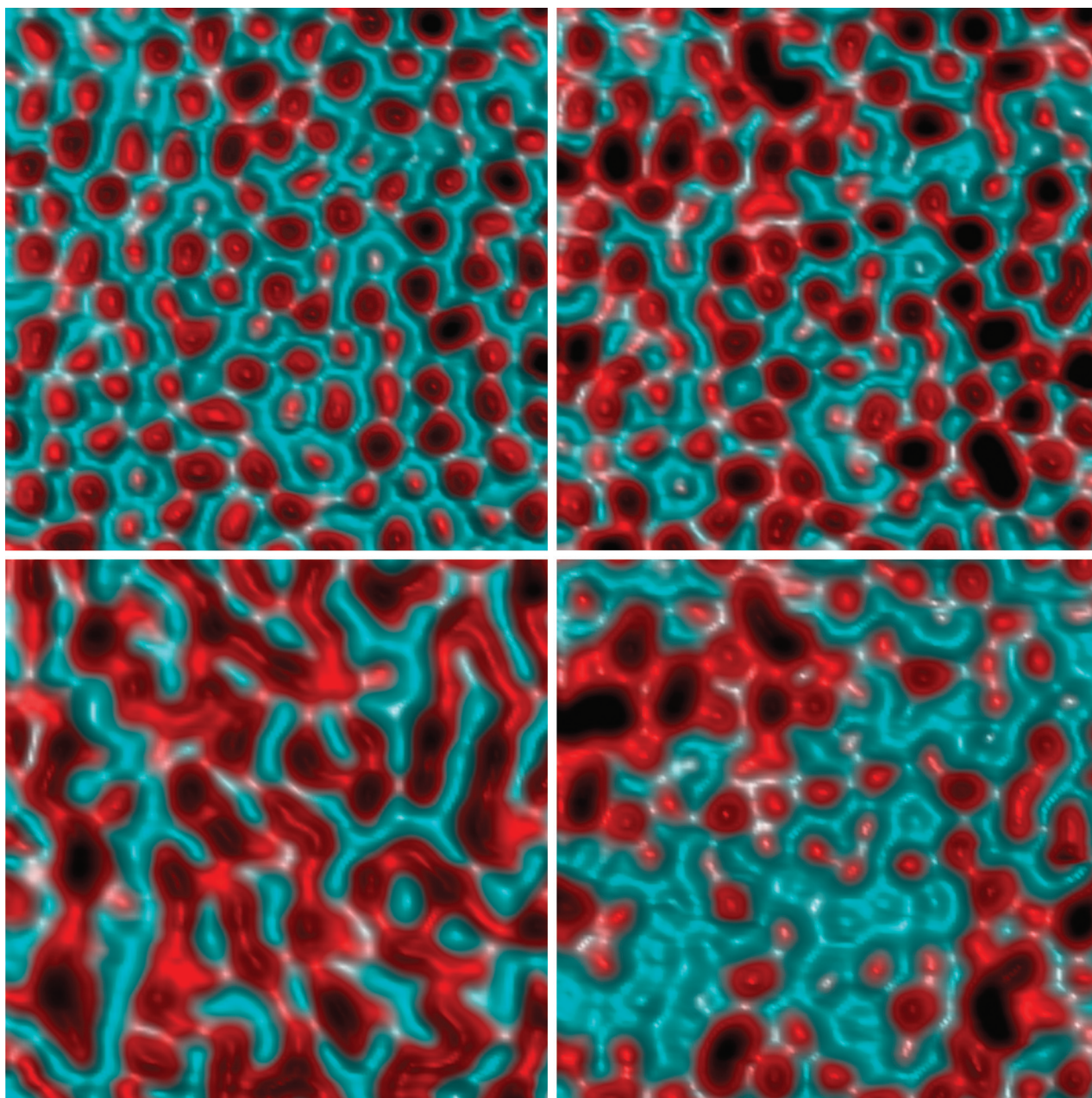


# Microscopy TODAY

Volume 23 Number 6 2015 November

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# Total Solutions for In-Situ Environmental TEM

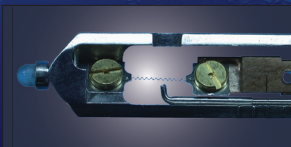
Hitachi's 300 kV Gas Environmental TEM (ETEM) Solutions  
Three platforms to meet various levels of requirements



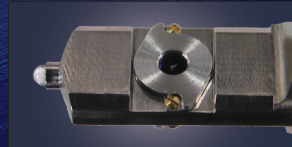
H-9500 Environmental TEM



HF-3300S Environmental TEM-STEM-SEM



Gas Injection-Heating Holder



Liquid Cell Holder

Hitachi is committed to providing a solution to every lab. For your 300 kV gas ETEM application, choose from the H-9500 Environmental TEM (100-300 kV, LaB<sub>6</sub>), the HF-3300S Environmental TEM-STEM-SEM (80-300 kV, Cold FEG), or a customized Cs-corrected environmental TEM-STEM-SEM system with a large pole piece gap and sub-Å resolution.

