

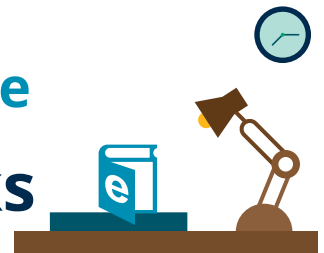


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CATALOGUE  
2017










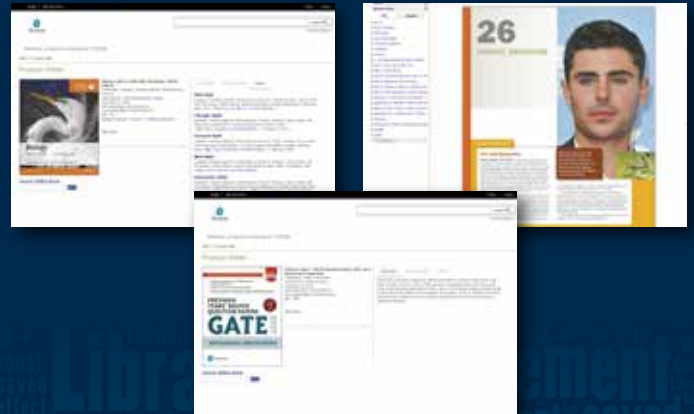
CHEMISTRY



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[www.pearsoned.co.in/web/lecturecapture.aspx](http://www.pearsoned.co.in/web/lecturecapture.aspx)





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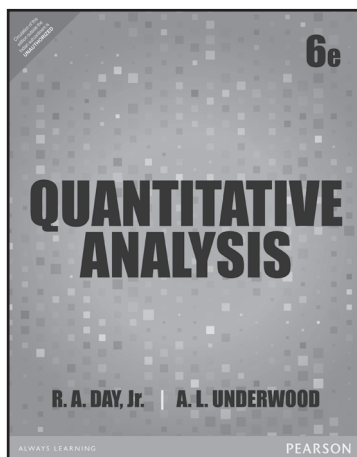
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# CHEMISTRY







## Quantitative Analysis, 6/e

R.A. Day • A.L. Underwood

ISBN: 9789332551879 | © Year: 2015 | Pages: 768

### ABOUT THE BOOK

This introduction to quantitative analysis first covers the traditional topics of titrimetric and gravimetric analysis; and then provides elementary coverage of instrumental topics, such as potentiometry, electrochemistry spectrophotometry, emission spectroscopy, and chromatography.

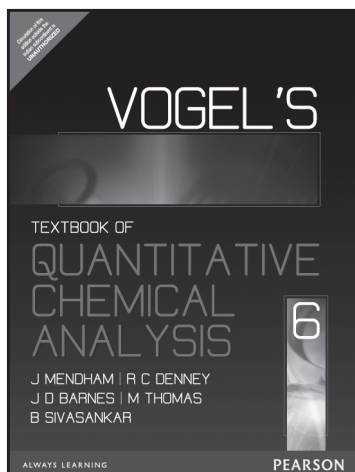
### FEATURES

- For each concept, first explains in words what is going on — to establish a physical picture for readers before they plunge into mathematical formulations.
- Provides directions for numerous laboratory experiments.
- Includes illustrative calculations.

### CONTENTS

1. Introduction.
  2. Errors and the Treatment of Analytical Data.
  3. Titrimetric Methods of Analysis.
  4. Gravimetric Methods of Analysis.
  5. Review of Chemical Equilibrium.
  6. Acid-Base Equilibria.
  7. Acid-Base Equilibria in Complex Systems.
  8. Complex Formation Titrations.
  9. Solubility Equilibria and Precipitation titrations.
  10. Oxidation-Reduction Equilibria.
  11. Applications of Oxidation-Reduction Titrations.
  12. Potentiometric Methods of Analysis.
  13. Other Electrical Methods of Analysis.
  14. Spectrophotometry.
  15. Emission Spectroscopy.
  16. Solvent Extraction.
  17. Gas-Liquid Chromatography.
  18. Liquid Chromatography.
  19. Perspectives.
  20. General Laboratory Directions.
  21. The Analytical Balance.
  22. Laboratory Procedures.
- Appendix I: Tables of Equilibrium Constants and Standard Potentials.  
 Appendix II: Balancing Oxidation-Reduction Equations.  
 Appendix III: Answers to Odd-Numbered Problems.





## Vogel's Quantitative Chemical Analysis, 6/e

J. Mendham • David J. Barnes  
R.C. Denney • M. J. K. Thomas

ISBN: 9788131723258 | © Year: 2009 | Pages: 836

### ABOUT THE BOOK

Dr. Vogel's classic introduction to analytical methods has provided generations of chemists worldwide with a basis for teaching, learning and applying analytical chemistry. This 60th anniversary edition - the first for a decade - reflects major changes in the subject. Analysts need to understand the concepts behind methods and *Vogel's Quantitative Chemical Analysis* provides clear introductions to all the key analytical methods including those involving advanced computerised equipment available in many analytical laboratories. The editors have built

further on the work of Dr Vogel, modernising the approach while retaining the analytical concepts and ideas which were built into the original work. This new edition has been extensively revised to take into account developments in instrumental procedures and coupled techniques whilst maintaining the book's focus on quantitative chemical and problem-specific analyses. With excellent cross-referencing this book provides a wealth of examples and tables of data.

### FEATURES

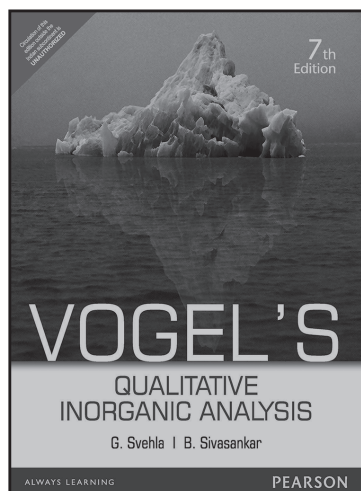
- Comprehensive coverage of methods with detailed easy-to-follow practical experiments.
- Basic analytical theory which is essential for understanding the subject.
- Greatly expanded sections on instrumental analysis including aspects of miniaturisation.
- Increased emphasis on minor/trace component analysis and revised statistical handling of data.
- New chapters on sampling, mass spectrometry and nuclear magnetic resonance.

### CONTENTS

1. Preface to First Edition.
2. Preface to Sixth Edition.
3. Safety; Units.
4. Reagent Purity.
5. Introduction.
6. Fundamental Theoretical Principles of Reactions in Solution.
7. Common Apparatus & Basic Techniques.
8. Statistics, Introduction to Chemometrics.
9. Sampling.
10. The Basis of Separative Methods.
11. Thin Layer Chromatography.
12. Liquid Chromatography.
13. Gas Chromatography.
14. Titrimetric Analysis.
15. Gravimetric Analysis.
16. Thermal Analysis.
17. Direct Electroanalytical Methods.
18. Nuclear Magnetic Resonance Spectroscopy.
19. Atomic Absorption Spectroscopy.
20. Atomic Emission Spectroscopy.
21. Molecular Electronic Spectroscopy.
22. Vibrational Spectroscopy.
23. Mass Spectrometry.

### ABOUT THE AUTHOR

J. Mendham, Consultant Analytical Chemist  
R.C. Denney, Consultant Forensic Scientist  
J. D. Barnes, University of Greenwich  
M.J.K. Thomas, University of Greenwich



## Vogel's Qualitative Inorganic Analysis, 7/e

G. Svehla • B. Sivasankar

ISBN: 9788131773710 | © Year: 2013 | Pages: 384

### ABOUT THE BOOK

*Vogel's Qualitative Inorganic Analysis* (in its seventh edition) follows the current trends and techniques in the field of analytical chemistry. Written for undergraduate and postgraduate students of chemistry, this revised and updated edition treats each concept and principle systematically to make the subject comprehensible to beginners as well as advanced learners.

### FEATURES

- Updated nomenclature
- Addition of tests for metals based on flame atomic emission and atomic absorption spectrometry
- New classification of mixtures of common and less common ions
- Marginalia highlighting important facts
- Elaborate discussions on preliminary tests, dissolution and fusion of samples
- Health and hazard warnings throughout the text
- Details on the preparation of reagents provided in the appendix

### CONTENTS

1. Introduction
2. Experimental Techniques
3. Reactions of the Cations
4. Reactions of the Anions
5. Selected Tests and Separations
6. Reactions of Some Less Common Ions

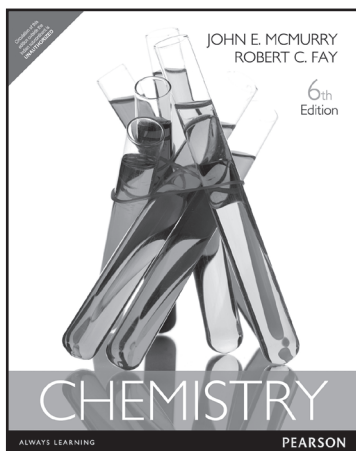
### ABOUT THE AUTHOR

G. Svehla is a formerly professor from the department of chemistry, University College, York, Ireland.

B. Sivasankar is a visiting professor from the department of chemistry, Anna University, Chennai, Tamilnadu.







## Chemistry, 6/e

John E. McMurry • Robert C. Fay

ISBN: 9789332519022 | © Year: 2014 | Pages: 1072

### ABOUT THE BOOK

Today's students use textbooks differently than their predecessors. *Chemistry, Sixth Edition* is designed to map to the way students seek and process information. McMurry/Fay's text helps students and professors get to the heart of chemistry more effectively, and helps students see the connections to chemistry more clearly.

