

# Nuclear Technology

VOLUME 205 · NUMBER 4 · APRIL 2019

## Contents

### TECHNICAL PAPERS

- 507** A Comparison Study of Operator Preference and Performance for Analog Versus Digital Turbine Control Systems in Control Room Modernization  
*Ronald L. Boring, Thomas A. Ulrich, Roger Lew, Casey R. Kovesdi, Ahmad Al Rashdan*
- 524** Analysis of a Large-Scale PWR In-Vessel Retention Device  
*Fei-Jan Tsai, Min Lee*
- 542** Gnowee: A Hybrid Metaheuristic Optimization Algorithm for Constrained, Black Box, Combinatorial Mixed-Integer Design  
*James E. Bevins, R. N. Slaybaugh*
- 563** Anisotropic Radiation-Induced Changes in Type 316L Stainless Steel Rods Built by Laser Additive Manufacturing  
*Jordan A. Evans, Scott A. Anderson, Eric J. Faierson, Delia Perez-Nunez, Sean M. McDevitt*
- 582** Tritium Transport Analysis in a 2-MW Liquid-Fueled Molten Salt Experimental Reactor with the Code TMSR-TTAC  
*Youshi Zeng, Wenguan Liu, Wei Liu, Guanghua Wang, Yuan Qian, Nan Qian, Xiaoling Wu, Yu Huang, Shengwei Wu*
- 592** Design, Fabrication, and Testing of Electrolytic Cell for Minimizing Simulated Active Waste  
*R. Puspallata, S. Sumathi, V. Balaji, S. Rangarajan, S. Velmurugan*
- 605** Analysis of Korea's PWR Spent Nuclear Fuel (SNF) Characteristics Evaluated from Existing SNF Inventories (1979–2015) and Projected SNF Inventories (2016–2089)  
*Ara Go, Daesik Yook, Kyuhwan Jeong, GyeongMi Kim, GunHee Jung, Ser Gi Hong*

### TECHNICAL NOTE

- 624** Establishing Outcrop Time Series at Various Depths in a Nonlinear Soil Column: An Iterative Approach  
*Robert E. Spears, Efe G. Kurt, Justin L. Coleman*