nuclear freehology®

CONTENTS / MARCH 1985-VOL. 68, NO. 3

TECHNICAL PAPERS

FISSION REACTORS

- 275 A Semiempirical Relationship for the Excess Reactivity of a Reactor as a Function of Cycle Time, Axial Flux Form Factor, and Leakage Parameter / Ashwin P. Muzumdar, Douglas G. Andrews
- 281 Primary Coolant Feed and Bleed Operating Regions for the Midland Plant / Hsian Shi Tsai

NUCLEAR SAFETY

- **293** Experimental Determination of the Atmospheric Dispersion Parameters at the Karlsruhe Nuclear Research Center for Emission Heights of 60 and 100 m / *P. Thomas, K. Nester*
- **311** Hiroshima and Nagasaki Initial Radiations: Delayed Neutron Contributions and Comparison of Calculated and Measured Cobalt Activations / *William E. Loewe*

FUEL CYCLES

319 Optimal Thorium-Fueled CANDU Nuclear Reactor Fuel Management / Hugues W. Bonin, Alexander Sesonske

NUCLEAR FUELS

- **336** Uranium Diffusion in H-451 Graphite / O. K. Tallent, R. P. Wichner, Roy L. Towns
- 344 High-Temperature Gas-Cooled Reactor Fuel Pressure Vessel Performance Models / William J. Kovacs, Karl Bongartz, Dan T. Goodin
- **355** Rod Bundle Burnout Data and Correlation Comparison / Graydon L. Yoder, Jr., David G. Morris, Charles B. Mullins
- **370** ISARD, A Method of Tomographic Reconstruction of the Position of Gamma Emitters in a Nuclear Fuel Pin from Transversal Gamma Scanning / *Gérard Ducros*

(Continued)

ON THIS COVER This month's cover is taken from a figure in the paper by Y. A. Hassan and J. H. Kim, showing a proposed skew-upwind scheme.

CONTENTS / MARCH 1985-VOL. 68, NO. 3

(Continued)

MATERIALS

385 Dissolution of Metal Oxides Accumulated in Nuclear Steam Generators: Study of Solutions Containing Organic Chelating Agents / *Roland Gilbert, Lorenzo Ouellet*

HEAT TRANSFER AND FLUID FLOW

- **395** Computational Investigation of Fluid and Thermal Mixing of the EPRI/Creare One-Fifth-Scale Facility / Yassin A. Hassan, J. H. Kim
- 408 Evaluation of Countercurrent Gas/Liquid Flow in Parallel Channels with Restricted Ends / Michio Murase, Hiroaki Suzuki

TECHNICAL NOTES

NUCLEAR FUELS

418 Postirradiation Behavior of Naturally and Artificially Defected UO₂ Fuel Elements at 250°C in Air / *Ian J. Hastings, Elio Mizzan, John R. Kelm, Robert E. Moeller, J. Novak*

MATERIALS

423 Thermal Expansion of U.S. and Australian SYNROC B / Hans Rolf Käse, John Aloysius Tesk, Eldon Darrel Case

DEPARTMENTS

- 269 Authors
- 427 Volume 68 Indexes
- v Volume 68 Contents