

Nuclear Technology

VOLUME 208 · NUMBER 5 · MAY 2022

Contents

TECHNICAL PAPERS

- 775** The Carbon Value of Nuclear Power Plant Lifetime Extensions in the United States
Son H. Kim, Temitope A. Taiwo, Brent W. Dixon
- 794** Validation of Light Water Reactor Ex-Core Calculations with VERA
Eva E. Davidson, Andrew T. Godfrey, Katherine E. Royston, Tara M. Pandya, Shane C. Henderson, Thomas M. Evans
- 811** Validating Intra-Plate Power Distributions in the Advanced Test Reactor
Samuel E. Bays, Joseph Nielsen, Joshua Cogliati, Charles Wemple
- 822** Toward an Agent-Based Blackboard System for Reactor Design Optimization
Ryan Stewart, Todd S. Palmer, Samuel Bays
- 843** Numerical Simulation and Validation of Debris Bed Self-Leveling Behavior with Mixed-Density Particles Using CFD-DEM Coupling Algorithm
Chun-Yen Li, Kai Wang, Marco Pellegrini, Nejdet Erkan, Koji Okamoto
- 860** Verification of Uncertainty Distributions for Thermal-Hydraulic Mixing Parameters Used in KWU-MIX for Pressurized Thermal Shock
Richard R. Trewin
- 871** Parametric Study of Used Nuclear Oxide Fuel Constituent Dissolution in Molten LiCl-KCl- UCl_3
Steven D. Herrmann, Brian R. Westphal, Shelly X. Li, Haiyan Zhao
- 892** A Redundancy-Guided Approach for the Hazard Analysis of Digital Instrumentation and Control Systems in Advanced Nuclear Power Plants
Tate Shorthill, Han Bao, Hongbin Zhang, Heng Ban
- 912** Relation Between the Characteristic X-Ray Intensity and Incident Electron Energy Using the Monte Carlo Method and Measurements
Runqiu Gu, Jianfeng Cheng, Wanchang Lai, Xianli Liao, Guangxi Wang, Juan Zhai, Chenhao Zeng, Jinfei Wu, Xiaochuan Sun
- 922** Research on the Performance of Nuclear Battery with SiC-Schottky and GaN-PIN Structure
Shanxue Xi, Haijun Li, Linxiang Li, Kun Wu, Guangwei Huang, Zungang Wang, Yiyun Zhang, Chunzhi Zhou