Microscopy_{and} Microanalysis

preview of the atom probe tomography special issue

Microwave Frequency Comb from a Semiconductor in a Scanning Tunneling Microscope

Mark J. Hagmann, Dmitry A. Yarotski, and Marwan S. Mousa

Laser-assisted atom probe tomography of deformed minerals: a zircon case study Alexandre La Fontaine, Sandra Piazolo, Patrick Trimby, Limei Yang, and Julie Cairney

Effect of Cu on nanoscale precipitation evolution and mechanical properties of a Fe-NiAl alloy

Qin Shen, Hao Chen, and Wenqing Liu

Electron beam induced deposition for atom probe tomography specimen capping layers

David Diercks, Brian Gorman, and Hans Mulders

Evaluation of analysis conditions for laser-pulsed atom probe tomography: example of cemented tungsten carbide

Baptiste Gault, Zirong Peng, Pyuck-Pa Choi, and Dierk Raabe

Nano-scale stoichiometry analysis of a high temperature superconductor by atom probe tomography

Stella Pedrazzini, Andrew London, Baptiste Gault, David Saxey, Susannah Speller, Chris Grovenor, Mohsen Danaie, Michael Moody, Philip Edmondson, and Paul Bagot

Additions of Dy, Nb and Ga on microstructure and magnetic properties of Nd2Fe14B/ a-Fe nanocomposite permanent magnetic alloys

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Baptiste Gault and Frederic de Geuser

- Toward the Atomic-Level Mass Analysis of Biomolecules by the Scanning Atom Probe Osamu Nishikawa and Masahiro Taniguchi
- Correlating atom probe tomography with atomic resolved scanning transmission electron microscopy: example of segregation at silicon grain boundaries Andreas Stoffers, Juri Barthel, Christian Liebscher, Baptiste Gault, Oana Cojocaru-

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Nicolas Rolland, Francois Vurpillot, Sebastien Duguay, and Didier Blavette Atom probe tomography characterization of nanoscale Cu-rich precipitates in 17-4 precipitate hardened stainless steel tempered at different temperatures

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Masoud Rashidi, Hans-Olof Andrén, and Fang Liu Single-Ion Deconvolution of Mass-Peak Overlaps for Atom Probe Microscopy Andrew London, Daniel Haley, and Michael Moody

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Analysis of Radiation Damage in Light Water Reactors: Comparison of Cluster Analysis Methods for the Analysis of Atom Probe Data

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In-situ Atom Probe Deintercalation of Lithium-Manganese-Oxide

Björn Pfeiffer, Johannes Maier, Jonas Arlt, and Carsten Nowak

True atomic-scale imaging in three-dimensions: A review of the rebirth of field-ion microscopy

Francois Vurpillot; Frédéric Danoix, Matthieu Gilbert, Sebastian Koelling, Michal Dagan, and David Seidman

Detecting Clusters in Atom Probe Data with Gaussian Mixture Models Jennifer Zelenty, Andrew Dahl, Jonathan Hyde, George Smith, and Michael Moody



DearAbbe

CrossMark

Dear Abbe,

For the last few years I have been sentenced to research management, and I fear I am losing touch with the technical world. I am responsible for my group's execution of cutting-edge research. In industry terms, that involves generating pretty SEMs which please our upper management. Recently I have seen many color SEMs in online news items. I'm wondering: where can I purchase one of those nifty color electron microscopes? We all know about green M&Ms, but is there anything I should know about orange electrons?

De-lobed in Cincinnati

Dear Lobeless,

It would seem that you and your upper management have been hoodwinked by one of the oldest tricks in the book, namely falsely adding color to a black-andwhite image. This practice was perfected by my dear friend Wallace Nutting who used the technique to peddle his photographs. At one time Wallace employed over 200 colorists who added just the right shades of green, pink, and brown to make it seem as if his photos were in color. Tricks, tricks, tricks! Secretly I think that he did this to get back at those who had chopped the head off of his great-grandfather and stuck in on a pike, but Wallace assured me that it was done solely to amass wealth. These days Rechtsverdreher Microscope sellers have found that gullible labs will still fall for this subterfuge. As P.T. Barnum once noted, "A fool and his money will make my wallet fat!" Next time your boss wants a colorized SEM, do what I do. Distribute a stack of photos to a bunch of third graders and ask them to use crayons to make the pictures "pretty." Choose the best one and tell your boss that it cost \$1,500. Buy the kid an ice cream and pocket the difference.

If you feel threatened by the colorful world around you, put your dark shades on and consult Herr Abbe. He can be reached by contacting his faithful assistant at jpshield@uga.edu.

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