

# NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 84, NUMBER 4, AUGUST 1983

## CONTENTS

### TECHNICAL PAPERS

- 313** Boundary Perturbation Theory for Inhomogeneous Transport Equations *F. Rahnama, G. C. Pomraning*
- 320** The Radioactive Decay of  $^{44g}\text{Sc}$  and  $^{44m}\text{Sc}$  *Guanjun Yuan, Shiping Chen, Benhua Han, Ling Zhou, Peikun Weng*
- 324** Lumped Fission Product Neutron Cross Sections Based on ENDF/B-V for Fast Reactor Analysis *J. R. Liaw, H. Henryson II*
- 337** Neutron Streaming Through a Slit and Duct in Concrete Shields and Comparison with a Monte Carlo Analysis *Hiroyuki Hashikura, Hideshi Fukumoto, Yoshiaki Oka, Masatsugu Akiyama, Shigehiro An*
- 345** Acoustic Mismatch Theory for Heat Flow Across Fuel-Cladding Interfaces in Fast Reactors *G. Dharmadurai*
- 350** Two-Dimensional Numerical Modeling of Nonisothermal Flows for Unsteady Thermal-Hydraulic Analysis *P. L. Violette, J. P. Benque, J. Goussebaile*
- 373** Pattern Recognition Techniques Applied to Acoustic Detection of Liquid-Metal Fast Breeder Reactor Cooling Defects *M. Brunet, B. Dubuisson*

### TECHNICAL NOTES

- 380** Relation Between Koebke's Equivalence Theory and Benoist's Cell Homogenization Procedure *S. V. G. Menon, D. C. Sahni*
- 383** An Interpolation Method for the Transport Theory and Its Application in Fusion Neutronics Analysis *Jungchung Jung*
- 388** On Zero Variance Monte Carlo Path-Stretching Schemes *Iván Lux*
- 390** A Fast Nodal Neutron Diffusion Method for Cartesian Geometry *Mihály Makai, Claude Maeder*
- 395** Gamma-Ray Production Due to Neutron Interactions with Copper for Neutron Energies Between 0.7 and 10.5 MeV *G. G. Slaughter, J. K. Dickens*

(Continued)

VOLUME 84, NUMBER 4, AUGUST 1983

## **CONTENTS**

**(Continued)**

### **BOOK REVIEW**

- 407** Fast Breeder Reactors, Alan E. Waltar and Albert B. Reynolds *Neil Todreas,  
Michael Driscoll*
- 408** **ANNOUNCEMENT OF CURRENT PUBLICATIONS**
- 412** **VOLUME 84 AUTHOR AND SUBJECT INDEXES**