

➔ Asylum Research announces the **availability of the Q-Control Module hardware accessory for NanoScope® Scanning Probe Microscopes (SPM) from Digital Instruments, that allows gentler and less destructive imaging of sensitive samples.** The new Q-Control module reduces the damping of the dynamic system by increasing the effective quality factor of the oscillating cantilever and enlarging the regime of the net-attractive interaction. By using the Q-Control, delicate and highly sensitive surface structures observable with a standard AFM can be characterized with high resolution. The main module of Q-Control connects to the NanoScope Extender™ Electronics Module and the AFM via an additional cable. A separate remote control operates the module at resonate frequencies of the cantilever from 95 to 550 kHz. The Q-Control is only available for use with NanoScope systems equipped with Extender capabilities.

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➔ Gatan Inc. has introduced a **new high performance bottom mount 1k x 1k CCD camera for TEM applications (up to 300 keV) requiring high resolution imaging with photo-film quality.** Using advanced frame transfer CCD technology and revolutionary electronics design, this camera offers a unique combination of excellent high resolution digital imaging and real-time video read-out. The fast CCD electronics ensure the lowest read-out noise and the highest image quality possible. The on-chip anti-blooming feature is ideal for recording high quality electron diffraction patterns with large dynamic range.

DualVision cameras are opening new market possibilities for microscopists who can now perform *in-situ* dynamic experiments and send or stream the results in MPEG format, to a web site or across an Intranet.

The innovative feature set of the DualVision™ 600 makes it an ideal camera for materials science applications that demand high quality and high resolution digital imaging. It is also an ideal camera for upgrading an existing TEM from analog film to a truly digital format.

Once experiments have been completed, the results can then be "shared" via email or sent directly to the desktop of any individual. The high quality images can be output as report style documents using the Adobe™ portable document format (PDF). Full resolution images can be inserted into a report with image annotation, such as scale markers or text describing a feature of interest. Since the PDF files can be read on either Mac or PC systems, this removes the time consuming process of preparing high quality printed documents on expensive, dedicated printers. The Digital darkroom concept is finally becoming the standard for the TEM industry and is replacing film as a method of sharing data.

Gatan Inc.: (925)463-0200, www.gatan.com

➔ Small World, the maker of Electron Flight Simulator monte carlo modeling software and X-Checker calibration standards, introduces the **Wafer X-Checker. Wafer X-Checker takes all the calibration standards necessary for monitoring the performance of your EDS X-ray spectrometer and puts them on a silicon wafer.** Now it is easy to calibrate and monitor the performance of your semiconductor SEMs and DRTs that are designed to handle only wafers. Available in all sizes.

Small World: (703)849-1492, www.small-world.net

➔ Clemex Technologies Inc. announces the **new Clemex JS-2000 automated stage controller, the first of its kind to integrate USB (Universal Serial Bus) technology as its communication protocol.** The USB feature is unique in that it will allow users to easily plug n' play with any USB compliant PC running Windows 98 or 2000. The use of a specialized electronics card is no longer required. With a micro-step feature, microscope stage travel becomes more precise by a factor of ten. And, as a constant current device, there is approximately an improvement of 50% more torque in the microscope stage motors.

Clemex Technologies Inc.: (450)651-6673, www.clemex.com

➔ Universal Imaging Corporation has released a **full update of its market leading MetaMorph® bioimaging software system.** The newly redesigned Version 4.5 includes a streamlined interface for greater ease of use, an interactive training CD and powerful new functions for advanced image acquisition, processing and analysis. To make live cell imaging more accessible to new users, the MetaMorph® system now features application-specific toolbars such as the Fluorescence Tools for acquiring multiple wavelengths from digital cameras, measuring colocalization between probes and overlaying images.

The simplified interface makes image acquisition much easier and the Acquire dialog box includes commands for setting the camera binning, gain and auto-exposure.

The system runs under Microsoft Windows® 95/98 and NT, with support for a variety of black & white and color cooled CCD cameras from major manufacturers. Available software drivers support automated microscopes, filter wheels and shutters, monochromators, focus motors and Piezo electric focus devices, motorized stages, robotic peripherals and any digital or serial input/output device.

Universal Imaging Corporation: (610)344-9410, www.image1.com

➔ X-Cite™, designed specifically to meet the demanding requirements of fluorescence microscopy, is the newest addition to EFO's established line of precision illumination systems. X-Cite™ incorporates an *industry first* prealigned snap in / snap out lamp with proprietary Intelli-Lamp™ system to monitor lamp temperature and prevent damaging lamp restrikes until the lamp has cooled sufficiently. The system has a spectral range that spans 250 nm to 600 nm thereby limiting undesired sample heating making it the illumination source of choice for live cell work.

EFO's Inc.: (905)821-2600, www.efos.com

➔ ThermoMicroscopes has introduced its **new Aurora-2 near-field scanning optical microscope (NSOM).** The new system provides researchers with the sub-diffraction-limit spatial resolution of NSOM in a open-architecture platform designed to allow easy access to signals and ready interface to external detectors. With demonstrated resolution as good as 30 nm, the Aurora-2 offers the highest optical resolution available and will benefit investigators in thin film analysis; optical lithography; magneto-optical analysis; NSOM-Raman spectroscopy; and the characterization of semiconductor lasers, optical fibers, and wave guides.

The Aurora-2 further enhances spatial resolution and provides easy access to the signal acquisition and processing chain. The technique circumvents the diffraction-limited resolution of conventional optical systems by emitting light from a sub-wavelength aperture held in close and constant proximity to the sample surface.

ThermoMicroscopes: (408)747-1600, www.thermomico.com

➔ NORAN Instruments has announced the release of its **next generation of the popular VANTAGE X-ray microanalysis system.** Featuring Spectral Imaging, a powerful new approach for acquisition and visualization of elemental information, VANTAGE version 2.0 is the most comprehensive and innovative microanalysis system on the market.

Spectral Imaging provides a full EDS spectrum at every point in the digital image. This advanced technique allows virtually unlimited ability to produce X-ray maps and linescans, as well as spectral analysis of any portion of the image even after the sample has been removed from the electron microscope. This capability eliminates guesswork and greatly simplifies operation of the instrument. Dedicated hardware allows data acquisition throughput of over 60,000 counts per second processed and stored, all dead-time corrected.

NORAN Instruments: (608)831-6511, www.noran.com

