

CONTENTS / JANUARY 1990—VOL. 89, NO. 1

7 Editor's Note

TECHNICAL PAPERS

FISSION REACTORS

- 9 Reactivity Anomalies in the Fast Flux Test Facility—An Evaluation of Data from Cycles 1 Through 8 / *Bradley J. Knutson, Richard A. Harris*
- 18 A New Control Strategy for Nuclear Power Reactors / *Hiroaki Wakabayashi, Nobuhiro Nakanishi, Kazunori Sasaki, Morikazu Takegaki*
- 36 Possibilities for Improvements in Liquid-Metal Reactors Using Liquid-Metal Magnetohydrodynamic Energy Conversion / *Amitzur Z. Barak, Leif Blumenaу, H. Branover, A. El-Boher, Ehud Greenspan, E. Spero, S. Sukoriansky*

NUCLEAR SAFETY

- 52 A Limit Line for Earthquake Intensity Attenuation / *Salvatore Taibi*
- 56 Experimental and Numerical Investigations of Sodium Boiling Experiments in Pin Bundle Geometry / *Maurizio Bottoni, Burkhardt Dorr, Christoph Homann, Franz Huber, Karl Mattes, F. W. Pepler, Dankward Struwe*
- 83 A New Safety Approach in the Design of Fast Reactors / *Robert J. Neuhold, John F. Marchaterre, Alan E. Waltar*
- 92 Development of a Three-Dimensional Transient Code for Reactivity-Initiated Events of Boiling Water Reactors—Two Rod Drop Accident Analyses / *Sadayuki Izutsu, Yoshiro Kudo, Junichi Onuma, Tomohiko Iwasaki, Sakae Muto, Akio Toba*

HEAT TRANSFER AND FLUID FLOW

- 103 An Experimental Investigation on Turbulent Flow Through Symmetric Wall Subchannels of Two Rod Bundles / *Shao-rong Wu, Klaus Rehme*

TECHNIQUES

- 116 Destructive Gamma-Ray Analysis of Fuel Rods from the Taiwan Research Reactor / *Lung-Kwang Pan*

(Continued)

ON THIS COVER

This month's cover, which shows the computed time and axial distributions of vapor quality, is taken from Fig. 21 in the paper by Bottoni et al.

CONTENTS / JANUARY 1990—VOL. 89, NO. 1

(Continued)

TECHNICAL NOTE

NUCLEAR SAFETY

- 126 An Expert System to Estimate Time, Rate, and Magnitude of Release of Important Radioactive Isotopes Given a Loss of Containment Integrity / *Kil-yoo Kim, David Okrent*

DEPARTMENTS

- 1 Authors
- 130 Technical Reviewers

Publisher's Note: In an effort to minimize page charges, the American Nuclear Society will reduce the page charge to \$145 per composed page for authors who submit their manuscript on diskette. Complete instructions for submittal of papers on diskette are available from the *Nuclear Technology* editorial office at ANS headquarters.