With its spacious, unintimidating design and clear, direct writing style, this text is known for a smart, precise presentation that blends the quantitative and visual aspects of general chemistry. Chemistry is mastered when students make the right connections in three key areas: topics that are related,

conceptual reasoning with quantitative work, and the different modes of communicating information. McMurry/Fay's *Chemistry, Sixth Edition* breaks through the traditional textbook limitations and help students make connections that have historically been more difficult. Features like Remember&amphellip, Conceptual Problems, Conceptual Worked Examples, Inquiry and Worked Examples make these critical connections clear and visible, so students see the chemistry the first time.

### FEATURES

- Presents chemical concepts with quantitative discussions to bring in to sharp focus the connection between chemical reasoning and math. Three types of problems are designed to help students apply solid chemical reasoning to solving problems.
- In-chapter Conceptual Worked Examples give students their first exposure to working through problems on a conceptual level.
- In-chapter Conceptual Problems give students an immediate opportunity to solve problems that test their understanding of chemical concepts.
- End-of-chapter Conceptual Problems give students an opportunity to test that they understand all of the major concepts in the chapter before moving on to the multi-concept problems that require this understanding.
- McMurry/Fay's design uniquely integrates explanatory narrative with key principles by connecting the various modes of information, words, numbers, and graphics.
- The spacious, readable, unintimidating layout and design of McMurry/Fay is built in response to conversations with students about their study habits and use of science textbooks. McMurry/Fay maps to students' behavior, rather than challenging it.

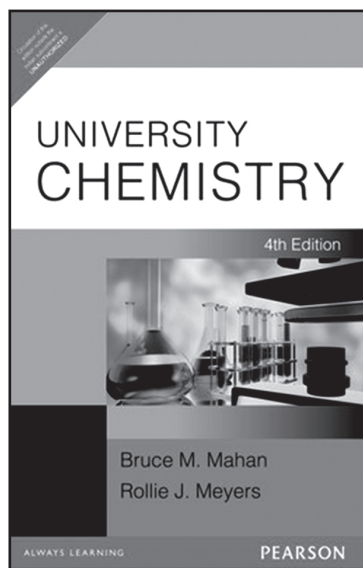
### CONTENTS

1. Chemistry: Matter and Measurement
  2. Atoms, Molecules, and Ions
  3. Mass Relationships in Chemical Reactions
  4. Reactions in Aqueous Solution
  5. Periodicity and the Electronic Structure of Atoms
  6. Ionic Bonds and Some Main-Group Chemistry
  7. Covalent Bonds and Molecular Structure
  8. Gases: Their Properties and Behavior
  9. Liquids, Solids, and Phase Changes
  10. Solutions and Their Properties
  11. Chemical Kinetics
  12. Chemical Equilibrium
  13. Aqueous Equilibria: Acids and Bases.
  14. Applications of Aqueous Equilibria
  15. Thermodynamics: Entropy, Free Energy, and Equilibrium
  16. Electrochemistry
  17. Hydrogen, Oxygen, and Water
  18. The Main-Group Elements
  19. Transition Elements and Coordination Chemistry
  20. Metals and Solid-State Metals
  21. Nuclear Chemistry
  22. Organic and Biological Chemistry
- Appendix: Mathematical Operations  
 Appendix: Thermodynamic Properties at 25oC  
 Appendix: Equilibrium Constants at 25oC  
 Appendix: Standard Reduction Potentials at 25oC  
 Appendix: Properties of Water

### ABOUT THE AUTHOR

John McMurry, educated at Harvard and Columbia

Robert C. Fay, Professor of Chemistry at Cornell University



## University Chemistry, 4/e

Bruce M. Mahan • Rollie J. Meyers

ISBN: 9788131729571 | © Year: 2009 | Pages: 1076

### ABOUT THE BOOK

Designed for use in a course for first-year students, *University Chemistry, 4/e* continues in the tradition of previous editions by being intellectually challenging and using mathematical reasoning where it is appropriate to the subject at hand. Besides covering topics essential for an introductory university course in chemistry, the textbook concludes with a series of chapters on special topics including: organic chemistry, biochemistry, nuclear chemistry, and solid state chemistry. The SI system of units has been used throughout the text. The book also contains sufficient number of worked-out examples and numerous problems with a range of difficulty.

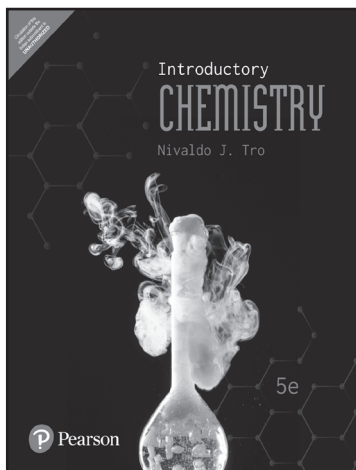
### FEATURES

- SI system of units used throughout the text
- Over 200 worked-out examples, and questions and answers
- Over 600 unsolved problems and exercises
- Key words, chapter summaries and suggestions for further reading in each chapter to aid learning
- Appendices on physical constants, conversion factors, SI units, and Coulomb's Law
- Answers to select problems at the end of the book

### CONTENTS

1. Stoichiometry and the Basis of the Atomic Theory
2. The properties of gases
3. Liquids and Solutions
4. Chemical Equilibrium
5. Ionic Equilibria in Aqueous Solutions
6. Valence and the Chemical Bond
7. Oxidation-Reduction Reactions
8. Chemical Thermodynamics
9. Chemical Kinetics
10. The Electronic Structures of Atoms
11. The Chemical Bond
12. Systematic Molecular Orbital Theory
13. Periodic Properties
14. The Representative Elements: Groups I-IV
15. The Nonmetallic Elements
16. The Transition Metals
17. Organic Chemistry
18. Biochemistry
19. The Nucleus
20. The Properties of Solids





## Introductory Chemistry, 5/e

Nivaldo J. Tro

ISBN: 9789332581302 | © Year: 2017 | Pages: 848

**NEW**

### ABOUT THE BOOK

Now in its fifth edition, *Introductory Chemistry* Essentials continues to foster deep engagement in the course by showing how chemistry manifests in students' daily lives. Author Nivaldo Tro draws upon his classroom experience as an award-winning instructor to extend chemistry from the laboratory to the student's world, capturing student attention with relevant applications and a captivating writing style.

### FEATURES

- The fifth edition includes more than 20 new Conceptual Checkpoints, focused on visualizations and drawing as requested by reviewers.
- Key Learning Outcomes that correlate to the Chemical Skills and Examples in the end-of-chapter material.
- Chapter Self-Assessment Quizzes at the end of each chapter provide opportunities for students to assess what they've learned.
- 3-4 Questions for Group Work have been added to the end-of-chapter problems in each chapter to facilitate guided-inquiry learning both inside and outside the classroom.
- Extensive labels and annotations for each illustration direct students to key elements in the art and help them to understand the processes depicted.

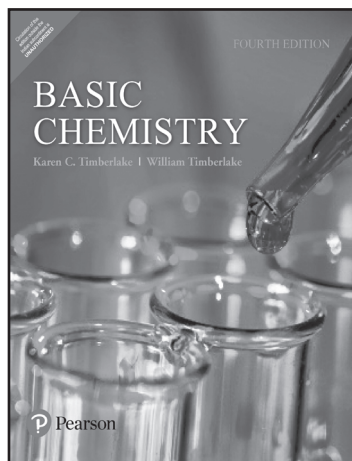
### CONTENTS

- |  |  |
|--|--|
| 1. The Chemical World                        | 10. Chemical Bonding                           |
| 2. Measurement and Problem Solving           | 11. Gases                                      |
| 3. Matter and Energy                         | 12. Liquids, Solids, and Intermolecular Forces |
| 4. Atoms and Elements                        | 13. Solutions                                  |
| 5. Molecules and Compounds                   | 14. Acids and Bases                            |
| 6. Chemical Composition                      | 15. Chemical Equilibrium                       |
| 7. Chemical Reactions                        | 16. Oxidation and Reduction                    |
| 8. Quantities in Chemical Reactions          | 17. Radioactivity and Nuclear Chemistry        |
| 9. Electrons in Atoms and the Periodic Table |  |

### ABOUT THE AUTHOR

Nivaldo Tro is Professor of Chemistry at Westmont College in Santa Barbara, California, where he has been a faculty member since 1990. He received his Ph.D. in chemistry from Stanford University, for work on developing and using optical techniques to study the adsorption and desorption of molecules to and from surfaces in ultrahigh vacuum. He then went on to the University of California at Berkeley, where he did post-doctoral research on ultra-fast reaction dynamics in solution. Since coming to Westmont, Professor Tro has been awarded grants from the American Chemical Society Petroleum Research Fund, from Research Corporation, and from the National Science Foundation to study the dynamics of various processes occurring in thin layer films adsorbed on dielectric surfaces. He has been honored as Westmont's outstanding teacher of the year three times and has also received the college's outstanding researcher of the year award.





## Basic Chemistry, 4/e

Karen C. Timberlake • William Timberlake

ISBN: 9789332581319 | © Year: 2016 | Pages: 756

**NEW**

### ABOUT THE BOOK

Popular features, including “Combining Ideas” sections and end-of-chapter questions, have also been strengthened and expanded. Modern real-world applications help students connect chemical principles to events in their world, while stories involving careers illustrate the importance of chemistry in future careers.

