

CONTENTS

J. T. MARTI AND J. P. SCHNEEBERGER. The Reactivity Effect of a Regular Array of Empty Cylindrical Channels in a Critical System.....	1
JOHN T. MIHALCZO AND VICTOR I. NEELEY. The Infinite Neutron Multiplication Constant of Homogeneous Hydrogen-Moderated 2.0 wt %-U ²³⁵ -Enriched Uranium.....	6
CHARLES ERWIN COHN. Reflected-Reactor Kinetics.....	12
M. S. MOORE AND F. B. SIMPSON. The Neutron Elastic Scattering Cross Section of U- ²³³ below 20 ev.....	18
S. KAPLAN. Some New Methods of Flux Synthesis.....	22
GERALD P. CALAME. The Direct Calculation of Diffusion Lengths and Diffusion Hardened Spectra..	32
P. G. KHUBCHANDANI AND R. R. SHARMA. Inelastic Scattering of Cold Neutrons by Polycrystals...	40
W. W. CLENDENIN. Boundary, Gap, and Blackness Conditions in the Cylindrical Geometry Spherical Harmonics Approximation.....	46
C. HUBERS. Void Volume Ratios During Steady State Local Boiling in Case of Constant Power Distribution	54
LETTERS TO THE EDITORS	
GERALD S. LELLOUCHE. Reactor Size Sufficient for Stability Against Spatial Xenon Oscillations..	60
TOYOJIRO FUKETA. Application of the Pile Oscillator to Large-Neutron-Dose Measurement....	61
Computer Code Abstracts.....	63

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.