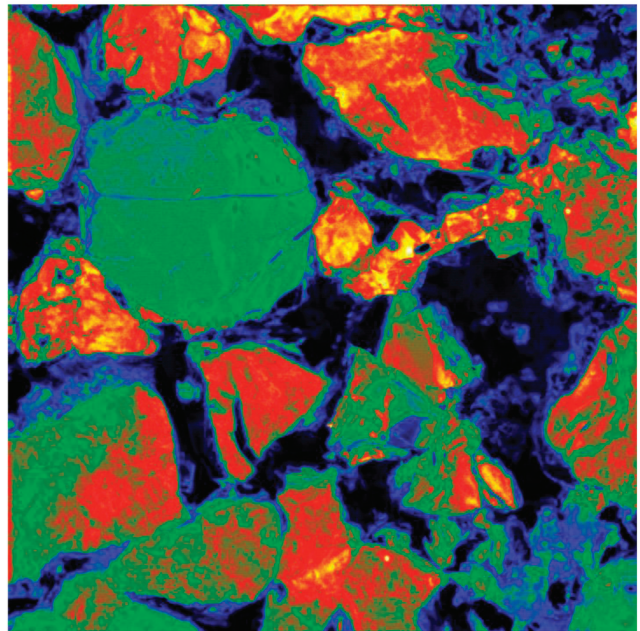
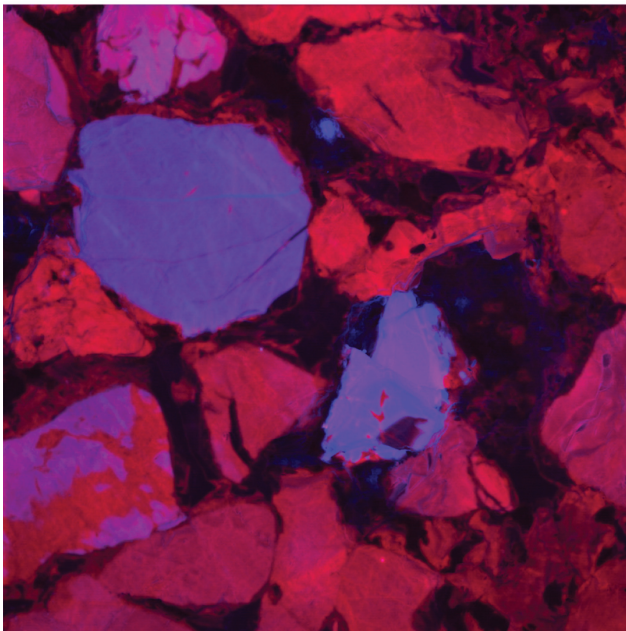
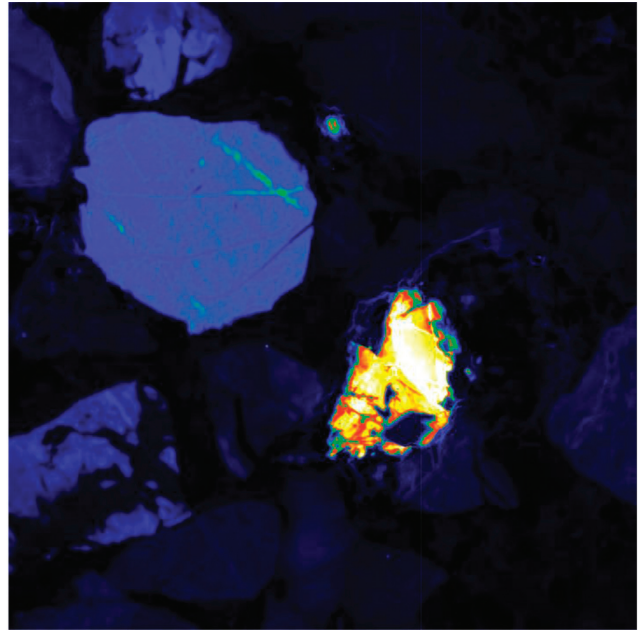
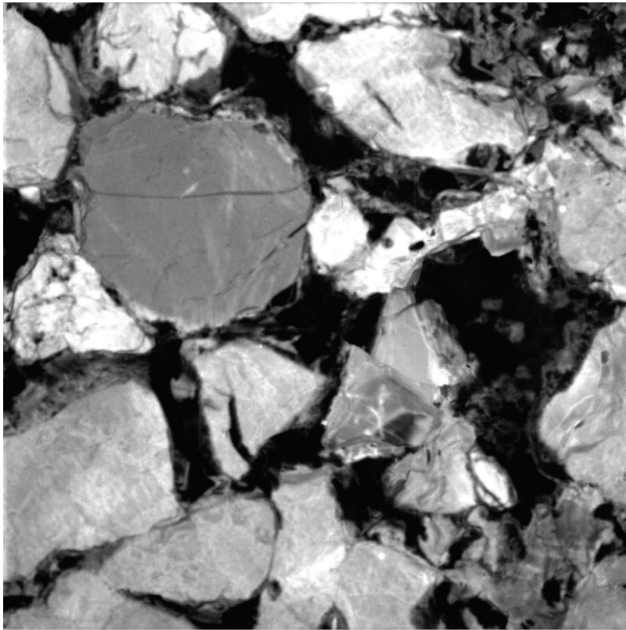
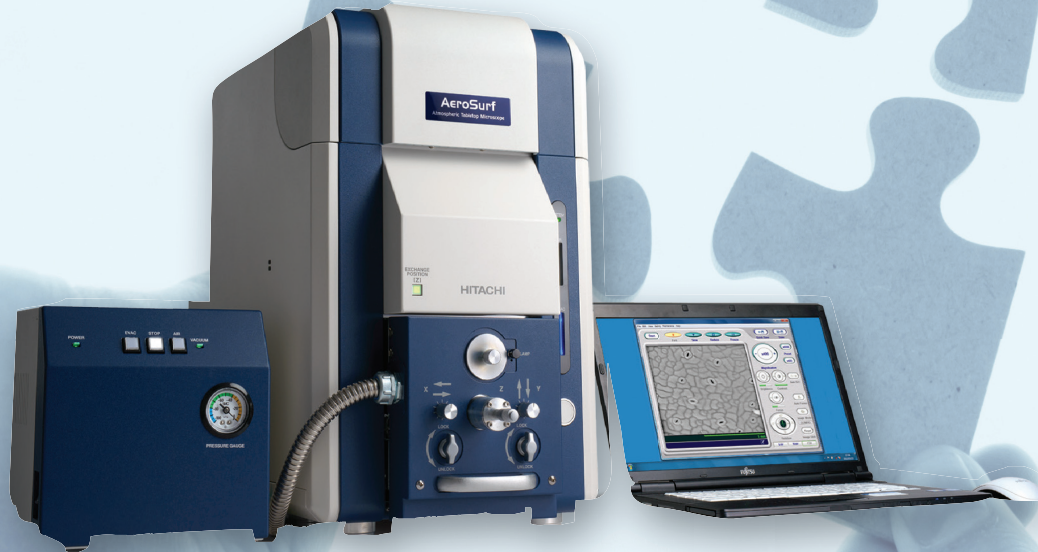


