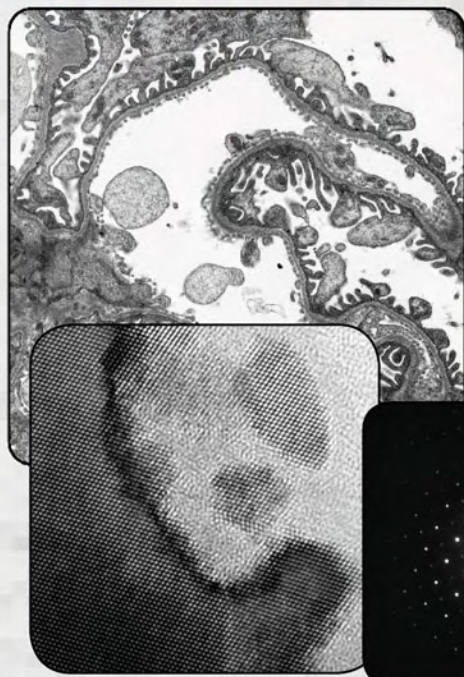


# SIA

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



**Visit us at M&M 2012, Booth #323**



*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](http://www.sia-cam.com)

---

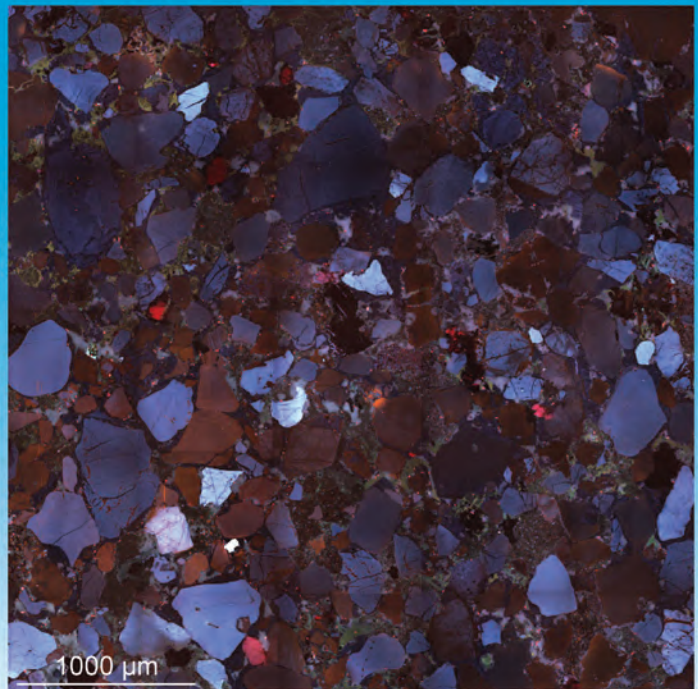
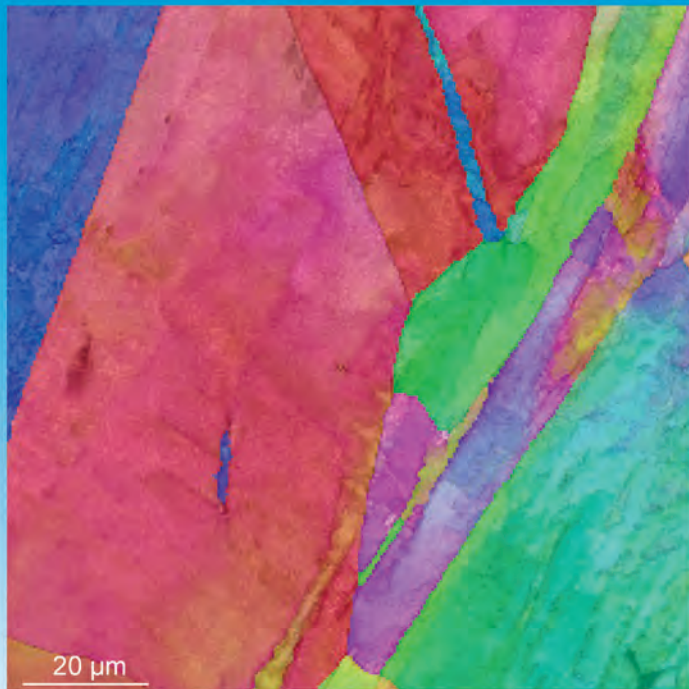
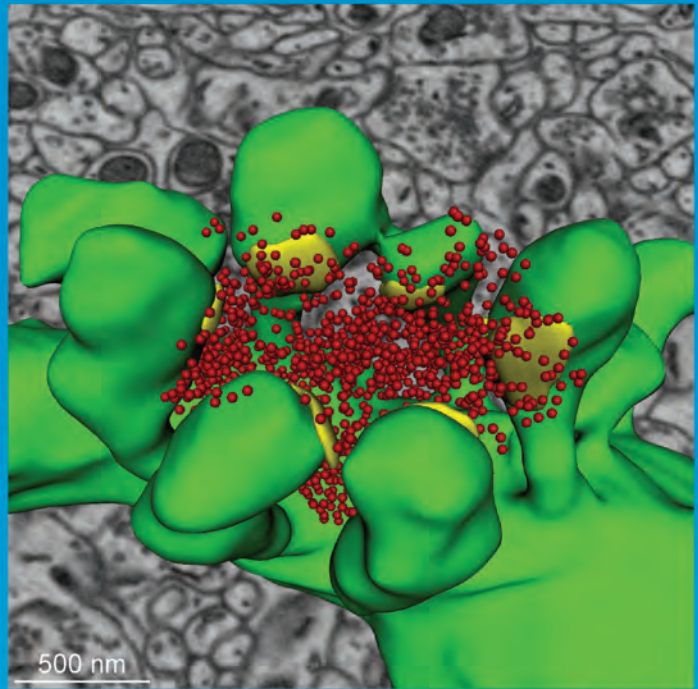
