

Although based on lectures given for graduate students and postgraduates starting in plasma physics, this concise introduction to the fundamental processes and tools is as well directed at established researchers who are newcomers to spectroscopy and seek quick access to the diagnostics of plasmas ranging from low- to high-density technical systems at low temperatures, as well as from low- to high-density hot plasmas. Basic ideas and fundamental concepts are introduced as well as typical instrumentation from the X-ray to the infrared spectral regions. Examples, techniques and methods illustrate the possibilities.

This book directly addresses the experimentalist who actually has to carry out the experiments and their interpretation. For that reason about half of the book is devoted to experimental problems, the instrumentation, components, detectors and calibration.

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