Microscopy TODAY

Volume 24 Number 3 2016 May



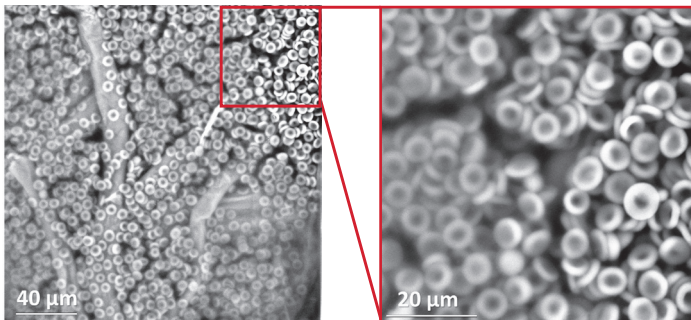
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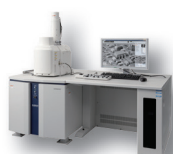
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Magnification: 500x
Sample: Blood cells
Acceleration voltage: 15 kV
Pressure: Atmospheric (101 kPa)
Temperature: Room temperature

Magnification: 1500x

The AeroSurf—a hybrid tabletop atmospheric scanning electron microscope (ASEM)—has an extremely thin membrane which separates the evacuated column and the atmospheric-pressure chamber, enabling the observation of typically difficult specimens, such as bulk or wet samples, in their natural state, without the need for often damaging and time-consuming preprocessing.



