

CONTENTS

W. B. DOUB. Particle Self-Shielding in Plates Loaded with Spherical Poison Particles.....	299
T. O. PASSELL AND R. L. HEATH. Cross Sections of Threshold Reactions for Fission Neutrons: Nickel as a Fast Flux Monitor.....	308
S. R. HATCHER AND H. K. RAE. Formation and Control of Turbidity in Aluminum-Water Reactor Systems.....	316
J. ERNEST WILKINS, JR. Nuclear Reactors with Maximum Prompt Neutron Lifetime.....	331
A. Z. AKCASU. Mean Square Instability in Boiling Reactors.....	337
CHARLES W. TOWNLEY, JAMES E. HOWES, JR., GILBERT E. RAINES, WARD S. DIETHORN, AND DUANE N. SUNDERMAN. A Radiochemical Technique for the Determination of Short-Lived Fission Gases.	346
K. M. CASE, JOEL H. FERZIGER, AND P. F. ZWEIFEL. Asymptotic Reactor Theory.....	352
P. F. ZWEIFEL AND JOEL H. FERZIGER. Consistent P_1 Criticality Calculations.....	357
S. YIP AND P. F. ZWEIFEL. Escape-Probabilities in Asymptotic Reactor Theory.....	362
R. H. RAINEY AND J. G. MOORE. Laboratory Development of the Acid Thorex Process for Recovery of Thorium Reactor Fuel.....	367
ELIAS P. GYFTOPOULOS AND JACQUES DEVOOGHT. On the Range of Validity of Nonlinear Reactor Dynamics.....	372
LUIS DE SOBRINO AND MELVILLE CLARK, JR. Comparison of Wilkins Equation with Experiments on Water Systems.....	377
LUIS DE SOBRINO AND MELVILLE CLARK, JR. Comparison of the Wilkins Equation and Higher Order Approximations for Solid Moderators.....	384
LUIS DE SOBRINO AND MELVILLE CLARK, JR. A Study of Wilkins Equations.....	388
LETTERS TO THE EDITORS	
ROBERT W. DEUTSCH. Spatial Dependence of Thermal-Neutron Spectra and the Interpretation of Thermal Utilization Measurements.....	400
J. J. VOLPE AND D. KLEIN. Measurements of Relative Pu Fission Rates in Slightly Enriched Uranium-Water Lattices.....	401
S. I. TAIMUTY. Proposed Reactor Radiation Damage Monitor.....	403
Book Reviews.....	405
Computer Code Abstracts: Numbers 16, 17, and 18.....	407
Author Index.....	409
General Subject Index.....	411

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 1961, Volumes 9, 10, and 11 will be published. Price of each volume remains at \$19.50.

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, California