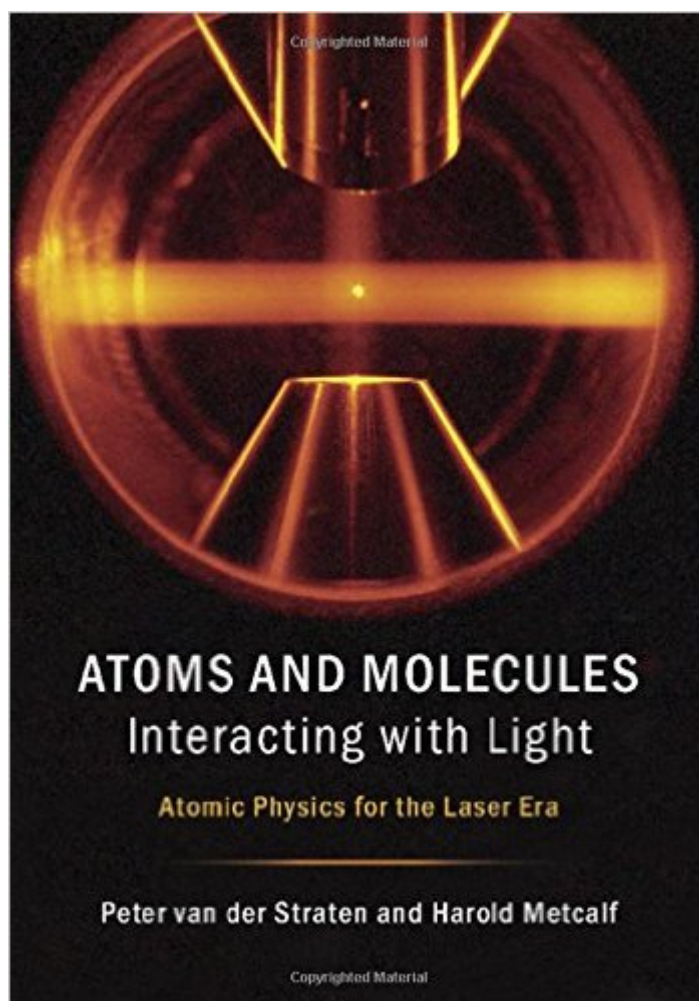


The book was found

# Atoms And Molecules Interacting With Light: Atomic Physics For The Laser Era



## Synopsis

This in-depth textbook with a focus on atom-light interactions prepares students for research in a fast-growing and dynamic field. Intended to accompany the laser-induced revolution in atomic physics, it is a comprehensive text for the emerging era in atomic, molecular and optical science. Utilising an intuitive and physical approach, the text describes two-level atom transitions, including appendices on Ramsey spectroscopy, adiabatic rapid passage and entanglement. With a unique focus on optical interactions, the authors present multi-level atomic transitions with dipole selection rules, and M1/E2 and multiphoton transitions. Conventional structure topics are discussed in some detail, beginning with the hydrogen atom and these are interspersed with material rarely found in textbooks such as intuitive descriptions of quantum defects. The final chapters examine modern applications and include many references to current research literature. The numerous exercises and multiple appendices throughout enable advanced undergraduate and graduate students to balance theory with experiment.

## Book Information

Hardcover: 527 pages

Publisher: Cambridge University Press; 1 edition (March 24, 2016)

Language: English

ISBN-10: 1107090148

ISBN-13: 978-1107090149

Product Dimensions: 6.8 x 1.1 x 9.7 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars [See all reviews](#) (1 customer review)

Best Sellers Rank: #790,807 in Books (See Top 100 in Books) #90 in [Books > Science & Math > Physics > Nuclear Physics > Atomic & Nuclear Physics](#) #119 in [Books > Engineering & Transportation > Engineering > Energy Production & Extraction > Nuclear](#) #306 in [Books > Science & Math > Physics > Optics](#)

## Customer Reviews

This book walks you through the essential contents in the modern atomic physics research. I think this is THE BOOK for atomic physics as of right now.

[Download to continue reading...](#)

Atoms and Molecules Interacting with Light: Atomic Physics for the Laser Era Atomic Physics

(Oxford Master Series in Atomic, Optical and Laser Physics) Modern Classical Optics (Oxford Master Series in Atomic, Optical and Laser Physics) Quantum Mechanics! The How's and Why's of Atoms and Molecules - Chemistry for Kids - Children's Chemistry Books Atoms and Molecules (My Science Library, 4-5) Shocking Electrons: What a Second Grader Finds Interesting about Electrons, Atoms, and Molecules Atoms in Molecules: A Quantum Theory (International Series of Monographs on Chemistry) Physics of Atoms and Ions (Graduate Texts in Contemporary Physics) ISO/TR 11146-3:2004, Lasers and laser-related equipment - Test methods for laser beam widths, divergence angles and beam propagation ratios - Part 3: ... propagation and details of test methods ISO 11146-2:2005, Lasers and laser-related equipment - Test methods for laser beam widths, divergence angles and beam propagation ratios - Part 2: General astigmatic beams Atomic Physics and Human Knowledge (Dover Books on Physics) Laser Light Scattering (Dover Books on Physics) The Age of Radiance: The Epic Rise and Dramatic Fall of the Atomic Era Chemical Physics of Free Molecules The Physics of Laser-Atom Interactions (Cambridge Studies in Modern Optics) Physics for Scientists and Engineers with Modern Physics: Volume II (3rd Edition) (Physics for Scientists & Engineers) Head First Physics: A learner's companion to mechanics and practical physics (AP Physics B - Advanced Placement) Atomic Histories (Masters of Modern Physics) Physics for Scientists and Engineers, Volume 2: Electricity, Magnetism, Light, and Elementary Modern Physics Battletech Era Report 3062 (Clan Invasion Era Sourcebooks)

[Dmca](#)