

The **NIKON CoolScope** is a new, fully integrated microscopy system contained into a single compact box. Requiring no set up or microscope training, the user inserts the specimen slide into the front of the unit, which automatically loads the slide and selects the appropriate settings for optimum brightfield viewing. (Settings can be manually overridden.) The highly intuitive software allows the user to observe the entire slide; magnify and mark specific parts of the specimen; and digitally capture, store, and share images—all at the touch of a mouse.

Nikon is pleased to introduce the brand new **Digital Sight DS-5M-L1 All-in-One Digital Camera System**. The design emphasizes the comfort of capturing up to 5-Megapixel high resolution images in the most efficient manner possible—stand-alone control unit with a 6.3-in. LCD monitor, easy-to-use menus, and optimum programmed functions for various modes of digital imaging. Nikon Instruments Inc announced that it has entered into a cooperative marketing agreement with Q3DM Inc., a leader in high resolution, high throughput cell-based imaging solutions.

Q3DM has fully integrated Nikon's TE2000 inverted research microscope as the optical platform for the EIDAQ(tm) 100 High Throughput Microscopy (HTM) system. The EIDAQ(tm) 100 is an automated HTM system that delivers an unmatched combination of speed, accuracy, and precision to quantitative imaging and analysis of cell populations. The EIDAQ(tm) 100 is used to accelerate drug discovery, improve clinical diagnostics, and advance basic research. For more information, visit the Nikon website at www.nikonusa.com or call 800 52 NIKON.

JEOL USA, Inc. introduces an advanced Field Emission Electron Microscope featuring ultrahigh resolution and rapid data acquisition. The new JEM-2100F is a next-generation TEM that simplifies atomic-level structural analyses in biology, medicine, and materials sciences as well as the semiconductor and pharmaceutical industries. Features include a high-brightness Schottky field emission electron gun producing a probe size of less than 0.15nm. Ultra-high point-to-point TEM resolution is guaranteed at 0.19nm, and atomic scale resolution of 0.136nm can be achieved using High Angle Annular Dark Field (HAADF) STEM imaging to directly reveal atomic position and detail. A new microprocessing and networking capabilities streamline communications for rapid data acquisition and transfer. The JEM-2100F Windows OS interface makes operation easy and intuitive. A clearly-labeled, graphical interface screen simplifies even the most advanced applications. Using optional EmiSpec Cynapse™ software, the JEM-2100F simultaneously integrates a variety of CCD cameras and detectors that are used for multiple analytical techniques, including digital STEM, HAADF, MDS, EDS, and EELS. These functions, as well as complete microscope control, are fully remote-ready. To perform atomic-level stage movements, the JEM-2100F features a tension-free specimen holding system and a five-axis, LoDrift™ goniometer stage. Drift is guaranteed at less than 0.2nm/min. The optional Piezo-controlled stage provides atomic-positioning capabilities of better than 0.1 angstroms/step. Drift correction software ensures constant stability for the duration of image and/or analytical acquisition. Column support is closer to the center of gravity and a passive air mount (active air mount optional) minimizes transfer of vibration to the specimen stage. Typically, no special anti-vibration system is required for installation. Using the optional FasTEM™ remote system, the operator can control the TEM from a remote location. The JEM-2100F is configured for a broad range of techniques, from ultrahigh resolution TEM, STEM, and high-sensitivity subnanometer chemical analysis, to fully-automated image montaging, tomography, and cryo-EM. Multiple techniques are simultaneously available to investigate structural properties with different devices. For added tilting capability that serves a variety of applications, polepieces are easily interchangeable. For more information about JEOL USA, Inc. or any JEOL products, visit www.jeol.com,

Vision Technology announced today the introduction of their "New and Improved" **SuperVision High-Power Video Microscope systems**. Vision Technology upgraded capabilities to allow sharing of a VGA or better monitor with a user-supplied PC. Additional improvements include a built-in USB video frame grabber allowing users to instantly capture, print or e-mail images viewed on SuperVision systems, auto-switching 100/240 Volt, 50/60 Hz power supplies that allow the systems to be used anywhere in the world, improved camera sensor technology providing higher resolution images, and independent lighting controls allowing users to increase or decrease lighting intensity based on viewing needs. Standard capabilities like "Selectable Auto/ Manual Focus", "On-Screen Magnification Readout", "Multiple Video Viewing Modes" and "X-Y-Z Positioning Table" coupled with these new improvements make the SuperVision a multi-purpose quality control, production and communications tool for use anywhere microscopic images are required. Three different models of the SuperVision High-Power Video Microscope systems are available that provide Zoom Magnification Power of 6X – 180X. The SuperVision 700S accommodates objects up to 40 mm in height. The SuperVision 800H accommodates objects up to 115 mm and the SuperVision 900 UH accommodates objects up to 160 mm. All three have a working distance of 76mm between lens and object. A long working distance SuperVision 500W that provides Zoom Magnification Power of 3X – 80X at a working distance of 178 mm between lens and object is available for those applications that require room for user tools and other working objects under the microscope system. For more information, contact Rick Fischer by e-mail at rfischer@vti1.com.

