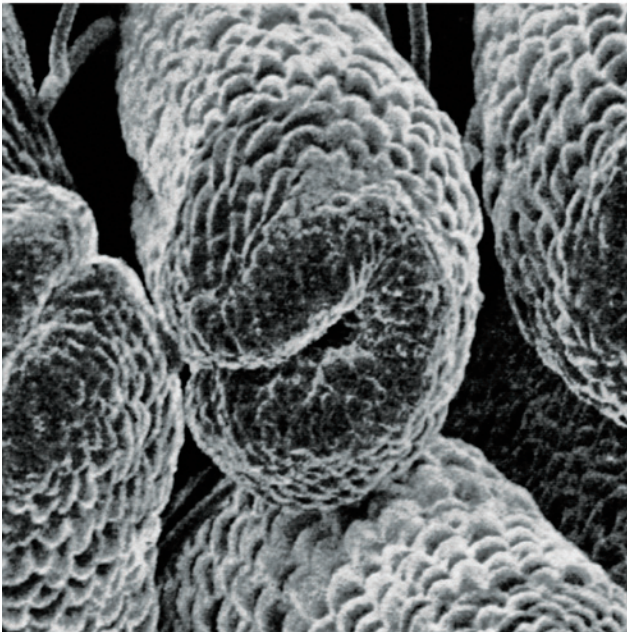


Microscopy TODAY

Volume 25 Number 1 2017 January



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- Elimination of water layer and undesired oxidation at the sample interface
- Exceptional accuracy, sensitivity, and resolution for optimized electromagnetic property measurements

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- Imaging in air, liquid, and vacuum
- Superior temperature regulation (-120 to 800 °C)
- Humidity and gas injection control
- Correlative AFM-SEM-IM *in vacuo* for environmentally sensitive materials

Innovative 2D Dopant Profiling Technology

- Hitachi-proprietary Scanning Nonlinear Dielectric Microscopy (SNDM) mode
- Ultra-high sensitivity for detecting low carrier densities
- High-resolution characterization for semiconductor devices



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special anniversary programming in honor of



and



as well as the 50th anniversary of the atom probe



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Paper submission
deadline:
February 15, 2017

<http://www.microscopy.org/MandM/2017>

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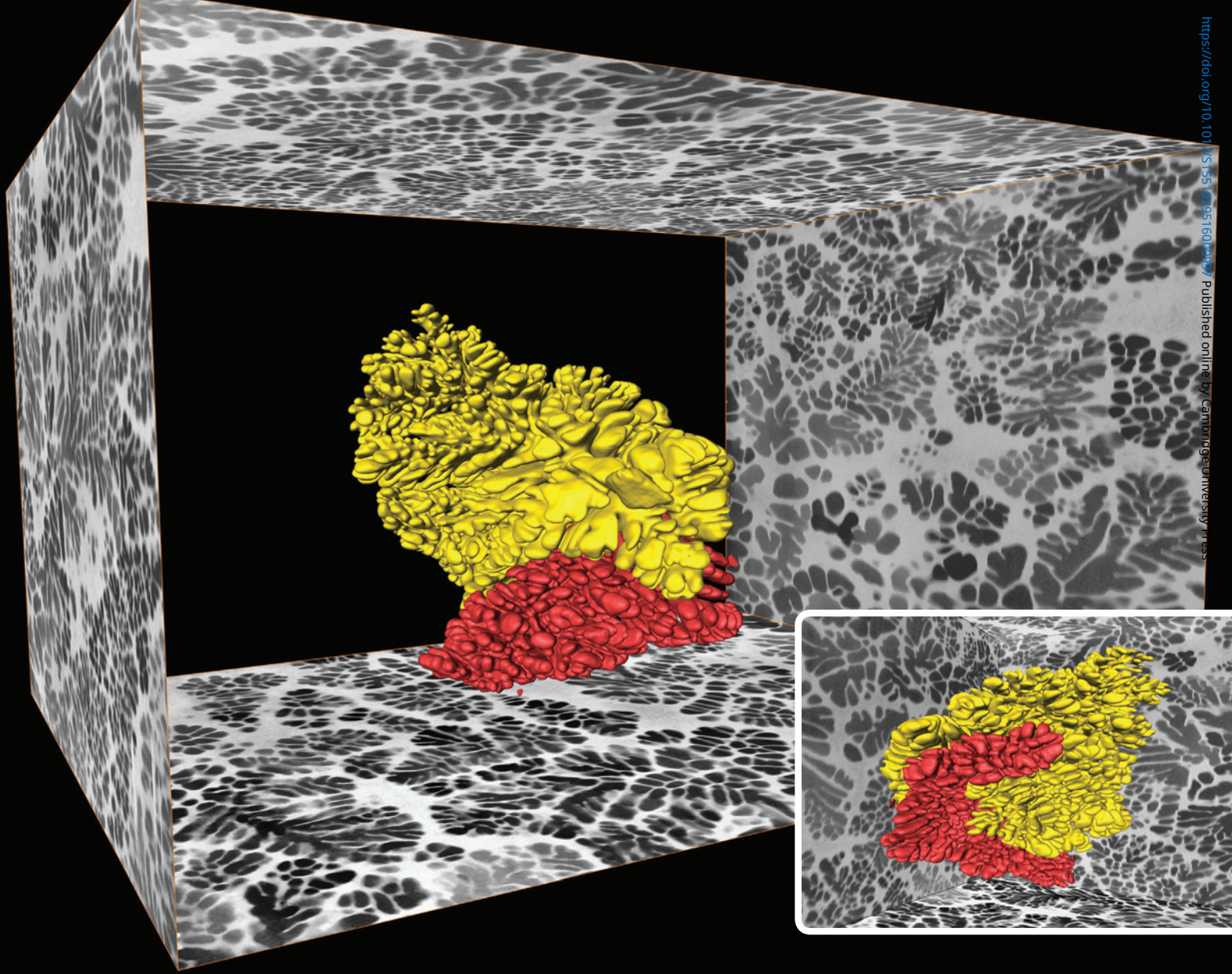
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M&M 2017
MICROSCOPY & MICROANALYSIS
August 6-10, 2017 • St. Louis, MO

