

CONTENTS / MAY 2006—VOL. 154, NO. 2

TECHNICAL PAPERS

FISSION REACTORS

- 129 Calculation of the Neutron Noise Induced by Shell-Mode Core-Barrel Vibrations in a 1-D, Two-Group, Two-Region Slab Reactor Model / Carl Sunde, Christophe Demazière, Imre Pázsit
- 142 A Conceptual Design Study of a Small Natural Convection Lead-Bismuth-Cooled Reactor Without Refueling for 30 Years / Yoshitaka Chikazawa, Mamoru Konomura, Tomoyasu Mizuno, Makoto Mito, Mikio Tanji

REACTOR SAFETY

- 155 Formulation of a Single Operational Model for Risk-Informed Applications from the Decoupled Levels 1 and 2 PSA Models / Kwang-II Ahn, Joon-Eon Yang
- 170 Mass Transfer Modeling With and Without Evaporation for Iodine Chemistry in the Case of a Severe Accident / L. Cantrel, P. March

FUEL CYCLE AND MANAGEMENT

186 MOX Fuel Characterization for Burnup Credit Application: Extension of Nondestructive Method Qualified for LEU Fuels / C. Riffard, H. Toubon, S. Pelletier, M. Batifol, J. M. Vidal

THERMAL HYDRAULICS

194 Modeling of Radiative Heat Transfer During a PWR Severe Accident / M. Zabiégo, F. Fichot, P. Rubiolo

REACTOR SAFETY

215 The Core Characteristics of a LOCA Power Pulse in a CANDU-6 Reactor with the CANFLEX-RU Fuel / Chang Joon Jeong, Ho Chun Suk

NUCLEAR PLANT OPERATIONS AND CONTROL

224 Continuous Monitoring and Calibration of UTSG Process Sensors by Autoassociative Artificial Neural Network / Marzio Marseguerra, Enrico Zio, Fabio Marcucci

REPROCESSING

237 Conditions Conducive to Forming Crystalline Uranyl Silicates in High Caustic Nuclear Waste Evaporators / Lawrence N. Oji, Keisha B. Martin, Mary E. Stallings, Martine C. Duff

RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL

247 Thermal-Hydrologic Model Study for an Alternative Waste Package Design for Yucca Mountain Repository / D. Bahrami, G. Danko