

NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 173, NUMBER 2, FEBRUARY 2013

CONTENTS

TECHNICAL PAPERS

- 101 Two Subcell Balance Methods for Solving the Multigroup Discrete Ordinates Transport Equation with Tetrahedral Meshes *Ser Gi Hong*
- 118 Adjoint-Based Sensitivity Analysis of Coupled Criticality Problems *Zoltán Perkó, Danny Lathouwers, Jan Leen Kloosterman, Tim van der Hagen*
- 139 Neutron Activation Property of Colemanite-Peridotite Concrete *Koichi Okuno, Hideaki Matsue, Satoru Miyata, Yoshiaki Kiyonagi*
- 150 Pebble Flow and Coolant Flow Analysis Based on a Fully Coupled Multiphysics Model *Yanheng Li, Wei Ji*
- 163 Water Chemistry in the Primary Coolant Circuit of a Boiling Water Reactor During Startup Operations *Tsung-Kuang Yeh, Mei-Ya Wang*
- 172 Study of Using Zirconium as a Reflector for Light Water Reactors *Nader M. A. Mohamed*

TECHNICAL NOTES

- 182 Exact Solutions of the Two-Dimensional Cell Problem *M. M. R. Williams*
- 197 High-Fidelity Approximations for Extinction Probability Calculations *Scott D. Ramsey, Gregory J. Hutchens*