

NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 78, NUMBER 2, JUNE 1981

CONTENTS

TECHNICAL PAPERS

- 113 Calculation of the Radial and Axial Diffusion Coefficient for a Hexagonal Lattice of a High-Temperature Reactor with Block Elements *P. Köhler*
- 121 Criticality of 4.3 wt% Uranium-235 Enriched UO₂ Rods in Uranyl Nitrate Solution Containing Gadolinium *R. C. Lloyd, S. R. Bierman, E. D. Clayton, B. M. Durst*
- 126 Fission-Product Energy Release for Times Following Thermal-Neutron Fission of Plutonium-239 and Plutonium-241 Between 2 and 14 000 s *J. K. Dickens, T. A. Love, J. W. McConnell, R. W. Peelle*
- 147 Uranium-238 Inelastic Neutron Scattering at 82 keV *R. R. Winters, N. W. Hill, R. L. Macklin, J. A. Harvey, D. K. Olsen, G. L. Morgan*
- 154 Phenomenological Modeling of the Triggering Phase of Small-Scale Steam Explosion Experiments *M. L. Corradini*

TECHNICAL NOTES

- 171 Exact Solution for Suboptimal Control of Nuclear Reactors with Distributed Parameters *S. H. Kim, Jonghwa Chang*
- 175 Monte Carlo Self-Shielding Corrections for Use with Neutron Spectrum Unfolding Codes *D. J. Brenner*
- 178 Fast Neutron Spectrum in Lithium with a 14-MeV Neutron Source *A. E. Profio, Gad Shani, G. A. Dissanaike*
- 182 A Determination of the Carbon Thermal Neutron Capture Cross Section *W. V. Prestwich, M. A. Islam, T. J. Kennett*
- 185 Decay Rate and Decay Heat Data from Fission Products *K. Shure*

LETTERS TO THE EDITOR

- 191 Comment on Approximate Escape Probability Calculations *Iván Lux*
- 192 Responses to "Comment on Approximate Escape Probability Calculations" *Yung-An Chao, Doron Kwiat*

(Continued)

VOLUME 78, NUMBER 2, JUNE 1981

CONTENTS

(Continued)

- 193** Comments on the Tritium Solubility in Lithium Oxide as a Solid Tritium Breeding Material *Shoichi Nasu, Takaaki Tanifuji, Hidefumi Takeshita*
- 194** Response to "Comments on the Tritium Solubility in Lithium Oxide as a Solid Tritium Breeding Material" *Robert C. Clemmer*

BOOK REVIEWS

- 195** The Detection of Fissionable Materials by Nondestructive Means, Rudolph Sher and Samuel Untermyer II *Edward D. Blakeman*
- 196** Numerical Heat Transfer and Fluid Flow, Suhas V. Patankar *Chia-Jung Hsu*

CORRIGENDUM

- 198** Integral Transport Theory Formalism for Diffusion Coefficient Calculations in Wigner-Seitz Cells *P. Benoist*

- 199** **ANNOUNCEMENT OF CURRENT PUBLICATIONS**