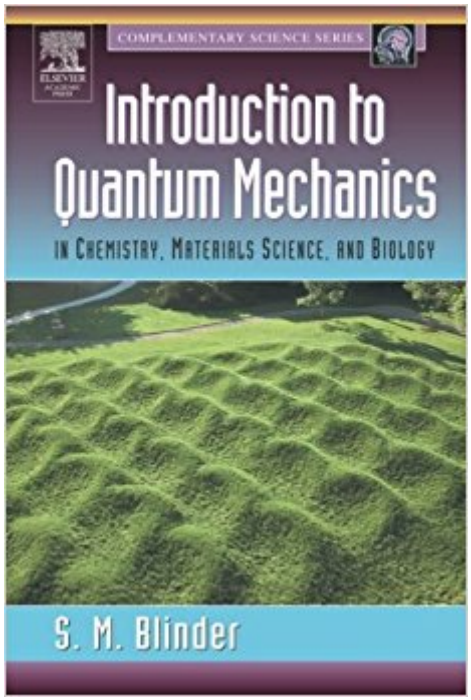
Introduction To Quantum Mechanics: In Chemistry, Materials Science, And Biology (Complementary Science)



Synopsis

Introduction to Quantum Mechanics provides a lucid, up-to-date introduction to the principles of quantum mechanics at the level of undergraduates and first-year graduate students in chemistry, materials science, biology and related fields. It shows how the fundamental concepts of quantum theory arose from classic experiments in physics and chemistry, and presents the quantum-mechanical foundations of modern techniques including molecular spectroscopy, lasers and NMR. Blinder also discusses recent conceptual developments in quantum theory, including SchrÃƒÂ¶dinger's Cat, the Einstein-Podolsky-Rosen experiment, Bell's theorem and quantum computing.Clearly presents the basics of quantum mechanics and modern developments in the fieldExplains applications to molecular spectroscopy, lasers, NMR, and MRIIntroduces new concepts such as SchrÃƒÂ¶dinger's Cat, Bell's Theorem, and quantum computingIncludes full-color illustrations, proven pedagogical features, and links to online materials

Book Information

Series: Complementary Science

Paperback: 319 pages

Publisher: Academic Press; 1 edition (June 21, 2004)

Language: English

ISBN-10: 0121060519

ISBN-13: 978-0121060510

Product Dimensions: 6 x 0.8 x 9 inches

Shipping Weight: 1.3 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 2 customer reviews

Best Sellers Rank: #1,941,147 in Books (See Top 100 in Books) #89 inÃ Â Books > Science & Math > Chemistry > Physical & Theoretical > Quantum Chemistry #546 inÃ Â Books > Science & Math > Chemistry > Physical & Theoretical > Physical Chemistry #742 inÃ Â Books > Science & Math > Chemistry > Industrial & Technical

Customer Reviews

"Professor Blinder is highly respected and is confirmed by his production of a very good book... Blinder's book has a freshness, a modern approach and is very readable." --Neil R. Kestner, Louisiana State University "I like the book very much. It is clearly written, in a style that should be appealing to students. The figures are especially good, and well chosen to illustrate important concepts that are often discussed without illustration...I found the explanations in the main text to be

excellent...I would strongly recommend the book ." --Doug Doren, University of Delaware "...This is an excellent book to use to introduce Quantum Mechanics to the desired audience...The organisation and style of the book are such that a student would find it easy to read and follow the physical, chemical and mathematical principles under discussion." --Jim McTavish, Liverpool John Moores University "Introduction to Quantum Mechanics is probably suited as a graduate text for students outside chemistry who need to understand quantum mechanics without undertaking a full year of physical chemistry. In addition to mastering the mechanics, lucky readers of this book will explore the fascinating philosophical and metaphysical implications launched into popular culture the word, quantum."Ã Â --Kevin. M. Dunn, Hampden-Sydney College, VA, USA, JOURNAL OF CHEMICAL EDUCATION, Vol. 82, No. 3, 2005

An up-to-date, comprehensive introduction to the principles of quantum mechanics.

This is a good book as a brief introduction to quantum mechanics. All the basic concepts of quantum mechanics are discussed in brevity and in a realtively understandable language. There are quite a few examples and applicaitons from chemistry. Especially useful for beginner physics and chemistry students.The book presents colored pictures and illustrations which help in understanding the material. It presents quantum mechanics applications to molecular spectroscopy, lasers, NMR, and MRI.

For the very first time I really understand what Quantum Mechanics is all about!Dr. Blinder has the ability to explain very complex (and often strange) things in a way that makes them seem less complex and more approachable. A rare ability indeed!

Chemistry Introduction to Practical Peridynamics: Computational Solid Mechanics Without Stress and Strain (Frontier Research in Computation and Mechanics of Materials) Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory (Dover Books on Chemistry) Physics in Biology and Medicine, Third Edition (Complementary Science) Physics in Biology and Medicine, Fourth Edition (Complementary Science) Chemistry of Hazardous Materials (6th Edition) (Hazardous Materials Chemistry) Group Theory and Quantum Mechanics (Dover Books on Chemistry) Principles of Quantum Mechanics: As Applied to Chemistry and Chemical Physics Quantum Mechanics In Chemistry Edition Quantum Nanoelectronics: An introduction to electronic nanotechnology and quantum computing Covariant Loop Quantum Gravity: An Elementary Introduction to Quantum Gravity and Spinfoam Theory (Cambridge Monographs on Mathematical Physics) Mechanics Of Composite Materials (Materials Science & Engineering Series)