

# NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 76, NUMBER 3, DECEMBER 1980

## CONTENTS

### TECHNICAL PAPERS

- 263 Effective Diffusion Coefficients for Low Density Cylindrical Channels *J. L. Rowlands, C. R. Eaton*
- 282 Fundamental Mode Decay Constants for Small Two- and Three-Dimensional Pulsed Neutron Moderator Assemblies *Vinod Kumar, D. C. Sahni*
- 295 A Comparison of Maximum Likelihood and Other Estimators of Eigenvalues from Several Correlated Monte Carlo Samples *M. Beer*
- 302 A Point Detector Scoring Method Compatible with Monte Carlo Transport Calculations of Specularly Reflected Particles *Hiromasa Iida, Yasushi Seki*
- 308 A Recursive Monte Carlo Method for Estimating Importance Function Distributions in Deep-Penetration Problems *M. Goldstein, E. Greenspan*
- 323 A Simple Formula for Calculation of Prompt Neutron Yield from Spontaneous Fission of Transuranics *H. L. Pai, D. G. Andrews*
- 331 Cross-Section Measurement for the Reaction  $^{103}\text{Rh}(n,n')^{103m}\text{Rh}$  *A. Paulsen, R. Widera, R. Vaninbroukx, H. Liskien*
- 336 Neutron Streaming in Pebble Beds *J. Lieberoth, A. Stojadinović*

### TECHNICAL NOTES

- 345 On the Solution of Linear Diffusion Problems in Media with Moving Boundaries *S. Bogado Leite, M. N. Özişik, K. Verghese*
- 351 An Evaluation of Different Methods for Space-Dependent Resonance Shielding of Cross Sections in Fast Reactors *J. V. Muralidhar Rao, S. M. Lee, M. L. Sharma*
- 357 Note on the Prompt-Fission-Neutron Spectra of Uranium-233 and -235 and Plutonium-239 and -240 Relative to That of Californium-252 *A. Smith, P. Guenther, G. Winkler, R. McKnight*
- 361 Sodium Flow Blockage in Liquid-Metal Fast Breeder Reactors: Sweepout of a Planar Blockage *Douglas K. Warinner, S. C. Saxena*
- 366 Initial-Value Methods for a Simplified Subchannel Model of Thermal-Hydraulic Behavior *Paul Nelson, Charles H. Neil*

(Continued)

VOLUME 76, NUMBER 3, DECEMBER 1980

## **CONTENTS**

(Continued)

### **LETTERS TO THE EDITOR**

- 371** Further Comments on "Helium Production in Stainless Steel" *S. Ganesan*
- 372** Response to "Further Comments on 'Helium Production in Stainless Steel' " *B. Goel*

### **BOOK REVIEW**

- 374** Advanced Mathematical Methods for Scientists and Engineers, Carl M. Bender and Steven A. Orszag *Paul F. Zweifel*

**375** **ANNOUNCEMENT OF CURRENT PUBLICATIONS**

**379** **VOLUME 76 AUTHOR AND SUBJECT INDEXES**