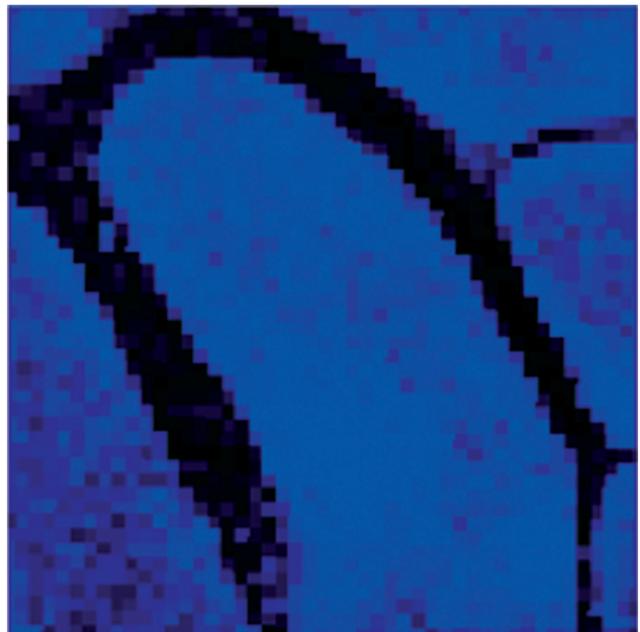
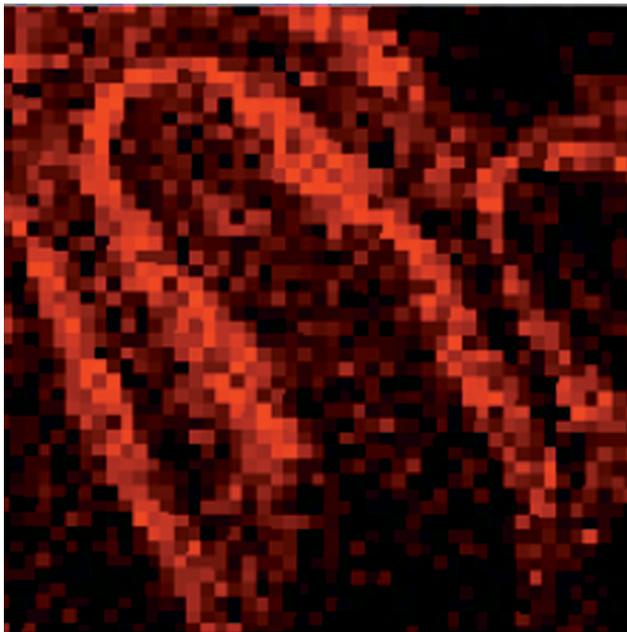
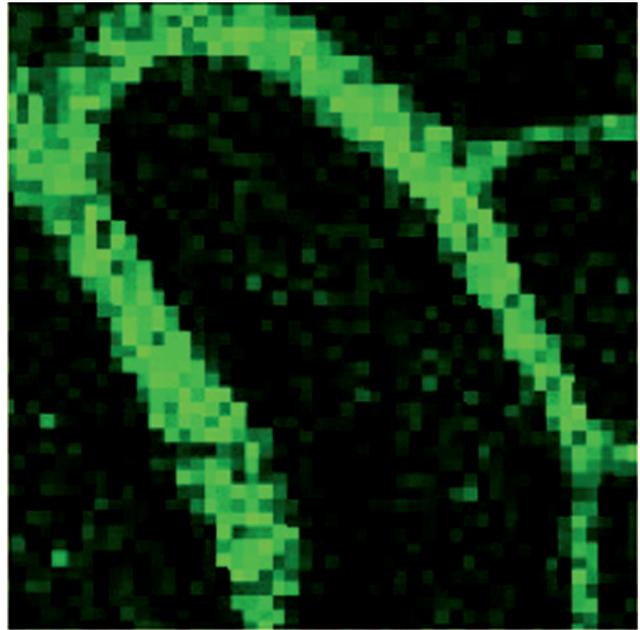
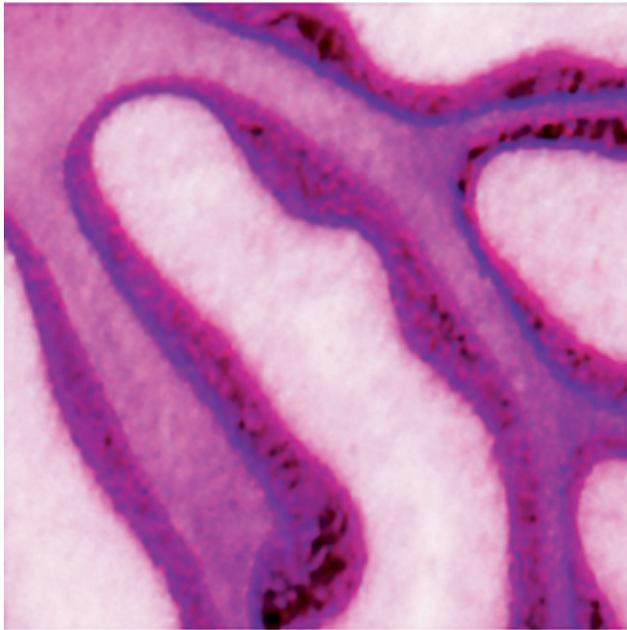


