

INDUSTRY NEWS

Bruker AXS Microanalysis today announced the launch of **QUANTAX QUAD**, an innovative new EDS system for all microanalysis applications. The system features the **QUAD XFlash® 3001 Detector** — the first four-channel 40mm² Silicon Drift Detector for electron microscopy. Powered by ESPRIT EDS Software, QUANTAX QUAD delivers fast and reliable results across a broad range of applications, and is especially suitable for FESEMs, environmental and low vacuum SEMs. Four independent



10mm² Silicon Drift Diodes (SDD) with integrated anodes and FETs form the heart of the QUAD detector. This arrangement provides the high-energy resolution of a conventional 10mm² Si(Li) detector with up to 20 times the count rate: in excess of 2 million counts per second! Standard energy resolutions are better than 133 eV, and resolutions of <127 eV are available

upon request. Cooled by Peltier technology, the detector requires no liquid nitrogen and is vibration and maintenance-free. The QUAD is ideal for high-resolution real time spectrometry, optimizing count rate at low current conditions and extreme high speed mapping applications, especially large area PTS mapping. To learn more about the complete line of X-Ray Microanalysis systems and detectors offered by Bruker AXS Microanalysis, visit our website at www.bruker-axs-ma.com, or give us a call at (609) 771-4400. or email: don.becker@bruker-axs.com

Thermo Electron Corporation, a provider of Laboratory Information Management Systems (LIMS), has developed a new datasheet to provide an overview of the capabilities of its newly launched Commercial-Off-The-Shelf (COTS) software solution, **Darwin LIMST**. This comprehensive document is of particular interest to scientists working in Pharmaceutical R&D and Manufacturing Quality Control (QC) laboratories. It discusses the unique challenges facing the pharmaceutical industry regarding regulatory compliance, complex testing and batch-centric, non-continuous manufacturing processes. It then builds a case for employing COTS solutions instead of generic LIMS to avoid lengthy, costly customization projects. The new Darwin LIMS datasheet also provides an overview of the software's data processing capabilities. Darwin is able to seamlessly integrate into pharmaceutical manufacturing organizations and interface not only with database systems such as SAP, but also allow interactions with other data treatment applications. Darwin has been developed by Thermo to lower the risks and reduce the time associated with implementations as well as the Total Cost of Ownership (TCO) of modern LIMS solutions. This new datasheet is available free of charge to all laboratory managers in hard copy format or as a downloadable pdf at www.thermo.com/lims or order a copy via marketing.informatics@thermo.com

Thermo Electron Corporation will showcase its purpose-built, commercial-off-the-shelf (COTS) software solutions for the first time in Europe at Analytica, Booth 105-204, Hall B1, April 25-28, at the New Munich Trade Fair Centre in Munich, Germany. Thermo's exhibit will feature laboratory information management systems (LIMS) and chromatography data systems (CDS) that integrate not only with Thermo's products for an end-to-end solution, but with the customers' enterprise to yield increased productivity and greater knowledge from laboratory data. Thermo's informatics focus is to offer COTS software that reduces reliance on costly and risky customizations. For further press information please contact www.thermo.com

Researchers establish the **Imago Leap Atom Probe** as a unique tool for analyzing semiconductor nanostructures. Semiconducting nanowires show great promise for various emerging device technologies including high-performance transistors, single molecule sensors, and nanoscale lasers. The continued advancement of these nanometer-scale devices depends critically on knowledge of their atomic-scale structure because compositional fluctuations as small as a single dopant atom can affect

device performance. In a significant breakthrough, featured on the cover of this month's Nano Letters, researchers at **Northwestern University** have announced that a new class of atom probe, the local electrode atom probe (LEAP®) microscope was used to map the position of single Au atoms in an InAs nanowire and to image the interface between a Au catalyst and InAs nanowire in three dimensions with 0.3-nm resolution. Imago's LEAP 3000 Metrology System is the only instrument of its kind capable of providing the comprehensive, three-dimensional, micro-structural data required by the world-class Northwestern University researchers to advance nanostructure science. For more information, see <http://www.imago.com> or at <http://arc.nucapt.northwestern.edu>

Norsam Technologies, Inc. of Hillsboro, Oregon announces a new line of **extreme precision aperture strips and discs** for focused ion beam and electron microscope equipment and applications. Norsam's proprietary process allows for the highest quality and quick turn-around of custom apertures strips and/or discs—at the best pricing. Each aperture is completely free of burrs, no signs of thermal effects such as puddling or mechanical stress, clean, clear, perfectly round or other shapes milled to extreme precision to create precise beams—submicron to millimeters. Norsam is a nano micromachining company utilizing focused ion beam, laser and chemical etch proprietary technologies to manufacture diamond tips and probes, apertures/holes, diamond microblades, TEM services and other nano micromachining products and services. The company developed a line of nano diamond microblades used by NASA to extract comet particles from the aerogel collector returned to earth on the recent Stardust mission. Contact John Bishop at 800-803-2688 - www.norsam.com.