The logo for the Microscopy & Microanalysis 2017 conference. It features the letters 'M&M' in a large, bold, orange font. To the right of 'M&M' is the year '2017' in a smaller, bold, orange font. Below this is the text 'MICROSCOPY & MICROANALYSIS' in a large, bold, blue font. At the bottom is the text 'August 6-10, 2017 • St. Louis, MO' in a smaller, bold, orange font. A stylized graphic of the St. Louis Arch is positioned behind the 'M&M' and '2017' text.



FEI Avizo® 3D visualization of two large adjacent crystalline dendrites of a bulk-metallic-glass matrix composite ($Zr_{58.5}Ti_{14.3}Nb_{5.2}Cu_{6.1}Ni_{4.9}Be_{10}$). Data was obtained by large volume serial sectioning tomography using the Helios PFIB DualBeam. The sectioned block is about $90 \times 80 \times 70 \mu m^3$. Sample from The University of Tennessee, USA. Images courtesy of The University of Manchester.

Large 3D volumes with unprecedented surface resolution

Until recently, available technologies have limited the volumes and depths of materials that can be analyzed at high resolution, ultimately restricting the insight into structural, crystallographic, and chemical properties. This is no longer the case. The Helios™ PFIB DualBeam™ offers unrivaled access to regions of interest deep below the surface—combining serial section tomography with statistically relevant data analysis.

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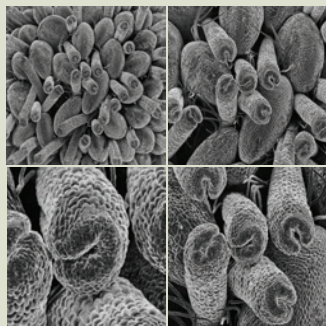
Eric Clark

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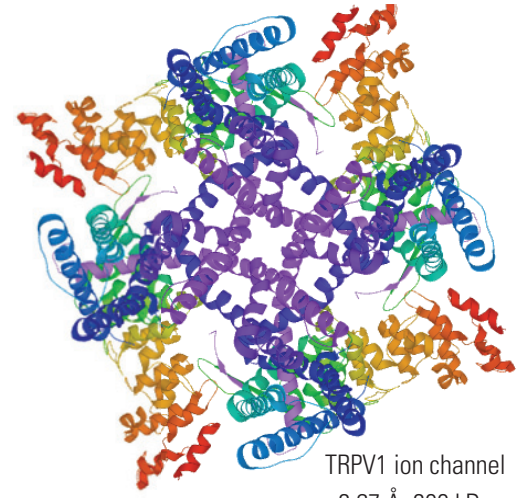


Scanning electron microscopy image of immature strawberry flower. Clockwise from upper left: original image width = 2.54 mm; 2× enlargement; 4× enlargement; and 8× enlargement.

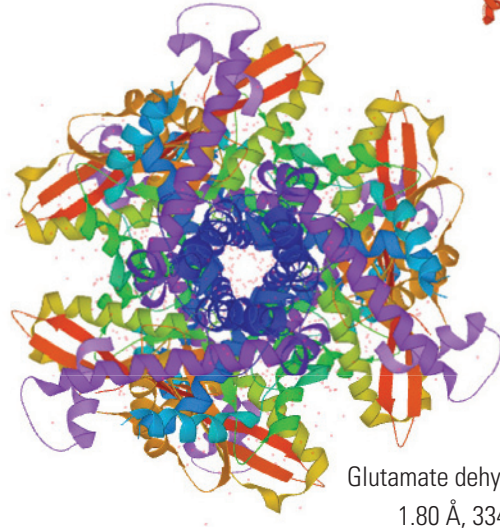
See article by Scharf.

Zika virus
3.70 Å, 10 MDa

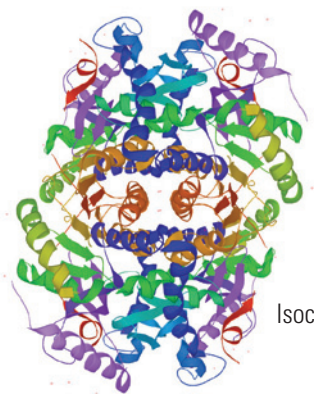
Cryo-EM Imaging



TRPV1 ion channel
3.27 Å, 300 kDa



Glutamate dehydrogenase
1.80 Å, 334 kDa



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3.80 Å, 93 kDa

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