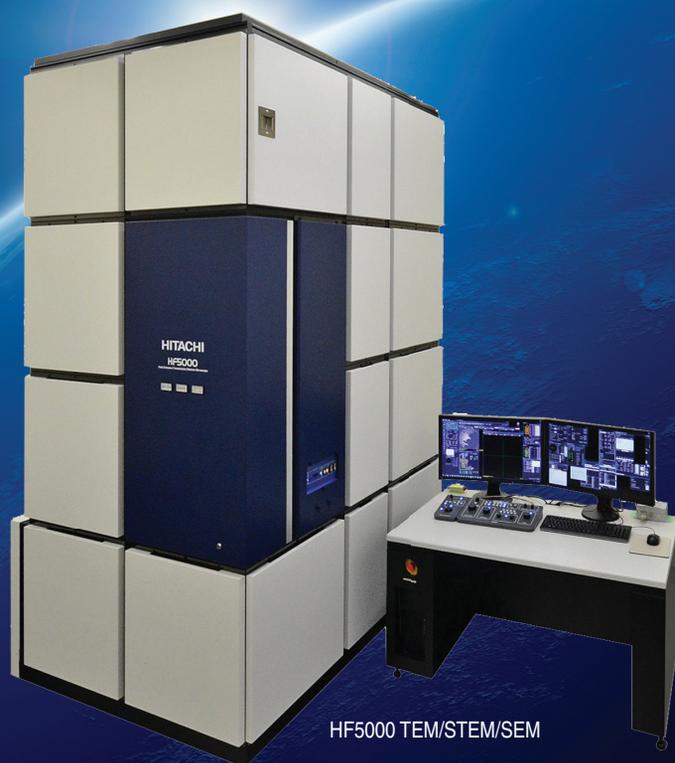
Microscopy TODAY

Volume 24 Number 2 2016 March



The All-New HF5000 200 kV Aberration-Corrected TEM/STEM/SEM

A new, innovative 200 kV TEM/STEM/SEM is soon to debut from Hitachi



HF5000 TEM/STEM/SEM

Three imaging modes (TEM/STEM/SEM) integrated into one system with automated aberration correction

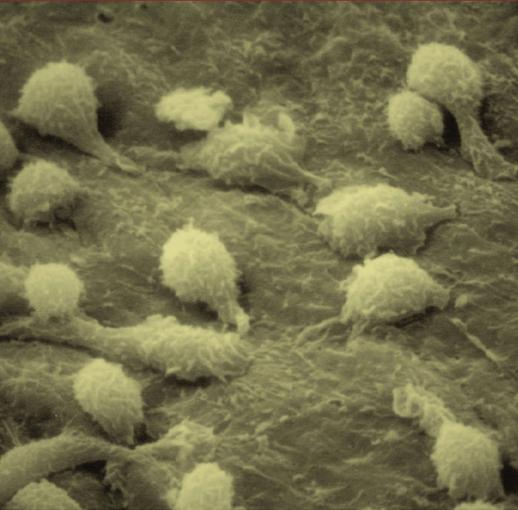
The soon-to-debut Hitachi HF5000 60-200 kV Aberration-Corrected TEM/STEM/SEM is designed to accommodate simultaneous acquisition of bulk and surface structures at sub-atomic resolution. The highly automated probe-forming aberration correction makes sub-Å resolution imaging readily available. The innovative design of the cold field-emission gun delivers high brightness, extended stability of the probe current, and high-energy resolution. The dual X-ray detectors provide the largest solid angle in the market for fast and high-sensitivity EDS analysis. EELS and many other options are available.

