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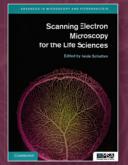
New to the **Advances in Microscopy and Microanalysis** book series!

Scanning Electron Microscopy for the Life Sciences

Heide Schatten University of Missouri, Columbia US\$120.00: Hb: 978-0-521-19599-7: 312 pp

Recent developments in scanning electron microscopy (SEM) have resulted in a wealth of new applications for cell and molecular biology, as well as related biological

disciplines. It is now possible to analyze macromolecular complexes within their three-dimensional cellular microenvironment in near native states at high resolution, and to identify specific molecules and their structural and molecular interactions. New approaches include cryo-SEM applications and environmental SEM (ESEM), staining techniques and processing applications combining embedding and resin-extraction for imaging with high resolution SEM, and advances in immuno-labeling. With chapters written by experts, this guide gives an overview of SEM and sample processing for SEM, and highlights several advances in cell and molecular biology that greatly benefited from using conventional, cryo, immuno, and high-resolution SEM.



About the series

The Press currently publishes the Microscopy and Microanalysis (MAM) journal in conjunction with the MSA, which reaches 4,000 microscopists and is affiliated with 12 international microscopy societies. The series would be a natural development from this journal, and will take a broad view of the discipline, covering topics from instrumentation to imaging, methodology and analysis across physical science, materials science, biology and medicine. Books commissioned for the series will range from advanced undergraduate textbooks through to research and practitioner oriented monographs for researchers. The series aims to produce a coherent source of material, encouraging the communication and exchange of ideas across these divergent fields, ensuring that the series appeals to a broad community in the physical and life sciences.

Forthcoming titles in this series:

Microscopic Nanocharacterization of Materials by Michael Isaacson

Energy Filtered Electron Microscopy and Electron Spectroscopy by Richard Leapman

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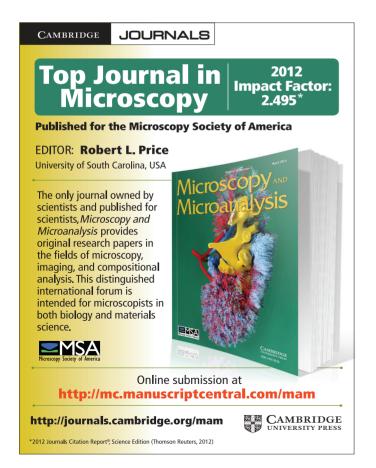
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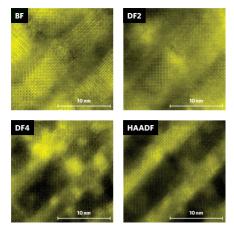
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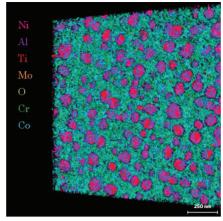
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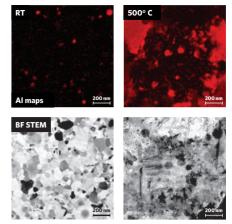
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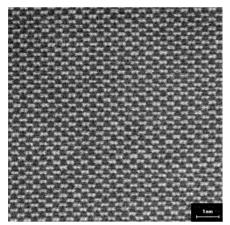
4 channel simultaneous HRSTEM imaging of SrTiO₂ using 4 STEM detectors.



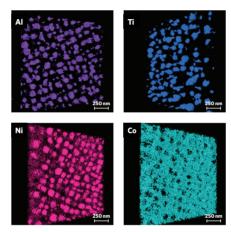
Combined 3D EDS map: Ni, Al, Ti, Mo, Cr, and Co.



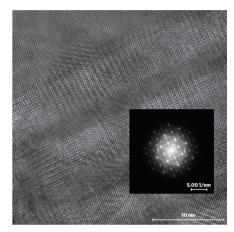
Temperature driven Al aggregation in solar cell. Sample courtesy of Dr. S. Kraschewski, U. Erlangen.



HRSTEM of Si (110) at 200kV.



3D EDS maps at different angles.



 HRTEM image of $\mathsf{SrTiO_3}$ with Ceta 16M camera.

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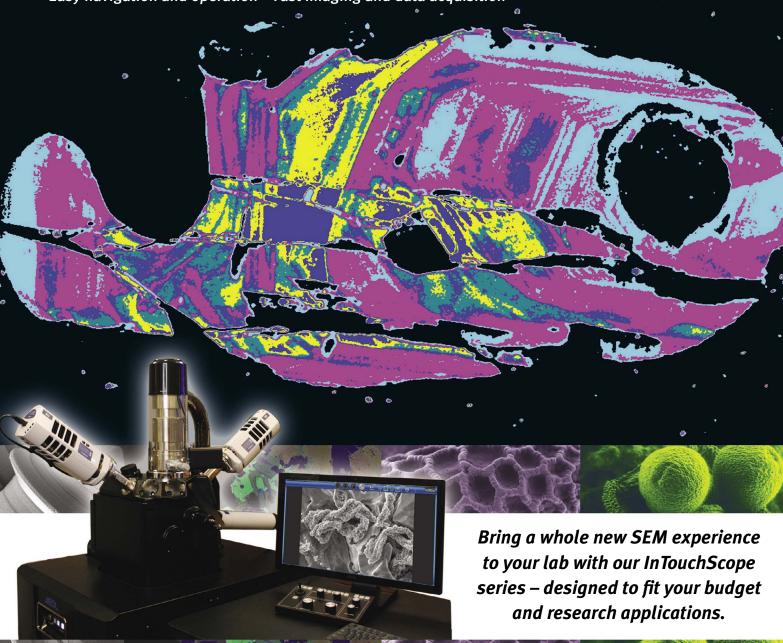
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