

# NUCLEAR SCIENCE AND ENGINEERING®

VOLUME 87, NUMBER 3, JULY 1984

## CONTENTS

### EXPERIMENTS IN FAST CRITICAL FACILITIES

- 199** Foreword *Karl Wirtz*

### TECHNICAL PAPERS

- 201** Preface: Fast Critical Facilities—Present Status and Future Potential *F. Helm*
- 204** Experimental Studies of Radially Heterogeneous Liquid-Metal Fast Breeder Reactor Critical Assemblies at the Zero-Power Plutonium Reactor *H. F. McFarlane,  
S. G. Carpenter,  
P. J. Collins, D. N. Olsen,  
S. B. Brumbach*
- 233** Parametric Studies on Heterogeneous Cores for Fast Breeder Reactors: The Pre-Racine and Racine Experimental Programs *G. Humbert, F. Kappler,  
M. Martini, G. Norvez,  
G. Rimpault, B. Ruelle,  
A. Stanculescu,  
W. Scholtyssek*
- 252** Critical Experiments Using an Axially Heterogeneous Assembly and Their Analysis *J. Hirota, M. Nakano,  
S. Iijima, K. Shirakata*
- 262** Worths and Interactions of Simulated Fast Breeder Reactor Control Rods in ZEBRA and SNEAK Assemblies *H. Giese, S. Pilate,  
J. M. Stevenson*
- 283** An Experimental Study of Reactivity Changes and Flux Distortion in Simulated LMFBR Meltdown Cores *M. Nakano, H. Tsunoda,  
J. Hirota*
- 295** Measurements and Computation of the Reactivity Effects of Accident-Caused Core Distortions in Liquid-Metal Fast Breeder Reactors *F. Helm, G. Henneges,  
W. Maschek*
- 314** Recent Developments in the Small-Sample Reactivity Discrepancy *K. S. Smith, R. W. Schaefer*
- 333** Use of Integral Experiments in the Assessment of Large Liquid-Metal Fast Breeder Reactor Basic Design Parameters *G. Palmiotti, M. Salvatores*