Nuclear Technology

VOLUME 208 · NUMBER 10 · OCTOBER 2022

Contents

TECHNICAL PAPERS

- 1497 A 100-Mrad (Si) JFET-Based Sensing and Communications System for Extreme Nuclear Instrumentation Environments
 - F. Kyle Reed, M. Nance Ericson, N. Dianne Bull Ezell, Roger A. Kisner, Lei Zuo, Haifeng Zhang, Robert Flammang
- 1511 Experimental Verification of Proposed Internal Remote Monitoring System for Spent Nuclear Fuel Dry Cask Storage Applications

 Athena A. Sagadevan, Sunil S. Chirayath
- 1522 Improving Pulse Shape Discrimination in Organic Scintillation Detectors by Understanding Underlying Data Structure

 Patrick Maedgen, Benjamin Wellons, Shikha Prasad, Jian Tao
- 1540 Constructing Neural Network Model to Evaluate and Predict Human Error Probability in Nuclear Power Plants Based on Eye Response, Workload Rating, and Situation Awareness Shengyuan Yan, Kai Yao, Fengjiao Li, Yingying Wei, Cong Chi Tran
- 1553 Clogging Properties of HEPA Filter Induced by Loading of Soot from Burned Glove-Box Panel Materials
 - Shinsuke Tashiro, Takuya Ohno, Yuki Amano, Ryoichiro Yoshida, Koji Watanabe, Hithoshi Abe
- 1562 A Method for Monitoring and Evaluating the Management of a Nuclear Regulatory Body Using a New Approach for Cross-Cutting Indicators

 J. A. B. Carvalho, P. F. Frutuoso e Melo, C. M. F. Lapa
- **1577** A New Method to Efficiently Estimate the Equilibrium State of Pebble Bed Reactors *Cihang Lu, Zeyun Wu*
- **1591** Modeling of Lateral Flow in CFD for Subchannel Analysis *Vojtěch Caha*
- 1605 Heat Transfer Enhancement Using Different SiO₂ Nanofluid Mixing Conditions on a Downward-Facing Heating Surface

 Zhibo Zhang, Huai-En Hsieh, Yuan Gao, Shiqi Wang, Zhe Zhou

TECHNICAL NOTE

1619 Evaluation of Fuel Reactivity Worth Measurement in the Prototype Fast Reactor Monju *Kazuya Ohgama, Atsushi Takegoshi, Hiroki Katagiri, Taira Hazama*