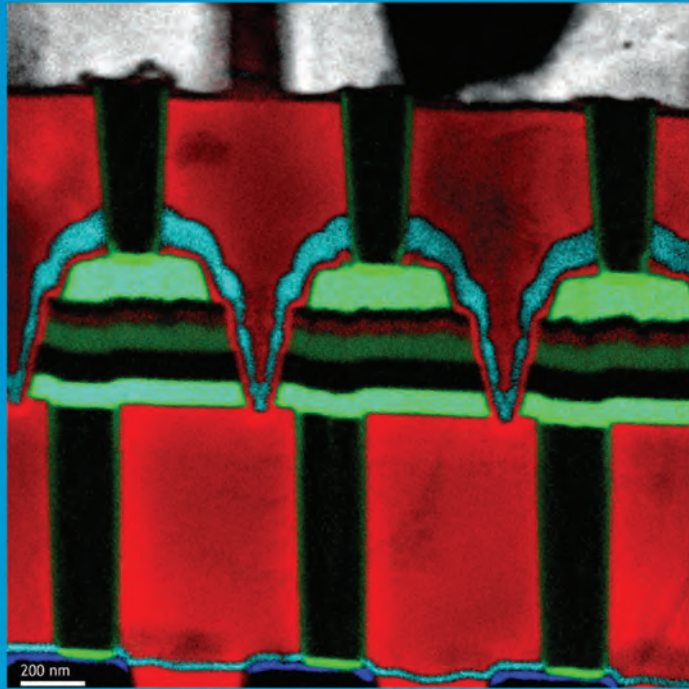
## INDEX TO ADVERTISERS

---

Advanced Microscopy Techniques, AMT	A11
Bruker Nano GmbH	A14
DiATOME	A10
Electron Microscopy Sciences, EMS	A15
FEI Company	A6
Gatan	Cover 3
ICDD	A5
JEOL	A12, Cover 4
Leica Microsystems	Cover 2
Oxford Instruments	A13
SIA Scientific Applications	A16
SPI Supplies	A4
Ted Pella	A3, 913
XEI Scientific	914