Hitachi also offers a group of specially designed TEM holders for gas or liquid ETEM and atomic-resolution in-situ TEM with biasing or heating up to 1500 °C. Contact us to learn more about Hitachi's ETEM solutions.

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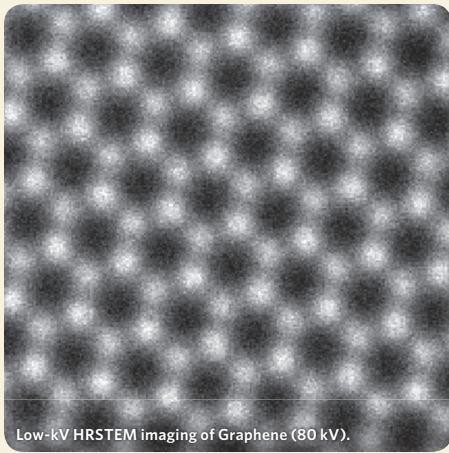
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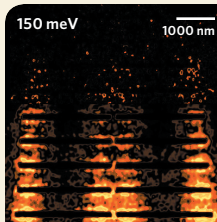


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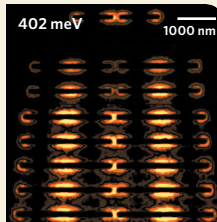
Visit: [www.microscopy.org](http://www.microscopy.org) or call 1-800-538-3672



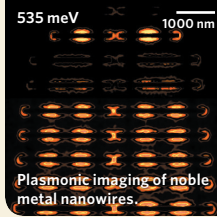
Low-kV HRSTEM imaging of Graphene (80 kV).



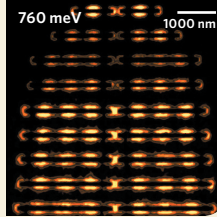
150 meV 1000 nm



402 meV 1000 nm

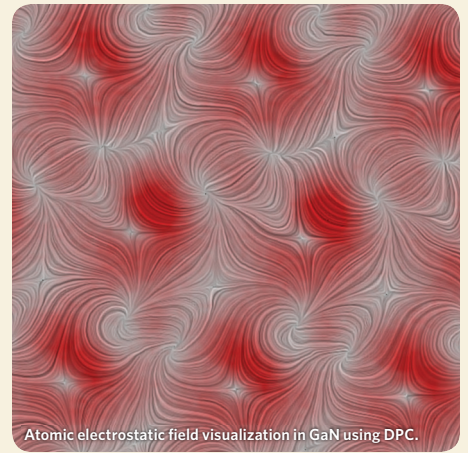


535 meV 1000 nm

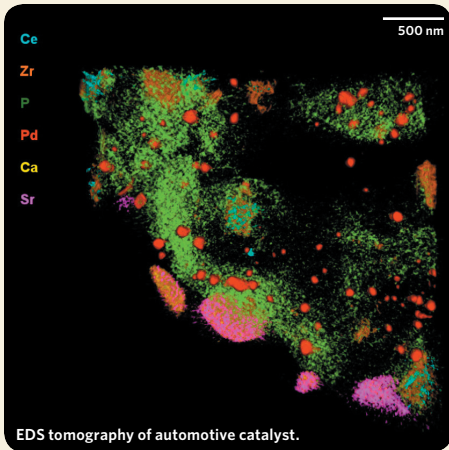


760 meV 1000 nm

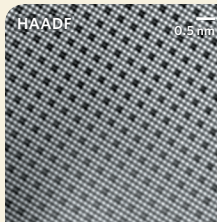
Plasmonic imaging of noble metal nanowires.



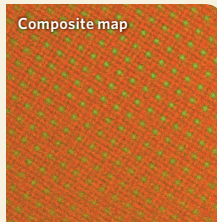
Atomic electrostatic field visualization in GaN using DPC.



