# nuclear freehology®

# CONTENTS / AUGUST 1991–VOL. 95, NO. 2

## **TECHNICAL PAPERS**

#### **FISSION REACTORS**

- **129** Sensitivity and Uncertainty Analysis of Integral Physics Parameters in High-Conversion Reactor Systems / John R. White, Thomas F. DeLorey
- **148** Corrosion Product Radionuclide Buildup in Fast Flux Test Facility Heat Transport System Cells / *William F. Brehm, Robert L. Simons*
- **156** Xenon Dynamics and Related Parameters in the Taiwan Research Reactor / Shih-Jen Wang, Ming-Song Lin

#### NUCLEAR REACTOR SAFETY

**162** Effect of Flushing Boron During a Boiling Water Reactor Anticipated Transient Without Scram / *Dragan Mirkovic, David J. Diamond* 

#### **NUCLEAR FUEL CYCLES**

- **175** Theory and Verification of a Fuel Rod Mechanics Model Based on a Two-Dimensional Finite Element Method with Consideration of Fuel/Cladding Contact and Friction / *Klaus L. Nissen*
- **193** A Simple Nondestructive Measurement System for Spent-Fuel Management / *Hermann Würz*

#### ENVIRONMENT AND REPROCESSING SYSTEMS

**207** Analysis of Cylindrical and Annular Pulsed Columns with Different Internal Plates in the Purex Process / *Masahiro Nabeshima* 

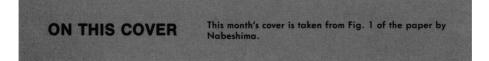
#### MATERIALS

219 Elaborated Constitutive Equations for Structural Analysis for Creep, Swelling, and Damage Under Irradiation / *S. Murakami, M. Mizuno* 

#### HEAT TRANSFER AND FLUID FLOW

**228** Thermal-Hydraulic Systems Safety Analysis to Support the Design Process for the Advanced Neutron Source Reactor / *C. D. Fletcher, L. S. Ghan* 

#### (Continued)



# CONTENTS / AUGUST 1991-VOL. 95, NO. 2

(Continued)

## **TECHNICAL NOTE**

#### HEAT TRANSFER AND FLUID FLOW

247 The Probability Density Function of the Total Departure from Nucleate Boiling Ratio / Ross C. Anderson

### DEPARTMENT

251 Book Review