### FEATURES

- Unique, color-coded Guides to Problem-Solving are given for each problem type discussed in the text.
- Concept Checks throughout each chapter allow students to check their understanding of new chemical terms and ideas.
- Learning Goals at the beginning of each chapter section clearly identify the key concept of the section, providing a road map for studying.
- Chapter review, key terms, additional problems, and summary of reactions are included in the end-of-chapter material to help students review their comprehension of the material.
- Answers to study check questions and odd-numbered problems are included at the end of each chapter to give students immediate feedback and help them monitor their understanding of the content.

### CONTENTS

- |   |   |
|---|---|
| 1. Chemistry in Our Lives                   | 9. Chemical Quantities in Reactions         |
| 2. Measurements                             | 10. Properties of Solids and Liquids        |
| 3. Matter and Energy                        | 11. Gases                                   |
| 4. Atoms and Elements                       | 12. Solutions                               |
| 5. Electronic Structure and Periodic Trends | 13. Reaction Rates and Chemical Equilibrium |
| 6. Ionic and Molecular Compounds            | 14. Acids and Bases                         |
| 7. Chemical Quantities                      | 15. Oxidation and Reduction                 |
| 8. Chemical Reactions                       | 16. Nuclear Radiation                       |

### ABOUT THE AUTHOR

**Karen Timberlake** is Professor Emerita of chemistry at Los Angeles Valley College, where she taught chemistry for allied health and preparatory chemistry for 36 years. She received her bachelor’s degree in chemistry from the University of Washington and her master’s degree in biochemistry from the University of California at Los Angeles. **Professor Timberlake** has been writing chemistry textbooks for 35 years. During that time, her name has become associated with the strategic use of pedagogical tools that promote student success in chemistry and the application of chemistry to real-life situations. More than one million students have learned chemistry using texts, laboratory manuals, and study guides written by Karen Timberlake.





## Conceptual Chemistry

John A. Suchocki

COMING SOON | ISBN: TBA | © Year: 2014 | Pages: 672

NEW

### ABOUT THE BOOK

Were you looking for the book with access to Mastering Chemistry? This product is the book alone and does NOT come with access to MasteringChemistry. Buy the book and access card package to save money on this resource.

A long-established leader in liberal arts chemistry, John Suchocki's *Conceptual Chemistry* continues to take a student-centered approach in the new Fifth Edition. This robust program uses a conversational writing style to engage and involve non-science majors, helping them visualize the behavior of atoms and molecules to understand our macroscopic environment. With

a focus on fundamental concepts – not mathematical models – and supported by a dynamic media program, *Conceptual Chemistry*, Fifth Edition helps build a base from which non-science majors can view the world around them more perceptively.

### FEATURES

- Each chapter opens with Suchocki's hallmark Hands-On Chemistry activities. Performed using common household ingredients and equipment, these activities provide hands-on conceptual exposure outside the formal laboratory setting.
- Main Idea statements open each chapter, encapsulating the primary message and providing students with an immediate sense for the overarching idea they will read about in the chapter.
- In-the-margin Reading Check questions teach students to pay attention to key points as they read and to reflect on them at the end of each section.
- In-text Concept Checks pose a question followed by an immediate answer. These questions reinforce ideas just presented, before a student moves on to new concepts, and help students synthesize ideas from across the chapter.
- Calculation Corners in selected chapters allow students to practice the quantitative reasoning skills needed to perform chemical calculations. None of the calculations involves skills beyond fractions, percentages, or basic algebra.
- Each chapter includes short For Your Information paragraphs in the margins. These paragraphs highlight interesting information relating to the adjacent chapter content
- Explain This questions activate prior knowledge, illustrate intriguing application of concepts, and serve as the launching point for classroom discussions.
- Expanded Contextual Chemistry essays highlighting chemistry concepts within the context of society now follow each chapter, with correlated questions in the TestBank.
- End-of-chapter reviews follow Bloom's taxonomy of learning:

### CONTENTS

- |                          |  |
|--------------------------|--|
| 1. About Science         | 10. Acids and Bases in Our Environment         |
| 2. Particles of Matter   | 11. Oxidations and Reductions Charge the World |
| 3. Elements of Chemistry | 12. Organic Compounds                          |
| 4. Subatomic Particles   | 13. The Nutrients of Life                      |
| 5. The Atomic Nucleus    | 14. Medicinal Chemistry                        |
| 6. How Atoms Bond        | 15. Optimizing Food Production                 |
| 7. How Molecules Mix     | 16. Protecting Water and Air Resources         |
| 8. How Water Behaves     | 17. Capturing Energy                           |
| 9. How Chemicals React   |  |



## Introduction to Chemical Principles, 10/e

H. Stephen Stoker

COMING SOON

ISBN: TBA | © Year: 2011 | Pages: 736

NEW

### ABOUT THE BOOK

This solid, yet value-priced paperback gives students the background and confidence they need to succeed in chemistry. Stoker focuses on the most important topics—omitting organic and biochemistry chapters—and teaches the problem-solving skills students need. Each topic is developed at “ground level,” and continues step by step until the level of sophistication required for a further chemistry course is attained.

### FEATURES

- An emphasis on problem solving throughout uses dimensional analysis in problem-solving whenever possible. This equips students with a powerful and widely applicable tool that requires no mathematics beyond arithmetic and elementary algebra.
- Worked examples with detailed commentary show students the proper way to mentally dissect and solve a problem.
- Over 5,000 questions and problems give students more opportunities than any other text to become proficient problem-solvers.
- Emphasis on significant figure concepts in all problem-solving situations provides two answers to the example: the calculator answer (which does not take into account significant digits), and the correct answer (which is the calculator answer adjusted to the correct number of significant figures).
- Extensive margin notes provide additional details, links between concepts, or historical information about the concepts under discussion. They summarize key concepts and give students tips for remembering concepts or distinguishing between similar concepts.
- Vignettes on “The Human Side of Chemistry” are brief biographies of scientists who helped develop the foundations of modern chemistry.
- A Chemical Extension application adds perspective to worked-out examples that center on specific compounds. It focuses on the chemical compound itself, its relationship to the environment, its relationship to living systems (biochemistry), etc. This helps students become aware of the compound’s “realness,” and not lose themselves in the mathematics of problem solving.
- “Answer Double Check,” found at the end of two-thirds of the worked-out problems in the text, encourages students to consider if their answer in a problem is a “reasonable answer” in terms of numerical magnitude, number of significant figures present, sign convention (plus or minus) and direction of change (increase or decrease).
- Multiple-Choice Practice Test questions in the end-of chapter reviews help students prepare for exams.
- Practice Exercise Review questions are incorporated in the end of chapter summary. Similar to exercises found in the chapter, the end-of-chapter practice exercises measure the students’ comprehension and mastery of concepts in the chapter.

### CONTENTS

- |   |   |
|---|---|
| 1. The Science of Chemistry                             | 9. Chemical Calculations Involving Chemical Equations     |
| 2. Numbers from Measurements                            | 10. States of Matter                                      |
| 3. Unit Systems and Dimensional Analysis                | 11. Gas Laws  |
| 4. Basic Concepts About Matter                          | 12. Solutions   |
| 5. Subatomic Particles, Isotopes, and Nuclear Chemistry | 13. Acids, Bases, and Salts                               |
| 6. Electronic Structure and Chemical Periodicity        | 14. Chemical Equations: Net Ionic and Oxidation-Reduction |
| 7. Chemical Bonds                                       | 15. Reaction Rates and Chemical Equilibrium               |
| 8. Chemical Nomenclature                                |   |





## Organic Structural Spectroscopy

Joseph B. Lambert • Scott Gronert • Herbert F. Shurvell  
David Lightner • Robert Graham Cooks

**COMING SOON** | ISBN: TBA | © Year: 2011 | Pages: 552

**NEW**

### ABOUT THE BOOK

*Organic Structural Spectroscopy* authoritatively presents the fundamentals of all four principal spectroscopic methods: nuclear magnetic resonance spectroscopy, mass spectrometry, infrared spectroscopy, and ultraviolet-visible spectroscopy. Each topic is examined in depth by an experienced author who is a practicing expert in that area. The material is easy to grasp, beginning at the most elementary level and progressing to the level required for organic research. Among many other enhancements, the Second Edition

offers an entirely new discussion of mass spectrometry, with comprehensive coverage of new ionization and fragmentation methods, and treatment of NMR from the basics to advanced 2D methods.

### FEATURES

- Thorough and current treatment of NMR spectroscopy includes:
  - Explanation of elementary NMR principles as well as all necessary methods considered routine in research.
  - Clear explanations of the variety of NMR methods now needed for standard structural analyses.
  - Fourier transform, modern multiple resonance, multiple pulse, and two-dimensional methods.
  - Emphasis on pulse methods from the beginning, as is done in every NMR experiment in the lab.
- Thorough and most current treatment of mass spectrometry includes:
  - Modern ionization methods, including MALDI, SI, and ESI.
  - Treatment of the chemistry of ions.
  - Covers MS/MS and other powerful methods.
- The electronic section covers circular dichroism and optical rotatory dispersion, subjects not covered in competing books.
- The vibrational section covers Raman.
- Each chapter features a variety of tables and problems at the end, as well as a bibliography that helps lead the reader to additional material.
  - The NMR and vibrational sections have extensive tables useful in structural analysis.
- A large selection of integrated exercises to test student understanding is found in Part V.

