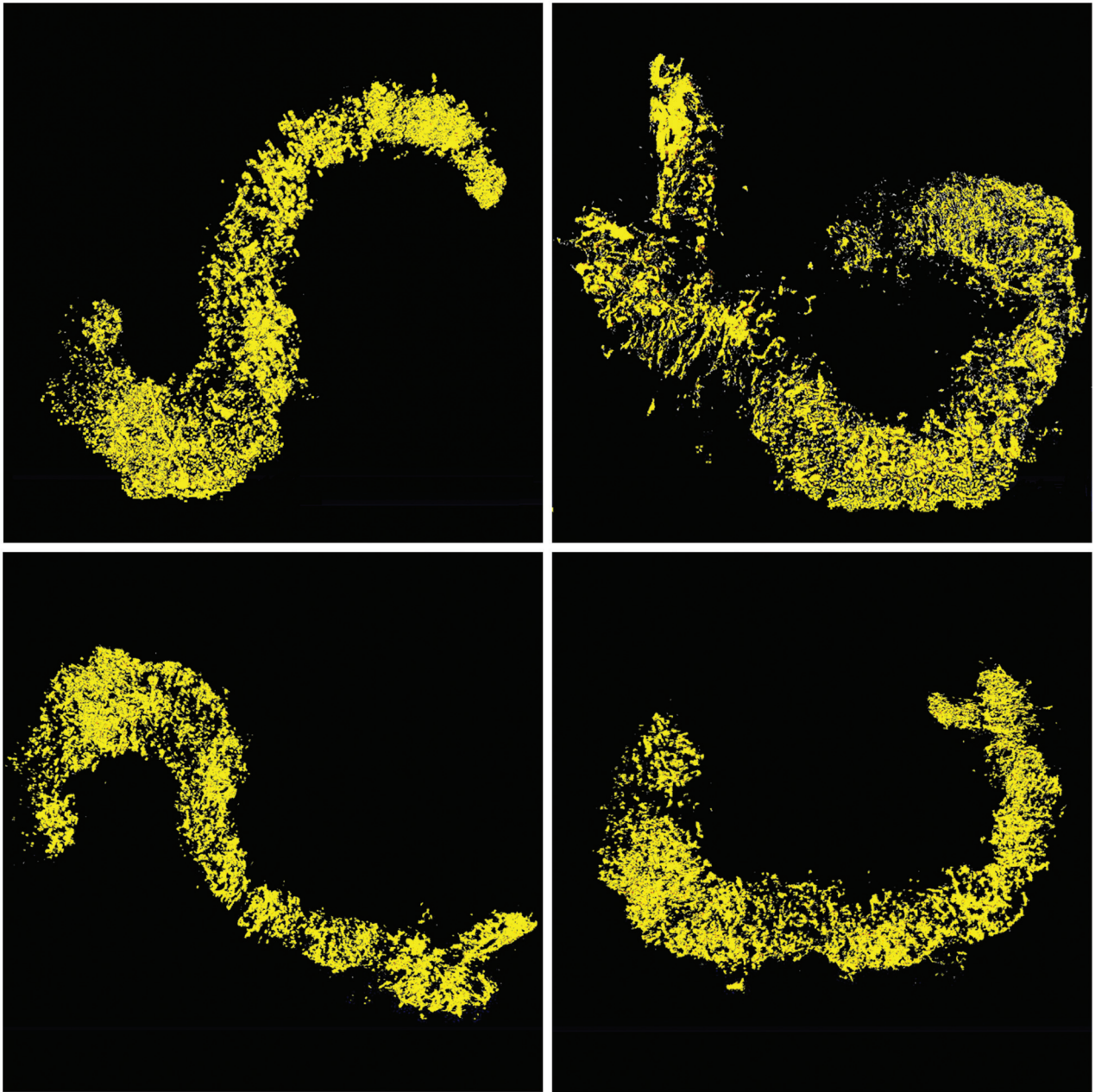


Microscopy TODAY

Volume 24 Number 1 2016 January

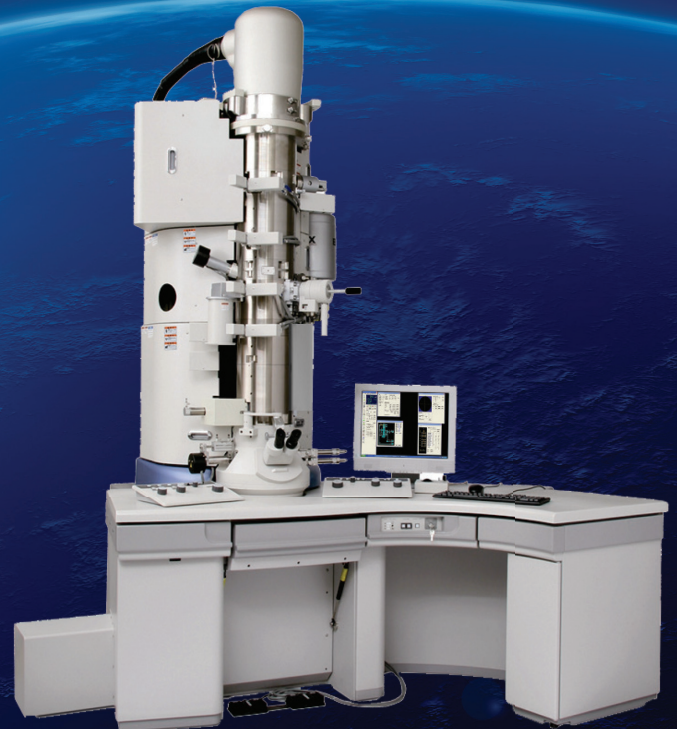


Total Solutions for In-Situ Environmental TEM

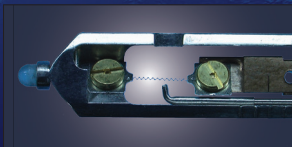
*Hitachi's 300 kV Gas Environmental TEM (ETEM) Solutions
Three platforms to meet various levels of requirements*



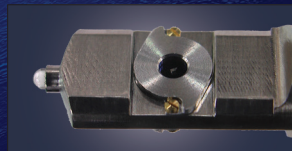
H-9500 Environmental TEM



HF-3300S Environmental TEM-STEM-SEM