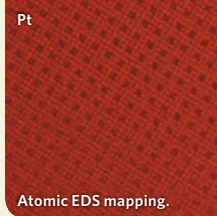
EDS tomography of automotive catalyst.



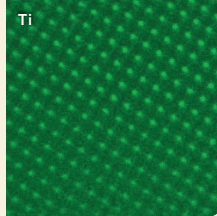
HAADF 0.5 nm



Composite map

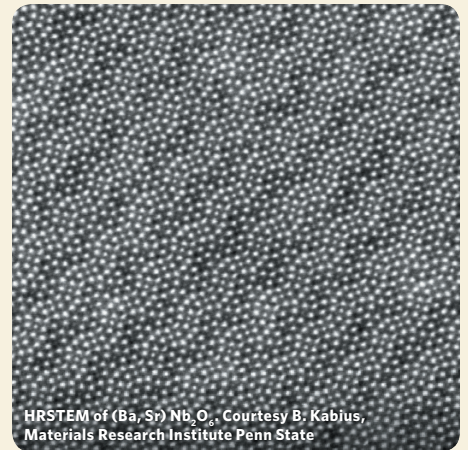


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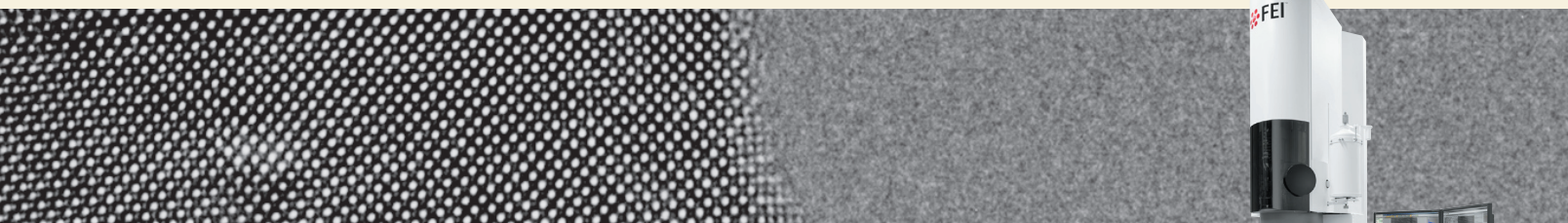


Ti

Atomic EDS mapping.



HRSTEM of (Ba,Sr)Nb<sub>2</sub>O<sub>6</sub>. Courtesy B. Kabius, Materials Research Institute Penn State



# No compromises

## More applications in one instrument

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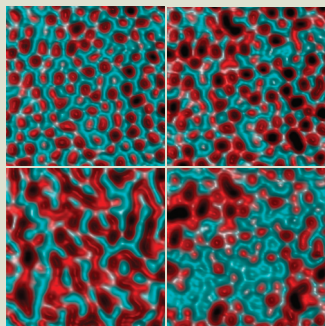
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# Contents

## Scanning Probe Microscopy

- 12 Scanning Probe Microscopy in an Ultra-Low Vibration Closed-Cycle Cryostat: Skyrmion Lattice Detection and Tuning Fork Implementation**  
 Francesca Paola Quacquarelli, Jorge Puebla, Thomas Scheler, Dieter Andres, Christoph Bödefeld, Balázs Sipos, Claudio Dal Savio, Andreas Bauer, Christian Pfeleiderer, Andreas Erb, and Khaled Karrai
- 18 BioScience AFM – Capturing Dynamics from Single Molecules to Living Cells**  
 Dimitar R. Stamov, Stefan B. Kaemmer, Anne Hermsdörfer, Jörg Barner, Torsten Jähnke, and Heiko Haschke
- 26 Automated Non-Destructive Imaging and Characterization of the Graphene/hBN Moiré Pattern with Non-Contact Mode AFM**  
 Ardavan Zandiatashbar, Byong Kim, Young-kook Yoo, and Keilbock Lee
- 32 Quantitative Electrical Measurements with Atomic Force Microscopy**  
 Jennifer E. Greene

### About the Cover



Coalescence of skyrmion-lattice phase into helimagnetic phase in  $\text{Fe}_{0.5}\text{Co}_{0.5}\text{Si}$  with decreasing magnetic field. Clockwise from upper left:  $B = 15$  mT, 5 mT, -15 mT, and -30 mT. Image width = 1.5  $\mu\text{m}$ .

