ICRS-8  MATERIALS ENGINEERING I

Thursday a.m.  BLANCA PEAK

8:30 S22  Invited—Diffraction Analysis of Stress Gradients in Tin Thin Films: An Explanation for the Occurrence of Whisker Formation
M. Sobiech, U. Welzel, J.J. Mitteneijer, Max Planck Institute for Metals Research, Stuttgart, Germany
W. Hügel, A. Seekamp, Robert-Bosch GmbH, Reutlingen, Germany

9:00 S15  Micro Stress Accumulation in Multiphase Superalloys
J. Repper, M. Hofmann, W. Petry, C. Krempaszky, E. Werner, TU München, Garching, Germany

9:20 S27  Residual Stresses and Load Partitioning in Novel Metal/Ceramic Composites Exhibiting Lamellar Microstructures
S. Roy, A. Wanner, Universität Karlsruhe (TH), Karlsruhe, Germany
J. Giebeler, Hahn Meitner Institute Berlin, Berlin, Germany

9:40 S31  Size Effect in the Plasticity of Multiscale Nanofilamentary Cu/Nb Composite Wires During In-Situ Tensile Tests Under Neutron Beam
V. Vital, L. Thilly, P.O. Renault, University of Poitiers, Futuroscope, France
U. Stuhrl, S. Van Petegem, H. Van Swygenhoven, Paul Scherrer Institute, Villigen, Switzerland
F. Lecouturier, LNCMP, Toulouse, France

10:00 BREAK

10:40 S213  Characterization of Strained Silicon on Insulator (sSOI) Substrates Using High-Resolution X-ray Diffraction
M. Wormington, Bede Scientific Inc., Centennial, CO
T. Lafford, P. Ryan, Bede plc, Durham, UK

11:00 S161  High Pressure Deformation Study of Zirconium
S.C. Vogel, D.W. Brown, H. Reiche, T.A. Síneros, H.M. Volz, J. Zhang, Y. Zhao, Los Alamos National Laboratory, Los Alamos, NM
N. Nishiya, Y. Wang, APS – Argonne National Laboratory, Argonne, IL

11:20 S59  In-Situ X-ray Diffraction Study of Nanocrystalline Metals
S. Brandt, S. Van Petegem, J. Zimmermann, B. Schmidt, H. Van Swygenhoven, Paul Scherrer Institute, Villigen, Switzerland

11:40 S77  Neutron Diffraction Study of Intergranular Stress Development in Austenitic Stainless Steel Weld Metal
S. Sharma, R. Haigh, L. Edwards, M.E. Fitzpatrick, The Open University, Milton Keynes, Bucks, UK
M. Turski, University of Manchester, Manchester, UK

ICRS-8  INDUSTRIAL APPLICATIONS: LAYERS AND COMPOSITES

Thursday a.m.  MAROON PEAK

8:50 S201  Invited—A Study of Residual Stresses in Vacuum Plasma Sprayed Tungsten Coatings

9:20 S142  Residual Stress Profiles in Aluminia-Zirconia Ceramic Composites Fabricated By Tape Casting
J. Ruiz-Hervias, UPV, Madrid, Spain
A. Steuwe, T. Buslaps, ESRF, Grenoble, France
J. Gurauski, C. Baudin, Instituto de Ceramica y Vidrio (CSIC), Madrid, Spain

9:40 S121  Neutron Diffraction Studies on Strain Evaluation of Rebar in Reinforced Concrete
H. Suzuki, Japan Atomic Energy Agency, Japan
M. Kanematsu, Tokyo University Of Science, Japan
K. Kusunoki, Yokohama National University, Japan