

Contents

“Fukushima Accident: Lessons and Future Actions”

PRA: A Perspective on Strengths, Current Limitations, and Possible Improvements <i>Ali Mosleh</i>	1
Treating Uncertainties in a Nuclear Seismic Probabilistic Risk Assessment by Means of the Dempster-Shafer Theory of Evidence <i>Chung-Kung Lo, N. Pedroni, and E. Zio</i>	11
Fukushima Dai-Ichi Accident: Lessons Learned and Future Actions from the Risk Perspectives <i>Joon-Eon Yang</i>	27

Papers

Thermal Hydraulics

Steam Generator Tube Integrity Analysis of a Total Loss of All Heat Sinks Accident for Wolsong NPP Unit 1 <i>Heok-Soon Lim, Tae-Young Song, Moon-Goo Chi, and Seung-Rae Kim</i>	39
--	----

Nuclear I&C

A Development Framework for Software Security in Nuclear Safety Systems: Integrating Secure Development and System Security Activities <i>JaeKwan Park and YongSuk Suh</i>	47
---	----

A Software Reliability Estimation Method to Nuclear Safety Software

<i>Gee-Yong Park and Seung Cheol Jang</i>	55
---	----

Nuclear Fuel Cycle and Radioactive Waste Management

Preliminary Safety Study of Engineering-scale Pyroprocess Facility <i>Seong-In Moon, Won-Myung Chong, Gil-Sung You, Jeong-Hoe Ku, Ho-Dong Kim, Yong-Kyu Lim, and Hyeon-Sik Chang</i>	63
---	----

Impact Analyses and Tests of Concrete Overpacks of Spent Nuclear Fuel Storage Casks

<i>Sanghoon Lee, Sang-Soon Cho, Je-Eon Jeon, Ki-Young Kim, and Ki-Seog Seo</i>	73
--	----

A Statistical Approach for Deriving Key NFC Evaluation Criteria

<i>S. K. Kim, G. B. Kang, W. I. Ko, S. R. Youn, and R.X. Gao</i>	81
--	----

Nuclear Fuel and Reactor Materials

Non Destructive Application of Radioactive Tracer Technique for Characterization of Industrial Grade Anion Exchange Resins Indion GS-300 and Indion-860 <i>P.U. Singare</i>	93
--	----

Contents

Nuclear Structural Analysis and Plant Management & Maintenance

Development of Green's Function Approach Considering Temperature-dependent Material Properties and its Application <i>Han-Ok Ko, Myung Jo Jhung, and Jae-Boong Choi</i>	101
--	-----

Technical Note

Thermal Hydraulics

Electrical Resistance Imaging of Two-phase Flow with a Mesh Grouping Technique Based on Particle Swarm Optimization <i>Bo An Lee, Bong Seok Kim, Min Seok Ko, Kyung Youn Kim, and Sin Kim</i>	109
--	-----

Nuclear Fuel and Reactor Materials

Recycling Process of U ₃ O ₈ Powder in MnO-Al ₂ O ₃ Doped Large Grain UO ₂ Pellets <i>Jang Soo Oh, Dong-Joo Kim, Jae Ho Yang, Keon Sik Kim, Young Woo Rhee, and Yang-Hyun Koo</i>	117
---	-----