Gas Injection-Heating Holder



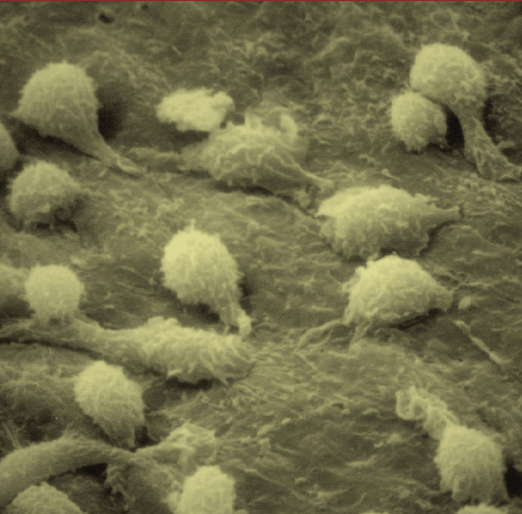
Liquid Cell Holder

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, LaB₆), 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.

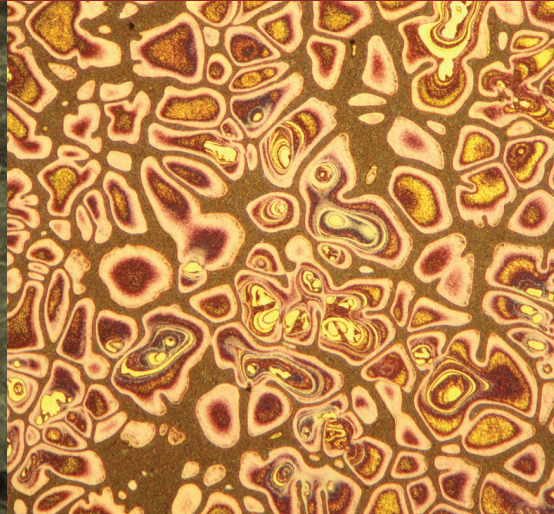
Hitachi also offers a group of specially designed TEM holders for gas or liquid ETEM and atomic-resolution in-situ TEM with biasing or heating up to 1500 °C. Contact us to learn more about Hitachi's ETEM solutions.

