

Microscopy Innovation Awards

Congratulations to the winners of the
2014 *Microscopy Today* Innovation Awards:



- Abberior Instruments
- AppFive
- Applied Nanostructures
- Asylum Research, an Oxford Instruments company
- CoolLED
- FEI
- Leica Microsystems
- Max Planck Institute for Biophysical Chemistry
- NanoMEGAS
- Stanford University
- University of Missouri
- Yale University

Entry deadline: **March 15, 2015**

Application forms at www.microscopy-today.com

5-in-1 fantasy: Giralope.



5-on-1 reality: Bruker's range of analytical tools for SEM.



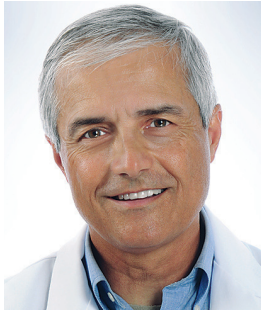
EDS, EBSD, WDS, Micro-XRF and Micro-CT – **Bruker is the world's only manufacturer to offer five analysis methods for SEM.** Plus, our new ESPRIT 2.0 software not only controls our QUANTAX EDS and QUANTAX EBSD but also, via its functional interface, our innovative new XSense WD spectrometer and XTrace micro-spot X-ray source. And because we know what you expect of us, we are already thinking about our next innovation. **Someone has to be first.**



www.bruker-5on1.com

Innovation with Integrity

Nano-Analysis



GV10X *Patented, ultra-high-efficiency downstream plasma cleaner*

“Absolutely the most advanced electron microscope cleaner on the market...”

Removes hydrocarbons in-situ from SEMs, FIBs, TEMs and other analytical tools — and pre-cleans samples ex-situ

10X Faster Hydrocarbon Removal

Exclusive 5 mTorr plasma and >20W power generates greater O^o density with longer mfp — giving GV10X significantly higher ashing efficiency than competitive cleaners.

Much Gentler Cleaning

Gently oxidizes hydrocarbons into molecules that are pumped free of the chamber. No specimen damage from energetic species, sputtering or heat.

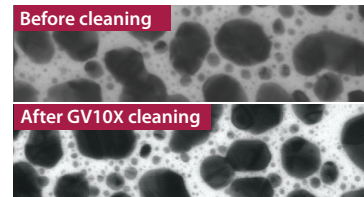
Faster Start, Total Control

Universal software works on any EM — no system integration needed. Start using GV10X in two minutes. Easy-to-use GUI gives operator full control of all functions.

Uninterrupted Specimen Analysis

Want to clean a specimen during analysis? It's easy. Takes just 5 minutes for GV10X to cycle On/Clean/Off — not an hour!

| | | | | | |
|--|------|--------|-----------------------------------|----|----|
| Total-Control Graphical User Interface | W | Wr | HH | MM | SS |
| | Set | 50 | 0 | 30 | 0 |
| | Act | 00 | 00 | 00 | 28 |
| | Lost | 00 | 00 | 00 | |
| | 0.0V | 6.8E+3 | Pressure in Torr, mBar, or Pascal | | |



ibss Group
The World's Most Advanced EM Cleaning

Get more information: admin@ibssgroup.com • 1 (415) 566-5774 • www.ibssgroup.com

THE NEW VITUA STREAMLINED TEM SAMPLE PREPARATION FOR THE LIFE SCIENCES



Introducing the Denton Vacuum Vitua® - the first automated TEM sample preparation system specifically designed to support high resolution rotary shadow casting of large organic molecules.

DENTON VACUUM

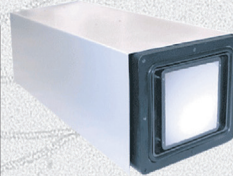
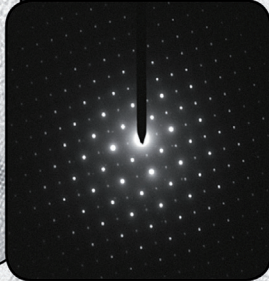
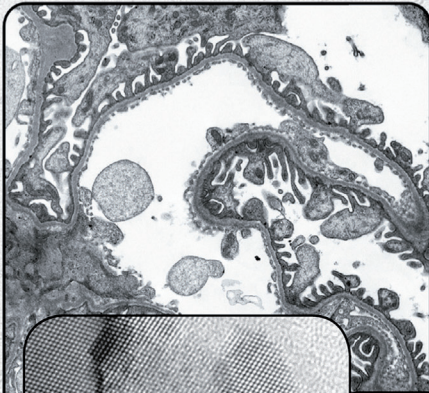
BARRIERS BECOME BREAKTHROUGHS

Visit us at:

www.dentonvacuum.com/mt

SIA

1 TO 50 MEGAPIXELS live and slow scan
MAGNIFICATION FACTOR OF 1 on bottom mounted cameras
DIFFRACTION BEAM STOP on side mounted cameras



Affordable TEM camera systems for research, education, healthcare, and industry since 2001

Scientific Instruments and Applications
2773 Heath Lane • Duluth, GA 30096
(770) 232 7785 • www.sia-cam.com

INDEX TO ADVERTISERS

| | |
|-----------------------------------|------------|
| Bruker MicroCT | A3 |
| Bruker Nano GmbH | A17 |
| Carl Zeiss Microscopy, LLC | A16 |
| Denton Vacuum | A18 |
| Diatome | Cover 2 |
| E.A. Fischione | A15 |
| EDAX, Inc. | A5 |
| Electron Microscopy Sciences, EMS | A14 |
| FEI Company | A6 |
| Gatan | Cover 3 |
| IBSS Group | A18 |
| JEOL | Cover 4 |
| Microscopes International | A9 |
| MSA Ads | A10, p.277 |
| Olympus | A11 |
| SI&A Scientific Applications | A19 |

EBSD

Be confident you can perform electron backscatter diffraction analysis in high resolution. Introducing the PECS™ II instrument to automate preparation of damage free surfaces, cross sections and deposit coatings to enhance your understanding of grain size, texture and orientation.



FE SEM

7000 SERIES

CHOOSE THE PERFECT FE SEM FOR ALL YOU DO

- outstanding low kV/low vacuum performance
- high resolution imaging and nanoanalysis of structures, surface details, and magnetic samples
- high stable current with double condenser lens and aperture angle control lens
- multi-port chamber for in situ nanolab utility

Budget-conscious labs and leading-edge research centers will find the ultra versatility, performance, and support to be the perfect fit.



EDS

Backscatter

CL

Backscatter

Mixed SEBSE*



www.jeolusa.com
salesinfo@jeol.com • 978-535-5900

www.jeolusa.com/FESEM



* Courtesy of Dr. Artur Indzhykilian, Harvard Medical School