The new HF5000 is the top choice for materials science research and industrial applications.

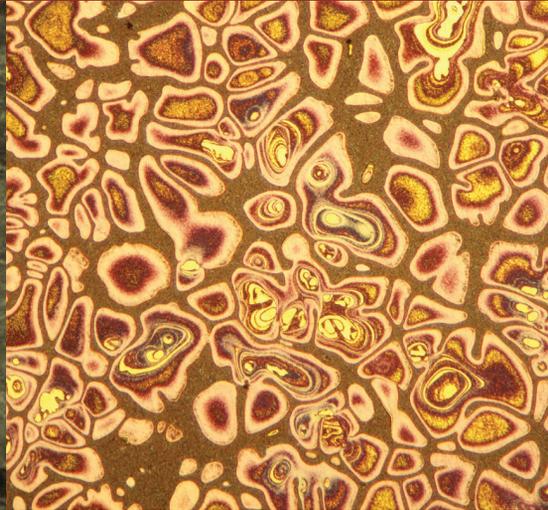
**To receive updates on the HF5000, contact us
at microscopy@hitachi-hta.com.**

Inspire Innovation through Collaboration

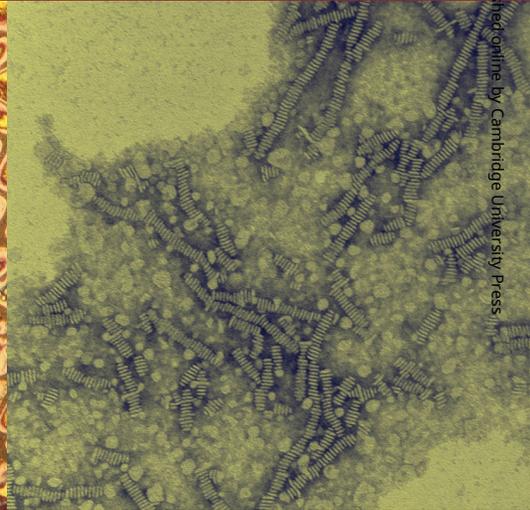
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Monocytes (White Blood Cells) Adhering to the Inside Surface of an Artery as Part of an Inflammatory Reaction. W. Gray (Jay) Jerome, Vanderbilt University



