

CONTENTS

WILLIAM R. McDONELL. Kinetics of Structural Changes during Beta Transformation of Uranium . . .	325
J. H. SHAFFER, W. R. GRIMES, AND G. M. WATSON. Boron Trifluoride as a Soluble Poison in Molten Salt Reactor Fuels	337
T. J. HURLEY, JR., H. R. FIKE, AND G. F. O'NEILL. Experimental Bucklings of Heavy Water Moderated Lattices of Natural Uranium Metal Rod Clusters	341
E. C. WINGFIELD AND E. J. HENNELLY. Exponential Measurements of Natural Uranium Rods in Heavy Water and Comparisons with Critical Experiments	348
R. GWIN AND D. W. MAGNUSON. Determination of Eta by Comparison of $\overline{\eta\sigma_a}$ for U^{233} and Pu^{239} with $\overline{\eta\sigma_a}$ for U^{235} in a Flux Trap Critical Assembly	359
R. GWIN AND D. W. MAGNUSON. The Measurement of Eta and Other Nuclear Properties of U^{233} and U^{235} in Critical Aqueous Solutions	364
E. L. WACHSPRESS, R. D. BURGESS, AND S. BARON. Multichannel Flux Synthesis	381
GERALD HOUGHTON. An Analysis of Vapor Void Profiles in Heated Channels	390
A. B. SHUCK AND J. E. AYER. Engineering Considerations for Remote Refabrication of EBR-II Fuel Elements	398
H. F. JELINEK AND G. M. IVERSON. Equipment for Remote Injection Casting of EBR-II Fuel	405
N. J. CARSON, JR., AND S. B. BRAK. Equipment for the Remote Demolding, Sizing, and Inspection of EBR-II Cast Fuel Pins	412
A. P. GRUNWALD. Leak Testing of EBR-II Fuel Rods	419
T. C. CAMERON AND N. F. HESSLER. Assembling, Sodium Bonding, and Bond Testing of EBR-II Fuel Rods	424
LETTERS TO THE EDITORS	
R. SHER, H. KOUTS, AND D. KLEIN. Spatial Dependence of Thermal-Neutron Spectra and the Interpretation of Thermal Utilization Measurements	432
ROBERT W. DEUTSCH. Re: "Spatial Dependence of Thermal-Neutron Spectra and the Interpretation of Thermal Utilization Measurements"	433
G. DE SAUSSURE. A Note on the Measurement of Diffusion Parameters by the Pulsed-Neutron Source Technique	433
E. HELLSTRAND AND G. LUNDGREN. The Resonance Integral for Uranium Metal and Oxide	435
SIMON W. STRAUSS. The Temperature Dependence of the Viscosity of Liquid Metals	436
W. E. GRAVES. Measured Slowing Down Distribution at the Indium Resonance from a Line Source of Fission Neutrons in Heavy Water	439
Book Reviews	442
Computer Code Abstracts	444

Indexed in "Engineering Index" and Abstracted in "Nuclear Science Abstracts"

Published monthly at Mt. Royal and Guilford Aves., Baltimore, Md., for Academic Press Inc.
111 Fifth Avenue, New York 3, N. Y.

During 1962, Volumes 12, 13, and 14 will be published. Price of each volume: \$21.00.

Subscription orders should be sent to the publishers.

Notice of change of address must be received two months prior to the date of issue. Include both old and new addresses.

For Member Subscriptions: Notice should be sent to the Secretary of the American Nuclear Society,
John Crerar Library, 86 East Randolph Street, Chicago 1, Illinois.

For Non-member Subscriptions: Notice should be sent to the publishers.

Second-class mail postage paid at Baltimore, Md.

Advertising Representatives

Jim Summers and Associates
35 East Wacker Drive
Chicago 1, Illinois

Chris Dunkle and Associates
740 South Western Avenue, Los Angeles 5, California or
420 Market Street, San Francisco 11, Calif.