

## **CONTENTS** / MAY 1991 – VOL. 94, NO. 2

# ADVANCES IN REACTOR ACCIDENT CONSEQUENCE ASSESSMENT

### **TECHNICAL PAPERS**

- 135 ADREA-I: A Three-Dimensional Transient Transport Code for Complex Terrain and Other Applications / John G. Bartzis, Alexander G. Venetsanos, Melpomeni Varvayanni, Nicolas Catsaros, Afroditi Megaritou
- 149 Real-Time Systems for the Assessment of the Radiological Impact of Radionuclides Released into the Atmosphere / P. Jacob, W. Jacobi, H. Müller, H. G. Paretzke, G. Pröhl, J. Eklund, J. Gregor, R. Stapel
- 161 The CEC Research Program on Methods for Assessing the Radiological Impact of Accidents (MARIA) / G. Neale Kelly, Martial Olast, Jaak Sinnaeve
- 177 Structure, Important Features, and Illustrative Results of the New UFOMOD Program System in Assessing the Radiological Consequences of Nuclear Accidents / Joachim Ehrhardt, Klaus Burkart, Friedmar Fischer, Irmgard Hasemann, Hans-Jürgen Panitz, Claudia Steinhauer
- 196 An Outline of COSYMA, A New Program Package for Accident Consequence Assessments / Joachim Ehrhardt, J. A. Jones
- 204 Radiological Health Effects Models for Nuclear Power Plant Accident Consequence Analysis An Update (1990) / John S. Evans

#### **NUCLEAR REACTOR SAFETY**

- 213 An Analytical Solution for the Calculation of the Transient Transport of Gaseous Species in Nuclear Fuel Pore Channels / Constantinos Syros, Claudio Ronchi, Cinzia Spanó
- 228 A Simple Fuzzy Simulation Model for Nuclear Reactor System Dynamics / Hiroshi Matsuoka

(Continued)

# **CONTENTS / MAY 1991-VOL. 94, NO. 2**

#### (Continued)

### **MATERIALS**

- 242 The Effect of Weathering on Charcoal Filter Performance: I. The Adsorption and Desorption Behavior of Contaminants / Jungsook Clara Wren, Chris J. Moore
- 252 The Effect of Weathering on Charcoal Filter Performance: II. The Effect of Contaminants on the CH<sub>3</sub>I Removal Efficiency of TEDA Charcoal / Jungsook Clara Wren, Chris J. Moore

### **REACTOR OPERATIONS**

- 262 A Digital Data Acquisition Approach for Research Reactors / Edward P. Ficaro, David K. Wehe
- 270 Power Prediction in Nuclear Power Plants Using a Back-Propagation Learning Neural Network / Myung-Sub Roh, Se-Woo Cheon, Soon-Heung Chang

### **DEPARTMENTS**

279 Corrigendum