

CONTENTS / JULY 1983—VOL. 62, NO. 1

TECHNICAL PAPERS

FISSION REACTORS

- 7 The Abundance of Fission Gases in the Off Gas of a Boiling Water Reactor / H. W. Kalfsbeek
- 22 The Modular High-Temperature Reactor / Herbert Reutler, Günter H. Lohnert

NUCLEAR SAFETY

- 31 An Analytical Study of a Small-Break Loss-of-Coolant Accident with Upper Head Injection / Mark T. Leonard
- 43 Simple Lake Breeze Front Position Technique for Off-Site Dose Assessment / Thomas J. Burda, Carl A. Mazzola, Walter A. Lyons, Gary T. Van Helvoirt

NUCLEAR FUELS

- 51 Modeling Fragmentation and Spallation of Oxide Reactor Fuel During Transient Heating Including the Effects of Burnup and Fission Product Distribution / Ronald J. DiMelfi, John M. Kramer
- 62 Heat Transfer from Transport Cask Storage Facilities for Spent Fuel Elements / Wolfgang von Heesen, Heinz Malmström, Rüdiger Detzer, Werner Loew

RADIOACTIVE WASTE MANAGEMENT

71 Evaluation of SrMoO₄ in Repository Simulating Tests / Sridhar Komarneni, Rustum Roy, Della M. Roy

MATERIALS

75 Irradiation Behavior of Pressurized Water Reactor Control Materials / Richard V. Demars, Charles G. Dideon, Thomas A. Thornton, James S. Tulenko, Wayne A. Pavinich, Elma Beth S. Pardue

(Continued)

CONTENTS / JULY 1983-VOL. 62, NO. 1

(Continued)

RADIATION BIOLOGY AND ENVIRONMENT

81 Dose Response in Radiation-Induced Human Carcinogenesis: Accumulated Data Do Not Yet Solve the Enigma / Werner Burkart

HEAT TRANSFER AND FLUID FLOW

94 Statistical Characteristics of Incipient Two-Phase Noise for Reactor Diagnosis / Monideep Kumar De

TECHNIQUES

102 Development and Operational Experiences of an Automated Remote Inspection System for Interior of Primary Containment Vessel of a BWR / Norihiko Ozaki, Fumio Tomizawa, Masaaki Fujii, Masayoshi Sasaki, Ken-Ichiro Sadakane, Chikara Sato, Katsuhiro Mizuno, Katsutoshi Shimizu, Teisuke Watarai, Takahiko Ito, Yuji Hashimoto

TECHNICAL NOTE

RADIOACTIVE WASTE MANAGEMENT

110 The Movement of a Redox Front Downstream from a Repository for Nuclear Waste / Ivars Neretnieks

DEPARTMENTS

- 1 Authors
- 116 Letters to the Editor
- 120 Book Reviews