

nuclear technology®

CONTENTS / FEBRUARY 1980—VOL. 47, NO. 2

TECHNICAL PAPERS

REACTORS

- 221 Accidental Criticality of a Fusion-Fission Hybrid Blanket Design / *V. C. Badham, W. E. Kastenberg, G. C. Pomraning, D. Okrent*
- 234 Deterministic Criteria Versus Probabilistic Analyses: Examining the Single Failure and Separation Criteria / *W. W. Weaver*
- 244 PLENUM-2A, A Program for Transient Analysis of Liquid-Metal Fast Breeder Reactor Outlet Plenums / *Juan J. Carbajo, Paul A. Howard*
- 257 Ultrasonic Inspection of Liquid-Metal Fast Breeder Reactor Steam Generator Duplex Tubing / *K. J. Longua, G. K. Whitham, C. C. Allen*

REACTOR SITING

- 268 Heat Transfer of a Spray Droplet in a Nuclear Reactor Containment / *Mitsugu Tanaka*
- 282 Containment Response to Postulated Core Meltdown Accidents in the Fast Flux Test Facility / *R. D. Gasser, W. T. Pratt*

FUELS

- 308 Evaporative Removal of Sodium from Reactor Components / *F. H. Welch, O. P. Steele III*

RADIOACTIVE WASTE

- 312 Radionuclide Transport Through Heterogeneous Media / *Jörg Hadermann*
- 324 Reduction in the Toxicity of Fission Product Wastes Through Transmutation with Deuterium-Tritium Fusion Neutrons / *T. A. Parish, J. W. Davidson*

(Continued)

ON THIS COVER

This month's cover is taken from a figure in the paper by V. C. Badham et al. and represents the unit cell of the fast-fission blanket submodule.

CONTENTS / FEBRUARY 1980—VOL. 47, NO. 2

(Continued)

MATERIALS

- 343** An Improved Evaluation Model for Zircaloy Oxidation / *Howard Ocken*
- 358** Gas Generation by Self-Radiolysis of Tritiated Waste Materials / *W. E. Tadlock, G. C. Abell, R. H. Steinmeyer*

ANALYSIS

- 363** Nondestructive Fissile Isotopic Measurement Technique for Uranium-233–Uranium-235 Fuels Using Prompt and Delayed Fission Neutron Counting / *E. J. Allen, S. R. McNeany*

DEPARTMENTS

- 215** Authors
- 378** Book Review