---

# Enabling Discovery



Images (clockwise from top left): **Analytical TEM:** High-speed STEM EELS mapping of a commercial semiconductor device. Grey: Cu  $L_{2,3}$ -edges; Red: O K-edge; Blue: Co  $L_{2,3}$ -edges; Green: Ti  $L_{2,3}$ -edges; Light Blue: N K-edge. Data were extracted from a 520 x 520 EELS spectrum image (2 GB dataset) acquired in 5 minutes at 1000 spectra per second, high-speed EELS acquisition mode. Image captured using a Gatan GIF Quantum<sup>™</sup>ER EELS system mounted on a 200 kV LaB6 STEM. **Serial Block Face Imaging in the SEM:** A 3D reconstruction of a dendrite from a 15,625  $\mu\text{m}^3$  ( $25 \times 25 \times 25 \mu\text{m}$ ) volumetric data set containing 500 serial images of mouse cerebellum generated by Gatan 3View<sup>™</sup>2. Sample courtesy of Tom Deerinck and Dr. Mark Ellisman, National Center for Microscopy and Imaging Research, University of California, San Diego. Serial images were segmented using Imaris to create a 3D model of a neuron of interest. **Live Color Cathodoluminescence Imaging in the SEM:** Reservoir quartz of mixed provenance displaying healed fractures and chemical overgrowths. Sample prepared using the Gatan Iliion<sup>™</sup> and super-image acquired using Gatan ChromaCL2<sup>™</sup> imaging system and CHFS32. **Surface Preparation for SEM Cross Section and Planar Viewing:** SEM cross section of copper indexed to 98% with EBSD and prepared using the Gatan Iliion<sup>™</sup>.

## Complete Solutions for Electron Microscopy Applications

Please visit us at M&M 2012 in Booth 723



ANALYTICAL TEM  
DIGITAL IMAGING  
SPECIMEN PREPARATION  
TEM SPECIMEN HOLDERS  
SEM PRODUCTS  
SOFTWARE

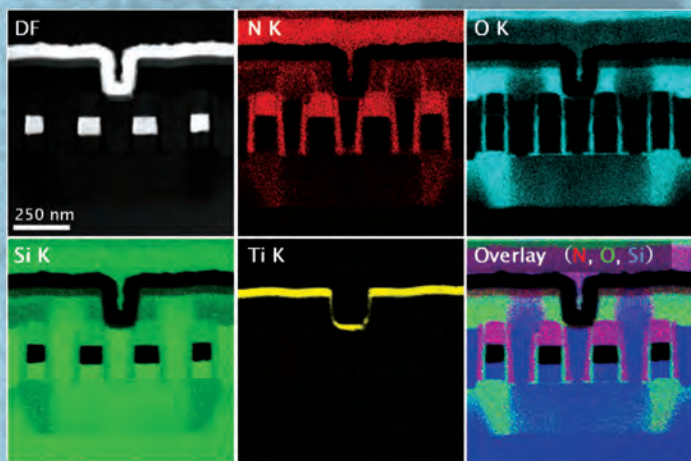
# Unrivaled EDS for TEM

## 0.98sr 100mm<sup>2</sup>

- Exponentially enhances elemental mapping for nano-area analysis TEM
- Automatic retractable design

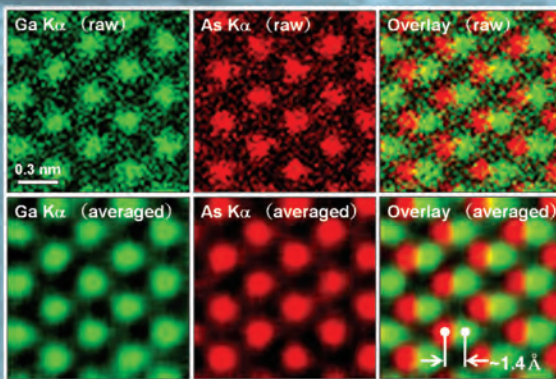


**CENTURIO**  
Large Solid Angle SDD for TEM



*High sensitivity  
for fast mapping  
at atomic resolution*

*Seamless chemical mapping and  
data collection for S/TEM-TEM-  
SEM-EDS. (256 x 256 pixels.  
Total acquisition time: 1 min. 13 sec.)*



**View our real-time  
DRAM analysis video  
at [www.jeolusa.com/UnrivaledEDS](http://www.jeolusa.com/UnrivaledEDS)**

JEM-2800



JEM-ARM200F



# JEOL

Another  
**Extreme Imaging**  
Solution

Global Solutions Provider for Advanced Technology  
[www.jeolusa.com](http://www.jeolusa.com) • [salesinfo@jeol.com](mailto:salesinfo@jeol.com)  
978-535-5900

Find us on Facebook and Twitter @jeolusa

# NANOANALYSIS S/TEM