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TEM & STEM



Tabletop SEM



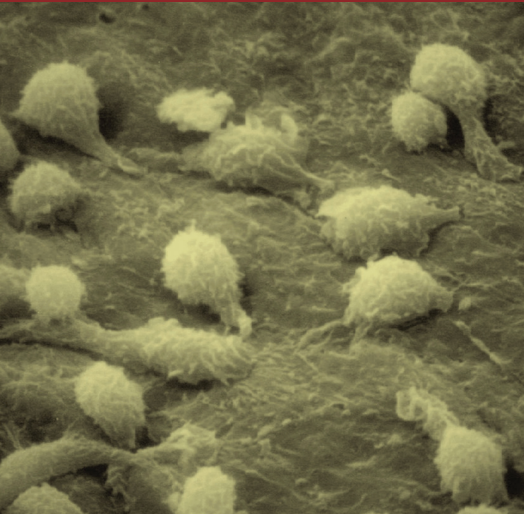
Atomic Force Microscopy



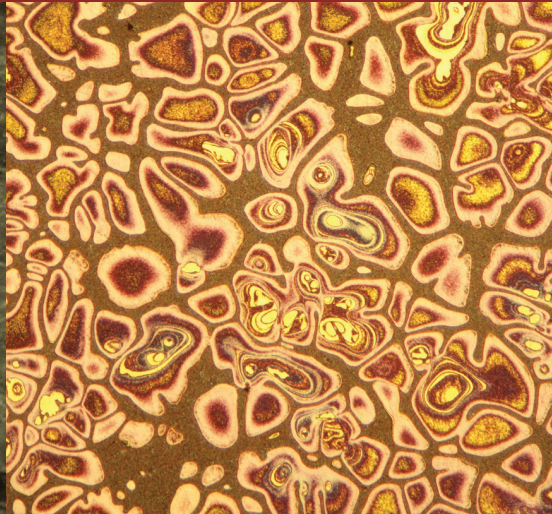
Sample Preparation

Inspire Innovation through Collaboration

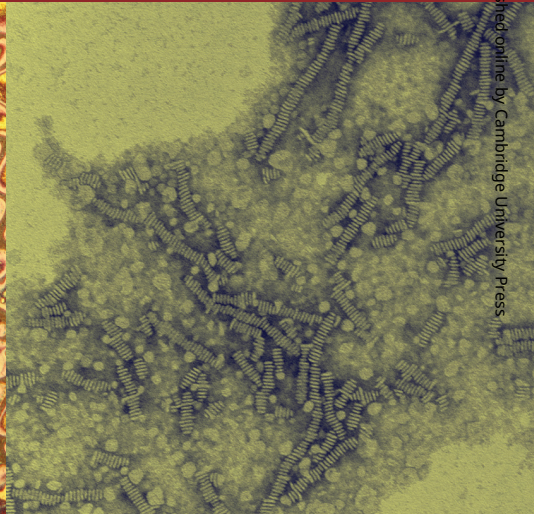
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Monocytes (White Blood Cells) Adhering to the Inside Surface of an Artery as Part of an Inflammatory Reaction. W. Gray (Jay) Jerome, Vanderbilt University



