

TECHNICAL PAPERS

FISSION REACTORS

- 237 A New Approach for Predicting Steam Volume Fraction in Transient Flow Boiling / *Samir M. Sami, M. Kraitem*
- 247 Development of a Compact Digital Reactivity Meter and a Reactor Physics Data Processor / *Yoichiro Shimazu, Yuzo Nakano, Yoshihisa Tahara, Tadayoshi Okayama*
- 255 Reactivity Analysis Model Based on Finite Difference Method for Three-Dimensional Fast Breeder Reactor Core Deformation / *Kazuo Azekura*
- 263 Liquid-Metal Fast Breeder Reactor Core Transient Modeling for Faster Than Real-Time Analysis / *Constantine P. Tzanos*

NUCLEAR SAFETY

- 279 Measurements and Evaluations of Neutron Dose and Spectra at the Reactor Top of the Liquid-Metal Fast Breeder Type Reactor, JOYO / *Toshiso Kosako, Junpei Matsumoto, Akira Sekiguchi, Nobuo Ohtani, Soju Suzuki, Shinso Takeda, Osamu Sato*

CHEMICAL PROCESSING

- 295 Conversion of Deuterium Gas to Heavy Water by Catalytic Isotopic Exchange Using Wetproof Catalyst / *Robert J. Quaiattini, Michael P. McGauley, Deborah L. Burns, Paul R. Tichler*
- 299 A Semiempirical Equation for Estimating Thorium Nitrate Extraction by DHPSO from Nitric Acid Solution / *Jiin-Shiung Horng, Wen-Shou Chuang, Ying-Chu Hoh*

NUCLEAR FUELS

- 303 Release of Iodine from Defective Fuel Elements Following Reactor Shutdown / *Brent J. Lewis, Dugald B. Duncan, Colin R. Phillips*

(Continued)

ON THIS COVER

This month's cover is taken from Fig. 3 in the paper by G. Karsten.

CONTENTS / JUNE 1987–VOL. 77, NO. 3

(Continued)

RADIOACTIVE WASTE MANAGEMENT

- 313 Water Corrosion and Release Mechanism of Cement Matrix Incorporating Simulated Medium-Level Waste / *Edmondo Zamorani*
- 320 The Relationship Between Gap Inventories of Stable Xenon, ^{137}Cs , and ^{129}I in Used CANDU Fuel / *Simcha Stroes-Gascoyne, Lawrence H. Johnson, Dennis M. Sellinger*

HEAT TRANSFER AND FLUID FLOW

- 331 On the Development of Turbulent Flow in Wall Subchannels of a Rod Bundle / *Klaus Rehme*

TECHNICAL NOTES

NUCLEAR SAFETY

- 343 A Historical Perspective on Seismic Risk Assessment and Bayesian Updating / *Manuel González-Cuesta, David Okrent*

MATERIALS

- 349 Energy Dissipation in Nuclear Ceramic Materials / *Gerhard Karsten*

DEPARTMENTS

- 231 Authors
- 354 Book Review
- 355 Volume 77 Indexes
- v Volume 77 Contents