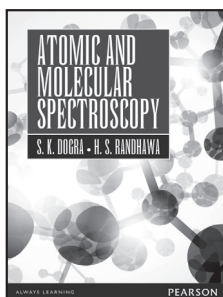
### CONTENTS

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|---|---|
| 1. Introduction                         | 9. Structural Analysis                    |
| 2. Introduction                         | 10. Quantitative Applications             |
| 3. The Chemical Shift                   | 11. Introduction                          |
| 4. The Coupling Constant                | 12. Group Frequencies                     |
| 5. Further Topics in One-Dimensional NM | 13. Introduction and Experimental Methods |
| 6. Two-Dimensional NMR                  | 14. Structural Analysis                   |
| 7. Instrumentation and Theory           | 15. Integrated Problems                   |
| 8. Ion Activation and Fragmentation     |   |





## Also Available



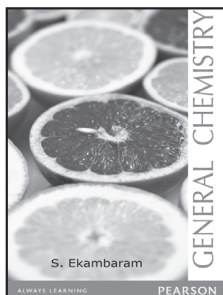
## Atomic and Molecular Spectroscopy

S. K. Dogra

ISBN: 9789332533530 | © Year: 2014 | Pages: 784

### ABOUT THE BOOK

Designed as a textbook for undergraduate and postgraduate students of chemistry and physics, *Atomic and Molecular Spectroscopy* elucidates the basic principles and applications of spectroscopy. The physical and quantitative aspects of spectroscopic techniques are covered comprehensively in one book.



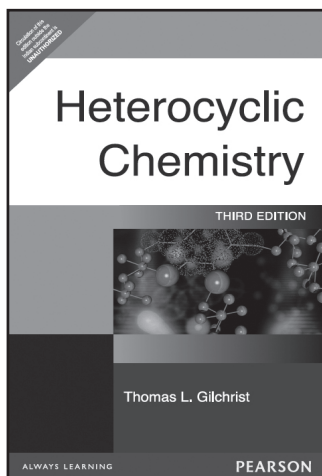
## General Chemistry

S. Ekambaram

ISBN: 9788131773789 | © Year: 2013 | Pages: 656

### ABOUT THE BOOK

This book presents the fundamental concepts of general chemistry in a precise and comprehensive manner for undergraduate students of chemistry and life science at all Indian universities. Adhering strictly to the UGC curriculum, the contents are written in a simple and lucid language enriched with a large number of examples and illustrations.



## Heterocyclic Chemistry, 3/e

Thomas L. Gilchrist

ISBN: 9788131707937 | © Year: 1997 | Pages: 432

### ABOUT THE BOOK

This popular text has been completely revised to reflect recent advances in the subject. Deals with the properties of ring systems and general methods of synthesis, providing a unique overview of the subject area. Includes a guide to the naming of the ring systems, invaluable to those unfamiliar with the area.

### FEATURES

- Includes recent examples of organometallic reagents which are increasingly used in the synthesis and reactions of heterocyclic compounds.
- New reaction schemes illustrating the use of heterocycles as synthetic intermediates.

### CONTENTS

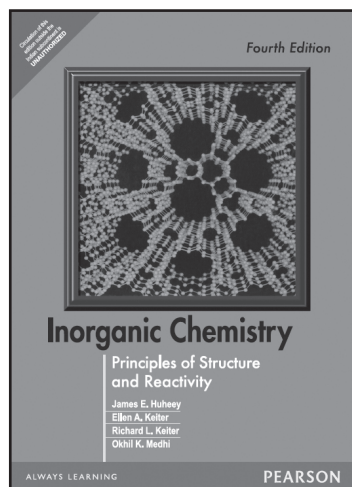
1. Introduction
2. Aromatic Heterocycles
3. Nonaromatic Heterocycles
4. Methods of Ring Synthesis
5. Six-membered Rings
6. Five-membered Rings with One Heteroatom
7. Six-membered Rings with Two or More Heteroatoms
8. Five-membered Rings with Two or More Heteroatoms
9. Three and Four Membered Rings
10. Seven and Larger Membered Ring Compounds
11. Nomenclature

### ABOUT THE AUTHOR

Gary L. Miessler, St. Olaf College

Donald A. Tarr, St. Olaf College





## Inorganic Chemistry: Principles of Structure and Reactivity

James E. Huheey • Ellen A. Keiter  
Richard L. Keiter • Okhil K. Medhi

ISBN: 9788177581300 | © Year: 2006 | Pages: 826

### ABOUT THE BOOK

This classic in its field has been substantially reorganized and includes the latest findings in the discipline.

### FEATURES

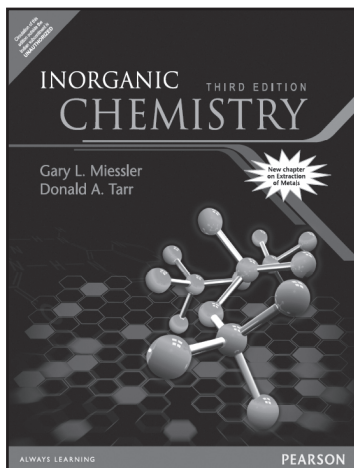
- Substantial rearrangement to suit the requirement of the students and teachers of the Indian subcontinent.
- Thorough re-editing and reorganization of the chapters on chemistry of the main group elements, descriptive chemistry of metals, organometallic chemistry, solid-state chemistry, and bioinorganic chemistry.
- Addition of thermodynamic stability of complex compounds, organometallic chemistry of the main group elements, and Frost diagrams.
- A chapter on symmetry comprising applications of symmetry (including spectroscopy and crystallography) and an introduction to point groups.
- Reorganized and updated chapters on bonding, presenting a modern approach.

### CONTENTS

1. What is Inorganic Chemistry?
2. The Structure of the Atom
3. Symmetry and Group Theory
4. Ionic Bonding and the Solid State
5. The Covalent Bond
6. The Structure of Molecules and Stereochemical Nonrigidity
7. Chemical Forces
8. Acid- Base Chemistry
9. Chemistry in Aqueous and Nonaqueous Solvents
10. The Chemistry of the Main Group Elements: Periodicity
11. The Chemistry of the Main Group Elements: Inorganic Chains, Rings and Cages
12. The Chemistry of the main group elements: Halogens and the Noble Gases
13. Some Descriptive Chemistry of the Metals
14. Coordination Chemistry : Bonding
15. Coordination Chemistry: Spectra and Magnetism
16. Coordination Chemistry: Structure, Isomerism, and Stability
17. Coordination Chemistry: Reactions, Kinetic and Mechanisms
18. Organometallic Chemistry: Syntheses, Structure, and Bonding
19. Organometallic Chemistry: Reactivity and Catalysis
20. The Inorganic Chemistry of Biological Systems

### ABOUT THE AUTHOR

**James E. Huheey** received his Ph.D. from the University of Illinois at Urbana-Champaign and has taught at the University of Maryland since 1965. He has received the Leo Schubert Teaching Award and is a Fellow of the AAAS, the Herpetologists' League, and the United States National Museum. **Ellen A. Keiter** received her Ph.D. from the University of Illinois at Urbana-Champaign and is currently the director of the honors program in the chemistry department of Eastern Illinois University, where she has taught since 1977. She has received merit awards from Eastern Illinois University for excellence in teaching, research, and service. **Richard L. Keiter** received his Ph.D. from the University of Maryland. He joined the faculty at Eastern Illinois University in 1969 and was named distinguished professor in 1998. He served nine years as a councillor of the Council on Undergraduate Research and most recently received a Camille and Henry Dreyfus Scholar/Fellow Award. **Okhil K. Medhi** received his Ph.D. from the Indian Institute of Technology, Kanpur, has taught at the North-Eastern Hill University, Shillong, and presently teaches at Gauhati University, Assam, where he has been a professor of chemistry since 1991.



## Inorganic Chemistry, 3/e

Gary Miessler • Donald A. Tarr

ISBN: 9788131718858 | © Year: 2008 | Pages: 720

### ABOUT THE BOOK

This highly readable text provides the essentials of *Inorganic Chemistry* at a level that is neither too high (for novice students) nor too low (for advanced students). It has been praised for its coverage of theoretical inorganic chemistry. It discusses molecular symmetry earlier than other texts and builds on this foundation in later chapters. Plenty of supporting book references encourage instructors and students to further explore topics of interest.

### FEATURES

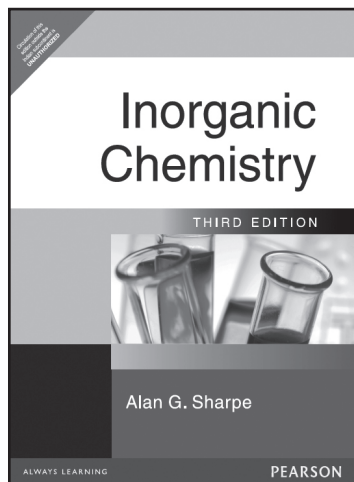
- NEW - Coverage of oxidation-reduction reactions.
- NEW - Updated and reorganized material throughout Includes recent literature references.
- NEW - Web-based problems.
- NEW - Problems using software for molecular orbital calculations.
- Excellent, balanced coverage of core principles and theory.
- Integration of symmetry arguments throughout Emphasizes symmetry more than other inorganic texts.
- Many problems at the end of each chapter Including some from the recent literature.
- Worked examples in most chapters.
- Exercises in most chapters.
- Strong molecular symmetry/group theory coverage.
- Strong molecular-orbital approach.
- Special topic coverage e.g., organometallic, solid-state chemistry, bioinorganic, and environmental inorganic.

