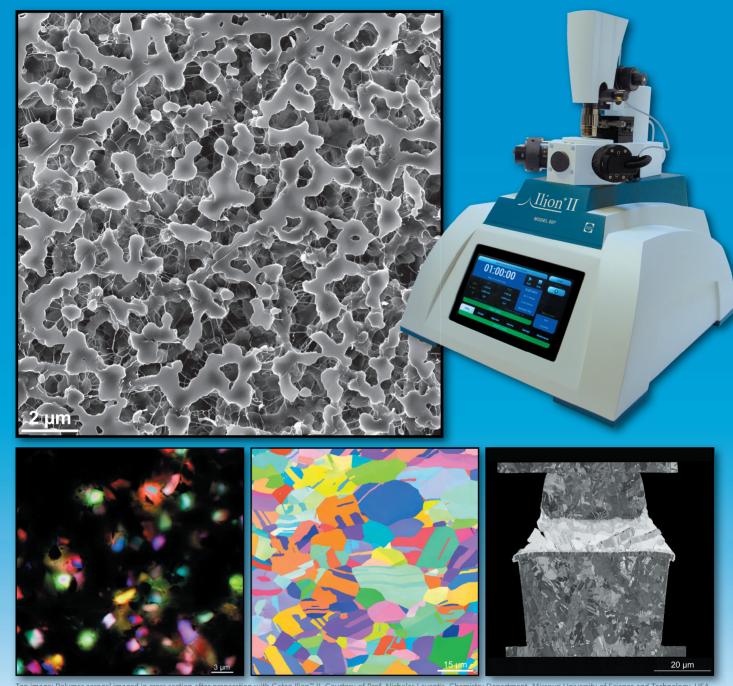
Ultimate SEM cross sections & planar preparation

Now with Low Energy, Automation and Digital Imaging

Semiconductor Composites Geological Oil Shale Coatings Polymers EBSD CL Analysis



Top image: Polymer aerogel imaged in cross section after preparation with Gatan Ilion™ II. Courtesy of Prof. Nicholas Leventis, Chemistry Department, Missouri University of Science and Technology, USA. Bottom images (left to right): Cathodoluminescence image of paint pigment sample prepared with Gatan Ilion II and imaged with Gatan MonoCL4™ system; EBSD-inverse pole figure map of copper sample prepared using Gatan Ilion II; courtesy of Evans Analytical Group, Sunnyvale, CA, USA; Backscattered electron image of 2.5 interposer structure, prepared with Gatan Ilion II; courtesy of the Fraunhofer Institute, Dresden, Germany (© 2013 Fraunhofer IZM, Dept. HDI&WLP/ASSID. All rights reserved).





Enhancing Electron Microscopy

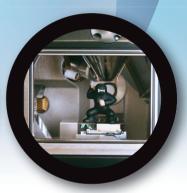
EXPERIENCE THE LATEST INTOUCHSCOPE RESEARCH GRADE SEM



IT300L

- Multi-touch interface
- High throughput microanalysis
- High vacuum to extended pressure
- Intuitive operation



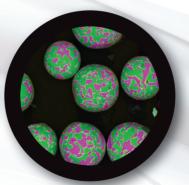


Smart analytical port geometries

Unique in-chamber stage



Geological thin section, elemental overlay 1 frame, 9.8 seconds



Dual EDS, lead/tin wave solder powder



Silica beads, low kV SE image



www.jeolusa.com salesinfo@jeol.com

Solutions for Innovation







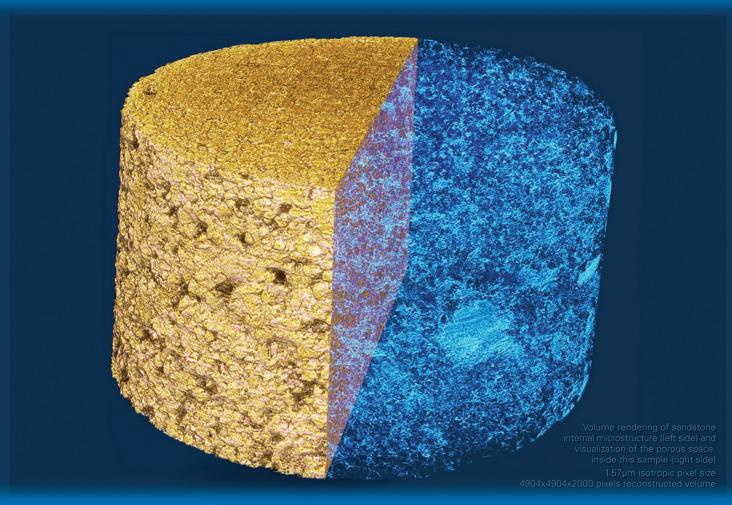
The single source

for all your microscopy supplies and specimen preparation equipment.









