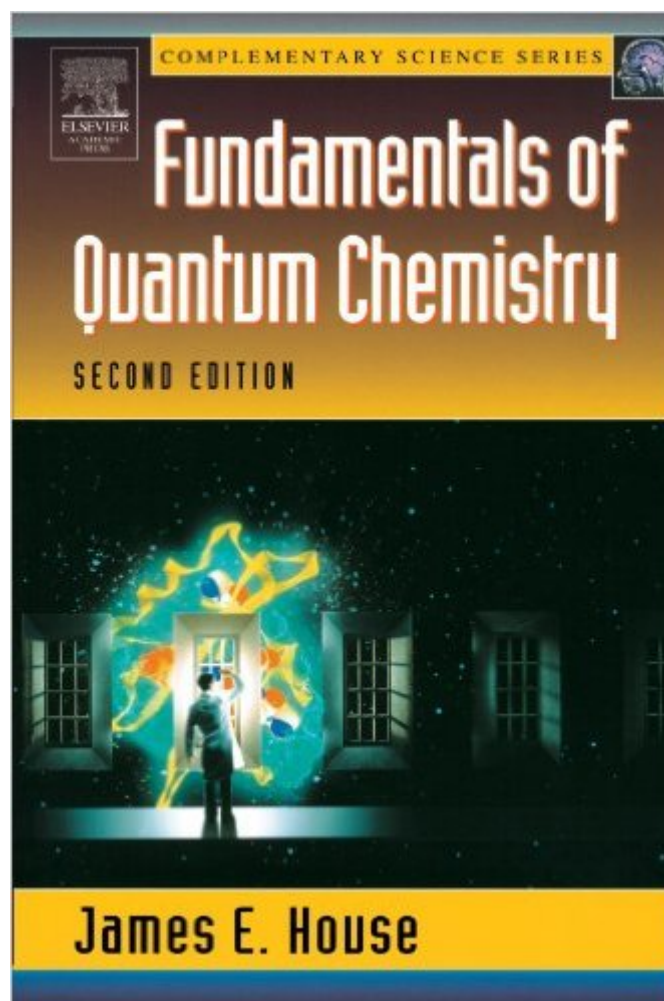


The book was found

# Fundamentals Of Quantum Chemistry, Second Edition (Complimentary Science Series)



## Synopsis

An introduction to the principles of quantum mechanics needed in physical chemistry. Mathematical tools are presented and developed as needed and only basic calculus, chemistry, and physics is assumed. Applications include atomic and molecular structure, spectroscopy, alpha decay, tunneling, and superconductivity. New edition includes sections on perturbation theory, orbital symmetry of diatomic molecules, the Huckel MO method and Woodward/Hoffman rules as well as a new chapter on SCF and Hartree-Fock methods. \* This revised text clearly presents basic quantum mechanics for students in chemistry\* Separate sections treat needed mathematical techniques. Presents complete mathematical details of derivations.\* Contains applications of quantum mechanics to a broad range of problems in spectroscopy and molecular structureNew in this Edition:\* A new chapter on molecular orbital calculations (extended Hückel and self-consistent field) \* A significant number of additional figures and improvements to existing figures\* New exercises, plus answers for selected problems \* Now includes the photoelectric effect, the perturbation treatment of the helium atom, orbital symmetry and chemical reactions, and molecular term symbols \* Careful and extensive edits throughout the text improve clarity and correct minor errors

## Book Information

Series: Complimentary Science Series

Paperback: 291 pages

Publisher: Academic Press; 2 edition (September 24, 2003)

Language: English

ISBN-10: 0123567718

ISBN-13: 978-0123567710

Product Dimensions: 6 x 0.7 x 9 inches

Shipping Weight: 1.2 pounds (View shipping rates and policies)

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

Best Sellers Rank: #1,636,226 in Books (See Top 100 in Books) #91 in [Books > Science & Math > Chemistry > Physical & Theoretical > Quantum Chemistry](#) #1358 in [Books > Medical Books > Medicine > Internal Medicine > Pathology > Clinical Chemistry](#) #1407 in [Books > Science & Math > Physics > Quantum Theory](#)

## Customer Reviews

Well, almost! The second edition of this outstanding little self study text "nearly" gets us to a real

QUANTITATIVE intro to QM without differential equations or linear algebra. The author says all you need is two semesters of calculus-- and true to his word, he very carefully explains the narrow little area of LA he does bring in (determinants) and on the few occasions where ODE's are a MUST, he steps through them at an AP High School/ Undergrad level. PDE's are limited to "well, you DO have to hold this variable constant to solve for the other" (ok, that's "of the essence" of QM)-- again, explained in painstaking detail so we don't get lost. If you're one of those folks like me that snoops out previous editions, makes sure there aren't too many changes, then buys them for a penny from /Goodwill-- the two "other" criteria are-- is there missing media, and how different IS the new update vs. the old price? In this case, I can't find the original website, but this edition added answers to selected problems at the end, making it much better for self study than the previous edition. The other criteria for prior editions is you have to be sure they haven't skyrocketed due to scarcity or as a collector's item, and indeed House's first has in a few cases (it actually has a different title): Fundamentals of Quantum Mechanics (Complementary Science). At this writing a few are selling for over \$200 and a few are still out there used for \$20, however, realize the answers to the questions are in THIS edition!! So how do you simply change a title from Mechanics to Chemistry? Is there a difference?

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

Fundamentals of Quantum Chemistry, Second Edition (Complimentary Science Series) Neither Physics nor Chemistry: A History of Quantum Chemistry (Transformations: Studies in the History of Science and Technology) Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 7e (Fundamentals of Clinical Chemistry (Tietz)) Quantum Chemistry & Spectroscopy Plus MasteringChemistry with eText -- Access Card Package (3rd Edition) (Engel Physical Chemistry Series) Quantum Chemistry (Physical Chemistry Series) Ace Organic Chemistry I: The EASY Guide to Ace Organic Chemistry I: (Organic Chemistry Study Guide, Organic Chemistry Review, Concepts, Reaction Mechanisms and Summaries) Ace General Chemistry I and II (The EASY Guide to Ace General Chemistry I and II): General Chemistry Study Guide, General Chemistry Review Ace General Chemistry I: The EASY Guide to Ace General Chemistry I: (General Chemistry Study Guide, General Chemistry Review) Physical Chemistry Vol 2: Quantum Chemistry Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory (Dover Books on Chemistry) Quantum Mechanics in Chemistry (Dover Books on Chemistry) Problems and Solutions in Quantum Chemistry and Physics (Dover Books on Chemistry) Quantum Mechanics in Chemistry Second Edition Quantum Computation and Quantum Information: 10th Anniversary Edition Computability, Complexity, and Languages, Second Edition: Fundamentals of Theoretical Computer

Science (Computer Science and Scientific Computing) Towards Solid-State Quantum Repeaters: Ultrafast, Coherent Optical Control and Spin-Photon Entanglement in Charged InAs Quantum Dots (Springer Theses) Quantum Nanoelectronics: An introduction to electronic nanotechnology and quantum computing QUANTUM SELF HYPNOSIS STOP SMOKING NOW: Hypnosis Script & Inductions Included! (Quantum Self Hypnosis Singles Book 2) Quantum Runes: How to Create Your Perfect Reality Using Quantum Physics and Teutonic Rune Magic (Creating Magick with The Universal Laws of Attraction Book 1) Quantum Thermodynamics: Emergence of Thermodynamic Behavior Within Composite Quantum Systems (Lecture Notes in Physics)

[Dmca](#)