### CONTENTS

1. Introduction to Inorganic Chemistry.
2. Atomic Structure.
3. Simple Bonding Theory.
4. Symmetry and Group Theory.
5. Molecular Orbitals.
6. Acid-Base and Donor-Acceptor Chemistry.
7. The Crystalline Solid State.
8. Chemistry of the Main Group Elements.
9. Coordination Chemistry I: Structures and Isomers.
10. Coordination Chemistry II: Bonding.
11. Coordination Chemistry III: Electronic Spectra.
12. Coordination Chemistry IV: Reactions and Mechanisms.
13. Organometallic Chemistry.
14. Organometallic Reactions and Catalysis.
15. Parallels Between Main Group and Organometallic Chemistry.
16. Bioinorganic and Environmental Chemistry.

### ABOUT THE AUTHORS

Gary L. Miessler, St. Olaf College  
Donald A. Tarr, St. Olaf College



## Inorganic Chemistry, 3/e

Alan G. Sharpe

ISBN: 9788131706992 | © Year: 1981 | Pages: 702

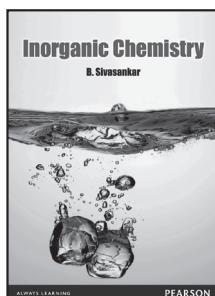
### ABOUT THE BOOK

The 3rd edition of *Inorganic Chemistry* provides an excellent introduction to the subject. The fully revised text takes account of important advances, and a new larger format provides accessibility. The exercises have been updated and new outline solutions have been added. In this edition, the author has increased emphasis on solid state chemistry and expanded the treatment of aqueous and non-aqueous solutions.

### CONTENTS

1. Nuclear Chemistry
2. Quantum Theory and Atomic Structure
3. Electronic Configurations and some Physical Properties of Atoms
4. Electronic Configurations of Molecules
5. Some Physical Properties of Molecules
6. The Structures and Energetics of Inorganic Solids
7. Inorganic Chemistry in Aqueous Media
8. Inorganic Chemistry in Non-Aqueous Media
9. Hydrogen
10. The Alkali Metals
11. Beryllium, Magnesium and the Alkaline Earth Metals
12. Boron, Aluminium, Gallium, Indium and Thallium
13. Carbon, Silicon, Germanium, Tin and Lead
14. Nitrogen, Phosphorus, Arsenic, Antimony and Bismuth
15. Oxygen, Sulphur, Selenium, Tellurium and Polonium
16. The Halogens
17. The Noble Gases
18. The Transition Elements
19. Electronic Configurations, Electronic Spectra, and Magnetic Properties of Transition Metal Compounds
20. Thermodynamic Aspect of Transition Metal Chemistry
21. Kinetic Aspects of Transition Metal Chemistry
22. Transition Metal Carbonyls and Related Compounds
23. Organometallic Compounds of the Transition Metals
24. Transition Metals of the First Series
25. Transition Metals of the Second and Third Series
26. Inner Transition Elements: The Lanthanides
27. Inner Transition Elements: The Actinides

### Also Available



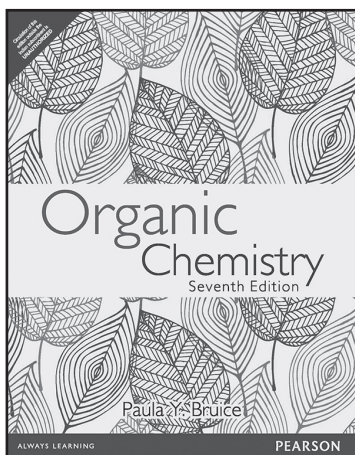
## Inorganic Chemistry, 3e

B. Sivasankar

ISBN: 9788131799062 | © Year: 2013 | Pages: 1032

### ABOUT THE BOOK

Designed for a comprehensive course on inorganic chemistry, this textbook meets the academic requirements of undergraduate courses in Indian universities. The book introduces readers to the basics of the subject before progressing to advanced topics and techniques.



## Organic Chemistry, 7/e

Paula Yurkanis Bruice

ISBN: 9789332519046 | © Year: 2014 | Pages: 1344

### ABOUT THE BOOK

All of Paula Bruice's extensive revisions to the Seventh Edition of *Organic Chemistry* follow a central guiding principle: support what modern students need in order to understand and retain what they learn in organic chemistry for successful futures in industry, research, and medicine.

### FEATURES

- A modern organization emphasizing unifying principles of reactivity offers an economy of presentation and discourages memorization:
  - Group I electrophilic addition reactions;
  - Group II nucleophilic substitution reactions and elimination reactions;
  - Group III nucleophilic addition reactions and nucleophilic addition-elimination reactions; and
  - Group IV electrophilic (and nucleophilic) aromatic substitution reactions.
- Students are introduced to synthetic chemistry and retrosynthetic analysis early in the book (Chapters 6 and 7, respectively), so they can start designing multistep syntheses early in the course.
- Seven special Design a Synthesis sections introduce and help students through the iterative process of solving complex problems.
- Problem-Solving Strategies teach students how to approach various types of simple and complex problems, encourage students to organize their thoughts, and reinforces the development of critical thinking skills.
- Over 1,900 in-chapter and end-of-chapter problems include solved examples, problem-solving strategies, and cumulative problems. End-of-chapter problems are tied to each chapter's Learning Outcomes and vary in difficulty.
- End-of-chapter summaries review the major concepts of the chapter in a concise narrative format to help students synthesize the key points. Reaction summaries, included in each chapter on reactions, ensure that students understand and can explain how each reaction occurs.

### CONTENTS

#### Part 1: An Introduction to the Study of Organic Chemistry

1. Remembering General Chemistry: Electronic Structure and Bonding
2. Acids and Bases: Central to Understanding Organic Chemistry
3. An Introduction to Organic Compounds: Nomenclature, Physical Properties, and Representation of Structure

#### Part 2: Electrophilic Addition Reactions, Stereochemistry, and Electron Delocalization

4. Isomers: The Arrangement of Atoms in Space
5. Alkenes: Structure, Nomenclature, and an Introduction to Reactivity • Thermodynamics and Kinetics
6. The Reactions of Alkenes: The Stereochemistry of Addition Reactions
7. The Reactions of Alkynes: An Introduction to Multistep Synthesis

8. Delocalized Electrons and Their Effect on Stability, pK<sub>a</sub>, and the Products of a Reaction

#### Part 3: Substitution and Elimination Reactions

9. Substitution Reactions of Alkyl Halides
10. Elimination Reactions of Alkyl Halides
  - Competition between Substitution and Elimination
11. Reactions of Alcohols, Ethers, Amines, Thiols, and Thioethers
12. Organometallic Compounds
13. Radicals • Reactions of Alkanes

#### Part 4: Identification of Organic Compounds

14. Mass Spectrometry, Infrared Spectroscopy, and Ultraviolet/ Visible Spectroscopy
15. NMR Spectroscopy

#### Part 5: Carbonyl Compounds

16. Reactions of Carboxylic Acids and Carboxylic Derivatives



17. Reactions of Aldehydes and Ketones
- More Reactions of Carboxylic Acid Derivatives
  - Reactions of Unsaturated Carbonyl Compounds
18. Reactions at the  $\alpha$ -Carbon of Carbonyl Compounds

**Part 6:**

19. Reactions Of Benzene And Substituted Benzenes
20. More About Amines • Reactions of Heterocyclic Compounds

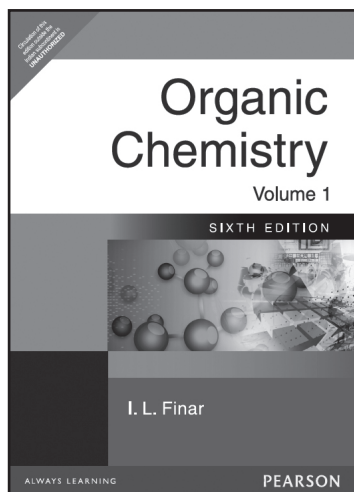
**Part 7: Bioorganic Compounds**

21. The Organic Chemistry Of Carbohydrates
22. The Organic Chemistry Of Amino Acids, Peptides, And Proteins

23. Catalysis in Organic Reactions and in Enzymatic Reactions
24. The Organic Chemistry Of The Coenzymes-Compounds Derived From Vitamins
25. The Organic Chemistry of the Metabolic Pathways
- Terpene Biosynthesis
26. The Chemistry of the Nucleic Acids
- Part 8: Special Topics in Organic Chemistry**
- Appendix I Values
- Appendix II Derivations of Rate Laws
- Appendix III Summary of Methods Used to Synthesize a Particular Functional Group
- Appendix IV Summary of Methods Employed to Form Carbon-Carbon Bonds

**ABOUT THE AUTHOR**

Paula Y. Bruice, University of California, Santa Barbara

**Organic Chemistry, Volume 1, 6/e**

I. L. Finar

ISBN: 9788177585421 | © Year: 1973 | Pages: 966

**ABOUT THE BOOK**

In the sixth edition of Dr. Finar's best-selling student text, a great deal of material has been rewritten and many new topics have been added. The arrangement of the subject matter is based on homologous series and SI units have been used throughout the text.

