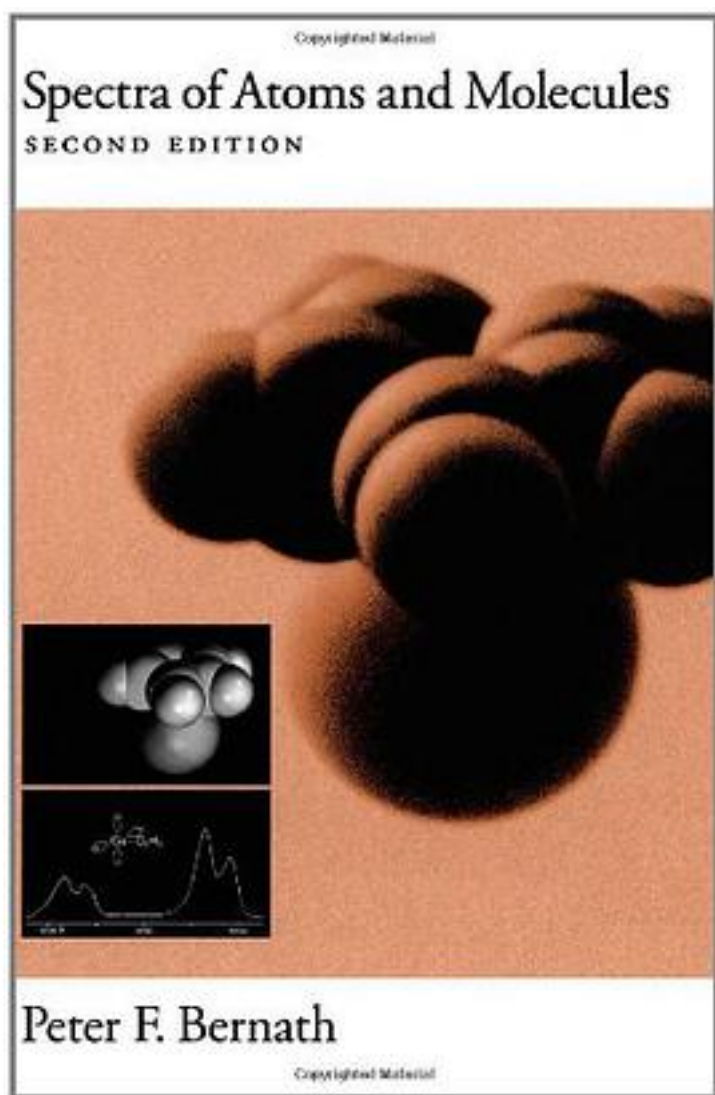


Spectra of Atoms and Molecules



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出版者:Oxford University Press, USA

出版时间:2005-4-21

装帧:Hardcover

isbn:9780195177596

"Spectra of Atoms and Molecules, 2nd Edition" is designed to introduce advanced undergraduates and new graduate students to the vast field of spectroscopy. Of interest to chemists, physicists, astronomers, atmospheric scientists, and engineers, it emphasizes the fundamental principles of spectroscopy with its primary goal being to teach students how to interpret spectra. The book includes a clear presentation of group theory needed for understanding the material and a large number of excellent problems are found at the end of each chapter. In keeping with the visual aspects of the course, the author provides a large number of diagrams and spectra specifically recorded for this book. Topics such as molecular symmetry, matrix representation of groups, quantum mechanics, and group theory are discussed. Analyses are made of atomic, rotational, vibrational, and electronic spectra. "Spectra of Atoms and Molecules, 2nd Edition" has been updated to include the 1998 revision of physical constants, and conforms more closely to the recommended practice for the use of symbols and units. This new edition has also added material pertaining to line intensities, which can be confusing due to the dozens of different units used to report line and band strengths. Another major change is in author Peter Bernath's discussion of the Raman effect and light scattering, where the standard theoretical treatment is now included. Aimed at new students of spectroscopy regardless of their background, "Spectra of Atoms and Molecules" will help demystify spectroscopy by showing the necessary steps in a derivation.

作者介绍:

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标签

评论

差不多相當於半學期譜導的內容，但是內容豐富些，而且寫得比譜導清楚，另外，一開始還有譜學，量化，對稱以及群論知識的介紹。確實是一本適合自學的入門教材。

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