

# NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 55, NUMBER 3, NOVEMBER 1974

## CONTENTS

### TECHNICAL PAPERS

- |     |   |   |
|-----|---|---|
| 249 | Coolant Flow and Reactivity Oscillations  | <i>Y. S. Lu</i>   |
| 256 | A Comparative Study of Several Fusion Reactor Blanket Designs   | <i>M. A. Abdou,<br/>Robert W. Conn</i>  |
| 267 | Cross-Section Requirements for Charged-Particle Fusion Reactors: The ${}^6\text{Li}(p, {}^3\text{He})\alpha$ Reaction | <i>C. R. Gould, R. O.<br/>Nelson, J. R. Williams,<br/>J. R. Boyce</i>   |
| 273 | The Neutron Total Cross Section of Americium-243  | <i>O. D. Simpson, F. B.<br/>Simpson, J. A. Harvey,<br/>G. G. Slaughter, R. W.<br/>Benjamin, C. E. Ahlfeld</i> |
| 280 | The Role of Integral Data in Neutron Cross-Section Evaluation   | <i>A. Pazy, G. Rakavy,<br/>I. Reiss, J. J. Wagschal,<br/>Atara Ya'ari, Y. Yeivin</i>                          |
| 296 | Binary Signals Constructed from Walsh Sequences for Reactor Dynamics Measurements                                     | <i>R. W. Albrecht,<br/>S. A. Wright</i>   |
| 307 | The Time-Dependent Nuclear Reactor with Feedback  | <i>Dong H. Nguyen</i>   |
| 320 | Solution of Two-Dimensional Diffusion Equation by the Finite Fourier Transformation                                   | <i>Keisuke Kobayashi,<br/>Nobuo Ohtani,<br/>Jungchung Jung</i>  |
| 329 | A New Procedure for the Determination of Neutron Multigroup Transfer Matrices   | <i>C. R. Weisbin, P. D.<br/>Soran, J. S. Hendricks</i>  |

### TECHNICAL NOTES

- |     |  |   |
|-----|--|---|
| 342 | Radiation Converter Plate Design   | <i>M. S. Ash, G. Yanow</i>  |
| 345 | Measurements and Calculations of the Neutron Spectra Emitted from Concrete Spheres Bombarded with 14-MeV Neutron | <i>L. F. Hansen, J. D.<br/>Anderson, R. J. Doyas,<br/>R. J. Howerton, T.<br/>Komoto, C. M. Logan,<br/>C. Wong, J. L.<br/>Kammerdiener</i> |
| 349 | Multiregion Equivalence Relation for Resonance Heterogeneity Effects   | <i>Yukio Ishiguro</i>   |
| 351 | A Simplified Derivation of the Poincaré-Bertrand Formula   | <i>L. C. Baird,<br/>P. F. Zweifel</i>   |
| 354 | <b>COMPUTER CODE ABSTRACT</b>  |   |
| 355 | <b>BOOK REVIEWS</b>  |   |