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



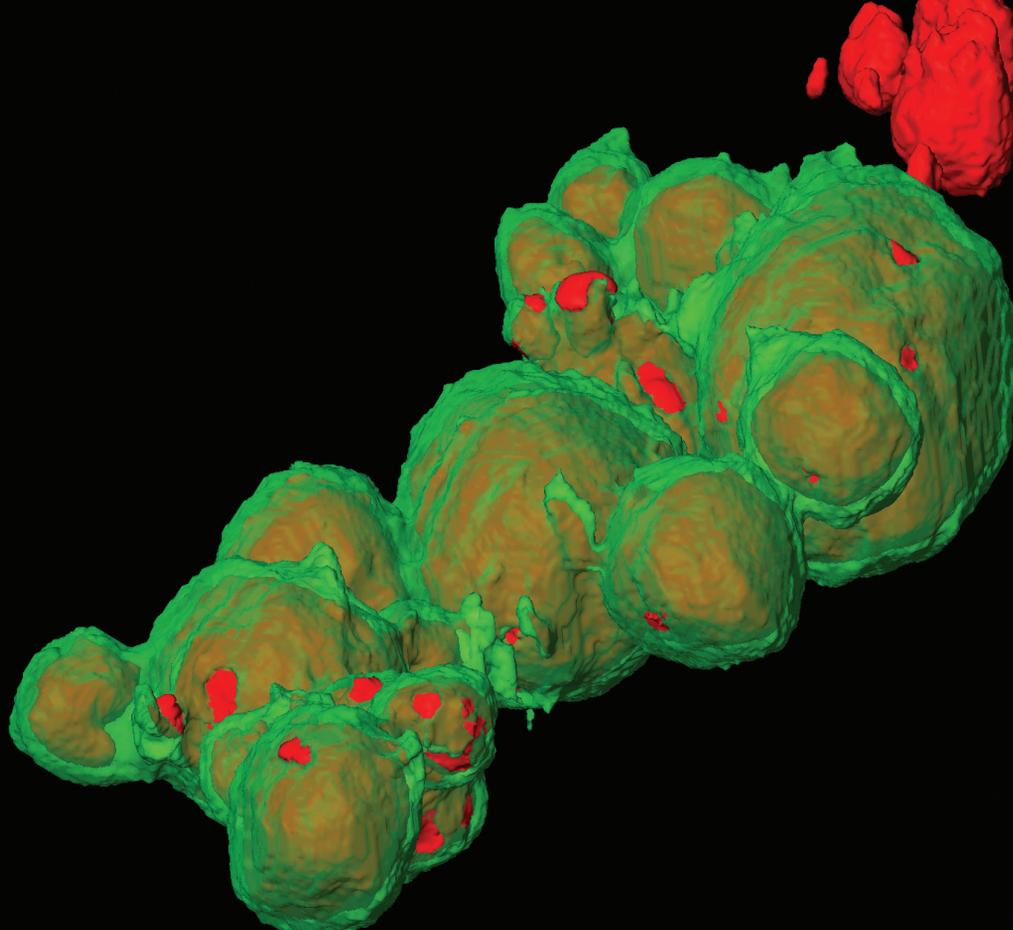
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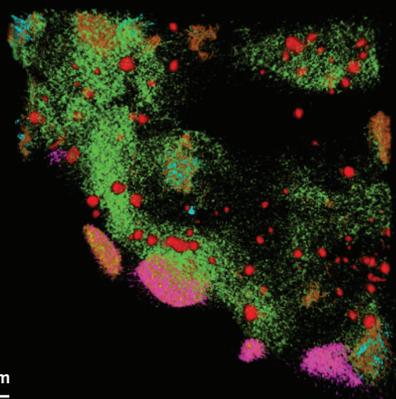


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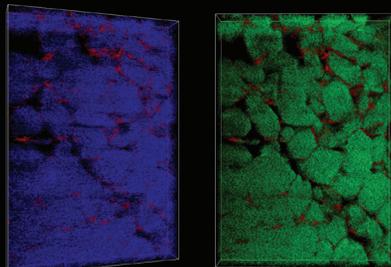
B

Ce
Zr
P
Pd
Ca



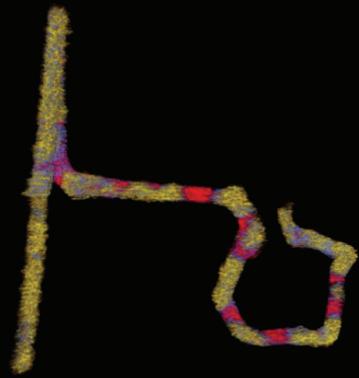
C

C
Al
Co



D

P
Zn
In



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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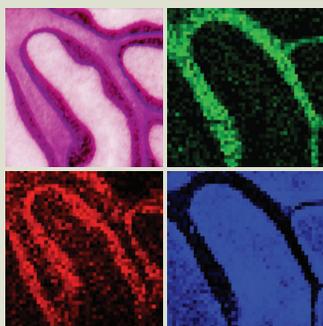
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Rat brain section analyzed by C_{60} FTICR-SIMS. Clockwise from upper left: light microscopy image, ion image of N-glycolylneuraminic acid in the cerebellum white matter (green), ion image of a lysolipid in the gray matter (blue), and ion image of intact lipid in the granular cell region (red). Full width = 2.5 mm.