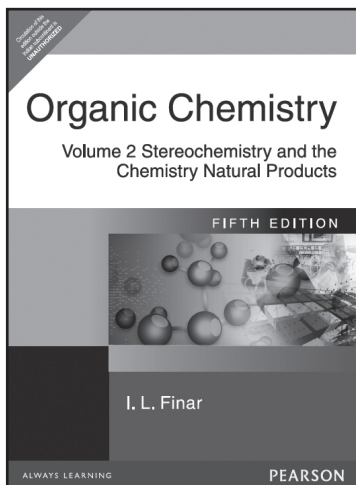
**CONTENTS**

- |                                       |   |  |
|---------------------------------------|---|--|
| 1. Determination of Structure         | 9. Saturated monocarboxylic acids and their derivatives           | 20. Monocyclic aromatic hydrocarbons               |
| 2. Properties of Molecules            | 10. Polycarbonyl compounds  | 21. Aromatic halogen compounds                     |
| 3. Alkanes                            | 11. Polyhydric alcohols   | 22. Aromatic nitro-compounds                       |
| 4. Alkenes and Alkynes                | 12. Unsaturated alcohols, ethers, carbonyl compounds and acids    | 23. Aromatic amino-compounds                       |
| 5. Halogen derivatives of the alkanes | 13. Nitrogen compounds  | 24. Diazonium salts and their related compounds    |
| 6. Monohydric alcohols                | 14. Aliphatic compounds of sulphur, phosphorus, silicon and boron | 25. Aromatic sulphonic acids                       |
| 7. Ethers                             | 15. Organometallic compounds                                      | 26. Phenols and quinones                           |
| 8. Aldehydes and ketones              | 16. Saturated dicarboxylic acids                                  | 27. Aromatic alcohols, aldehydes and ketones       |
|                                       | 17. Hydroxyacids, stereochemistry, unsaturated dicarboxylic acids | 28. Aromatic acids                                 |
|                                       | 18. Carbohydrates   | 29. Polynuclear hydrocarbons and their derivatives |
|                                       | 19. Alicyclic compounds   | 30. Heterocyclic compounds                         |
|                                       |   | 31. Dyes and photochemistry                        |

**ABOUT THE AUTHOR**

The late Dr. Finar was Principal Lecturer in Organic Chemistry at the Polytechnic of North London.





## Organic Chemistry, Volume 2: Stereochemistry and the Chemistry of Natural Products, 5/e

I. L. Finar

ISBN: 9788177585414 | © Year: 1956 | Pages: 956

### ABOUT THE BOOK

*Organic Chemistry* is a well-established two-volume textbook for students studying chemistry at degree level. Volume 2 carries the material of Volume 1: Fundamental Principles to a more advanced level. The author provides a comprehensive introduction to the relationship between physical properties and chemical structures, and then proceeds to a detailed account of stereochemistry. The later chapters are devoted to

the most typical compounds of natural products and the problems involved. A selected number of reading references are given at the end of each chapter.

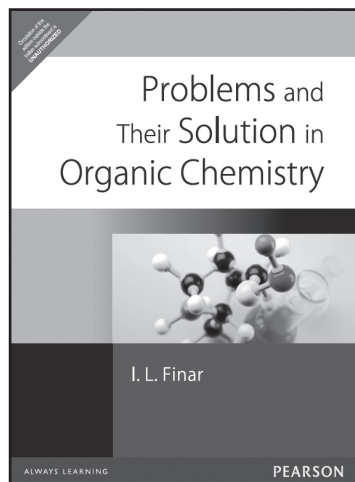
### CONTENTS

1. Physical properties and chemical constitution
2. Optical isomerism
3. Nucleophilic substitution at a saturated carbon atom, asymmetric synthesis
4. Geometrical isomerism, stereochemistry of alicyclic compounds
5. Stereochemistry of biphenyl compounds
6. Stereochemistry of some elements other than carbon
7. Carbohydrates
8. Terpenoids
9. Carotenoids
10. Polycyclic aromatic hydrocarbons
11. Steroids
12. Heterocyclic compounds containing two or more hetero-atoms
13. Amino-acids and proteins
14. Alkaloids
15. Anthocyanins
16. Purines and nucleic acids
17. Vitamins
18. Chemotherapy
19. Haemoglobin, chlorophyll and phthalocyanines

### ABOUT THE AUTHOR

The late **Dr. Finar** was Principal Lecturer in Organic Chemistry at the Polytechnic of North London.





## Problems and Solution in Organic Chemistry

I. L. Finar

ISBN: 9788131700938 | © Year: 1973 | Pages: 360

### ABOUT THE BOOK

The first part of this book collects together the questions set out at end of each chapter in the authors Textbook of Organic Chemistry, Volume 1 (sixth edition). The second part of this book gives the possible solutions, which are linked with an explanation of the sort of reasoning used in order to arrive at one of the answers. In many cases, several answers are given for one question; and in each set of questions, there is at least one which involves the completion of equations. The result is a book which can be used independently of the main volume. This book helps in acquiring a

better understanding of the basic principles of organic chemistry and in revising a large amount of the subject matter quickly.

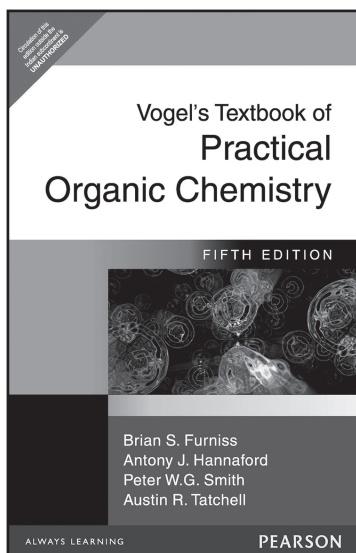
### CONTENTS

1. Determination of Structure
2. Properties of Molecules
3. Alkanes
4. Alkenes and Alkynes
5. Halogen derivatives of the alkanes
6. Monohydric alcohols
7. Ethers
8. Aldehydes and ketones
9. Saturated monocarboxylic acids and their derivatives
10. Polycarbonyl compounds
11. Polyhydric alcohols
12. Unsaturated alcohols, ethers, carbonyl compounds and acids
13. Nitrogen compounds
14. Aliphatic compounds of sulphur, phosphorus, silicon and boron
15. Organometallic compounds
16. Saturated dicarboxylic acids
17. Hydroxyacids, stereochemistry, unsaturated dicarboxylic acids
18. Carbohydrates
19. Alicyclic compounds
20. Monocyclic aromatic hydrocarbons
21. Aromatic halogen compounds
22. Aromatic nitro-compounds
23. Aromatic amino-compounds
24. Diazonium salts and their related compounds
25. Aromatic sulphonic acids
26. Phenols and quinones
27. Aromatic alcohols, aldehydes and ketones
28. Aromatic acids
29. Polynuclear hydrocarbons and their derivatives
30. Heterocyclic compounds
31. Dyes and photochemistry

### ABOUT THE AUTHOR

The late Dr. Finar was Principal Lecturer in Organic Chemistry at the Polytechnic of North London.





## Vogel's Textbook of Practical Organic Chemistry, 5/e

Brian S. Furniss • Antony J. Hannaford  
Peter W.G. Smith • Austin R. Tatchell

ISBN: 9788177589573 | © Year: 1989 | Pages: 1544

### ABOUT THE BOOK

Still recognized as the definitive text on practical topics related to organic chemistry, this text is relied upon by undergraduates, postgraduate students, and professional organic chemists. Topics covered include the structural and theoretical principles required when designing a synthesis; the disconnection or synthon approach; the principles of retrosynthetic analysis applied to relevant aliphatic, aromatic, alicyclic and heterocyclic compounds; and developments in reaction techniques.

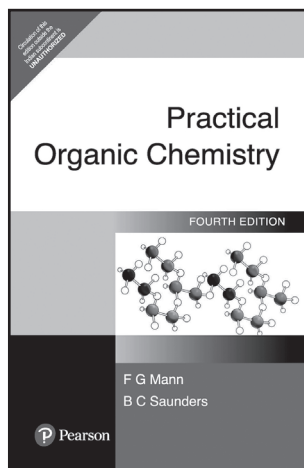
### FEATURES

- An introductory chapter on the structural and theoretical principles required when designing a synthesis.
- The disconnection or synthon approach now integrated into the text, and the principles of retrosynthetic analysis applied to relevant aliphatic, aromatic, alicyclic and heterocyclic compounds.
- Synthesis methodology is expanded to cover a range of new reagents, including oxidants and reductants; reagents for asymmetric synthesis; and those derived from lithium, boron, silicon, phosphorous and sulphur.
- Recent developments in reaction techniques which include: handling of air-sensitive and moisture-sensitive compounds; new chromatographic procedures; phase transfer catalysis; and solid support reagents.
- Over 100 new experiments selected from the literature to illustrate new reagents and techniques, and the operation of protection, selectivity and control in synthesis.
- A more detailed treatment of carbon-13 n.m.r. spectroscopy, and the interpretation of spectroscopic data for many of synthesized compounds.

### CONTENTS

1. Organic Synthesis.
2. Experimental Techniques.
3. Spectroscopic Methods and the Interpretation of Spectra.
4. Solvents and Reagents.
5. Aliphatic Compounds.
6. Aromatic Compounds.
7. Selected Alicyclic Compounds.
8. Selected Heterocyclic Compounds.
9. Investigation and Characterization of Organic Compounds.
10. Physical Constants of Organic Compounds.





## Practical Organic Chemistry

F.G. Mann • B.C. Saunders

ISBN: 9788131727102 | © Year: 2009 | Pages: 600

### ABOUT THE BOOK

This book has proved useful for research as well as for teaching purpose. The fourth edition of this book was distinguished from its predecessors by a greater emphasis on semi-micro methods and modern techniques and reactions. While updating the book in several important aspects, namely, chromatography, reaction mechanism, and safety and first-aid measures.