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



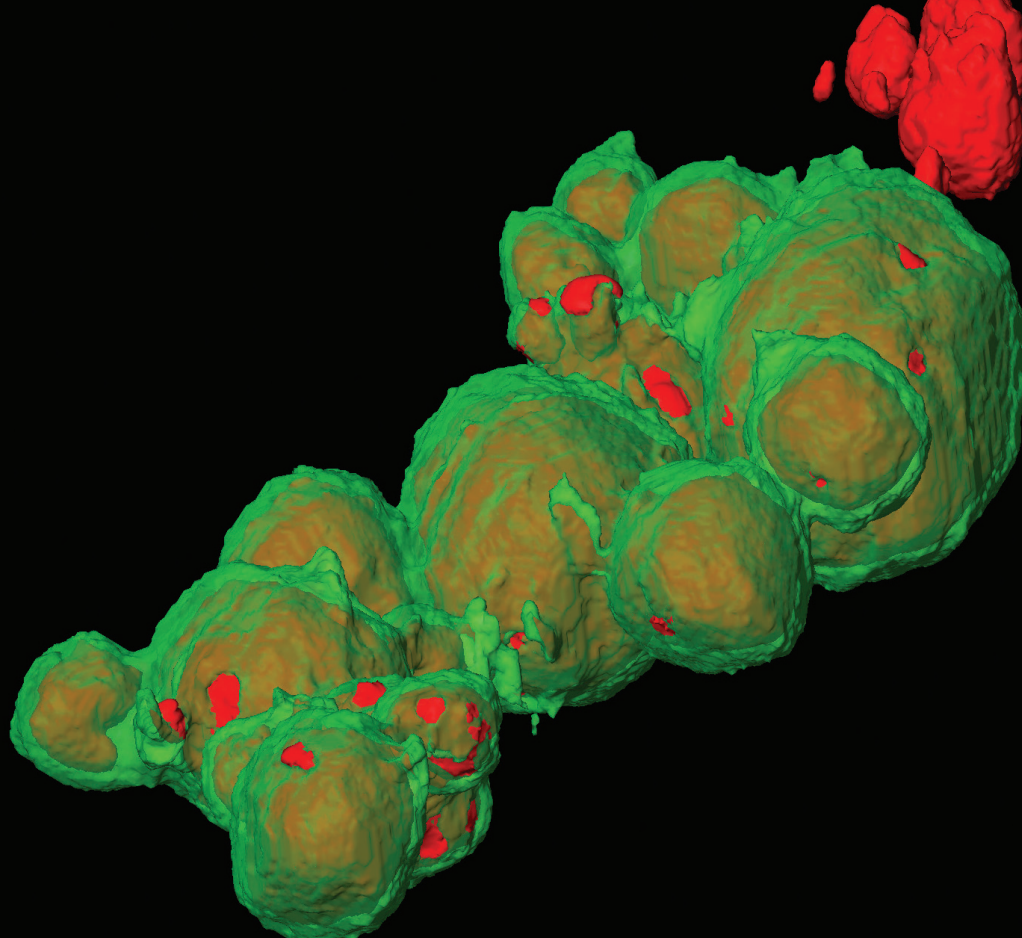
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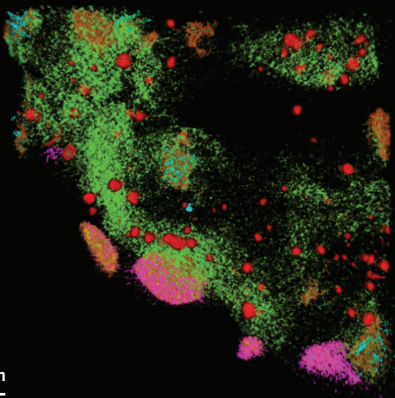


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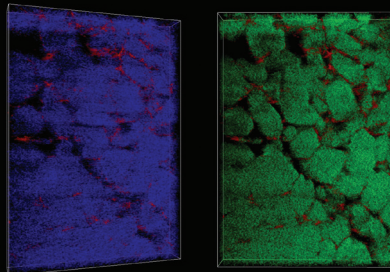
B

