

Elements of Quantum Mechanics

By Michael D. Fayer



Elements of Quantum Mechanics By Michael D. Fayer



Elements of Quantum Mechanics provides a solid grounding in the fundamentals of quantum theory and is designed for a first semester graduate or advanced undergraduate course in quantum mechanics for chemistry, chemical engineering, materials science, and physics students. The text includes full development of quantum theory. It begins with the most basic concepts of quantum theory, assuming only that students have some familiarity with such ideas as the uncertainty principle and quantized energy levels. Fayer's accessible approach presents balanced coverage of various quantum theory formalisms, such as the Schr:odinger representation, raising and lowering operator techniques, the matrix representation, and density matrix methods. He includes a more extensive consideration of time dependent problems than is usually found in an introductory graduate course. Throughout the book, sufficient mathematical detail and classical mechanics background are provided to enable students to follow the quantum mechanical developments and analysis of physical phenomena. Fayer provides many examples and problems with fully detailed analytical solutions. Creating a distinctive flavor throughout, Fayer has produced a challenging text with exercises designed to help students become fluent in the concepts and language of modern quantum theory, facilitating their future understanding of more specialized topics. The book concludes with a section containing problems for each chapter that amplify and expand the topics covered in the book. A complete and detailed solution manual is available.



Read Online Elements of Quantum Mechanics ...pdf

Elements of Quantum Mechanics

By Michael D. Fayer

Elements of Quantum Mechanics By Michael D. Fayer

Elements of Quantum Mechanics provides a solid grounding in the fundamentals of quantum theory and is designed for a first semester graduate or advanced undergraduate course in quantum mechanics for chemistry, chemical engineering, materials science, and physics students. The text includes full development of quantum theory. It begins with the most basic concepts of quantum theory, assuming only that students have some familiarity with such ideas as the uncertainty principle and quantized energy levels. Fayer's accessible approach presents balanced coverage of various quantum theory formalisms, such as the Schr:odinger representation, raising and lowering operator techniques, the matrix representation, and density matrix methods. He includes a more extensive consideration of time dependent problems than is usually found in an introductory graduate course. Throughout the book, sufficient mathematical detail and classical mechanics background are provided to enable students to follow the quantum mechanical developments and analysis of physical phenomena. Fayer provides many examples and problems with fully detailed analytical solutions. Creating a distinctive flavor throughout, Fayer has produced a challenging text with exercises designed to help students become fluent in the concepts and language of modern quantum theory, facilitating their future understanding of more specialized topics. The book concludes with a section containing problems for each chapter that amplify and expand the topics covered in the book. A complete and detailed solution manual is available.

Elements of Quantum Mechanics By Michael D. Fayer Bibliography

Sales Rank: #1193257 in Books
Published on: 2001-02-01
Original language: English

• Number of items: 1

• Dimensions: 7.40" h x .90" w x 9.10" l, 1.73 pounds

• Binding: Hardcover

• 356 pages



Read Online Elements of Quantum Mechanics ...pdf

Download and Read Free Online Elements of Quantum Mechanics By Michael D. Fayer

Editorial Review

Review

"Elements of quantum mechanics provides a firm grounding for graduate students and researchers in physical chemistry, chemical physics and theoretical chemistry who are concerned with time-dependent phenomena. This book is also relevant for scientists in other disciplines such as physics, materials science, biophysics and engineering. Its clear style also makes the text accessible to undergraduates who want to learn about the more challenging and modeern aspects of quantum mechanics." The Times Higher Education Supplement, November 2002.

About the Author

Michael D. Fayer, the D. M. Ehrsam and E. C. Franklin Professor of Chemistry at Stanford University, is a member of the National Academy of Sciences, and has received the American Chemical Society E. Bright Wilson Award for Spectroscopy, the American Physical Society Earl K. Plyler Prize for Molecular Spectroscopy, and the Optical Society of America Ellis R. Lippincott Award. He has taught graduate quantum mechanics at Stanford for over thirty years.

A complete set of Power Point lectures for teaching using his book is available on his web site (http://www.stanford.edu/group/fayer/), and he will provide the complete Problem and Solution Manual in Word format to instructors upon request.

Users Review

From reader reviews:

Lonnie Bowers:

Hey guys, do you would like to finds a new book to read? May be the book with the name Elements of Quantum Mechanics suitable to you? Typically the book was written by renowned writer in this era. The actual book untitled Elements of Quantum Mechanicsis the one of several books in which everyone read now. This particular book was inspired many people in the world. When you read this reserve you will enter the new age that you ever know prior to. The author explained their plan in the simple way, therefore all of people can easily to comprehend the core of this e-book. This book will give you a lot of information about this world now. In order to see the represented of the world in this book.

Debbie Luken:

The guide untitled Elements of Quantum Mechanics is the publication that recommended to you to study. You can see the quality of the reserve content that will be shown to you actually. The language that publisher use to explained their ideas are easily to understand. The copy writer was did a lot of analysis when write the book, therefore the information that they share to you personally is absolutely accurate. You also will get the e-book of Elements of Quantum Mechanics from the publisher to make you much more enjoy free time.

Paul Simpson:

As we know that book is essential thing to add our information for everything. By a e-book we can know everything we wish. A book is a pair of written, printed, illustrated or even blank sheet. Every year ended up being exactly added. This guide Elements of Quantum Mechanics was filled concerning science. Spend your free time to add your knowledge about your scientific disciplines competence. Some people has several feel when they reading any book. If you know how big benefit from a book, you can really feel enjoy to read a book. In the modern era like at this point, many ways to get book that you simply wanted.

Larry Huff:

Reading a book make you to get more knowledge from this. You can take knowledge and information coming from a book. Book is created or printed or highlighted from each source this filled update of news. With this modern era like currently, many ways to get information are available for anyone. From media social such as newspaper, magazines, science guide, encyclopedia, reference book, new and comic. You can add your understanding by that book. Are you ready to spend your spare time to open your book? Or just searching for the Elements of Quantum Mechanics when you needed it?

Download and Read Online Elements of Quantum Mechanics By Michael D. Fayer #906ODJFLMX2

Read Elements of Quantum Mechanics By Michael D. Fayer for online ebook

Elements of Quantum Mechanics By Michael D. Fayer Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Elements of Quantum Mechanics By Michael D. Fayer books to read online.

Online Elements of Quantum Mechanics By Michael D. Fayer ebook PDF download

Elements of Quantum Mechanics By Michael D. Fayer Doc

Elements of Quantum Mechanics By Michael D. Fayer Mobipocket

Elements of Quantum Mechanics By Michael D. Fayer EPub