

*Continued from back cover*

Nonlinear interactions of waves in an active molecular plasma M. BONNEDAL and H. WILHELMSSON	<i>page</i> 81
Surface waves at a vacuum-plasma interface P. C. CLEMMOW and J. ELGIN	91
The ray tracing treatment of the oblique echo model for the topside upper hybrid resonance E. J. PARKES	107
An experimental investigation of parallel and oblique shock waves in a magnetized plasma A. D. CRAIG	129
An experimental investigation of slow-mode shock waves A. D. CRAIG	149
The effect of wave reflection on induced Raman scattering in an inhomogeneous plasma R. A. CAIRNS	169
<b>REVIEWS</b>	
<i>Fundamentals of Plasma Physics, by S. R. Seshadri</i>	175
<i>Methods in Nonlinear Plasma Theory, by R. C. Davidson</i>	176

# JOURNAL OF PLASMA PHYSICS

Volume 12 Part 1 August 1974

## CONTENTS

- An electron thermal instability in a resistive non-equilibrium fully ionised plasma  
M. G. HAINES *page 1*
- Generation and radiation of second harmonic by *s*-polarised electromagnetic waves incident on a narrow inhomogeneous plasma layer  
V. V. DOLGOPOLOV, N. M. EL-SIRAGY and Y. A. SAYED 15
- Thermal relaxation of a two-dimensional plasma in a d.c. magnetic field. Part 1. Theory  
J. -Y. HSU, D. MONTGOMERY and G. JOYCE 21
- Thermal relaxation of a two-dimensional plasma in a d.c. magnetic field. Part 2. Numerical simulation  
J. -Y. HSU, G. JOYCE and D. MONTGOMERY 27
- Effect of Hall current on the instability of an anisotropic plasma jet  
K. M. SRIVASTAVA 33
- General relations for resonant particle diffusion in pitch angle and energy  
L. R. LYONS 45
- The magnetoplasma dispersion function: some mathematical properties  
J. P. M. SCHMITT 51
- Magnetohydrodynamic waves in a non-uniform current-carrying plasma column  
J. VACLAVIK and E. WEISE 61
- Collision integrals of electronically excited states and transport coefficients of thermal plasmas  
M. CAPITELLI and U. LAMANNA 71

*Continued on inside back cover*

© Cambridge University Press, 1974

**CAMBRIDGE UNIVERSITY PRESS**

BENTLEY HOUSE, 200 EUSTON ROAD, LONDON NW1 2DB  
AMERICAN BRANCH: 32 EAST 57TH STREET, NEW YORK, N.Y. 10022

*Annual subscription £32.00 net in U.K. (US \$104.00 in U.S.A. and Canada)*

*Printed in Great Britain at the University Printing House, Cambridge*