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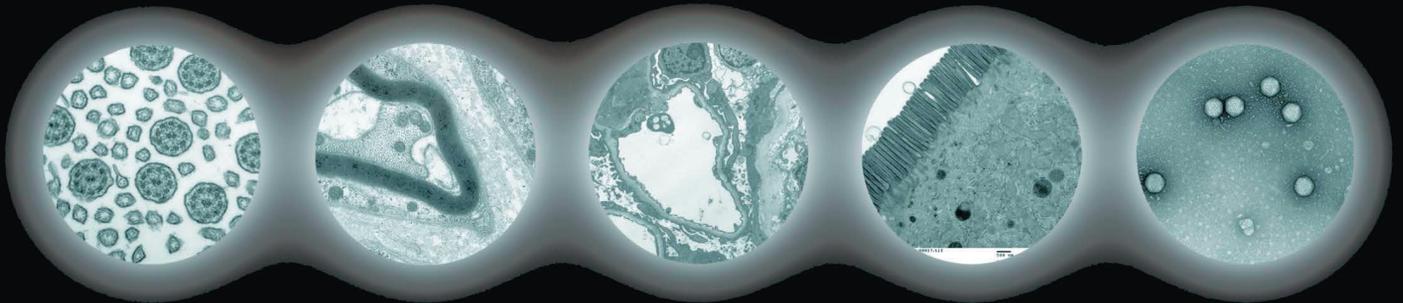
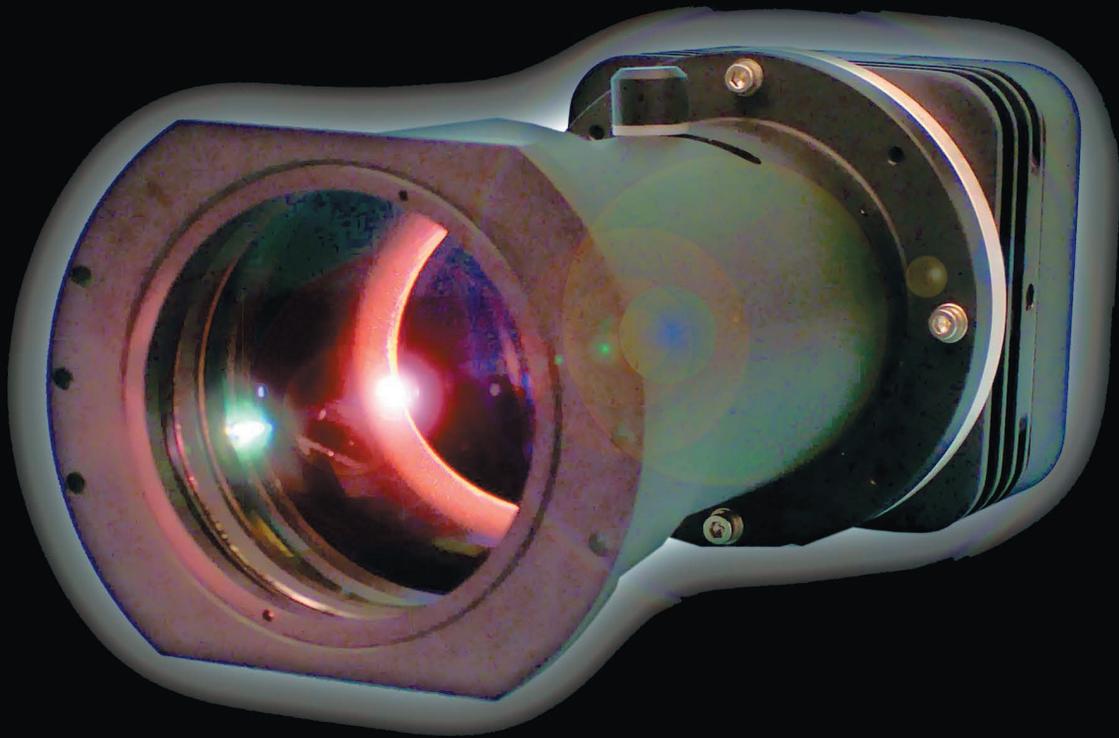
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