

Nuclear Technology

VOLUME 207 · NUMBER 2 · FEBRUARY 2021

Contents

TECHNICAL PAPERS

- 167** Transition Core Analysis for HEU to LEU Fuel Conversion at the University of Missouri Research Reactor
Wilson Cowherd, John Stillman, John Gahl, Leslie Foyto, Erik Wilson
- 182** Demand-Driven Deployment Capabilities in CYCLUS, a Fuel Cycle Simulator
Gwendolyn J. Chee, Roberto E. Fairhurst Agosta, Jin Whan Bae, Robert R. Flanagan, Anthony M. Scopatz, Kathryn D. Huff
- 204** Issues of Safety Assessment of New Russian NPP Projects in View of Current Requirements for the Probability of a Large Release
V. B. Morozov, A. E. Kiselev, A. A. Kiselev, K. S. Dolganov, D. Yu. Tomashchik, S. N. Krasnoperov
- 217** Tellurium Behavior in the Containment Sump: Dissolution, Redox, and Radiolysis Effects
Anna-Elina Pasi, Henrik Glänneskog, Mark R. St.-J Foreman, Christian Ekberg
- 228** Development of a Lumped Parameter Dynamic Degassing Model for Spray-Heating Degasser and Its Application in the Pressurizer of a Pressurized Water Reactor
Xianping Zhong, Jiyang Yu, Xiaolong Zhang, Muhammad Saeed, Yi Li, Zhihui Chen, Bin Tang, Yan Sun, Tao Huang
- 247** Semianalytical Solution to Near-Field Temperature in Nuclear Waste Repository
Xiangyun Zhou, Annan Zhou, De'An Sun, Daichao Sheng
- 263** Recovery of Zirconium from Zircalloys Using a Hydrochlorination Process
Rosendo Borjas Nevarez, Bruce McNamara, Frederic Poineau
- 270** The PyNE-Based Burnup Analysis Method for Accelerator-Driven Subcritical Systems
Jin-Yang Li, Long Gu, Hu-Shan Xu, Yong Dai, You-Peng Zhang, Cun-Feng Yao, Rui Yu, Lu Zhang, Sheng Yang
- 285** An Optimized Method for Bonner Sphere Spectrometer Design and Validation by Measuring ^{252}Cf Spectra
Qingjun Zhu, Xianfang Meng, Wuhui Chen, Songlin Liu, Kai Huang
- 292** Optimized Digital Sallen-Key Shaping Algorithm for Radiation Detector Signal Processing
Song Wengang, Zhang Lijun, Wang Guanying, Li Qiang

—continued—

Contents continued

VOLUME 207 · NUMBER 2 · FEBRUARY 2021

- 299** Design and Optimization Based on Monte Carlo Method of a Range Shifter for Proton Therapy
Yecheng Yu, Ping Tan, Yinjie Lin, Yuying Hu, Huidong Guo, Hao Lei, Zhongqi Zhang, Jiadong Li, Delin Hu

TECHNICAL NOTE

- 316** The Inventory and Source Term Simulation of the Argonaut Nuclear Reactor Inside a Severe Accident
Anderson M. S. Alves, Adino Heimlich, Fernando Lamego, Celso M. F. Lapa