[](http://www.mrs.org/fall2011/)**Symposium PP: Three-Dimensional Tomography of Materials**

* [2011 MRS Fall Meeting & Exhibit](http://www.mrs.org/fall2011/)
* November 28 - December 2, 2011
* Boston, Massachusetts
* [Meeting Chairs:](http://www.mrs.org/f11-chairs/) Cammy R. Abernathy, Paul V. Braun, Masashi Kawasaki, Kathryn J. Wahl
* Document available online at: <http://www.mrs.org/f11-program-pp/>

SESSION PP5:  
Chair: Manfred Ruehle  
Tuesday Afternoon, November 29, 2011  
Fairfax A (Sheraton)

**1:30 PM PP5.1**  
**The Ageing Behaviour of Nb-V Bearing Castrip® Steels at Higher Temperature.**Chen Zhu, Lan Yao, Kelvin Xie, Julie M. Cairney and Simon P. Ringer; Australian Centre of Microscopy and Microanalysis, University of Sydney, Sydney, New South Wales, Australia.  
  
**1:45 PM PP5.2**  
**3D Atom-by-Atom Imaging of Semiconductor Nanomaterials and Interfaces.**Oussama Moutanabbir1, Dieter Isheim2 and David N. Seidman2; 1Max Planck Institute of Microstructure Physics, Halle, Germany; 2Department of Materials Science and Engineering, Northwestern University, Evanston, Illinois.  
  
**2:00 PM PP5.3**  
**An Atom-Probe Tomographic Study of Core-Shell and Core-Shell-Shell Nanoscale Precipitates in Al-Li-Sc and Al-Li-Sc-Yb Alloys.** Matthew Krug1,2, David C. Dunand1 and David N. Seidman1; 1Materials Science and Engineering, Northwestern University, Evanston, Illinois; 2General Electric Aviation, Airfoil Materials, Cincinnati, Ohio.  
  
**2:15 PM PP5.4**  
**Quantitative Composition 3D Profiling of Conjugated Quantum Dots by TOF-MEIS.**DaeWon Moon1, YoungJoon Cho1, HyunWoong Yoo1, Mauricio Sortica2 and Pedro Grande2; 1Center for NanoBio Convergence, Korea Research Institute of Standards and Science, Daejeon, Korea, Republic of; 2Department of Physics, UFRGS, Porto Alegre, Brazil.  
  
**2:30 PM PP5.5**  
**Three-Dimensional Confocal Imaging of the Stick/Slip Mechanisms of Sliding of Model Rough Surfaces.**Demet Tatar, Michael Aziz and Frans Spaepen; Applied Phsics, Harvard University, Cambridge, Massachusetts.  
  
**2:45 PM PP5.6**  
**Mechanical Properties and Structure in Precipitated Colloidal Silica.**Miao Wang, Marcel Roth and Guenter K. Auernhammer; MPI for polymer research, Mainz, Germany.  
  
**3:00 PM BREAK**  
  
**3:30 PM \*PP5.7**  
**Segmentation and Tomography: Steps towards Combining Both into a Single Algorithm.**Marc De Graef, Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, Pennsylvania.  
  
**4:00 PM \*PP5.8**  
**Simulation and *In Situ* Measurement of Boundary Migration in Polycrystals in 3-D.**Chris Hefferan2, Frankie Li2, Anthony Rollett1, Jonathan Lind2, Ulrich Lienert3 and Robert M. Suter2; 1Department of Materials Science and Engineering, Carnegie Mellon University, Pittsburgh, Pennsylvania; 2Physics, Carnegie Mellon University, Pittsburgh, Pennsylvania; 3Advanced Photon Source, Argonne National Laboratory, Chicago, Illinois.  
  
**4:30 PM PP5.9**  
**Three-Dimensional Tomography of Dielectric Materials Using Electrostatic Force Microscopy.** Clement Riedel1, Richard Arinero2, Angel Alegria1, Juan Colmenero1 and Juan Jose Saenz3; 1Donostia International Physics Center, San Sebastian, Gipuzkoa, Spain; 2Institut d'Electronique du Sud, Montpellier, France; 3Moving Light and Electron, Madrid, Spain.  
  
**4:45 PM PP5.10**  
**Neutron Tomography and Diffraction of Intact, Commercial Lithium-Ion Polymer Batteries.**Leslie G. Butler1, Kyungmin Ham2, Burkhard Schillinger3, Eberhard Lehmann4, Ping Liu5 and John J. Vajo5; 1Chemistry, Louisiana State University, Baton Rouge, Louisiana; 2CAMD, Louisiana State University, Baton Rouge, Louisiana; 3Physik-Department E21, Technical Universität München, Garching, Germany; 4Neutron Imaging Group, Paul Scherrer Institut, Villigen, Switzerland; 5HRL Laboratories, LLC, Malibu, California.