

nuclear technology®

CONTENTS / JUNE 2013—VOL. 182, NO. 3

TECHNICAL PAPERS

FISSION REACTORS/NUCLEAR PLANT OPERATIONS AND CONTROL

- 249** Detection of Simulated Steam Leak into Sodium in Steam Generator of PFBR by Argon Injection Using Signal Analysis Techniques / *P. Kalyanasundaram, Baldev Raj, V. Prakash, Ramakrishna Ranga*

FUEL CYCLE AND MANAGEMENT/THERMAL HYDRAULICS

- 259** Experimental Investigation of Hydraulics and Lateral Mixing for Helical-Cruciform Fuel Rod Assemblies / *T. M. Conboy, T. J. McKrell, M. S. Kazimi*

FUEL CYCLE AND MANAGEMENT

- 274** Transmutation Fuel Cycle Analyses of the SABR Fission-Fusion Hybrid Burner Reactor for Transuranic and Minor Actinide Fuels / *C. M. Sommer, W. M. Stacey, B. Petrovic, C. L. Stewart*

THERMAL HYDRAULICS

- 286** A Study of Nanoparticle Surface Modification Effects on Pool Boiling Critical Heat Flux / *G. Stange, H. Yeom, B. Semerau, K. Sridharan, M. Corradini*
- 302** The Triggerability and Explosion Potentials of Reactor Core Melt at Fuel Coolant Interactions / *I. K. Park, J. H. Kim, S. H. Hong, S. W. Hong*
- 315** Thermal-Hydraulic Analysis for HEU and LEU Transitional Core Conversion of the MIT Research Reactor / *Sung Joong Kim, Lin-Wen Hu, Floyd Dunn*

RADIATION TRANSPORT AND PROTECTION/RADIOISOTOPES

- 335** Comparison of Measured and Monte Carlo Results for Neutron Beam Transmission Through an Irradiated Nuclear Fuel Assembly / *Chad L. Pope, Michael J. Lineberry*

REPROCESSING/MATERIALS FOR NUCLEAR SYSTEMS

- 349** Application of Zirconium Alloys for Reprocessing Plant Components / *U. Kamachi Mudali, A. Ravi Shankar, R. Natarajan, N. Saibaba, Baldev Raj*

RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL

- 358** Intelligent Radioactive Waste Management Platform for Radioactive Waste Storage Facilities / *Y.-C. Chen, Y.-S. Yu, R.-S. Chen, I-Hsin Chou, H. M. Sun, K. C. Yeh*

(Continued)

CONTENTS / JUNE 2013—VOL. 182, NO. 3

(Continued)

TECHNICAL NOTE

FUEL CYCLE AND MANAGEMENT

- 369** Analysis of Measurement Uncertainty of Material Unaccounted for in the Reference Pyroprocessing Facility / *Bo-Young Han, Hee-Sung Shin, Ho-Dong Kim*

DEPARTMENTS

- 378** Volume 182 Indexes

- v Volume 182 Contents