

MICROSCIENCE 2008

www.microscience2008.org.uk 

MICROSCOPY RENAISSANCE

MICROSCIENCE 2008 is destined to be the largest to date, with a 10% increase in exhibition space from 2006, and 110% since 2002! In addition, running for three days alongside this major biennial exhibition, the sister conference has grown into a fully fledged international scientific conference for 2008. Now the largest exhibition and conference in Europe focusing on microscopy, imaging and analysis, MICROSCIENCE will again return to London's ExCeL on 23-26 June.

This incredible rate of growth in MICROSCIENCE is a strong indicator of the increasing use of microscopy as an essential tool for both life and physical science applications. As observed by former RMS President John Hutchison, "Until recently much of microscopy seemed to be a selection of mature and almost fully-developed techniques: light microscopes were restricted in resolution by the fundamental laws of optics by the wavelength of visible light (several hundred nanometres) and transmission electron microscopes were limited by inherent lens aberrations. Well - to quote Bob Dylan - "times they are a-changin", and one of the themes running through this year's MICROSCIENCE 2008 Conference, 'Microscopy and Analysis at the Frontiers' (together with the exhibition and other attractions), will showcase many of these exciting changes."



The MICROSCIENCE 2006 Exhibition

Close-Ups, Edinburgh Instruments, EMS, Essen Instruments, HWL Scientific Instruments, Laser 2000, Nanofactory, Nanonis, Attocube, Michelson Diagnostics, Mad City Labs, Millbrook Instruments, Qioptiq Imaging Solutions, Tescan and Sympatec.

RMS LEARNING ZONE

The RMS Learning Zone will once again be a major feature of the exhibition and will be fully equipped with a range of SEMs, two confocals and a large number of light microscopes. Operating as a free "turn-up and learn" facility, visitors can meet renowned RMS experts and discuss the microscopical

Microscopy Focus

MOTORSHOW OF MICROSCOPY!

"As 2008's key exhibition devoted exclusively to microscopy and imaging where visitors will be able to get close to the cutting edge in technology and techniques and meet with world leading experts for free, we see MICROSCIENCE as the Motor Show of Microscopy," explains Rob Flavin, RMS Executive Director. "In addition to the exhibition, there will be specialist workshops and a chance to pick up basic information on different techniques in our RMS Learning Zone. These features are free to all visitors."

With key international companies such as Bruker, FEI, Hitachi, Jeol, Leica, Olympus, Oxford Instruments, Veeco and Zeiss exhibiting alongside nearly 100 others, the exhibition will provide an eclectic selection of the very latest microscopy related scientific equipment under one roof. There will also be a number of companies new to MICROSCIENCE: Agilent Technologies, GE Healthcare, Smiths Detection, Thermo Scientific, Asylum Research, Cambridge Analytical Instruments, CEMMNT,

challenges that they may face. In addition to meeting the experts and live demonstrations, a series of lectures on light microscopy, electron microscopy and digital imaging will run each day. Held within the Learning Zone's own lecture theatre, these provide an excellent introduction to the core microscopy subjects, with certificates of attendance available to support training requirements.

SPECIALIST WORKSHOPS

Technology workshops will provide a free opportunity for visitors to learn more about new techniques and products whilst visiting the exhibition. Workshops will take place in special theatres on the exhibition floor and will act as vital links between the scientific conference and exhibiting companies. These provide an ideal forum for Exhibitors to give practical demonstrations of their latest instruments, equipment and techniques.

NEW LOOK INTERNATIONAL MICROSCOPY CONFERENCE

Running concurrently with the exhibition, over 30 internationally acclaimed authorities will be brought together in a full programme of invited lectures in the new format 3-day scientific conference. Contributed papers selected by an RMS Review Panel will also be presented for the first time.

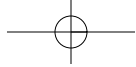
Now streamed into three parallel symposia, the MICROSCIENCE 2008 international conference has been carefully planned by leading scientists within the RMS ranks to ensure that life and physical scientists alike will find sessions of great interest over the entire convention duration. The three parallel symposia incorporate 15 different sessions individually led by



Young microscopists picking up new skills from experts in the RMS Learning Zone at a previous MICROSCIENCE

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RMS subject specialists and are themed:

Characterisation and nanofabrication of advanced materials; The cell in time and space; and Microscopy and analysis at the frontiers.

