Nuclear Technology

VOLUME 208 · NUMBER 3 · MARCH 2022

Contents

TECHNICAL PAPERS

- **403** SCALE 6.2.4 Validation for Light Water Reactor Decay Heat Analysis *Germina Ilas, Joseph R. Burns*
- 414 A Global Model for Predicting Vacuum Drying of Used Nuclear Fuel Assemblies Sudipta Saha, Jamil Khan, Travis Knight, Tanvir Farouk
- 428 Design and Analysis of an Internal Remote Monitoring System for Spent Nuclear Fuel Stored in a Dry Cask

 Athena A. Sagadevan, Sunil S. Chirayath
- 437 Phenomenon Identification and Ranking Table Development for Future Application Figure-of-Merit Studies on Thermal Energy Storage Integrations with Light Water Reactors Daniel Mikkelson, Konor Frick, Shannon Bragg-Sitton, J. Michael Doster
- 455 Performance Testing of Dysprosium-Based Scintillation Screens and Demonstration of Digital Transfer Method Neutron Radiography of Highly Radioactive Samples William Chuirazzi, Aaron Craft, Burkhard Schillinger, Nicholas Boulton, Glen Papaioannou, Amanda Smolinski, Kyrone Riley, Andrew Smolinski, Michael Ruddell
- **468** Numerical and Experimental Vibration Analysis of an Additive Manufactured Sensor Mounting Unit for a Wireless Valve Position Indication Sensor System Sasa Kovacevic, Vivek Agarwal, John W. Buttles
- 484 Release Behaviors of Elements from an Ag-In-Cd Control Rod Alloy at Temperatures up to 1673 K

Fumihisa Nagase, Takashi Ohtomo, Hiroshi Uetsuka

- 494 Testing of an Element Tracer Dilution Method for Measurement of Total Mass of Molten Salt in a Nuclear Fuel Cycle Process or Molten Salt Reactor Huan Zhang, Shelly X. Li, Michael F. Simpson
- Void Fraction and Interfacial Friction in Vertical Circular Pipes with the Square Top End Under Flooding Conditions

Toshiya Takaki, Michio Murase, Kosuke Hayashi, Akio Tomiyama

520 Rewetting Delay Time During Jet Impingement Quench Cooling of Hot Curved Surfaces *Kifah J. Takrouri, John C. Luxat, Mohamed S. Hamed*

—continued—

Contents continued

VOLUME 208 · NUMBER 3 · MARCH 2022

539 Inertial Effects and Anisotropy for the Flow in a Domain of Close Packed Spheres with a Bounding Wall

Lambert H. Fick, Elia Merzari, Yassin A. Hassan

TECHNICAL NOTES

- **562** Additional Stylized 3-D Benchmark Problem Set Based on the Pin-Fueled SmAHTR *K. Lisa Reed, Farzad Rahnema*
- 575 Comparison of Irradiated TRISO Fuel Radioactivity from Multiple Advanced Reactor Designs

Pavlo Ivanusa, Philip Jensen, Caitlin A. Condon, Amoret L. Bunn

586 Preliminary Modeling of Chloride Deposition on Spent Nuclear Fuel Canisters in Dry Storage Relevant to Stress Corrosion Cracking

Philip J. Jensen, Sarah Suffield, Christopher L. Grant, Casey Spitz, Brady Hanson, Steven Ross, Sam Durbin, Charles Bryan, Sylvia Saltzstein