Andor Technology will be unveiling the new improved **iXonEM+ EMCCD camera** at the Biophysical exhibition, Salt Lake City, Utah. The iXon range has had a profound influence on photon-starved imaging applications from live cell microscopy and single molecule detection through to photon counting astronomy and Bose Einstein condensation and has been used by many leading research establishments throughout the world. The new iXonEM+ incorporates all the leading features that has established Andor's iXon EMCCD range as the detector of choice for dynamic, low-light measurements as well as new innovations including RealGain™, TE Cooling to -100°C and minimal clock induced charge for unrivalled sensitivity and, reduced noise enabling higher dynamic range.

Andor Technology plc also just announced the launch of the **Andor lucaEM**, the newest camera from Andor's stable of EMCCD cameras. Following on from the success of the Andor iXon (the world's first EMCCD camera) and the Andor Newton (the world's first Spectroscopy EMCCD detector), the lucaEM is a highly cost-effective yet powerful camera making EMCCD available to every laboratory. For further information, visit www.andor.com or contact: Mark Donaghy at m.donaghy@andor.com

Media Cybernetics announces the release of **Image-Pro Plus Version 6.0** scientific image processing and analysis software. This major version release of Image-Pro Plus includes a number of new image analysis tools along with support for powerful Windows(r) XP x64 operating systems Supporting 128 GB of RAM and 16 terabytes of virtual memory address space. Image-Pro Plus Version 6.0 also includes support for new file formats including read/write support for JPEG2000 and read support for EXIF JPEG files. Accurate analysis must start with a quality image. Image-Pro Plus Version 6.0 provides a streamlined acquisition interface that makes it simple to capture great images. This new version release also includes a dynamic auto-range feature for optimized image views as well as user-defined live scaling for low-light acquisition. A number of advanced image analysis tools are included in Image-Pro Plus Version 6.0, including color management tools for achieving true color fidelity for your entire imaging system, the ability to classify over 100,000 objects per image frame, and tools to export data via DDE to statistical programs like Origin(r) and Microsoft(r) Excel.

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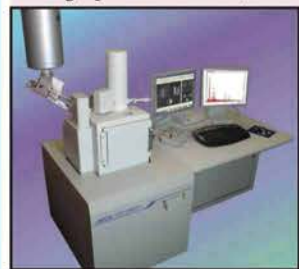
Media Cybernetics also announces the release of **InVivo Analyzer Suite 3.0** for live cell imaging. The InVivo Analyzer Suite offers all of the image acquisition and analysis tools needed for advanced live cell imaging in one easy-to-use software suite. It combines the live cell image acquisition features in InVivo with the analytical tools in Image-Pro Analyzer as well as the interactive 3D rendering functionality in 3D Constructor. Phone: 301-495-3305 x260, Fax: 301-495-5964 Email: khrach@mediacy.com and www.mediacy.com

Oxford Instruments and BegbrokeNano have joined forces to provide a dedicated suite for the analysis of micro and nanoscaled structures. BegbrokeNano, part of the Department of Materials, University of Oxford, is supported by the DTI under the UK Micro and Nanotechnology Network (MNT) offering the MNT community access to unrivalled facilities for materials characterisation. Oxford Instruments is supplying a suite of analysis systems to build on the existing world class characterisation and microscope facilities at Begbroke Science Park, located near Oxford, UK. These systems include INCAEnergy EDS, INCAWave WDS, INCACrystal and HKLChannel5 for Electron BackScatter Diffraction. The INCA system provides a complete solution for the determination of the chemistry and microstructure of materials from the micro- to nano-scale. Oxford Instruments is also providing two X-ray Fluorescence spectrometers for thin film and nanopowder analysis, X-Strata960 and Twin-X. For further information, please contact Lynn Shepherd at Oxford Instruments plc Email: lynn.shepherd@oxinst.co.uk

Within months of its release, **FEI's Titan(TM)** scanning transmission electron microscope (S/TEM), the world's most powerful, commercially-available microscope, **has earned four prestigious awards** for its design, performance and innovation. Awards include the coveted iF Design Award bestowed by the International Design Forum (iF) in Hannover, Germany, and the Innovative Product of the Year Award presented by the Oregon Tech Awards in the United States. The Titan S/TEM was also selected by editorial boards as one of the Top Products of 2005 by Solid State Technology magazine and one of the Greatest Hits of 2005 by MICRO magazine. More information can be found on the FEI Web site at: <http://www.feicompany.com>

NANOSENSORS™ introduces the **Q30K-Plus AFM tip** with a very high Q-factor and an enhanced signal to noise ratio for UHV applications. Based on the well-known PointProbe® Plus AFM probe, NANOSENSORS has developed the Q30K-Plus SPM-probe series especially for UHV applications. For high sensitivity and a good signal to noise ratio the new probes are featuring a Q-factor of over 30,000 (up to 50,000) under UHV conditions and a high reflectivity (even at wavelength of over 800nm). In addition to the enhanced Q-factor and the optimized signal to noise ratio, the Q30K-Plus series offers all features of the PointProbe® plus series like a minimized variation in tip shape and a typical tip radius of less than 7nm. For further information please refer to the NANOSENSORS™ Website at www.nanosensors.com or contact info@nanosensors.com.

