

MRS Bulletin

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Focused ion beam technology and applications

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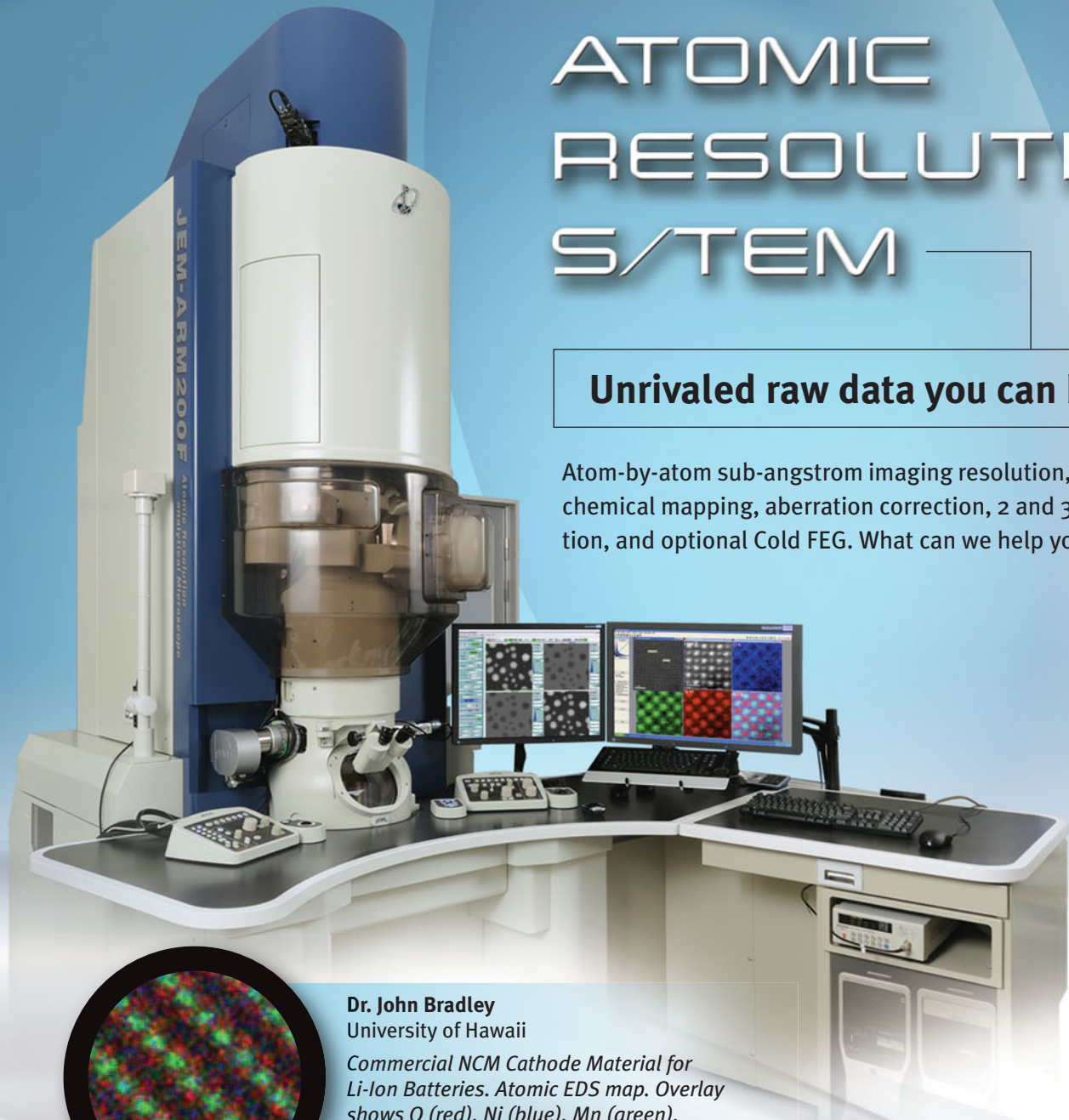
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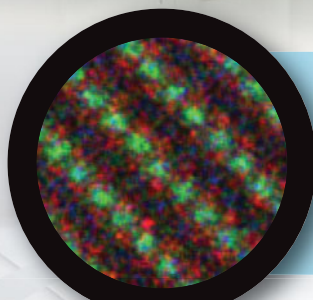
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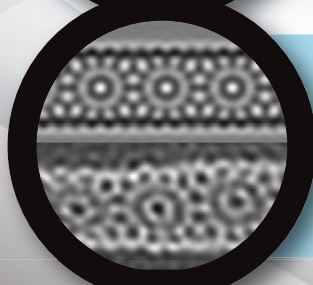
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Dr. John Bradley
University of Hawaii

Commercial NCM Cathode Material for Li-Ion Batteries. Atomic EDS map. Overlay shows O (red), Ni (blue), Mn (green).

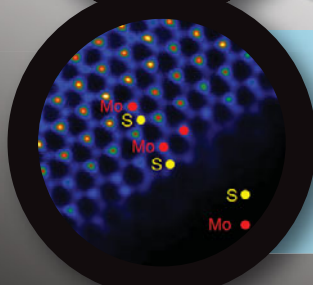
— 0.5nm



Dr. Miguel Jose Yacaman
University of Texas, San Antonio

Sample provided by Tour Lab, Rice University
Chiral Nanotube with parameters $n=10$ and $m=4$ (simulated and experimental).

— 0.5nm



Dr. Moon Kim
University of Texas, Dallas

STEM HAADF image of transferred MoS_2 , showing Mo and S atom positions and their 2H stacking sequence.

— 0.5nm

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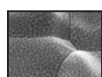
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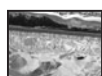
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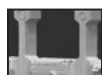
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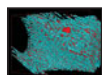
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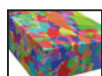
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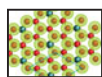


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ON THE COVER

Focused ion beam technology and applications. Focused ion beam (FIB) microscopes coupled with a scanning electron microscope (SEM) offer the opportunity for novel sample imaging, sectioning, specimen preparation, three-dimensional nano- to macroscale tomography, and high resolution rapid prototyping. The articles in this issue of *MRS Bulletin* feature the state of the art in FIB technology and its applications

in materials research, providing insights into future potential for materials characterization and processing using FIBs. The cover image shows a three-dimensional view of FIB-patterned silicon milled for a microfluidic serpentine mixer application. Image courtesy of the American Vacuum Society. See the technical theme that begins on page 317.



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