

Nuclear Technology

VOLUME 196 · NUMBER 1 · OCTOBER 2016

Contents

TECNICAL PAPERS

- 1** Full-Core Evaluation of Uranium-Based Fuels Augmented with Small Amounts of Thorium in Pressure Tube Heavy Water Reactors
Ashlea V. Colton, Blair P. Bromley
- 13** Basis for Fluoride Salt–Cooled High-Temperature Reactors with Nuclear Air-Brayton Combined Cycles and Firebrick Resistance-Heated Energy Storage
Charles Forsberg, Per F. Peterson
- 34** Thermal-Hydraulic Analyses of Transportable Fluoride Salt–Cooled High-Temperature Reactor with CFD Modeling
Chenglong Wang, Kaichao Sun, Lin-Wen Hu, Suizheng Qiu, G. H. Su
- 53** Radiation Heat Transfer in the Molten Salt FLiNaK
Ethan S. Chaleff, Thomas Blue, Piyush Sabharwall
- 61** Secondary Sodium Fire Measures in JSFR
Yoshitaka Chikazawa, Atsushi Katoh, Tomohiko Yamamoto, Shigenobu Kubo, Shuji Ohno, Mikinori Iwasaki, Hiroyuki Hara, Yoshio Shimakawa, Hiroshi Sakaba
- 74** Capability Enhancement of MATRIX Electromagnetic Pump Analysis Code by Including Thermal Analysis
Ana Da Silva, Pradip Saha, Eric P. Loewen
- 89** Corrosion Properties of Zircaloy-4 and M5 Under Simulated PWR Water Conditions
Akira Shibata, Yoshiaki Kato, Taketoshi Taguchi, Masatoshi Futakawa, Katsuhiro Maekawa
- 100** High-Temperature Corrosion Testing of Uranium Silicide Surrogates
K. Urso, K. Sridharan, B. J. Jaques, G. Alanko, D. P. Butt, M. Meyer, P. Xu, B. Tyburska-Püschel
- 111** Sample Preparation Techniques for Grain Boundary Characterization of Annealed TRISO-Coated Particles
M. L. Dunzik-Gougar, I. J. van Rooyen, C. M. Hill, T. Trowbridge, J. Madden, J. Burns

—continued—

Contents continued

VOLUME 196 • NUMBER 1 • OCTOBER 2016

- 121** Diffusion and Sorption Properties of Some Sorbing Nuclides onto Granodiorite in a Modified Through-Diffusion Setup

Chung-Kyun Park, Min-Hoon Baik, Yong-Kwon Koh

- 130** Creep Evaluation of Traditional and Nuclear Power Plant High-Temperature Components, Using Small Pin-Loaded One-Bar and Two-Bar Specimens

Balhassn S. M. Ali, Terry Y. P. Yuen, Mohamed Saber