JEOL USA, a leading supplier of scientific and analytical instruments, has **introduced a new series of high resolution tungsten scanning electron microscopes (SEMs)** featuring multiple live image displays, streamlined graphical interface, and improved low kV operation. The new SEM series enables simultaneous observation of up to three different images (secondary electron, backscattered electron, and digital camera), on-screen measurement, and smart settings for simplified functionality. Secondary electron resolution is 3.0nm at 30kV, 8nm at 3kV, and 15nm at 1kV, and magnification ranges from 5 to 300,000X. New electron optics enhance both general purpose imaging as well as analysis at the



nanoscale. The new **JSM-6390/6490 series** comprises five models, offering a choice of low vacuum operation, three stage sizes for specimens up to 12" in size, and goniometer stage axis control. In addition, JEOL USA offers a wide range of specially-designed sample holders for its US customers. For more information about JEOL USA, Inc. or any JEOL products, visit www.jeolusa.com, or call 978-535-5900.

Omega Optical has released its **new and expanded catalog Precision Optical Filters for OEM Instrumentation and Research** at Photonics West in San Jose, CA. This technical handbook encompasses optical interference filter theory, filter design, coatings, filter types, and system design considerations. It also includes company capabilities, core technology, and intellectual property as related to coatings and filter design. In addition, there are sections on collaborative engineering services, sub-assembly contracting, and standard product lines, rounding out the company's ability to provide comprehensive filter solutions for OEM partners and researchers worldwide. The catalog is targeted at OEMs and researchers designing biomedical and industrial instrumentation for a wide variety of markets and applications.

On January 15 **NASA's Stardust satellite** returned to earth from a 2.88 billion mile, seven-year round-trip journey, with dust from the tail of comet Wild 2 collected with the aid of filters from Omega Optical. Approximately 2 years ago, the satellite passed within 149 miles of the comet, navigating a "hazardous traverse" through the particle and gas coma collecting samples and sending back images of the comet's pockmarked surface. The camera on board the Stardust mission used Omega filters as an integral part of its optical system. For more information or to request a copy of the catalog contact Radka Jiraskova, International Marketing Associate, at rjiraskova@omegafilters.com

Hyphenated-Systems, a world-wide provider of hybrid microscopy solutions for three-dimensional (3D) imaging and metrology in micro- and nanotechnology, **announces a joint development project (JDP) with the Advanced Technology and Manufacturing Center (ATMC) at the University of Massachusetts Dartmouth.** The ATMC will use Hyphenated Systems' 3Dmap(tm) to characterize the subsurface 3D structure of microfluidic devices created with its laser-ablation-based micromachining technology. Hyphenated-Systems' 3Dmap (Microfluidics Analysis Platform) uses advanced confocal microscopy to visualize and measure 3D structures with sub-micron resolution. ATMC provides micro-fabrication design and prototyping services to industrial companies and research laboratories. Its laser ablation technology permits the rapid fabrication of complex structures not easily created with more conventional micro-lithography techniques. For more information, please visit www.hyphenated-systems.com. ATMC operates a conference center, research laboratories and a technology venture center from its campus in Fall River, MA. More information is available at www.atmc.umassd.edu.

e2v technologies is proud to announce that, from 1st April 2006, **Gresham Scientific Instruments Ltd. will be renamed 'e2v scientific instruments Ltd.'** Gresham Scientific Instruments was purchased in July 2005 by e2v technologies plc. Gresham is a leading supplier to the X-ray Analytical market sector manufacturing X-ray detectors for Energy Dispersive X-ray ('EDX') and X-ray fluorescence ('XRF') spectrometry. The detectors are primarily utilized within scanning and transmission electron microscopes and XRF analyzers. The company supplies its high specification X-ray detectors worldwide to industrial equipment manufacturers and research laboratories. The two companies complement each other well, with Gresham bringing new technologies and products to e2v's existing Sensors portfolio, while e2v provides Gresham with further opportunities for growth due to its established presence in the US market and its well-developed global distribution channels. The close fit between the companies will ensure a strong and successful future for both e2v technologies and e2v scientific instruments. Further information on e2v technologies plc is available from its website, www.e2v.com