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Nota di contenuto	Laser, Light Beams and Light Pulses -- Coherence and Photons -- Diatomic Molecules -- Polyatimic Molecules -- Molecular Spectroscopy -- Basics of Atomic Collision Physics: Elastic Processes -- Inelastic Collissions – a First Overview -- Electron Impact Excitation and Ionization -- The Density Matrix – a First Approach -- Optical Bloch Equations -- Appendices.
Sommario/riassunto	This is the second volume of textbooks on atomic, molecular and optical physics, aiming at a comprehensive presentation of this highly productive branch of modern physics as an indispensable basis for many areas in physics and chemistry as well as in state of the art bio- and material-sciences. It primarily addresses advanced students

(including PhD students), but in a number of selected subject areas the reader is lead up to the frontiers of present research. Thus even the active scientist is addressed. This volume 2 introduces lasers and quantum optics, while the main focus is on the structure of molecules and their spectroscopy, as well as on collision physics as the continuum counterpart to bound molecular states. The emphasis is always on the experiment and its interpretation, while the necessary theory is introduced from this perspective in a compact and occasionally somewhat heuristic manner, easy to follow even for beginners.