

# NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 146, NUMBER 1, JANUARY 2004

## CONTENTS

### TECHNICAL PAPERS

- |     |  |   |
|-----|--|---|
| 1   | Experimental Determination of the Ratio of $^{238}\text{U}$ Capture to $^{235}\text{U}$ Fission in LEU-HTR Pebble-Bed Configurations | <i>O. Köberl, R. Seiler, R. Chawla</i>  |
| 13  | Impact of Nuclear Data Uncertainties on Transmutation of Actinides in Accelerator-Driven Assemblies                                  | <i>G. Aliberti, G. Palmiotti,<br/>M. Salvatores, C. G. Stenberg</i>   |
| 51  | Using the Schwinger Variational Functional for the Solution of Inverse Transport Problems  | <i>Jeffrey A. Favorite</i>  |
| 71  | Calculating Nuclear Power Plant Vulnerability Using Integrated Geometry and Event/Fault-Tree Models                                  | <i>Douglas E. Peplow,<br/>C. David Sulfredge,<br/>Robert L. Sanders,<br/>Robert H. Morris, Todd A. Hann</i> |
| 88  | An Order Coding Genetic Algorithm to Optimize Fuel Reloads in a Nuclear Boiling Water Reactor  | <i>Juan José Ortiz, Ignacio Requena</i>   |
| 99  | Slowing-Down Dynamics of Fast Particles in Plasmas via the Fokker-Planck Equation  | <i>D. Anderson, M. Lisak,<br/>F. Andersson, T. Fülöp</i>  |
| 106 | Calculation and Analysis of $n + {}^{112,114-120,122,124,\text{nat}}\text{Sn}$ Reactions   | <i>Yinlu Han</i>  |