Inspire Innovation through Collaboration

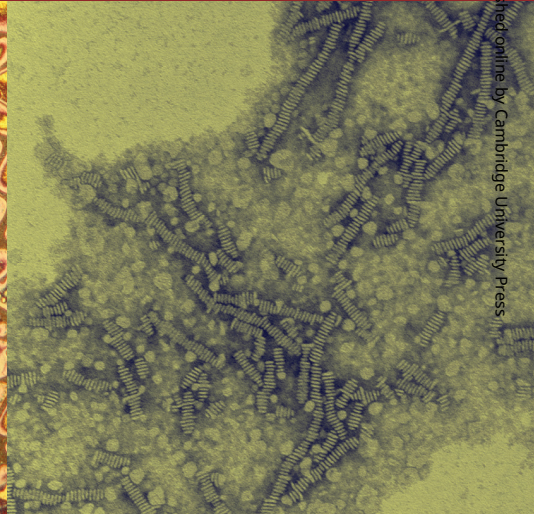
Visit the meeting website often for details on
Symposia, Exhibits, Biological and Physical Sciences Tutorials,
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Sunday Short Courses and Pre-Meeting Congresses



Monocytes (White Blood Cells) Adhering to the Inside Surface of an Artery as Part of an Inflammatory Reaction. W. Gray (Jay) Jerome, Vanderbilt University



Cast A347 Alloy Made by Semi-solid Melting (Mert Fleming's Development) Weck's Reagent in Bright Field. George Vander Voort, Consultant (Struers Inc.)



High Density Lipoprotein (HDL; the good cholesterol carrier) Stacking Together in Solution. W. Gray (Jay) Jerome, Vanderbilt University



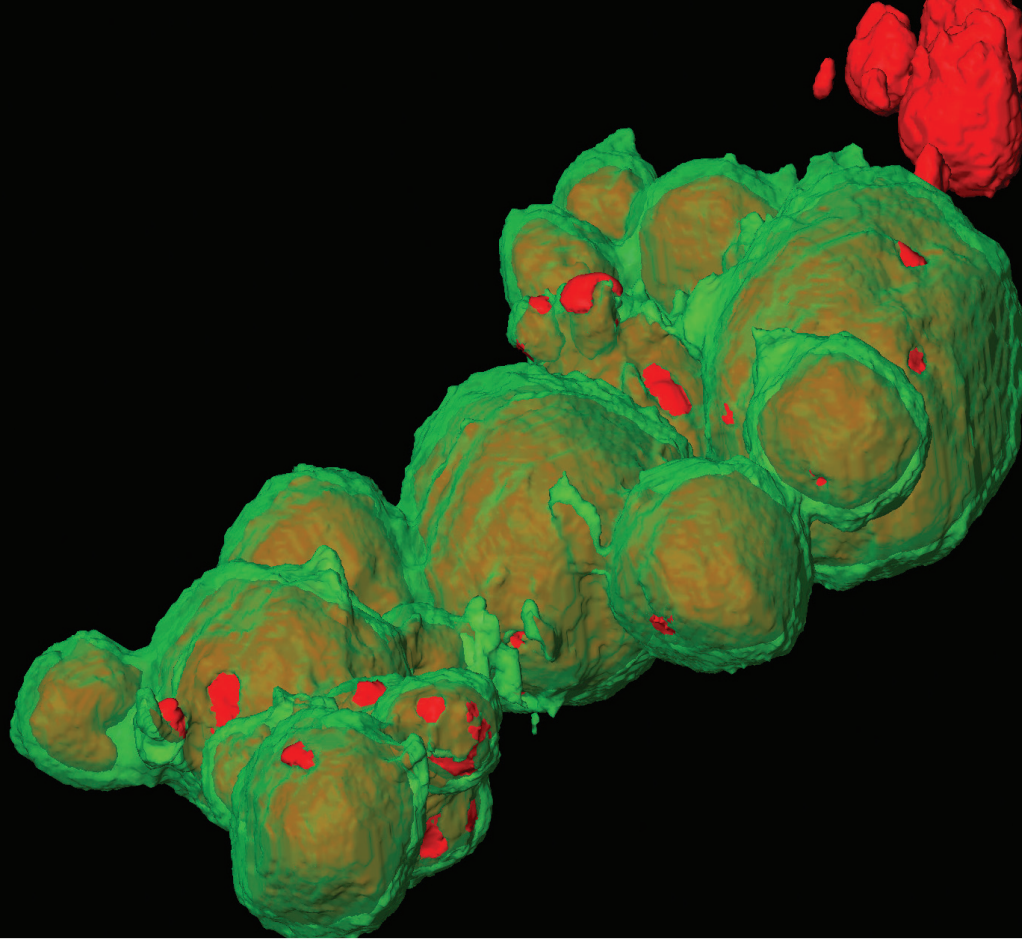
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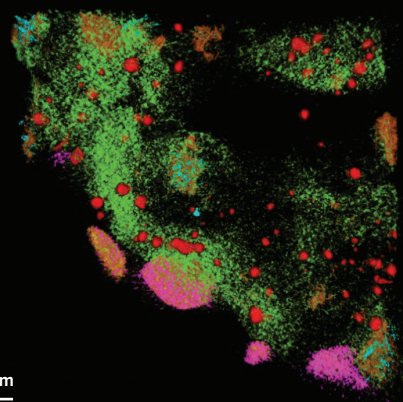