### CONTENTS

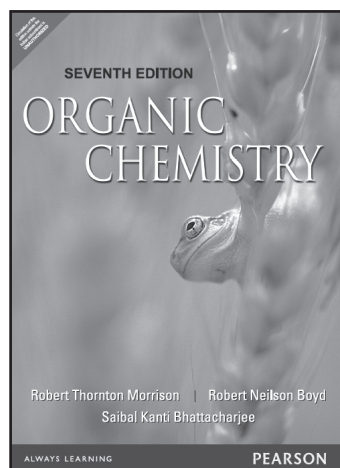
Part I: Methods and Manipulation

Part II: Preparations

Part III: Reactions and Identification of Organic Compounds

Part IV: Quantitative Analysis

Part V: Simple Enzyme Reactions



## Organic Chemistry, 7/e

Robert Thornton Morrison • Saibal Kanti Bhattacharjee  
Robert Neilson Boyd

ISBN: 9788131704813 | © Year: 2011 | Pages: 1508

### ABOUT THE BOOK

As in the earlier editions, the book conveys the important fundamentals and principles of the subject in a simple and easily understandable manner.

### CONTENTS

Part 1: Fundamentals of Organic Chemistry

1. Structures of Organic Compounds

2. Structural Theory

3. Symmetry of Organic Molecules (Molecular Dissymmetry)

4. Types of Reactions of Organic Compounds

5. Alkanes, Cycloalkanes and Aromatic Hydrocarbons

Part 2: Chemistry of Functional Groups

6. Alkenes

7. Alkynes

8. Alkyl Halides Nucleophilic Substitutions, S<sub>N</sub> Reactions

9. Aryl Halides Nucleophilic Aromatic Substitution (S<sub>N</sub>Ar Reactions)

10. Alcohols and Ethers

11. Phenols

12. Aldehydes and Ketones Nucleophilic Addition
13. Carboxylic Acids
14. Functional Derivatives of Carboxylic Acids Nucleophilic Acyl Substitution
15. Amines

#### Part 3: Special Topics

16. Heterocyclic Compounds
17. Purification and Identification of Organic Compounds: Spectroscopic Analysis of Organic Compounds
18. Organic Synthesis
19. Oxidation and Reduction Electroorganic Synthesis
20. Molecular Orbitals; Orbital Symmetry (Pericyclic Reactions)
21. Organic Photochemistry
22. Synthetic Organic Compounds of Commercial Importance: Synthetic Dyes and Macromolecules
23. Symphoria (Anchimeric Assistance) Neighboring Group Effects. Catalysis by Transition Metal Complexes
24. Introduction to Supramolecular Chemistry Host–Guest Chemistry

#### Part 4: (Biomolecules and Bioorganic Chemistry)

25. Lipids Fats, Steroids, Terpenes, and Prostaglandins
26. Carbohydrates I: Monosaccharides. Carbohydrates II: Disaccharides and Polysaccharides
27. Alkaloids
28. -Amino Acids and Proteins Molecular Biology
29. Enzymes, Co-Enzymes and Vitamins
30. Nucleic Acids Nucleotides, Polynucleotides and Nucleosides
31. Drugs Chemotherapeutic and Pharmacodynamic Agents

#### Part 5: Contemporary and Future Organic Chemistry

32. Nanoparticles (Size-Dependent Chemistry)
33. Future Devices and Challenges of Chemistry of this Century Molecular Machines or Nanomachines

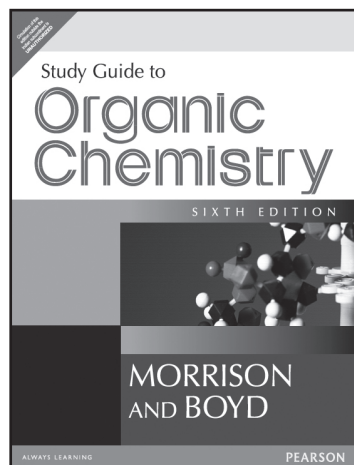
#### ABOUT THE AUTHOR

Robert Thornton Morrison, New York University

Robert Neilson Boyd, New York University

Saibal Kanti Bhattacharjee, Gauhati University





## Study Guide to Organic Chemistry, 6/e

Robert Thornton Morrison

ISBN: 9788131711514 | © Year: 2007 | Pages: 738

### ABOUT THE BOOK

The sixth edition of the study guide represents the result of the authors' commitment to offer an even more effective teaching/learning tool in conjunction with their book titled Organic Chemistry. Much of the material has been rewritten and reorganized to provide a more accessible presentation, clear explanation and a greater emphasis on fundamentals.

### FEATURES

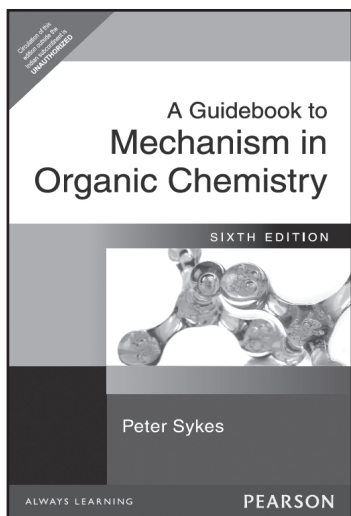
- The earlier chapters on fundamentals have been streamlined.
- Key topics such as nucleophilic substitution, elimination, addition, conjugation and stereoselectivity find an easy and effective introduction in the revised version.
- Alcohols and Ethers are now treated in Chapter 6 (immediately following nucleophilic substitution) which permits realistic use of oxygen compounds in the chemistry that follows.
- Removal of redundant and outdated material has made the study guide slimmer by 200 pages.

### CONTENTS

1. Acknowledgements.
2. To the Students.
3. Note.
4. Structure and Properties.
5. Methane: Energy of Activation, Transition State.
6. Alkanes: Free-Radical Substitution.  
Stereochemistry Stereoisomers.
7. Alkyl Halides: Nucleophilic Aliphatic Substitution.
8. Alcohols and Ethers.
9. Role of the Solvent: Secondary Bonding.
10. Alkenes I Structure and Preparation: Elimination.
11. Alkenes II Reactions of the Carbon-Carbon  
Double Bond: Electrophilic and Free-Radical  
Addition.
12. Stereochemistry II Stereoselective and  
Stereospecific Reactions.
13. Conjugation and Resonance: Dienes.
14. Alkynes.
15. Cyclic Aliphatic Compounds.
16. Aromaticity: Benzene.
17. Electrophilic Aromatic Substitution.
18. Aromatic- Aliphatic Compounds: Arenes and  
Their Derivatives.
19. Spectroscopy and Structure.
20. Aldehydes and Ketones: Nucleophilic Addition.
21. Carboxylic Acids.
22. Functional Derivatives of Carboxylic Acids:  
Nucleophilic Acyl, Substitution.
23. Carbanions I: Aldol and Iaisen Condensations.
24. Amines I: Preparation and Physical Properties.
25. Amines II: Reactions.
26. Phenols.
27. Carbanions II: Malonic Ester and Acetoacetic  
Ester Syntheses.
28. Aryl Halides: Nucleophilic Aromatic Substitution.
29. Unsaturated Carbonyl Compounds: Conjugate  
Addition.
30. Molecular Orbitals.
31. Orbital Symmetry.
32. Symphoria: Neighboring Group Effects, Catalysis  
by Transition Metal Complexes.
33. Heterocyclic Compounds.
34. Macromolecules.
35. Polymers and Polymerization.
36. Stereochemistry III: Enantiotopic and  
Diastereotopic Ligands and Faces.
37. Lipids: Fats and Steroids.
38. Carbohydrates I: Monosaccharides.
39. Carbohydrates II: Disaccharides and  
Polysaccharides.
40. Proteins and Nucleic Acids: Molecular Biology.
41. Analysis of Spectra.

### ABOUT THE AUTHOR

Robert Thornton Morrison, New York University



## A Guidebook to Mechanism in Organic Chemistry, 6/e

Peter Sykes

ISBN: 9788177584332 | © Year: 1986 | Pages: 428

### ABOUT THE BOOK

This classic textbook on mechanistic organic chemistry, characterized by its clarity, careful choice of examples, and its general approach designed to lead to a greater understanding of the subject matter. The book is aimed clearly at the needs of the student, with a thorough understanding of, and provision for, the potential conceptual difficulties he or she is likely to encounter. The book's success in achieving these goals is reflected in the opinion of one reviewer who says, "Sykes remains the bible of mechanistic organic chemistry for thousands of undergraduates, and there is certainly no

English language publication of which I am aware which comes even close to challenging it in terms of clarity and coverage."

### FEATURES

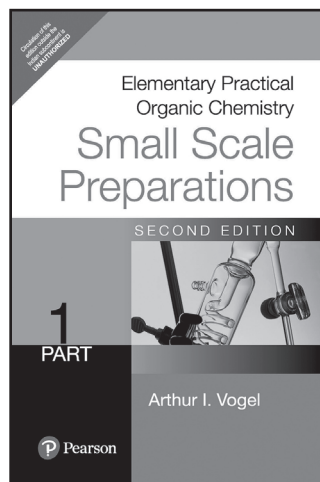
- New " topics introduced in this edition : ipso aromatic substitution; the mechanistic borderline in nucleophilic substitution; more use of activation parameters; Dimorth's ET parameter; Hammett's  $\sigma^+$  and spectroscopic data; and  $^{13}\text{C}$  n.m.r. in biogenesis.
- New " thoroughly revised text with improved explanations, more examples and increased clarity.

