

NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 134, NUMBER 1, JANUARY 2000

CONTENTS

TECHNICAL PAPERS

- 1 The Simplified P_3 Approximation *Patrick S. Brantley,
Edward W. Larsen*
- 22 Dominant Delayed Neutron Precursors to Model
Reactivity Predictions for Multiple Fissioning Nuclides *David J. Loaiza, F. Eric Haskin*
- 37 Conversion of Single- and Multilevel Breit-Wigner
Resonance Parameters to Pole Representation
Parameters *C. Jammes, R. N. Hwang*
- 50 Neutron Capture and Total Cross-Section Measurements
and Resonance Parameter Analysis of Zirconium up to
2.5 keV *G. Leinweber, J. Burke,
C. R. Lubitz, H. D. Knox,
N. J. Drindak, R. C. Block,
R. E. Slovacek, C. J. Werner,
N. C. Francis, Y. Danon,
B. E. Moretti*
- 68 Proton Recoil Measurements of the ^{252}Cf Fission Neutron
Leakage Spectrum from an Iron Sphere *Michael B. Stanka,
James M. Adams,
Charles M. Eisenhauer*
- 77 Dependence of Neutron Total Cross Sections on Energy
for $100 \leq E_n \leq 500$ MeV and Mass Number for
 $7 \leq A \leq 238$ *S. M. Grimes,
J. D. Anderson, R. W. Bauer,
V. A. Madsen*
- 89 Measurements and Calculations of the ^{39}K and
 $^{40}\text{Ca}(n,\alpha)$ Cross Sections at $E_n = 4.5$ to 6.5 MeV *Xuemei Zhang, Zemin Chen,
Yingtang Chen, Guoyou Tang,
Guohui Zhang,
Jinxiang Chen,
Yu. M. Gledenov,
G. Khuukhenkhuu*
- 97 Semi-Broad-Beam Gamma Spectrometry of Some
Mixtures and Solutions *A. H. El-Kateb*

TECHNICAL NOTES

- 106 Discrete Gamma Radiation in Interaction of 14.9-MeV
Neutrons with Natural Lead *Hongyu Zhou, Xinfu Wang,
Chao Wang, Ming Hua,
Guangshun Huang,
Guoying Fan, Ting Lu,
Siqing Bartel*
- 114 On the Convergence of the Spherical Harmonics
Approximations *Cynthia Feijó Segatto,
Marco Túllio M. B. de Vilhena,
Rubén Panta Pazos*