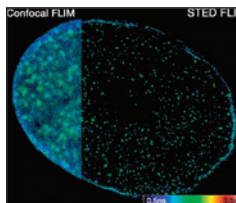
Bruker Introduces Opterra II Multipoint Scanning Confocal Microscope



Bruker announced the Opterra II™ Multipoint Scanning Confocal Microscope. The Opterra II's low photo-toxicity and photo-bleaching capabilities deliver significant advantages over today's spinning disk confocal approaches, including enabling time-lapsed volumetric studies on previously inaccessible specimens. This performance is achieved through the system's unique ability to optimize an experiment's imaging conditions through real-time adjustment of imaging speed, resolution, and sensitivity. The Opterra II provides sub-10% field uniformity deviation, allowing quantitative analysis in all dimensions.

Bruker Nano Surfaces Division
www.bruker.com

STED FLIM Microscopy



Abberior Instruments launches STED FLIM, with the following features: 1) Acquire simultaneously FLIM data in up to 4 channels. 2) Online calculation and display of lifetimes in STED mode. 3) Separate dyes in STED mode via their lifetimes. 4) FCS, scanning FCS, and other single-molecule spectroscopy through offline analysis. 5) Auto-saving of TCSPC photon streams that can be directly loaded into MATLAB, Python, C/C++, and ImageJ. 5) Perform an easy workflow based on a full software integration of STED FLIM into Inspector.

Abberior Instruments GmbH
www.abberior-instruments.com

ZEISS GeminiSEM Field Emission Scanning Electron Microscope

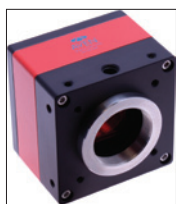


The ZEISS GeminiSEM family comes with a novel optical design. The Nano-twin lens delivers images with high contrast and sub-nanometer resolution. NanoVP allows the use of in-lens detection at pressures of up to 150 Pa. NanoVP improves lateral resolution of EDS data, providing higher spatial resolution on chemical specimen

composition. "Excellent imaging performance down to 100 V without even having to bias the sample," says Dr. Laurent Maniguet from Grenoble Institute of Technology.

Carl Zeiss AG
www.zeiss.com

Mighty Cam CCD from Aven Handles Light and Color Challenges

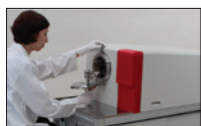


A new microscope camera from Aven, Inc. is designed for demanding light and color challenges. The Mighty Cam's CCD sensor assures optimum color fidelity and excellent image quality for life sciences, industry, geology, entomology, botany, and education. Our eZMeasure software, which is included, allows measurement, analysis, annotation, archiving, and presentation. The ½" 1.4MP sensor delivers images and video with more detail and

greater color precision than standard camera sensors.

Aven, Inc.
www.aveninc.com

Hidden Compact SIMS/SNMS Surface Analyzer



The Hidden Compact SIMS/SNMS tool features full ultrahigh vacuum compatibility to address the requirement for fast, elemental surface characterization of layer structures, contaminants, and impurities. Typical application areas include semiconductor fabrications, glass coatings, metallurgy, photovoltaic, gem stone verification, and geology. Secondary ion mass spectrometry (SIMS) is a sensitive technique providing analysis of surfaces and of surface layers at the nanometric level. The addition of the SNMS (Sputtered Neutral Mass Spectrometry) operating mode further enabling direct quantification of elemental concentrations.

Hidden Analytical Ltd.
www.HiddenAnalytical.com

Mobile Cubic Downstream Asher



ibss Group, Inc. released the Mobile Cubic DS Asher, a portable downstream plasma center for *ex-situ* specimen cleaning and storage and *in-situ* e-beam chamber cleaning, fitted into one convenient, wheeled S/S enclosure. The Asher is controlled by the latest ibss software on a Windows tablet or PC. The MCDS Asher includes a streamlined Cubic Chamber able to accommodate three TEM holders simultaneously and Qwk-Switch™

Source mounting to facilitate transfer from the MCDS Asher to e-beam chambers.

ibss Group, Inc.
www.ibssgroup.com

Leica Microsystems Laser Microdissection Microscope Series with LED for Transmitted Light



Leica Microsystems has launched two instruments of the laser microdissection microscope series, the Leica LMD6 and the LMD7, with LED illumination for transmitted light. LEDs are an energy-efficient light source providing homogenous illumination and a constant color temperature. The Leica LMD6 succeeds the Leica LMD6500, and the

Leica LMD7 succeeds the Leica LMD7000. The upright microscope Leica DM6 B, successor to the Leica DM6000 B, is integrated in both new LMD systems.

Leica Microsystems GmbH
www.leica-microsystems.com

Hemco Announces Microflow II Ductless Workstation



The MicroFlow II is a Class 1 ductless carbon-filtered workstation equipped with activated carbon filtration, for fumes, odors, and non-hazardous chemical vapors. It is completely self-contained with integral recessed work surface to contain spills. Variable speed fan control allows for high speed 100f/m. air flow thru the sash opening,

or medium- and low-flow for sensitive operations. Filter change light is installed to alert the user when it is time to replace the filter.

Hemcon Corporation
www.HEMCOcorp.com

New LN₂-Cooled InGaAs Camera



Princeton Instruments announced the NIRvana:640LN. This new addition to the popular NIRvana® line features a specially designed InGaAs focal plane array (FPA) that has extremely low readout and thermal noise that is ideal for ultra-low-light imaging and spectroscopy. The NIRvana:640LN delivers

a combination of >75% quantum efficiency in the critical NIR/SWIR window along with the deepest liquid nitrogen cooling (83 Kelvin) currently achievable for an advanced InGaAs FPA, permitting exposure times in excess of 60 minutes.

Princeton Instruments
www.princetoninstruments.com/products/imcam/nirvana

TECHSPEC® SWIR Fixed Focal Length Lenses



TECHSPEC SWIR Lenses are specifically designed, optimized, coated, and tested for the SWIR wavelength range. They offer many advantages when compared to standard imaging lenses that have merely been coated for the SWIR range. TECHSPEC SWIR Fixed Focal Length Lenses use both SWIR-optimized AR

coatings and glass types to provide maximum image quality. These SWIR lenses feature an anti-reflective (AR) coating from 0.8–1.8µm and are designed to cover large, 25 mm sensors.

Edmund Optics
www.edmundoptics.com