

# nuclear technology®

CONTENTS / SEPTEMBER 1999—VOL. 127, NO. 3

## TECHNICAL PAPERS

### FISSION REACTORS

- 239** Feasibility Studies of a Soluble Boron-Free 900-MW(electric) PWR, Safety Systems: Consequences of the Partial or Total Elimination of Soluble Boron on Plant Safety and Plant Systems Architecture / *Gian Luigi Fiorini, Guy Marie Gautier, Yves Bergamaschi*
- 259** Feasibility Studies of a Soluble Boron-Free 900-MW(electric) PWR, Core Physics—I: Motivations, Assembly Design, and Core Control / *Paul Thomet*
- 267** Feasibility Studies of a Soluble Boron-Free 900-MW(electric) PWR, Core Physics—II: Control Rod Follow, Load Follow, and Reactivity-Initiated Accident Linked to RCCAs / *Jean-Paul Deffain, Philippe Alexandre, Paul Thomet*

### REACTOR SAFETY

- 287** Hybrid Analysis of the Simplified Boiling Water Reactor Using RAMONA-4B and CASMO-3 Computer Codes / *Gabriel F. Cuevas Vivas, Yassin A. Hassan*
- 301** Benchmark Calculations of the ESADA Single-Region Mixed-Oxide Critical Experiments / *Hatice Akkurt, Naeem M. Abdurrahman*
- 315** Benchmark Calculations of the Saxton Plutonium Program Critical Experiments / *Naeem M. Abdurrahman, Georgeta Radulescu, Igor Carron*

### THERMAL HYDRAULICS

- 332** Behavior of a UF<sub>6</sub> Container During a Fire—I: Analysis and Phenomenological Interpretation of Tenerife Experimental Results / *Eric Pinton, Bernard Duret, Georges Berthoud*
- 352** Behavior of a UF<sub>6</sub> Container in a Fire—II: Modeling and Validation / *Eric Pinton, Bernard Duret, Georges Berthoud*

### MATERIALS FOR NUCLEAR SYSTEMS

- 375** Uranium Dioxide Powder Preparation, Pressing, and Sintering for Optimum Yield / *Palanki Balakrishna, Chandru K. Asnani, R. M. Kartha, K. Ramachandran, K. Sarat Babu, Vaidyanathan Ravichandran, Bhallamudi Narasimha Murty, Chaitanyamoy Ganguly*

## TECHNICAL NOTE

### THERMAL HYDRAULICS

- 382** Pressurized Water Reactor Coolant Pump Locked Rotor Analysis Methodology Using RETRAN-02 and FREY / *Lainsu Kao, Ping-Hue Huang*

(Continued)

# **CONTENTS / SEPTEMBER 1999—VOL. 127, NO. 3**

(Continued)

## **DEPARTMENTS**

**389** Volume 127 Indexes

v Volume 127 Contents