Ce
Zr
P
Pd
Ca



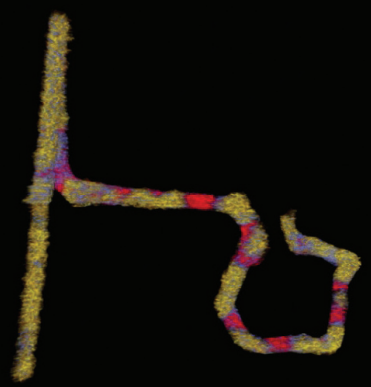
C

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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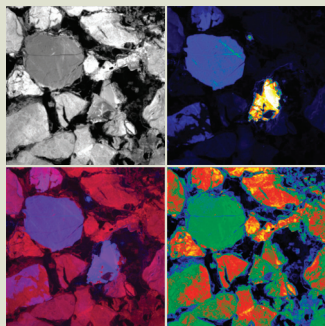
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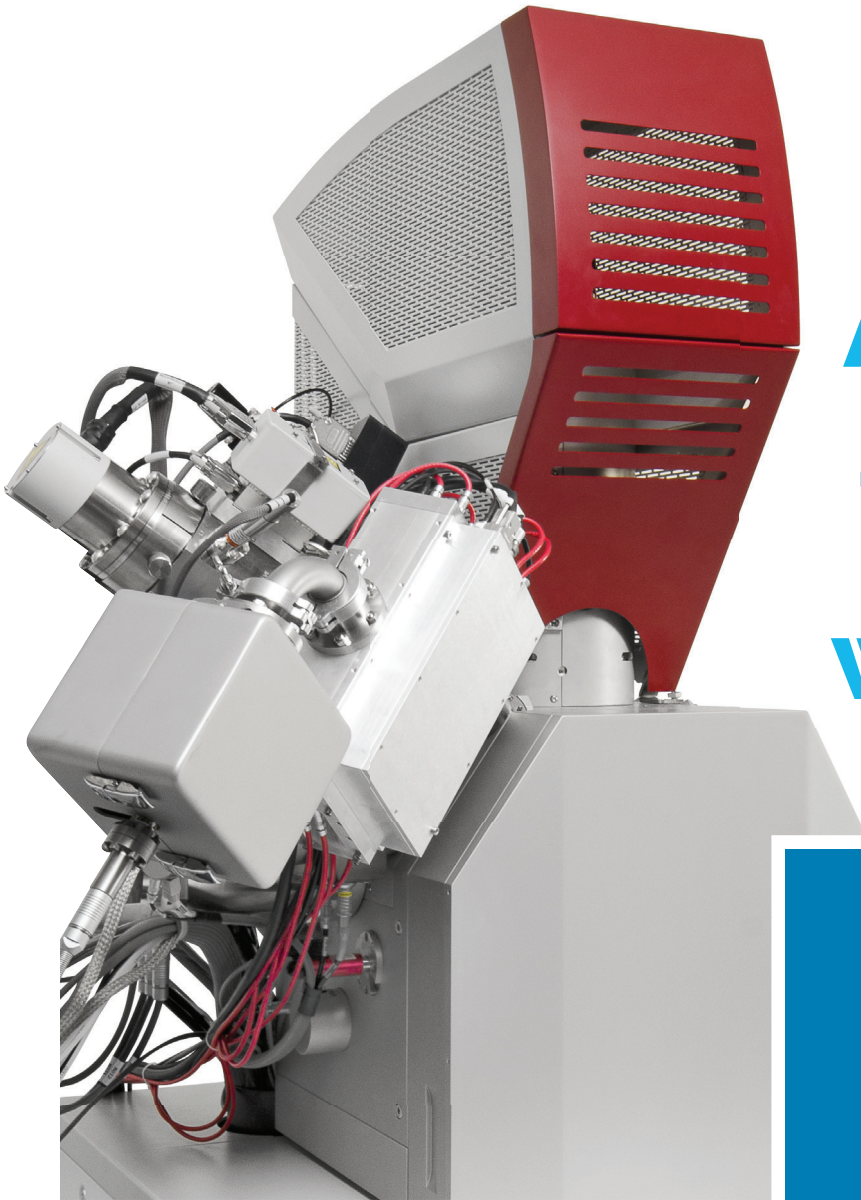


Cathodoluminescence imaging of quartz. Clockwise from upper left: CL grayscale image, CL image at 450 nm, CL image at 600 nm, and blue-on-red composite image. Image width = 350 μ m.

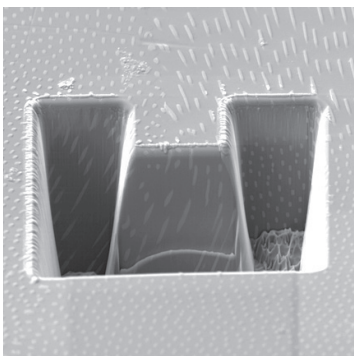
See article by Coenen et al.



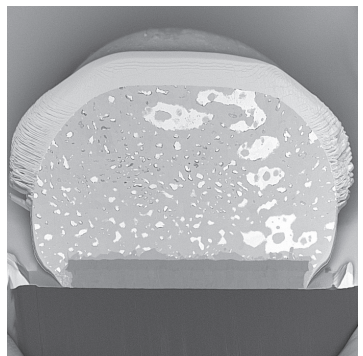
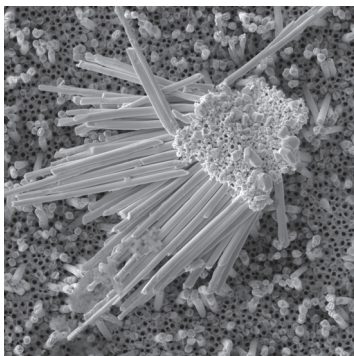
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