A



B

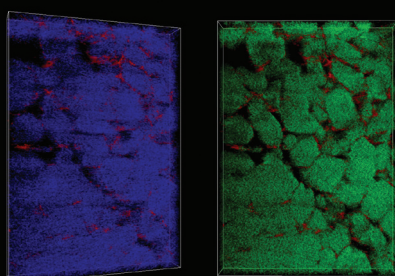
Ce
Zr
P
Pd
Ca



500 nm

C

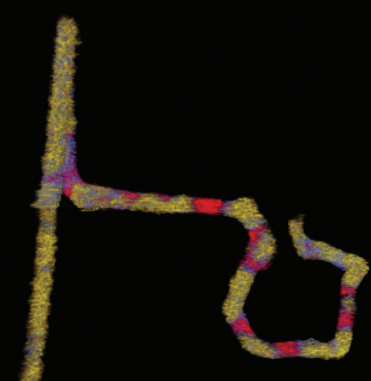
C
Al
Co



400 nm

D

P
Zn
In



50 nm

A: EDS tomogram of Ag-Pt core-shell nanoparticles. Ag cores are shown in the false color of red, covered by green-colored Pt shells, only a few nanometers in thickness. Sample courtesy Prof. Yi Ding and Prof. Jun Luo, Center for Electron Microscopy, Tianjin University of Technology. **B: Vehicle-aged automotive catalyst.** EDS tomogram showing the distribution of Palladium particles (red) relative to other elements. **C: Battery anode material.** EDS tomograms of Carbon-Cobalt and Carbon-Aluminum. **D: EDS tomogram of P-Zn-In nanotubes.** Sample Courtesy of Dr. Reza Shahbazian Yassar, Michigan Tech University.

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Contents

Ancient Life?

- 12 Solving the Controversy of Earth's Oldest Fossils Using Electron Microscopy**
David Wacey, Martin Saunders, Charlie Kong, and Martin Brasier
- 18 Preservation of *Triceratops horridus* Tissue Cells from the Hell Creek Formation, MT**
Mark H. Armitage

Electron Microscopy

- 24 Enabling Lab-in-Gap Transmission Electron Microscopy at Atomic Resolution**
Xiao Feng Zhang
- 30 Why a Coffee Carafe Should Not Be Used in Cryogenic Applications**
Philip Bennewirtz and Michal Meissner

Meetings

- 34 Microscopy & Microanalysis 2015**
Mark A. Sanders, Program Chair
- 38 Microscopy & Microanalysis 2016 in Columbus, Ohio**
Joseph R. Michael, Program Chair

Pioneers

- 42 Aberrations, a Way of Life**
Peter Hawkes

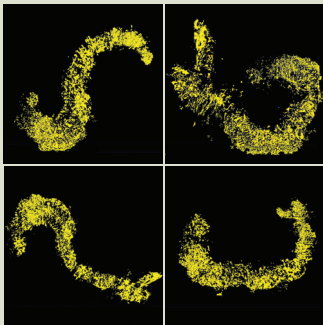
Opinion

- 46 Seeing is Educating: The Case for Electron-Microscopy Videos in the Classroom**
Alyssa J. McKenna and David J. Flannigan

Departments

- | | |
|--------------------------------------|--------------------------------|
| 7 Editorial | 52 NetNotes |
| 8 Carmichael's Concise Review | 60 Calendar of Meetings |
| 48 Industry News | 65 Dear Abbe |
| 50 Product News | 66 Index of Advertisers |

About the Cover



Reconstructed images of carbon-rich filaments in a 3.46 billion-year-old rock. Image width = 30 μ m

See article by Wacey *et al.*

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