CONTENTS

TECHNICAL PAPERS

147  A Phenomenological Model for Particle Production from the Collisions of Nucleons and Pions with Fissile Elements at Medium Energies
     F. S. Alsmiller,
     R. G. Alsmiller, Jr.,
     T. A. Gabriel, R. A. Lillie,
     J. Barish

162  Neutron Production by Medium-Energy (≥1.5-GeV) Protons in Thick Uranium Targets
     R. G. Alsmiller, Jr.,
     T. A. Gabriel, J. Barish,
     F. S. Alsmiller

167  Mass Distribution in the Reactor-Neutron-Induced Fission of Thorium-232
     H. N. Erten, A. Grutter,
     E. Rössler, H. R. von Gunten

175  Neutron Capture and Total Cross Section of Thorium-232 from 0.006 to 18 eV
     R. C. Little, R. C. Block,
     D. R. Harris, R. E. Slovacek,
     O. N. Carlson

184  Neutron Capture Cross Section of Neptunium-237
     L. W. Weston, J. H. Todd

197  Cross Sections for the $^{28}$Mg($\alpha,n)^{28}$Si Reaction for $E_\alpha < 4.8$ MeV
     L. Van der Zwan, K. W. Geiger

202  Analysis of Temperature Fluctuations in Liquid-Metal Systems
     C. C. Meek, M. J. Morris,
     R. C. Doerner, R. F. Hurt

212  Migration of Gas-Liquid Inclusions in Single Crystals of Potassium and Sodium Chlorides
     Donald R. Olander,
     Albert J. Machiels,
     Eugen Muchowski

TECHNICAL NOTES

228  Benchmark Calculation for a Sodium-Cooled Fast Reactor by a Three-Dimensional Variational Code
     L. Srinivasan

233  The Fission Cross Section of Plutonium-240 Relative to Uranium-235 from 0.35 to 9.6 MeV
     James W. Meadows

237  Critical Masses for the Even-Neutron-Numbered Transuranium Actinides
     R. M. Westfall

239  An Improved Method for Treating Problems Involving Simultaneous Radioactive Decay, Buildup, and Mass Transfer
     Robert E. Miles

(Continued)
CONTENTS
(Continued)

BOOK REVIEWS

246  Proliferation, Plutonium and Policy, Alexander De Volpi  
     Hugh C. Paxton

246  Handling Radioactivity, Donald C. Stewart  
     J. E. Turner

248  ANNOUNCEMENT OF CURRENT PUBLICATIONS