

NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 55, NUMBER 4, DECEMBER 1974

CONTENTS

TECHNICAL PAPERS

- 359 Transport and Diffusion Equations in Toroidal Geometry *G. C. Pomraning, C. A. Stevens*
- 368 Investigation of the Space- and Energy-Dependent Coherence Function in Zero-Power Coupled-Core Reactors *D. D. Ebert, J. D. Clement, W. M. Stacey, Jr.*
- 380 Interpretation of Coherence Function Measurements in Zero-Power Coupled-Core Reactors *D. D. Ebert, J. D. Clement, W. M. Stacey, Jr.*
- 387 Application of the Probability Table Method to Multi-group Calculations of Neutron Transport *Dermott E. Cullen*
- 401 Measurement and Analysis of Parameters in Tight ^{232}Th - ^{235}U and ^{232}Th - ^{233}U Lattices Moderated with Heavy Water *J. Hardy, Jr., J. J. Volpe, D. Klein*
- 418 Semiclassical Description of Fast-Neutron Cross Sections *I. Angeli, J. Csikai, P. Nagy*
- 427 Cross Sections of Uranium-235 and Plutonium-239 for Neutrons Producing Gamma Rays *Darrell M. Drake*
- 440 Neutron Total Cross Section of Curium-248 *R. W. Benjamin, C. E. Ahlfeld, J. A. Harvey, N. W. Hill*
- 450 Half-Lives of Some Cosmogenic Radionuclides: ^7Be , ^{46}Sc , ^{54}Mn , ^{56}Co , and ^{65}Zn *Philip J. Cressy, Jr.*
- 452 High-Temperature Properties of Sodium for Safety Studies of Liquid-Metal Fast Breeder Reactors *A. Padilla, Jr.*
- 462 Thermal Fragmentation—A Gas Release Phenomenon *Michael Epstein*

TECHNICAL NOTES

- 468 Higher Order Variational Principles and Padé Approximants for Linear Functionals *Robert W. Conn*
- 470 An Inherent Noise Analysis Investigation on the Experimental Breeder Reactor II *David D. Ebert*
- 476 Neutron Moderation in Fast Reactors in the Presence of Wide Scattering Resonances: Analysis of Methods *G. Palmiotti, M. Salvatore*

(Continued)

VOLUME 55, NUMBER 4, DECEMBER 1974

CONTENTS

(Continued)

- 481 **LETTERS TO THE EDITOR**

- 485 **BOOK REVIEW**

- 486 **VOLUME 55 AUTHOR AND SUBJECT INDEXES**