

**SPECIAL ISSUE ON THE 18TH TOPICAL
MEETING OF THE ANS RADIATION PROTECTION
AND SHIELDING DIVISION (RPSD 2014)**

iii Foreword / *Thomas M. Miller, Joel M. Risner, Hattice Akkurt*

TECHNICAL PAPERS

RADIATION TRANSPORT AND PROTECTION

191 Optimal Shielding Design for Minimum Materials Cost or Mass /
Robert D. Woolley

ACCELERATORS

208 Radiation Protection Study for the First Korea Heavy-Ion Medical Accelerator
Facility / *Oyeon Kum, Seung Uk Heo, Sang Hyoun Choi, Yongkeun Song,
Sung-Ho Cho*

RADIATION MEASUREMENTS AND GENERAL INSTRUMENTATION

215 Design and Performance Test of Photosensitive Glass-Based Nonfocused
X-Ray Antiscattering Grid by Using MCNP Simulation / *Jun Woo Bae,
Hee Reyoung Kim*

RADIATION TRANSPORT AND PROTECTION

222 Experiment Design of Secondary Neutron and Charged-Particle
Measurement with Stopping Targets Bombarded by 100 and 230 MeV/amu
⁴He Ions / *Pi-En Tsai, Lawrence H. Heilbronn*

232 Enhancements to the MCNP6 Background Source / *Garrett E. McMath,
Gregg W. McKinney*

RADIATION MEASUREMENTS AND GENERAL INSTRUMENTATION

240 Computational Assessment of Naturally Occurring Neutron and Photon
Background Radiation Produced by Extraterrestrial Sources / *Thomas
M. Miller, Wouter C. De Wet, Bruce W. Patton*

(Continued)

CONTENTS / DECEMBER 2015—VOL. 192, NO. 3

(Continued)

RADIATION TRANSPORT AND PROTECTION

- 250** Testing the Delayed Gamma Capability in MCNP6 / *R. A. Weldon, Jr., M. L. Fensin, G. W. McKinney*
- 259** Analog Neutron Transport for Nuclear Instrumentation Applications with the Monte Carlo Code TRIPOLI-4 / *O. Petit, E. Dumonteil*
- 264** Enhanced Hybrid Diffusion-Transport Spatial Homogenization Method / *Gabriel Kooreman, Farzad Rahnema*

NUCLEAR PLANT OPERATIONS AND CONTROLS

- 278** Activation Neutronics for a Swiss Pressurized Water Reactor / *Manuel Pantelias, Benjamin Volmert*

RADIATION TRANSPORT AND PROTECTION

- 286** The Multi-Step CADIS Method for Shutdown Dose Rate Calculations and Uncertainty Propagation / *Ahmad M. Ibrahim, Douglas E. Peplow, Robert E. Grove, Joshua L. Peterson, Seth R. Johnson*

ACCELERATORS

- 299** Radiation Mapping at JET and ITER Using Advanced Computational Acceleration Techniques and Tools / *Jonathan Naish, Frances Fox, Zamir Ghani, Michael Loughlin, Lee Packer, Andrew Turner*

TECHNICAL NOTE

RADIATION BIOLOGY

- 308** Development of the Standalone Package for Enhanced Estimation of Dose Distribution for Space Radiation Applications / *Wouter C. De Wet, Lawrence W. Townsend, X. George Xu, Whitney J. Smith*

DEPARTMENTS

- 314** Technical Reviewers
- 318** Volume 192 Indexes
- vii Volume 192 Contents