

Contents

“Advanced Simulation of Nuclear Reactor Thermal Hydraulics”

From the Direct Numerical Simulation to System Codes - Perspective for the Multi-Scale Analysis of LWR Thermalhydraulics

D. Bestion 608

Multi-Scale Modeling and Analysis of Convective Boiling: Towards the Prediction of CHF in Rod Bundles

B. Niceno, Y. Sato, A. Badillo, and M. Andreani 620

The CUPID Code Development and Assessment Strategy

J.J. Jeong, H.Y. Yoon, I.K. Park, and H.K. Cho 636

Papers

Thermal Hydraulics

CFD Analysis of Heavy Liquid Metal Flow in the Core of the HELIOS Loop

A. Batta, Jae Hyun Cho, A.G. Class, and Il Soon Hwang 656

Nuclear Physics, Fusion, and Laser Technology

High Heat Flux Test with HIP Bonded 35x35x3 Be/Cu Mockups for the ITER Blanket First Wall

Dong Won Lee, Young Dug Bae, Suk Kwon Kim, Hyun Kyu Jung, Jeong Yong Park, Yong Hwan Jeong, Byung Kwon Choi, and Byoung-Yoon Kim 662

Nuclear Structural Analysis and Plant Management & Maintenance

Pixel-Based Correction Method for GAFCHROMIC®EBT Film Dosimetry

Hae Sun Jeong, Youngyih Han, Oyeon Kum, Chan Hyeong Kim, Sang Gyu Ju, Jung Suk Shin, Jin Sung Kim, and Joo Hwan Park 670

On Crack Interaction Effects of In-Plane Surface Cracks Using Elastic and Elastic-Plastic Finite Element Analyses

Jong-Min Kim and Nam-Su Huh 680

Technical Note

Nuclear Safety

Sampling Based Uncertainty Analysis of 10 % Hot Leg Break LOCA in Large Scale Test Facility

Samiran Sengupta, S. K. Dubey, R. S. Rao, S. K. Gupta, and V. K Raina 690

Contents

Nuclear Structural Analysis and Plant Management & Maintenance	
Multi-Point Measurement of Structural Vibration Using Pattern Recognition from Camera Image <i>Hyeong-Seop Jeon, Young-Chul Choi, Jin-Ho Park, and Jong Won Park</i>	704