

CONTENTS

Preface	vii
Cometary Plasma Physics : Large-Scale Interactions WH. Ip	1
The 1985-86 Spacecraft Missions to Comets Giacobini- Zinner and Halley F.L. Scarf	22
On the Physics of the Critical Ionization Velocity Phenomena K. Papadopoulos	33
Venusian Interaction with the Solar Wind Plasma Flow as a Limiting Case of the Cometary Type Interaction L.M. Zeleny & O.L. Vaisberg	59
Energy and Momentum Transport by Waves in the Solar Atmosphere J.V. Hollweg	77
Plasma Transport by Spontaneous Reconfiguration: Statistical Mechanics and Bifurcation Methods K. Schindler	142
Nonlinear Surface Phenomena in Plasmas $\it B. Buti$	167
Langmuir Turbulence in Space Plasmas C.L. Grabbe & J.P. Sheerin	210
Plasma Physics Research by Computer Simulations : Some Attempts on Present and Future of Particle Simulations M. Tanaka	238
Electron Acceleration by Subrelativistic Shocks in a Plasma A.A. Galeev	272

Microinstabilities and Anomalous Transport in Collisionless	289
Shocks	
K. Papadopoulos	
Spontaneous Reconnection at the Dayside Magnetopause	323
L.M. Zeleny	
Generation of Broadband Electrostatic Waves in the	356
Magnetotail	
C.L. Grabbe	
Plasma Transport Process in the Vicinity of Saturn's Rings	382
WH. Ip	
Radiation of Plasma Jets from Active Galaxy Nuclei	401
A.A. Galeev	
Disk Accretion onto Black Holes and Magnetic Fields	419
G.D. Chagelishvili & J.G. Lominadze	
Pulsars and Plasma Instabilities	446
J.G. Lominadze	

