

CONTENTS / NOVEMBER 1977—VOL. 36, NO. 1

TECHNICAL PAPERS

CRITICAL REVIEW

7 Identification of Nuclear Systems / T. W. Kerlin, G. C. Zwingelstein, B. R. Upadhyaya

RADIATION ENVIRONMENTS IN NUCLEAR REACTOR POWER PLANTS

- 39 Preface: Radiation Environments in Nuclear Reactor Power Plants / The Editor
- 40 Radiation Qualification of Nuclear Reactor Components / J. A. Naber, N. A. Lurie
- 48 Normal Operating Radiation Levels in Pressurized Water Reactor Plants / J. Sejvar
- 56 Calculation of Accident Doses to Equipment Inside Containment of Power Reactors / Michael J. Kolar, Nolan C. Olson
- 65 Consideration of the Effect of Iodine Plateout on Containment Post-Loss-of-Coolant Accident Doses / Eugene Normand
- 74 Post-Loss-of-Coolant Accident Doses to Pressurized Water Reactor Equipment / Michael J. Kolar, John R. McCarty, Nolan C. Olson

REACTORS

- 79 Stability of Lithium Niobate on Irradiation at Elevated Temperature / William Primak, A. P. Gavin, T. T. Anderson, Emmet Monahan
- 85 A Possible Mechanism for Corrosion Product Transport and Radiation Field Growth in a Pressurized Water Reactor Primary Circuit / K. A. Burrill
- 93 Nuclear Reactor Control System Design with Sensor Failure / L. F. Miller, R. G. Cochran, J. W. Howze

(Continued)

CONTENTS / NOVEMBER 1977—VOL. 36, NO. 1

(Continued)

CHEMICAL PROCESSING

106 Conversion of Waste Zircaloy Hulls to Zirconate Ion Exchange Materials for Waste Stabilization / H. S. Levine, E. J. Nowak

FUELS

- 120 The Production of Molten UO₂ Pools by Internal Heating: Apparatus and Preliminary Experimental Heat Transfer Results / M. G. Chasanov, W. H. Gunther, L. Baker, Jr.
- 129 On the Simulation of Fast Breeder Reactor Pin Behavior Using UO₂ Pins with Direct Electrical Heating / A. Alexas

TECHNICAL NOTE

MATERIALS

139 Calculation of the Fragmentation of UO₂ by Capacitor Discharge: Nonequilibrium Model / R. G. Alsmiller, Jr., R. B. Perez, J. Barish

DEPARTMENTS

- 1 Authors
- 148 Book Reviews