

TECHNICAL PAPERS

FISSION REACTORS

- 1 Under-Sodium Endurance Experiment of Selector Valve in Failed-Fuel Detection and Location System of JSFR / *Kosuke Aizawa, Kaoru Fujita, Shingo Hirata, Naoto Kasahara*

FUEL CYCLE AND MANAGEMENT/MATERIALS FOR NUCLEAR SYSTEMS

- 13 Characteristics of Composite Silicon Carbide Fuel Cladding After Irradiation Under Simulated PWR Conditions / *John D. Stempfen, David M. Carpenter, Gordon Kohse, Mujid S. Kazimi*

FUEL CYCLE AND MANAGEMENT

- 30 Behavior of Transuranic Mixed-Oxide Fuel in a CANDU-900 Reactor / *A. C. Morreale, M. R. Ball, D. R. Novog, J. C. Luxat*
- 45 Entropy-Based Nuclear Fuel Cycle Sensitivities and Covariances / *Anthony M. Scopatz, Erich A. Schneider, Jun Li, Man-Sung Yim*

THERMAL HYDRAULICS/MATERIALS FOR NUCLEAR SYSTEMS

- 62 Verification and Validation of One-Dimensional Flow-Accelerated Corrosion Evaluation Code / *Hiroaki Suzuki, Shunsuke Uchida, Masanori Naitoh, Hidetoshi Okada, Souji Koikari, Yukihiko Nagaya, Akira Nakamura, Seiichi Koshizuka, Derek H. Lister*

THERMAL HYDRAULICS

- 75 Study on the Behavior of an Asymmetrically Heated Reactor Cavity Cooling System with Water in Single Phase / *D. D. Lisowski, T. C. Haskin, A. Tokuhira, M. H. Anderson, M. L. Corradini*
- 88 Predictions of the Heat Transfer Coefficient by Correlations and Turbulence Models / *Constantine P. Tzanos*

RADIATION TRANSPORT AND PROTECTION

- 101 Advantages of MCNPX-Based Lattice Tally over Mesh Tally in High-Speed Monte Carlo Dose Reconstruction for Proton Radiotherapy / *Rui Zhang, Jonas D. Fontenot, Dragan Mirkovic, John S. Hendricks, Wayne D. Newhauser*

NUCLEAR PLANT OPERATIONS AND CONTROL

- 107 Software Failure Probability Assessment by Bayesian Inference / *Gee-Yong Park, Heung-Seop Eom, Seung Cheol Jang, Hyun Gook Kang*

CONTENTS / JULY 2013—VOL. 183, NO. 1

(Continued)

MATERIALS FOR NUCLEAR SYSTEMS

- 119** Determination of Electrochemical Corrosion Potential Along the JMTR In-Pile Loop—I: Evaluation of ECP of Stainless Steel in High-Temperature Water as a Function of Oxidant Concentrations and Exposure Time / *Shunsuke Uchida, Satoshi Hanawa, Yutaka Nishiyama, Takehiko Nakamura, Tomonori Satoh, Takashi Tsukada, Jan Kysela*

REPROCESSING

- 136** Determination of Electrochemical Corrosion Potential Along the JMTR In-Pile Loop—II: Validation of ECP Electrodes and the Extrapolation of Measured ECP Data / *Satoshi Hanawa, Takehiko Nakamura, Shunsuke Uchida, Pavel Kus, Rudolf Vsolak, Jan Kysela, Masanori Sakai*