

# NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 160, NUMBER 2, OCTOBER 2008

## CONTENTS

### TECHNICAL PAPERS

- 149 R-Matrix Analysis of  $^{232}\text{Th}$  Neutron Transmissions and Capture Cross Sections in the Energy Range Thermal to 4 keV *H. Derrien, L. C. Leal, N. M. Larson*
- 168 Evaluation of Neutron Cross Sections for a Complete Set of Nd Isotopes *Hyeong Il Kim, M. Herman, S. F. Mughabghab, P. Obložinský, D. Rochman, Young-Ouk Lee*
- 190 Reevaluation of Prompt Neutron Emission Multiplicity Distributions for Spontaneous Fission *P. Santi, M. Miller*
- 200 Measurement of the  $^{236}\text{U}(n, f)$  Cross Section in the Neutron Energy Range from 0.5 eV up to 25 keV *C. Wagemans, L. De Smet, S. Vermote, J. Heyse, J. Van Gils, O. Serot*
- 207 An Attempt to Improve Empirical Formulas for  $(n, p)$  and  $(n, \alpha)$  Cross Sections *M. H. Hadizadeh, S. M. Grimes*
- 217 Critical Mass and Subcritical Experiments Interlaced with Nb-1Zr, Re, Mo, Ta-2.5W Fueled with Highly Enriched Uranium in Support of the Prometheus Project *David J. Loaiza, Daniel Gehman, Rene Sanchez, David Hayes, Michael Zerkle*
- 232 Analysis of the PROFIL and PROFIL-2 Sample Irradiation Experiments in Phénix for JEFF-3.1 Nuclear Data Validation *J. Tommasi, G. Noguère*
- 242 Stationarity Diagnostics with Relative Entropy and Wilcoxon Signed Rank in Iterated-Source Monte Carlo Methods *Taro Ueki*
- 253 Resonance Absorption in Materials with Randomly Dispersed Grains *M. M. R. Williams*

### TECHNICAL NOTE

- 261 Scattering Reduction of the Double-Heterogeneity Treatment in Dragon *A. Hébert*