In addition, each day will begin with a high-profile plenary lecture. Plenary Speakers are: former Government Chief Scientific Officer and Director of Research at Cambridge University's Chemistry Department, Professor Sir David King; 'Bucky Balls' Nobel Prize winner Professor Sir Harry Kroto; Professor Dr Stefan Hell, recently credited for breaking Abbe's light resolution barrier; and Professor Dr Knut Urban, Head of the German Physical Society (DPG).

From discussions on live cell imaging and optical proteomics with Professor Tony Ng (Kings College London) to insights into Applications of 21st Century Scanning Electron Microscopy for materials characterisation provided by Professor David Joy (University of Tennessee) and Dr Debbie Stokes (FEI), numerous world class experts on an array of techniques will discuss the very latest developments in light, electron and scanning probe microscopy at the conference.

"Microscopy is a fundamental tool for driving science forward, and methods and techniques that are still under development or new to the market will also be previewed within the conference to provide inspiration for future research", said Paul Monaghan, RMS Honorary Secretary for Science. For example, scanning optical microscopy luminary Professor Tony Wilson (Oxford University) and Professor Philippe Bastiaens (Max Planck Institute & University of Dortmund), who specialises in quantifying biochemical reactions in cells using optical approaches, will both be presenting in the New Innovations in Light Microscopy sessions.

FINAL CALL FOR MICROSCIENCE 2008 POSTERS

"MICROSCIENCE is a very inclusive event and we have encouraged researchers at every level who are active in all areas of microscopy, imaging and analysis to submit abstracts for both paper and poster presentations," said Rob Flavin, RMS Executive Director. "We have already received abstracts for papers from across Europe, the US and the rest of the world, including Mexico, Japan, Pakistan, Egypt and Turkey. Although the deadline for paper abstract submissions has passed, we are still encouraging on-line poster submissions up to May 31st."

MICROSCOPY TRAINING FOR FREE

As part of its remit to teach and improve microscopy, the RMS is offering a number of charitable bursaries and free training opportunities at MICROSCIENCE. This is to ensure that everyone, particularly those in the early stages of their careers, has a chance to attend both the conference and exhibition.

Many attractions of MICROSCIENCE 2008 are free to all, including the exhibition, specialist workshops and RMS Learning Zone. Registration for the three day scientific conference also offers excellent value, particularly to early career researchers and technicians, who can register at a special rate of just £85 for the full 3-days. In addition, a generous bursary fund has been established to support attendance at MICROSCIENCE 2008; these bursaries contribute to the cost of registration, travel and accommodation. In addition, employees at BBSRC Institutes can apply to the RMS for bursaries for the Society for General Microbiology (SGM) satellite meeting, running in parallel with MICROSCIENCE 2008.

The use of training budgets to support attendance should also be considered, since the RMS Learning Zone is in operation for the full three days of the Conference. This will provide the opportunity for all attendees to update and improve their microscopy skills for career development purposes. "Having a good grasp of the basic theories and practices of microscopy is a vitally important step to carrying out meaningful research, and we are especially keen to support researchers in the early stages of their careers, whilst also encouraging the continuing education of all our members," said Debbie Stokes, RMS Honorary Secretary Science (Physical).

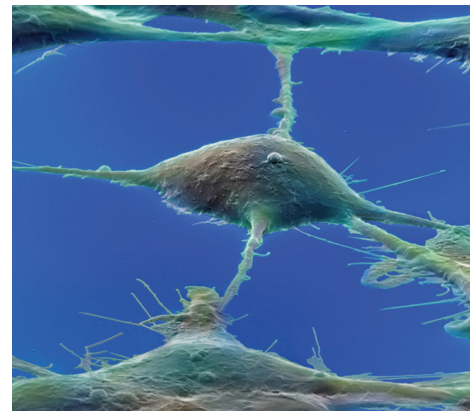
"Due to the many free training opportunities available at MICROSCIENCE 2008, researchers and technicians should be able to access local training budgets from within their respective organisations," explained Rob Flavin, RMS Executive Director. "And, with RMS bursaries available to assist conference attendance, we believe that it has never been easier – particularly for early stage career researchers and technicians – to attend MICROSCIENCE. Registration numbers are already looking very healthy, and we expect to see many academic and industrial researchers from Europe and around the world."

Full programme details of conference and workshops are available at: www.microscience2008.org.uk

Winning entries from 2006

Micrograph competition.

A shortlist of 2008 entries will again be displayed in a colourful exhibition and winners announced at MICROSCIENCE 2008.



