

C O N T E N T S

PREFACE	V
ASINOVSKII, E.I. Non-Debye Plasma Experimental Investigations	1
BELL, A.T. Chemical Reaction in Non-Equilibrium Plasmas	19
BIBERMAN, L., KOVBAS'UK, V., NEDOSPASOV, A. Physics of MHD Energy Conversion	35
CHRISTOPHOROU, L.G. Elementary Electron-Molecule Interactions and Negative Ion Resonances at Subexcitation Energies and their Significance in Gaseous Dielectrics	51
EBELING, W., KRAEFT, W.D., KREMP, D. Non-Ideal Plasmas	73
GAMALY, E. A Survey of the Progress in Laser Thermonuclear Fusion	91
GELLER, R. Plasma with Multiply Ionized Species	103
HANTZSCHE, E. Cathode Processes in Vacuum Arcs	121
IKEZI, H. Solitary Waves in Plasmas	139
JACOB, J.H., MANGANO, J.A., ROKNI, M. Efficient Pumping of Exciplex Lasers	155

VIII

JAEGLE, P. Progress on X-Ray Laser Research	173
LITVAK, A. The Processes of Electromagnetic Wave Self-Action in a Dense Plasma	189
POLAK, L. Theoretical and Applied Plasma Chemistry. A State-of-the-Art Review and Tendencies of Progress	211
RAGALLER, K. Physics of Arcs in Circuit Breakers	251
RUTSCHER, A. Progress in Electron Kinetics of Low Pressure Discharges and Related Phenomena	269
SCHINDLER, K. Structure and Stability of Magnetospheres	291
SKULLERUD, H.R. Progress in the Transport Theory of Weakly Ionized Gases	303
SPANGENBERG, H.-J. Problems of Thermodynamics and Diagnostics of Reactive Hot Gases	321
STÄBLEIN, H.-G. Arcs in Cross Flow	341
UCHIIKE, H., FUKUSHIMA, Y. Plasma Displays	361
PEACOCK, N.J. Spectroscopy of High Density Plasmas	383