

# Nuclear Technology

VOLUME 206 · NUMBER 3 · MARCH 2020

## Contents

### TECHNICAL PAPERS

- 389** Liquid Film Thickness in Vertical Circular Pipes Under Flooding Conditions at the Top End  
*Toshiya Takaki, Michio Murase, Koji Nishida, Raito Goda, Takeyuki Shimamura, Akio Tomiyama*
- 401** Comparison of Triggered Explosion Behavior by Corium Injection Modes in TROI Facility  
*Seong-Wan Hong, Sang Ho Kim, Rae-Joon Park*
- 414** Uncertainty Quantification Using the MAAP5 Code of In-Vessel Hydrogen Generation in a Severe Accident at an Advanced Boiling Water Reactor  
*Te-Chuan Wang, Min Lee*
- 428** The CRANK System—A Simple, Robust Apparatus for Measurement of Cherenkov Light at Open-Pool Reactor  
*Thomas V. Holschuh, Wade R. Marcum*
- 435** Development of an In-Vessel CEDM for Small Modular Reactors  
*Jinseok Park, Wonho Lee, Myounggoo Lee, Yeonho Cho, Hyunmin Kim, Chulsoo Maeng*
- 444** A Revised Capsule Design for the Accelerated Testing of Advanced Reactor Fuels  
*G. L. Beausoleil II, G. L. Povirk, B. J. Curnutt*
- 458** Experimental and Simulation Analysis of Hydrogen Permeation Performance of Pd/Ag Permeator Used for Tritium Processing  
*Yu Huang, Gaofeng Lu, Youshi Zeng, Nan Qian, Xinxin Chu, Guanghua Wang, Shengwei Wu, Wei Liu*
- 467** Effectiveness of Cr-Coated Zr-Alloy Clad in Delaying Fuel Degradation for a PWR During a Station Blackout Event  
*J. Wang, H. Yeom, P. Humrickhouse, K. Sridharan, M. Corradini*
- 478** Demonstration of the Advanced Dynamic System Modeling Tool TRANSFORM in a Molten Salt Reactor Application via a Model of the Molten Salt Demonstration Reactor  
*M. Scott Greenwood, Benjamin R. Betzler, A. Lou Qualls, Junsoo Yoo, Cristian Rabiti*

### TECHNICAL NOTES

- 505** Conceptual Design of an Accident Prevention System for Light Water Reactors Using Artificial Neural Network and High-Speed Simulator  
*Li-Chi Cliff Po*

—continued—

## **Contents** continued

VOLUME 206 · NUMBER 3 · MARCH 2020

- 514** Characteristics of Water Suction for a Korean Compacted Bentonite  
*Seok Yoon, Jun-Seo Jeon, Seeun Chang, Deuk-Hwan Lee, Seung-Rae Lee,  
Geon-Young Kim*