Pacific Nanotechnology, Inc. announces that it has entered into a marketing alliance with **NanoFeel (Carouge, Switzerland)** to add nano-manipulation capabilities to PNI's Nano-R(TM) and Nano-I(TM) AFMs. AFM users can sense the texture or stickiness of a surface and "feel" nano-objects as they are manipulated in real time. The NanoFeel(TM) 300 is a force feedback manipulator that allows real-time manipulation to occur when haptics force-feedback technology is applied to the AFM. Such a system typically magnifies the real motion by a factor of one million. Thus, moving a joystick one centimeter would move the AFM tip a millionth of a centimeter, or 10 nanometers. The user can monitor forces using the force-feedback to sense the probe being attracted to the surface, then "feeling" the surface roughness, sensing the adhesion of the probe, and finally sensing the lifting of the probe.

Pacific Nanotechnology, Inc. has added the **National Instruments LabVIEW(TM) interface to its Nano-R(TM) and Nano-I(TM) AFMs**. Although PNI offers SPM Cockpit(TM) software for acquiring and analyzing AFM images, sometimes it is desirable to customize the software for specific applications and to facilitate the development of unique methods with the PNI AFM systems. This ability is now possible through the LabVIEW interface. For more information, visit the PNI web site at www.pacificnanotech.com.

Fiberoptics Technology Inc. (FTI) launched a new website, featuring a wealth of technical knowledge, insight, and a family of interactive tools to support the independent effort of OEM design engineers and the fiberoptic R&D community. While standard product information and current company news is also available, the major objective of the site is to educate and inform, maintaining the corporation's philosophy to be a consultative partner to its customers. All interactive tools are available from the site or can be downloaded for free. For further information, contact: Steven Giamundo, sgiamundo@fiberoptix.com

nPoint Introduces an Ultra-Precision, **Closed-Loop Scanner Kit** for AFM (Atomic Force Microscopes). The iC kit provides sub-nanometer accuracy and exceptional scan linearity, and can be easily integrated into an existing AFM without the need for modifications or special installation. The iC system is designed to be used with an existing AFM in two ways. When used with the AFM controller, the iC Kit readily facilitates substitution of the X-Y scanner in the AFM's head, leaving

only the Z-scanner of the head enabled. Additionally, when the scanner is employed as a precise positioning tool, all three axes of motion (XYZ) of the AFM head remain functional. The closed-loop system can also be used outside the AFM environment, as a stand-alone device, for other experiments. These multiple mode options provide a level of functionality and accuracy previously not available to AFM users. See: <http://www.piezomax.com/>

Media Cybernetics Inc., announces that it has acquired the scientific image analysis assets of DataCell Ltd., an exclusive Media Cybernetics value added reseller of image acquisition hardware, related software and imaging systems in the United Kingdom. As a result of this acquisition, Media Cybernetics UK will focus on analytical imaging software, hardware and systems solutions sales. These solutions will feature Image-Pro family software and IQbase image informatics solutions, fully-integrated with QImaging digital camera systems, and other third party solutions.

Media Cybernetics Inc., also announces a significant upgrade release of **3D Constructor**. This plug-in module for Image-Pro Plus is for scientific researchers who wish to explore three-dimensional relationships within and among objects. Version 5.0 adds extensive measurement tools to quantitate 3D and 4D relationships. It adds tremendous depth of understanding to the renowned qualitative rendering tools found in version 4.5. 3D Constructor's new measurement features include tools for calculating volume, surface area, sphericity, angles, line length, and the distance between two points on a surface. The user may interact with objects which are dynamically linked to analysis results in line plot, histogram, or scatterplot displays. A unique feature gives automatically updated measurements from frame-to-frame playback of 4D sequences, providing immediate quantitative feedback. For more information about Media Cybernetics, visit www.mediacy.com.

