

### SPECIAL ISSUE ON THE SYMPOSIUM ON RADIATION EFFECTS IN CERAMIC OXIDE AND NOVEL LWR FUELS

- 123** Foreword: Special Issue on the Symposium on Radiation Effects in Ceramic Oxide and Novel LWR Fuels / *Peng Xu, Todd R. Allen*

### TECHNICAL PAPERS

- 124** Simulation of Pellet-Cladding Interaction with the PLEIADES Fuel Performance Software Environment / *B. Michel, C. Nonon, J. Sercombe, F. Michel, V. Marelle*
- 138** On the Response of Ionic Crystals to Irradiation / *Dilpuneet Aidhy, Dieter Wolf*
- 145** Three-Dimensional Characterization of Sintered  $\text{UO}_{2+x}$ : Effects of Oxygen Content on Microstructure and Its Evolution / *Karin Rudman, Patricia Dickerson, Darrin Byler, Robert McDonald, Harn Lim, Pedro Peralta, Chris Stanek, Kenneth McClellan*
- 155** Microstructurally Explicit Simulation of Intergranular Mass Transport in Oxide Nuclear Fuels / *Harn Chyi Lim, Karin Rudman, Kapil Krishnan, Robert McDonald, Patricia Dickerson, Darrin Byler, Pedro Peralta, Chris Stanek, Kenneth McClellan*
- 164** Transmission Electron Microscopy Investigation of Krypton Bubbles in Polycrystalline  $\text{CeO}_2$  / *Lingfeng He, Clarissa Yablinsky, Mahima Gupta, Jian Gan, Marquis A. Kirk, Todd R. Allen*

---

### REGULAR TECHNICAL PAPERS

#### FISSION REACTORS

- 170** R&D in Support of ASTRID and JSFR: Cross-Analysis and Identification of Possible Areas of Cooperation / *Nicolas Devictor, Yoshitaka Chikazawa, Manuel Saez, Gilles Rodriguez, Hiroki Hayafune*
- 187** Introduction of Thorium-Based Fuels in High Conversion Pressurized Water Reactors / *V. Vallet, B. Gastaldi, J. Politello, A. Santamarina, L. Van Den Durpel*
- 207** Determining Optimal Neutron Spectra for Transmutation and Isotope Management / *Mark Massie, Benoit Forget*

#### RADIATION TRANSPORT AND PROTECTION

- 224** Effects of Source and Geometry Modeling on the Shielding Calculations for a Spent Nuclear Fuel Dry Storage Cask / *Y. F. Chen, Y. F. Chiou, S. J. Chang, S. H. Jiang, R. J. Sheu*

(Continued)

# **CONTENTS / MAY 2013—VOL. 182, NO. 2**

**(Continued)**

## **REPROCESSING**

- 235** Study on  $\text{UF}_2^-$  Extraction in Accelerator Mass Spectrometry Measurement of  $^{236}\text{U}$  / *Xianggao Wang, Kejun Dong, Ming He, Shaoyong Wu, Shan Jiang*

## **DECONTAMINATION/DECOMMISSIONING**

- 242** Laser-Assisted Decontamination of Fuel Pins for Prototype Fast Breeder Reactor / *Aniruddha Kumar, R. B. Bhatt, Mohd. Afzal, J. P. Panakkal, Dhruba J. Biswas, J. Padma Nilaya, A. K. Das*