1. Record Nr. UNINA9910640380203321

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Titolo	Atomic and Molecular Spectroscopy : Basic Aspects and Practical Applications / / by Sune Svanberg
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	9783031047763 9783031047756
Edizione	[5th ed. 2022.]
Descrizione fisica	1 online resource (xx, 686 pages) : illustrations (some color)
Collana	Graduate Texts in Physics, , 1868-4521
Disciplina	294.33653 539.7
Soggetti	Atomic structure Molecular structure Molecular spectroscopy Optical spectroscopy Lasers Quantum optics Cancer - Imaging Atomic and Molecular Structure and Properties Molecular Spectroscopy Optical Spectroscopy Laser Quantum Optics Cancer Imaging
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Atomic Structure -- Molecular Structure -- Radiation and Scattering Processes -- Spectroscopy of Inner Electrons.
Sommario/riassunto	This textbook delivers a comprehensive review of modern spectroscopy encompassing a plethora of various X-ray, photoelectron, optical and laser, as well as radiofrequency and microwave spectroscopic techniques. On the fundamental side, it focuses on physical principles and the impact of spectroscopy on our understanding of the building

blocks of matter, while in the area of applications, particular attention is given to those in chemical analysis, photochemistry, surface characterization, environmental and medical diagnostics, remote sensing at short and long ranges, and astrophysics. It features detailed discussion of laser cooling and trapping, Bose–Einstein condensation, ultra-fast spectroscopy, high-power laser–matter interaction, spectroscopy and imaging in astronomy, and various spectroscopic aspects of laser medicine. This thoroughly updated and significantly expanded 5th edition of Svanberg's Atomic and Molecular Spectroscopy includes a new section on the interplay of optical spectroscopy and multispectral imaging, as well as new coverage of laser-spectroscopic applications to cultural heritage monitoring, ecology, optical mammography, and photoacoustic tomography. For newcomers to the field, it introduces a new section on the fundamentals of quantum mechanics, providing a brief primer to those students without formal experience in the subject. Based on the author's 50-year career lecturing on spectroscopy and its interdisciplinary applications, the book features over 100 chapter-end questions and close to 3000 references, offering a wealth of meticulously curated experience and pedagogical insight to graduate and advanced undergraduate students throughout physics, chemistry, biology, and materials science.