

Contents

REVIEW ARTICLE

- 1975** Multiphysics Fuel Performance Modeling of TRISO-Bearing Fuel in Advanced Reactor Environments
Brian D. Wirth, Nicholas R. Brown, Massimiliano Fratoni, Elizabeth Sooby, Wen Jiang

RESEARCH ARTICLES

- 1992** An Efficient Subcritical Multiplication Mode for Monte Carlo Solvers
Benoit Forget
- 2003** Interplay of Variance Reduction and Population Control in Monte Carlo Neutron Transport
Jordan Northrop, Ilham Variansyah, Todd Palmer, Camille J. Palmer
- 2015** Neutronic Study of Thorium-Fueled Molten Salt Reactor (TMSR) with Different Fluoride Salts
Seda Yilmaz, Shripad Revankar, Yunlin Xu
- 2031** Computational Optimization of $^{133\text{m}}\text{Xe}$ Production via Neutron Irradiation in a TRIGA Reactor
Taylor S. Kimball, Glenn E. Sjoden, Matthew G. Watrous, Corey Hines
- 2045** Subspace-Driven Learning for Anomaly Detection in Process Transients
Haoyu Yun, Bo Jiang, Jacob Farber, Ahmad Al Rashdan, Hamid Krim
- 2063** The In Silico Study of the Influence of the GNPs' Shapes and Concentrations on the Enhancement of the Dose Within the Bragg Peak in Proton Therapy
Jakub Nowak, Adam Konefał, Andrzej Orlef, Maria Sokół
- 2081** High-Fidelity CFD Assessments of Flow Resistance in a 61-Pin Wire-Wrapped Assembly with Partially Blocked Channels
Dezhi Dai, Elia Merzari, Landon Brockmeyer, Dillon Shaver
- 2097** INSL-FLASH: A Fission Response Function Based Low-Cost Adaptive Reactor Physics Code for High-Fidelity Simulation
Donghao He, Honglong Li, Ruishuang Gao, Yuehang Li, Lixingzhi Fan, Xinxiang Long, Xiaojing Liu
- 2116** Detection of Diversion in a Realistic Heat Pipe Microreactor Using Supervised Machine Learning
Quinton J. Williams, Ryan H. Stewart, Emerald Ryan, Camille J. Palmer, Ashley Shields

—continued—

Contents continued

VOLUME 200 · NUMBER 9 · SEPTEMBER 2026

- 2132** Multiphysics Simulation of KRUSTY Warm Critical Experiments Using MOOSE Tools
Yinbin Miao, Yan Cao, Kun Mo, Nicolas Stauff, Changho Lee, Christopher Matthews, Emily Shemon
- 2152** Quantifying the Effect of Material Aging on the Performance and Reliability of Passive Heat Removal Systems in Liquid Metal Fast Cooled Reactors
Felix Ameyaw, Joshua Gbinu, Rex Abrefah
- 2170** Performance Evaluation of Filtration Cartridges for Radioactive Iodine Protective Masks
Zhen Wang, Jie Yu, Jianli Chen, Yongguo Li, Jingguo Liu, Xin Li, Jianrong Hou, Ming Han, Xiaochen Li, Haoran Liu