First Prize and Best Overall Electron Microscopy entry

"Kidney Island"

A SEM image of isolated Embryonic Kidney cells.

By David McCarthy



First Prize and Best Overall Light Microscopy Entry

"Vitamin C"

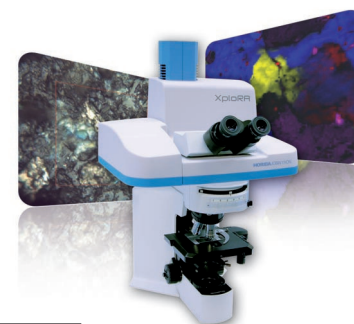
BF Polarized

By Karl Deckart

The Smart Raman Microscope

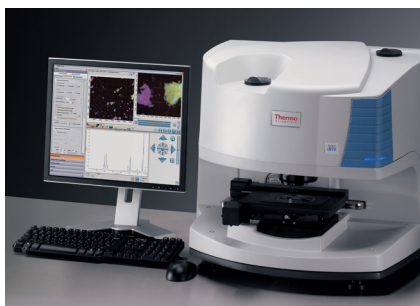
Horiba Jobin Yvon present a new concept in Raman imaging with the introduction of the new XploRA microscope. Completing the LabRAM family of Raman systems the XploRA is based on a research grade optical microscope offering all of the standard imaging options such as polarisation, DIC and phase contrast. The XploRA brings easy-to-use Smart Microscopy and cost effective Raman spectroscopy to your desktop. The light, compact design of the XploRA makes it easy to transport from lab to lab or for on-site analysis at archaeological sites, crime scenes, or mobile labs. The new LabSpec+ software is fully CFR compliant and uniquely offers the Horiba Jobin Yvon Guided Operation wizard, GOTM enabling quick and easy data acquisition even by a novice. Integrated spectral libraries provide rapid, non-destructive compound identification, with no sample preparation or special environmental conditions. Superimposition of chemical images on top of high-resolution optical images is possible at the touch of a button. Smart microscopy has finally arrived.

Microscopy Circle no. 601



Simplified Infrared Microscopy

Thermo Fisher Scientific, Inc recently announced the launch of its new Thermo Scientific Nicolet™ iN™10 FT-IR microscope, powered by new OMNIC™ Picta™ software. This revolutionary system simplifies infrared microscopy, enabling chemists in analytical and investigative chemistry laboratories to take full advantage of the power of this technique and have complete confidence in their results.



The unique integrated architecture of the Nicolet FT-IR microscope removes the need for an external spectrometer and provides exceptional optical efficiency, allowing data to be obtained with speed and simplicity. FT-IR microscopes typically require the use of liquid nitrogen-cooled detectors. The Nicolet iN10 FT-IR microscope is equipped with a room-temperature detector, eliminating the time, hazards and expense associated with liquid nitrogen cooling. In combination with the highly efficient Slide-on ATR sampling device, this detector makes the Nicolet iN10 FT-IR microscope as quick and easy to use as an infrared bench. Infrared microscopy has lagged behind FT-IR in its ability to be validated. This has caused issues with acceptance of the technique in regulated industries. The Thermo Scientific Nicolet iN10 can be validated in reflection, transmission and ATR sampling modes, thereby simplifying the instrument qualification process for users in such regulated environments.

Microscopy Circle no. 602

Lab Automation Grows from Strength to Strength

Just four years after being launched, **Olympus** has installed its 100th OLA2500 system for the automation of pre and post analytical processes at the Medizinischen Laboratorium Kyritz. Installed in January, the 100th system has already been responsible for improving workflow efficiency and demonstrates the breakthrough Olympus has made in the lab automation market in Germany.



As is the case throughout the healthcare community, laboratories today require intelligent solutions to successfully combat rising costs. With its diverse automation capabilities, the OLA2500 boasts just such savings potential. One example is in the system's ability to manage standard processes such as the decapping, aliquoting, barcoding, sorting and sealing of test tubes, saving valuable time, money and energy. One of the companies taking advantage of the benefits offered by the OLA2500 is the Medizinischen Laboratorium Kyritz (Kyritz Medical Laboratory or MLK) in the northeast German state of Brandenburg, where, since the end of January, numerous tasks have been handed over and entrusted to automated lab management. For Olympus, this implementation is an important milestone.

Microscopy Circle no. 603

