

### TECHNICAL PAPERS

#### REACTOR SAFETY

- 1 Description of Critical Experiments in Spherical Geometry Containing  $\text{UO}_2\text{F}_2$  Solution / *Michelle Pitts, Farzad Rahnema, Tom G. Williamson, Fitz Trumble*
- 19 Simulated AP600 Response to Small-Break Loss-of-Coolant-Accident and Non-Loss-of-Coolant-Accident Events: Analysis of SPES-2 Integral Test Results / *M. T. Friend, R. F. Wright, R. Hundal, L. E. Hochreiter, M. Ogrins*

#### FUEL CYCLE AND MANAGEMENT

- 43 Neutronic and Burnup Characteristics of an Actinide-Reduced Plutonium Fuel with Tungsten / *Gray S. Chang*
- 52 Comparison of Pressurized Water Reactor Core Characteristics for 100% Plutonium-Containing Loadings / *Uwe Kasemeyer, Jean-Marie Paratte, Peter Grimm, Rakesh Chawla*

#### REPROCESSING

- 64 Separation of Am(III) from Fission Product Lanthanides by Bis(2,4,4-Trimethylpentyl)-Dithiophosphinic Acid (HBTMPDTP) Extraction: Process Parameter Calculation / *Jing Chen, Yongjun Zhu, Rongzhou Jiao*

#### REACTOR OPERATIONS AND CONTROL

- 72 Radioactive Contamination Around a Boiling Water Reactor Main Turbine System and Procedures for Minimizing the Contaminated Area / *Kei-Ichi Otoha, Shunsuke Uchida*
- 83 A Water Level Controller for Steam Generators Estimating the Flow Errors and the Water Level Quantity Due to the Mass Capacity / *Man Gyun Na*

#### RADIOACTIVE WASTE MANAGEMENT AND DISPOSAL

- 93 Simulation of Radionuclide Release from a Repository to the Biosphere: Using a Model-Coupling Concept / *Björn Gylling, Luis Moreno, Ivars Neretnieks*

#### RADIOISOTOPES

- 104 Evaluation of Kalman Filters and Genetic Algorithms for Delayed-Neutron Nondestructive Assay Data Analyses / *Steven E. Aumeier, J. Hope Forsmann*