

*Table of Contents***REACTOR PRESSURE VESSEL STEELS**

Master Integrated Reactor Vessel Surveillance Program—*J.B. Hall, D.F. Spond*

The Feasibility of Using a Risk-informed Approach for Calculating Reactor Pressure Vessel Heatup and Cooldown Operating Curves—*R. Gamble, W. Server, R. Carter*

Monitoring of Radiation Embrittlement of the First and Second Generation of VVER RPV Steels—*Y.I. Shtrombakh, Y.A. Nikolaev*

Analysis of the Ductile-to-Brittle Transition Temperature Shift in a Commercial Power Plant with High Nickel Containing Weld Material—*P. Efsing, C. Jansson, T. Mager, G. Embring*

Radiation Embrittlement of Cr-Ni-Mo and Cr-Mo RPV Steels—*Y.A. Nikolaev*

Attenuation of Neutron Radiation Damage through a Simulated RPV Wall—*W. Server, J. Spanner, S. Rosinski, M. Brumovsky, M. Kytka*

Phosphorus Segregation and Intergranular Embrittlement in Thermally Aged and Neutron Irradiated Reactor Pressure Vessel Steels—*Y. Nishiyama, K. Onizawa, M. Suzuki*

Information Fusion Embrittlement Models for U.S. Power Reactor Pressure Vessel Steels—*J.A. Wang, N.S.V. Rao, S. Konduri*

AUSTENITIC, FERRITIC, and ADVANCED STEELS

Strain Hardening During Mechanical Twinning and Dislocation Channeling in Irradiated 316 Stainless Steels—*T.S. Byun, N. Hashimoto*

Notch Strengthening and Its Impact on the Deformation and Fracture of 316L Stainless Steel—*X. Wu, X. Pan, J.F. Stubbins*

Irradiation Hardening and Microstructure Evolution of Ion-Irradiated ODS Ferritic Steels—*K. Yutani, R. Kasada, H. Kishimoto, A. Kimura*

FUNDAMENTALS of RADIATION DAMAGE

Modelling of Radiation Damage in Fe-Cr Alloys—*L. Malerba, D.A. Terentyev, G. Bonny, A.V. Barashev, C. Bjorkas, N. Juslin, K. Nordlund, C. Domain, P. Olsson, N. Sandberg, J. Wallenius*

Kinetics of the Migration and Clustering of Extrinsic Gas in bcc Metals —*C. S. Deo, S.G. Srinivasan, M.I. Baskes, S.A. Maloy, M.R. James, M. Okuniewski, J. Stubbins*

Modeling the Interaction of Helium with Dislocations and Grain Boundaries in Alpha-Iron—*H.L. Heinisch, F. Gao, R.J. Kurtz*

DD Simulations of Dislocation-Crack Interaction During Fatigue—*I.N. Mastorakos, H.M. Zbib*

Grain Growth in Nanocrystalline Metal Thin Films under In Situ Ion-Beam Irradiation—*D. Kaoumi, A.T. Motta, R.C. Birtcher*

Microstructural Features in Aged Erbium Tritide Films—*D.S. Gelles, L.N. Brewer, P.G. Kotula, D.F. Cowgill, C.C. Busick, C.S. Snow*

Internal Probe to Detect Defects from Cascades—In-situ Ion Irradiation Experiments

Revisited—*S. Ishino, N. Sekimura, H. Abe*