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Nota di contenuto	Preliminaries; Contents; 1 SPECTRAL DIAGNOSTICS METHODS; 2 KINETIC ENERGY, TRANSLATIONAL RELAXATION AND DOPPLER BROADENING OF LINES IN NON-EQUILIBRIUM PLASMA SPECTRA; 3 OPTICAL ACTINOMETRY OF PLASMA; 4 LASER METHODS OF PLASMA DIAGNOSTICS; 5 SPECTROSCOPY OF GROUND ELECTRONIC STATES OF MOLECULES IN PLASMA USING TUNABLE LASERS; 6 DETERMINATION OF THE CONCENTRATION AND TEMPERATURE OF HEAVY PARTICLES FROM THE SPECTRA OF RAYLEIGH-SCATTERED LIGHT; 7 REFRACTOMETRIC PLASMA DIAGNOSTICS METHODS; 8 DIAGNOSTICS OF PLASMA FLOWS WITH A DISPERSED PHASE 9 MEASURING THE PLASMA FLOW VELOCITY BY THE TRACER PARTICLE METHOD 10 ELECTRIC PROBES IN NON-EQUILIBRIUM PLASMA; 11 ELECTRIC PROBES IN CONTINUUM REGIME; 12 PROBE METHODS OF DIAGNOSTICS OF CHEMICALLY REACTING DENSE PLASMA; 13 ELECTRIC AND THERMAL PROBES IN THE PRESENCE OF CHEMICAL REACTIONS IN NON-EQUILIBRIUM PLASMA; 14 MEASUREMENTS OF THE ENTHALPY OF

HIGH-TEMPERATURE GAS FLOWS; 15 PROBE MEASUREMENTS OF HEAT FLOWS IN PLASMA JETS; 16 METHODS OF EXAMINING THE SPATIAL STRUCTURE OF RADIO-FREQUENCY CAPACITANCE DISCHARGES; 17 WAVE BREAKDOWN IN DISTRIBUTED SYSTEMS
18 PROBE MEASUREMENTS OF POTENTIAL DISTRIBUTION IN DENSE PLASMA
19 REDUCTION TO A UNIFORM LAYER IN AXISYMMETRIC OBJECTS; 20 RECONSTRUCTION OF VELOCITY DISTRIBUTION FUNCTIONS OF EMITTING PARTICLES FROM THE SHAPE OF THE CONTOUR OF SPECTRAL LINES; 21 AUTOMATION OF MEASUREMENTS IN PLASMA DIAGNOSTICS; REFERENCES; INDEX

Sommario/riassunto

The book contains the results of investigations of electro-physical, chemical, gas-dynamic and other processes in low-temperature plasma and their diagnostics. Both conventional spectral and optical methods of diagnostics and new and laser methods are examined, together with electrostatic probes for investigating rarefied and dense plasma, especially in the presence of chemical reactions. Problems of probe calorimetry of plasma flows are investigated and approaches to measuring the spatial and time characteristics of plasma outlined. Procedural problems of processing experimental data and auto