SKYSCAN 1272 World's first fully automated micro-CT

free UR-reader app is available on the AppStore



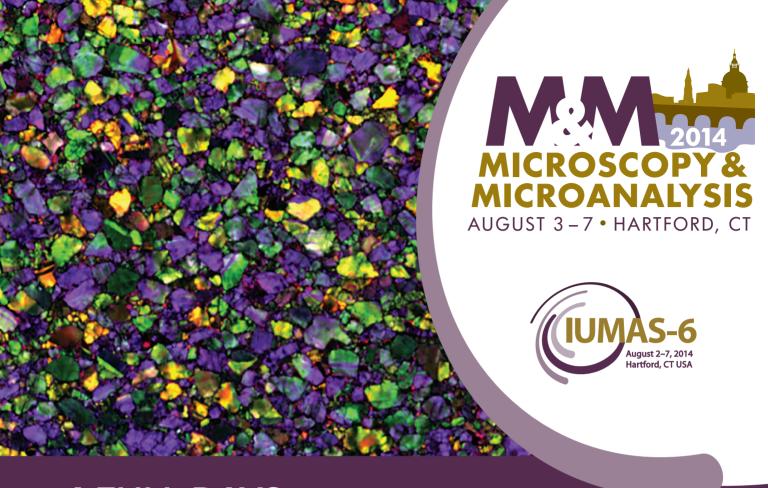


- The 16-position automatic sample changer can be populated by samples with different sizes and shapes.
- Scanned samples can be replaced at any time without interrupting the scanning process.
- X-ray energy and filtering can be automatically adjusted for a sample according to x-ray opacity.
- The control software measures sample size / position and can adjust optimal magnification.
- For every object a colour optical image is taken, which is shown on screen during scanning.
- After completing a scan or scans, the system can send you an e-mail with a direct link to the scan images.
- All automatic adjustment steps are optional, and can alternatively be set manually by the operator.
- The scanner and sample changer can run 24 / 7 continuous scanning.

bruker-microct.com

microtomography

Innovation with Integrity



4 FULL DAYS Symposia, tutorials, exhibits, posters, short courses & workshops

Visit Often for Updates!

http://microscopy.org/MandM/2014

Call for Papers

Paper Submission Open: November 15, 2013

Program Details

Hartford Area & Hotel Information

Hotel reservations available January 2014

Paper Submission Portal

Paper Submission Deadline: February 8, 2014

Awards Information

Online Registration

Opens February 2014







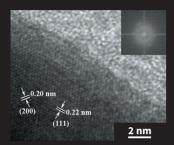






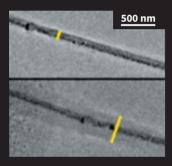


THE WORLD LEADER IN ENVIRONMENTAL TEM HOLDERS



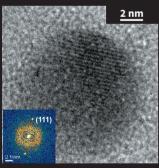
LIQUID

HRTEM image of a Pd nanoparticle in liquid Image courtesy of Dr. Chuanhong Lin, Chem. Commun., 49, 2013. 10944



LIQUID ELECTROCHEMISTRY

In-situ liquid-cell TEM observation of the lithiation of the Cu-coated Si (Cu–Si) NW. Image courtesy of Dr. Chongmin Wang, Nano Lett., 13, 2013, 6106



GAS

BFTEM Image of Pt nano-particle in flowing oxygen atmosphere at 1 atm at 250°C. Image courtesy of Dr. Huolin Xin, Microsc. Microanal. 19, 2013, 1558

LIQUID TEM

- TEM IMAGING IN LIQUID ENVIRONMENTS
- IN-SITU LIQUID ELECTROCHEMISTRY
- Two-inlet parallel flow mixing
- THIN FILM SAMPLE HEATING

GAS CELL TEM

- TEM IMAGING IN FROM MORE THAN

 1 ATMOSPHERE TO LOW VACUUM GAS

 PRESSURES
- HIGH-TEMPERATURE SAMPLE
 HEATING
- MULTI-CHANNEL FULL PRESSURE RANGE AUTOMATED GAS MIXING SYSTEM

CROSS CORRELATIVE IMAGING

- TEM
- SEM
- OPTICAL
- X-RAY

WWW.HUMMINGBIRDSCIENTIFIC.COM



THE NEW DESK V THE GOLD STANDARD IN SAMPLE PREPARATION



Now upgraded with storage for up to ten recipes and a color touch screen display, the Desk V HP delivers breakthrough electron microscopy sample preparation.

DENTON VACUUM

BARRIERS BECOME BREAKTHROUGHS

Visit us at: www.dentonvacuum.com/mt



| INDEX TO ADVERTISERS | |
|---------------------------------------|-------------|
| Advanced Microscopy Techniques, AMT | A12 |
| Bruker MicroCT | A17 |
| Bruker Nano GmbH | A3 |
| Carl Zeiss Microscopy, LLC | A11 |
| Denton Vacuum | A20 |
| Diatome | A16 |
| EDAX, Inc. | A13 |
| Electron Microscopy Sciences, EMS | Cover 2 |
| FEI Company | A5 |
| Gatan | Cover 3 |
| Hummingbird Scientific | A19 |
| JEOL | A6, Cover 4 |
| M&M Hartford Ad | A18 |
| Scientific Instruments & Applications | A14 |
| SPI Supplies | A15 |
| Ted Pella | A14, p. 646 |
| TESCAN | A10 |