

CONTENTS / JULY 1982—VOL. 58, NO. 1

TECHNICAL PAPERS

FISSION REACTORS

9 On-Line Test of Power Distribution Prediction System for Boiling Water Reactors / Yasuo Nishizawa, Takashi Kiguchi, Setsuo Kobayashi, Kenji Takumi, Michiro Yokomi, Ryohsuke Tsutsumi, Harukuni Tanaka

FUEL CYCLES

- 23 On the Flexibility of High Temperature Reactor Cores for High- and Low-Enriched Fuel / Siegfried Brandes, Günter Lohnert
- 29 Unirradiated High Temperature Reactor Fuel Element Head-End Reprocessing Tests / Folkmar A. Schwarz, Heinz E. Tischer, Ronald N. Drake, William S. Rickman, Nadine D. Holder, James B. Strand
- 36 The Economics of Plutonium-Uranium Recycling to the Nuclear Program in the Country of Spain / Warren F. Witzig, Vincente Serradell

CHEMICAL PROCESSING

47 Studies on the Reaction of Nitric Acid and Sugar / C. S. MacDougall, C. K. Bayne, R. B. Roberson

NUCLEAR .FUELS

- 53 Simulation of Nuclear Fuel Rods by Electrically Heated Rods / Siegfried Malang, Klaus Rust
- 63 Hot Impact Densification: A New Method for Producing High Density Ceramic Pellets with Close Shape Tolerances / Milan Hrovat, Hans Huschka, Lothar Rachor, Günter Mühling, Heinz Zimmerman

RADIOACTIVE WASTE MANAGEMENT

69 Neptunium Concentrations in Solutions Contacting Actinide-Doped Glass / Dhanpat Rai, Richard G. Strickert, Gary L. McVay

(Continued)

CONTENTS / JULY 1982-VOL. 58, NO. 1

(Continued)

MATERIALS

- 77 Alpha-Recoil Damage in Monazite: Preferential Dissolution of the Radiogenic Actinide Isotopes / Yehuda Eyal, Aaron Kaufman
- 84 Destructive Examinations of a Regenerated Large Cold Trap / Yoshiaki Himeno, Kazuo Mukai, Tatsuro Iguchi, Ken Yamamoto, Fumio Nagai, Masao Fujita
- 90 Qualification of Metallic Materials for Application in Advanced High Temperature Gas-Cooled Reactors / Hubertus Nickel, Philip J. Ennis, Florian Schubert, Hans Schuster

HEAT TRANSFER AND FLUID FLOW

107 Determination of Single Component Velocities in Two-Phase Flow Systems Using Correlation Methods / Dieter Barschdorff, Dietmar Wetzlar

TECHNICAL NOTE

FISSION REACTORS

113 Principles for Control Rod Withdrawal Strategy During the Startup of Boiling Water Reactors / Yasunori Bessho, Hiroshi Motoda, Mitsutaka Watanabe

DEPARTMENTS

- 1 Authors
- 120 Book Reviews