TSL, a subsidiary of EDAX, has introduced the **DigiView II** – the second version of its advanced camera system for electron backscatter diffraction (EBSD) analysis in the scanning electron microscope (SEM). Coupled with OIM Data Collection's fast indexing algorithms, the system can collect data at 70 patterns per second, at 8x8 binning, that has an indexing accuracy of 99.9%. The new camera also retains a high resolution mode that provides superb images for phase identification. The DigiView II and TSL's suite of EBSD applications integrates well with host SEMs. Together with the market-leading EDS X-ray microanalysis systems available from EDAX, they represent the most complete and powerful EBSD analysis solution on the market. For more additional information, visit TSL's website at www.edax.com.

Syncroscopy, announces **Auto-Montage**, its unique imaging system that allows for One, the production of a three-dimensional image of an irregular surface; Two, the imaging of the histology within a complex surface that collapses the Z heights into a two-dimensional plane to generate one single field of view. Bob Town, Syncroscopy's General Sales Manager added: "We are delighted to see Auto-Montage being applied to solving important yet unanswered evolutionary questions at such a prestigious imaging facility. Their work shows Auto-Montage can quickly and conveniently produce more true to life two-dimensional images of difficult to image three-dimensional specimens, which makes it an essential tool for microscopists demanding the same from their research. For more information contact: Professor Timothy G. Bromage, Email: tbromage@hunter.cuny.edu

Nanonics introduces the **CryoView 2000™ Low Temperature System**, the first such microscope capable of simultaneous NSOM, SPM or Confocal modes of operation. It maintains a completely free optical axis from both above and below. For the first time, therefore, low temperature measurements in all SPM modes can be made simultaneously in conjunction with standard far-field optical microscopes either using upright, inverted, or dual microscopes. All of these features are now available with ultra high vacuum, ultra low temperature

(less than 10°K) and multiple ports for extreme flexibility. Please see: www.nanonics.co.il

The **Polaron SC7680** large chamber sputter coater has all the benefits of the renowned SC7640, plus the ability to evenly coat samples of up to 200mm in diameter. At its heart the SC7680 has a "cool" annular sputtering head, ideal for standard and FESEM applications. To ensure even deposition of 4" 6" and 8" samples an epicyclical sample stage is fitted. Operation is switchable between automatic and manual, making the SC7680 ideal for multi-user facilities. The SC7680 has a wide range of options, including FTM stages, rotary planetary and water-cooled stages and a carbon evaporation head. For further information contact: Quorum Technologies, mike.wombwell@quorumtech.com or visit www.quorumtech.com

Leica Microsystems, introduces a revolutionary new line of digital microscopes. The new **DM Digital Microscope series** includes the Leica DM4000 B for routine applications and DM5000 B for research applications in life sciences such as diagnostics, cancer research, cell biology and biotechnology. These microscopes are designed to deliver optimized imaging by simply selecting the objective, filter and contrast method. All aspects of the light path are automatically adjusted to the user's preferred settings. The DM microscopes work with the user to simplify advanced light microscopy. Innovations include: Press one button and the microscope switches between brightfield, phase contrast, darkfield or fluorescence imaging; "Fluorescence Intensity Manager" (FIM), which automatically sets the fluorescence illumination so that the specimen is preserved to the greatest possible extent; Complete color balance is assured by Leica's "Constant Color Intensity Control" (CCIC); The time-consuming Köhler illumination adjustment process is automated by the illumination manager; The Leica DM5000 B features an alternative to a control panel, the LeicaScreen™, for touch screen control of the entire automated process. Leica offers application-based configurations which integrate the microscope, camera, image database and user software (i.e., for fluorescence applications) to form a complete, application-specific solution. Ergonomics are another highlight of the new microscopes. All of the main control panel functions can be directly and intuitively accessed. With the Ergotube™, the user can adjust the view for individual comfort.

Leica Microsystems introduces the new **FRET (Fluorescence Resonance Energy Transfer) software** as the first module of Leica's Analytical Biology Suite. FRET measurements give insight into molecular distances, environments and interactions. Molecules are labelled with two fluorophores with the emission spectrum of the donor overlapping the absorption spectrum of the acceptor. Non-radiative energy can then be transferred from the excited donor molecule to the acceptor molecule, which then emits fluorescent light. In Leica's new FRET application, the researcher is guided step by step through the experiment by an intuitive user interface, to the final analytical results and reports. Fast data acquisition and measurements are ensured by the accelerated response of time-critical instrument parameters. In addition to their superior imaging performance, Leica Confocal Microscopes now become powerful measurement systems with the new FRET software. For more information, see: www.leica-microsystems.com

Used Tem Holders For Philips CM Series Electron Microscopes

- 2 - Double Tilt - low background holders
- 1 - Cooling - double tilt low background holder
- 1- Bulk sample holder
- 1- single tilt holder

Please contact temholder@aol.com for images of the holders