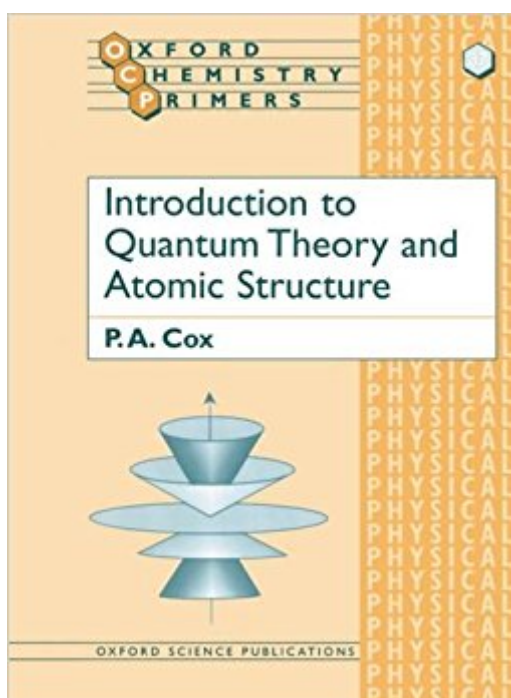


The book was found

Introduction To Quantum Theory And Atomic Structure (Oxford Chemistry Primers)



Synopsis

Chemistry students need a basic understanding of quantum theory and its applications in atomic and molecular structure and spectroscopy. This book develops the basic concepts needed as background, and discusses atomic structure but not molecular applications. The first two chapters are concerned with the basic ideas and problems of wave-particle duality, the nature of wavefunction, and its statistical interpretation. Chapter 3 discusses some important applications of Schrodinger's equation to chemically relevant situations. Chapters 4 and 5 deal respectively with the hydrogen atom, and with the structure of many electron atoms and the periodic table of elements. The emphasis throughout is on the physical concepts and their concrete application. The required background in mathematics is elementary calculus and the properties of trigonometric and exponential functions, but not complex numbers. Necessary concepts of classical physics are developed as required.

Book Information

Series: Oxford Chemistry Primers (Book 37)

Paperback: 96 pages

Publisher: Oxford University Press; 1 edition (February 15, 1996)

Language: English

ISBN-10: 019855916X

ISBN-13: 978-0198559160

Product Dimensions: 9.6 x 0.2 x 7.4 inches

Shipping Weight: 6.4 ounces (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars [See all reviews](#) (2 customer reviews)

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Customer Reviews

Clear and great insights into Quantum theory
From the very beginning I had feelings to read and get clear insights into what is this quantum theory about. This book gave me full satisfaction. I liked it so much that I almost wrote the full book in my notebook, so that I may read it again and again ! (I had borrowed it from Chicago Public Libray). The book's hallmark I feel is the simple on the dot language and comments that clears any doubts you may have. What I also liked is that it begins with the concept by first introducing the classical mechanics model and then emerging into quantum

model. Excellent book, all interested in the subject must read, to build a strong foundation !

By no means is this an extensive treatment of Quantum Mechanics, but that's what I was expecting. This touches on all the trivial things one should keep in the back of their mind when learning QM. Using this as a primer for a thorough QM treatment will really help you master the material. The book is short and can be easily covered in about two weeks including working on the problems. Also the price is very attractive!

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