



## Quantum Mechanics in Chemistry

By Mark A. Ratner

Dover Publications. Paperback. Book Condition: New. Paperback. 384 pages. Dimensions: 9.1in. x 6.4in. x 0.8in. Intended for graduate and advanced undergraduate students, this text explores quantum mechanical techniques from the viewpoint of chemistry and materials science. Dynamics, symmetry, and formalism are emphasized. An initial review of basic concepts from introductory quantum mechanics is followed by chapters examining symmetry, rotations, and angular momentum addition. Chapter 4 introduces the basic formalism of time-dependent quantum mechanics, emphasizing time-dependent perturbation theory and Fermi's golden rule. Chapter 5 sees this formalism applied to the interaction of radiation and matter. In Chapter 6, the authors introduce occupation number representations, including applications to both quantized radiation fields and electronic structure; while chapters 7 and 8 focus on scattering theory and basic theories of chemical reaction rates. The remaining three chapters deal with the use of correlation functions and density matrices in quantum mechanics. Problems and a bibliography appear at the end of each chapter; and at the end of the book there is an Appendix C, Solutions to Problems, new to this edition. This item ships from multiple locations. Your book may arrive from Roseburg, OR, La Vergne, TN. Paperback.



**READ ONLINE**  
[ 9.26 MB ]

### Reviews

*Very beneficial to all of type of individuals. This can be for those who state that there had not been a really worth reading. You will not really feel monotony at any time of your respective time (that's what catalogs are for concerning should you ask me).*

-- **Michale Shields**

*The best pdf i ever study. We have go through and so i am confident that i will gonna study again once again down the road. You are going to like the way the blogger compose this pdf.*

-- **Marcus Hills**