See article by Quacquarelli et al.

## Light Microscopy

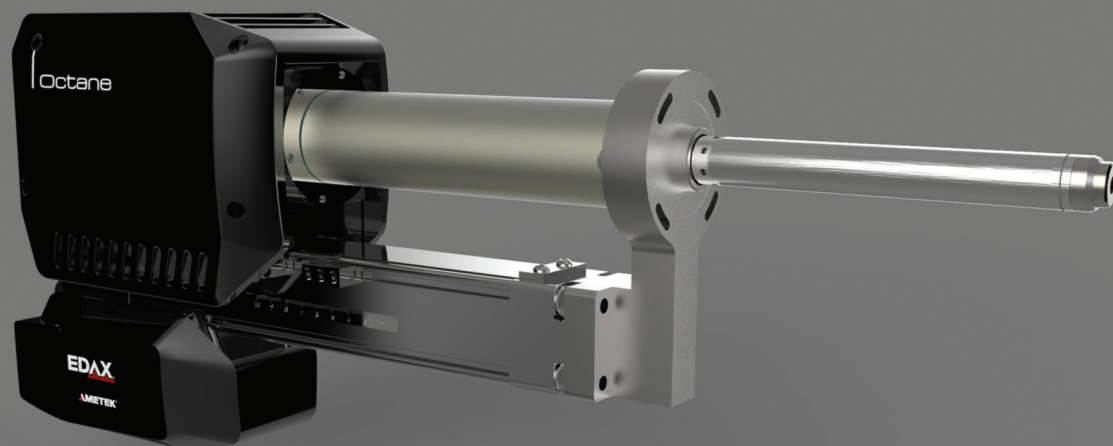
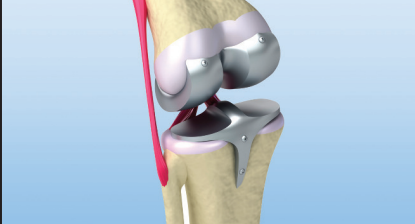
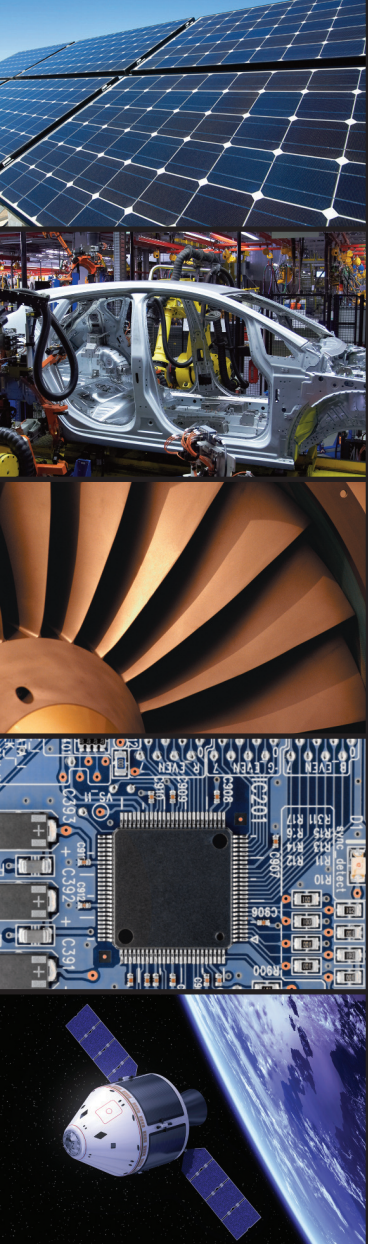
- 38 Surprise of the Century—Three More Leeuwenhoek Microscopes**  
 Brian J. Ford

## Microscopy Pioneers

- 48 Pioneers in Optics: William Fox Talbot**  
 Michael W. Davidson

## Departments

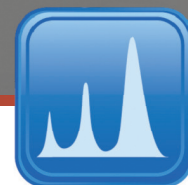
- |                                      |                                |
|--------------------------------------|--------------------------------|
| <b>7 Editorial</b>                   | <b>50 NetNotes</b>             |
| <b>8 Carmichael's Concise Review</b> | <b>62 Calendar of Meetings</b> |
| <b>44 Industry News</b>              | <b>65 Dear Abbe</b>            |
| <b>46 Product News</b>               | <b>66 Index of Advertisers</b> |



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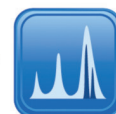
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