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**George B. Arfken, Hans J. Weber, Frank
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Further Mathematics for the Physical Sciences Michael Tinker, Robert Lambourne, 2000-06-08 Further

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Elementary Molecular Quantum Mechanics Valerio Magnasco, 2013-08-07 The second edition of Elementary Molecular Quantum Mechanics shows the methods of molecular quantum mechanics for graduate University students of Chemistry and Physics. This readable book teaches in detail the mathematical methods needed to do working applications in molecular quantum mechanics as a preliminary step before using commercial programmes doing quantum chemistry calculations. This book aims to bridge the gap between the classic Coulson's Valence, where application of wave mechanical principles to valence theory is presented in a fully non-mathematical way, and McWeeny's Methods of Molecular Quantum Mechanics, where recent advances in the application of quantum mechanical methods to molecular problems are presented at a research level in a full mathematical way. Many examples and mathematical points are given as problems at the end of each chapter with a hint for their solution. Solutions are then worked

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Robert G. Mortimer, S.M. Blinder, 2023-02-20 Mathematics for Physical Chemistry Fifth Edition includes exercises that enable readers to test their understanding and put theory into practice Chapters are constructed around a sequence of mathematical topics progressing gradually into more advanced material before discussing key mathematical skills including the analysis of experimental data and new to this edition complex variables Includes additional new content on Mathematica and its advanced applications Drawing on the experience of its expert authors this book is the ideal supplementary text for practicing chemists and students wanting to sharpen their mathematics skills and understanding of key mathematical concepts for applications across physical chemistry Includes updated coverage of key topics including a review of general algebra and an introduction to group theory Features previews objectives and numerous examples and problems throughout the text to aid learning Provides chemistry specific instruction without the distraction of abstract concepts or theoretical issues in pure mathematics Includes new chapters on complex variables and Mathematica for advanced applications

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