### CONTENTS

1. Structure, Reactivity, and Mechanism.
2. Energetics, Kinetics, and the Investigation of Mechanism.
3. The Strengths of Acids and Bases.
4. Nucleophilic Substitution at a Saturated Carbon Atom.
5. Carbocations, Electron-deficient N and O Atoms and Their Reactions.
6. Electrophilic and Nucleophilic Substitution in Aromatic Systems.
7. Electrophilic and Nucleophilic Addition to  $\text{C}=\text{C}$ .
8. Nucleophilic Addition to  $\text{C}=\text{O}$ .
9. Elimination Reactions.
10. Carbanions and Their Reactions.
11. Radicals and Their Reactions.
12. Symmetry Controlled Reactions.
13. Linear Free Energy Relationships.







## Elementary Practical Organic Chemistry: Small Scale Preparations Part 1, 2/e

Arthur I. Vogel

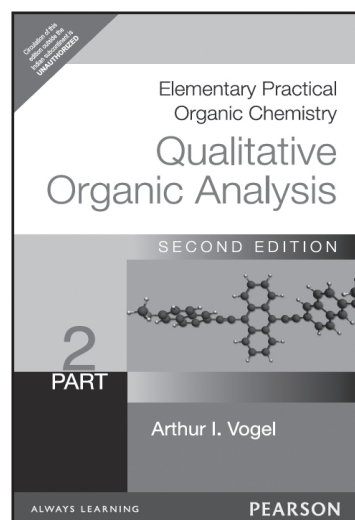
ISBN: 9788131756867 | © Year: 2011 | Pages: 456

### FEATURES

- Experimental Techniques
- Mechanism of all reactions described
- Introduction of a number of reactions and experimental procedures of general interest

### CONTENTS

1. Theory of General Technique
2. Experimental Technique
3. Aliphatic Compounds
4. Aromatic Compounds
5. Miscellaneous Compounds and Miscellaneous Reactions



## Elementary Practical Organic Chemistry: Qualitative Organic Analysis Part 2, 2/e

Arthur I. Vogel

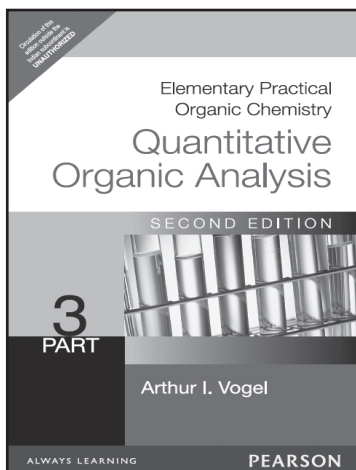
ISBN: 9788131756874 | © Year: 2011 | Pages: 448

### ABOUT THE BOOK

A dedicated chapter on "The use of spectroscopic methods in qualitative organic analysis" which includes the essentials from a practical viewpoint of ultraviolet and visible spectroscopy and infrared spectroscopy and mass spectroscopy. These spectroscopy techniques are now-days of such great importance that no book on qualitative organic analysis can be regarded complete without their inclusion.

### CONTENTS

1. Determination of physical constants
2. Qualitative analysis for the elements
3. The solubility classes
4. Reactions and characterization of selected classes of organic compounds
5. Class reactions
6. The preparation of derivatives
7. Qualitative analysis of mixtures of organic compounds
8. The use of spectroscopic methods in qualitative organic analysis
9. Physical constants of organic compounds



## Elementary Practical Organic Chemistry: Quantitative Organic Analysis Part 3, 2/e

Arthur I. Vogel

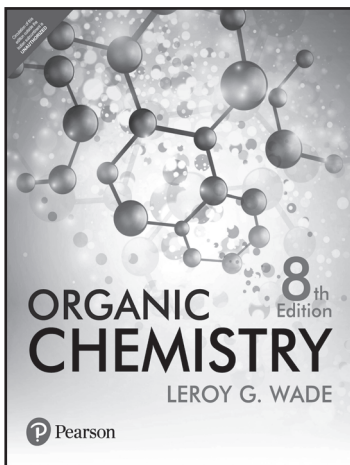
ISBN: 9788131756881 | © Year: 2011 | Pages: 382

### FEATURES

- Numerous Experiments
- Coverage of quantitative organic analysis through the medium of functional groups

### CONTENTS

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Determination of selected elements in organic compounds</li> <li>2. General discussion of titrations in non-aqueous solvents</li> <li>3. Hydroxyl groups (Alcohols)</li> <li>4. Adjacent hydroxyl groups</li> <li>5. Hydroxyl groups (Phenols)</li> <li>6. Amino groups</li> <li>7. Salts of amines</li> <li>8. Amino acids</li> <li>9. Carboxyl groups</li> <li>10. Salts of carboxylic acids</li> <li>11. Anhydrides of carboxylic acids</li> <li>12. Esters of carboxylic acids</li> </ol> | <ol style="list-style-type: none"> <li>13. Aldehydes and ketones</li> <li>14. Carbohydrates (Sugars)</li> <li>15. Nitro, Nitrates and azo groups</li> <li>16. Unsaturation</li> <li>17. Alkoxy groups</li> <li>18. C-Methyl, O-acetyl and N-acetyl groups</li> <li>19. Active Hydrogen</li> <li>20. Enols</li> <li>21. Imides</li> <li>22. Sulphonamides, Thiols, Sulphides and disulphides</li> <li>23. Determination using ION exchange resins</li> <li>24. Some application of the karl fischer reagent</li> <li>25. Alpha-epoxy groups</li> <li>26. Miscellaneous determinations</li> </ol> |
|---|---|



## Organic Chemistry, 8/e

Leroy G. Wade

ISBN: 9789332578586 | © Year: 2016 | Pages: 1288

**NEW EDITION**

### ABOUT THE BOOK

Acclaimed for its clarity and precision, Wade's *Organic Chemistry* maintains scientific rigor while engaging students at all levels. Wade presents a logical, systematic approach to understanding the principles of organic reactivity and the mechanisms of organic reactions. This approach helps students develop the problem-solving strategies and the scientific intuition they will apply throughout the course and in their future scientific work.

The Eighth Edition provides enhanced and proven features in every chapter, including new Chapter Goals, Essential Problem-Solving Skills and

Hints that encourage both majors and non-majors to think critically and avoid taking “short cuts” to solve problems. Mechanism Boxes and Key Mechanism Boxes strengthen student understanding of *Organic Chemistry* as a whole while contemporary applications reinforce the relevance of this science to the real world.

## FEATURES

- Wade provides greater coverage of complete mechanisms and more mechanistic questions than any other book on the market to help students predict reactions they have never seen before.
- 20 Key Mechanism Boxes are the fundamental mechanistic principles that recur throughout the course. They are the mechanisms that compose most of the longer, more complex mechanisms. Each Key Mechanism Box reinforces student understanding with steps and explanations that describe the reaction mechanism (how the reaction occurs), a specific example of the mechanism for reinforcement, and a concluding problem or question so students can assess their understanding.
- Over 150 Mechanism Boxes help students understand how reactions occur by focusing on the individual steps of each reaction. The Mechanism Boxes are shaded in blue so students can locate them easily as they thumb through the chapter.
- Over 1400 (mostly multi-part) problems provide immediate review and allow students to assess their understanding of what they have read in each section before moving on to the next.
- Problem-Solving Strategies help students break down the multitude of complex problems into simpler pieces. These strategies help students establish thoughtful methods for approaching complicated problems — like those that require proposing mechanisms and developing multi-step synthesis.

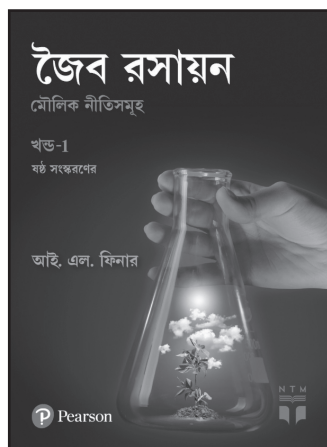
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| 2. Structure and Properties of Organic Molecule             | 15. Conjugated Systems, Orbital Symmetry, and Ultraviolet Spectroscopy |
| 3. Structure and Stereochemistry of Alkanes                 | 16. Aromatic Compounds   |
| 4. The Study of Chemical Reactions                          | 17. Reactions of Aromatic Compounds                                    |
| 5. Stereochemistry  | 18. Ketones and Aldehydes  |
| 6. Alkyl Halides: Nucleophilic Substitution and Elimination | 19. Amines   |
| 7. Structure and Synthesis of Alkenes                       | 20. Carboxylic Acids   |
| 8. Reactions of Alkenes                                     | 21. Carboxylic Acid Derivatives  |
| 9. Alkynes  | 22. Condensations and Alpha Substitutions of Carbonyl Compounds        |
| 10. Structure and Synthesis of Alcohols                     | 23. Carbohydrates and Nucleic Acids                                    |
| 11. Reactions of Alcohols                                   | 24. Amino Acids, Peptides, and Proteins                                |
| 12. Infrared Spectroscopy and Mass Spectrometry             | 25. Lipids   |
| 13. Nuclear Magnetic Resonance Spectroscopy                 |  |

## ABOUT THE AUTHOR

L.G. “Skip” Wade decided to become a chemistry major during his sophomore year at Rice University, while taking organic chemistry from Professor Ronald M. Magid. After receiving his B.A. from Rice in 1969, Wade went on to Harvard University, where he did research with Professor James D. White. While at Harvard, he served as the Head Teaching Fellow for the organic laboratories and was strongly influenced by the teaching methods of two master educators, Professors Leonard K. Nash and Frank H. Westheimer.





## Organic Chemistry, Vol 1, 6/e (Bangla)

I. L. Finar

ISBN: 9789332546974 | © Year: 2017 | Pages: 375

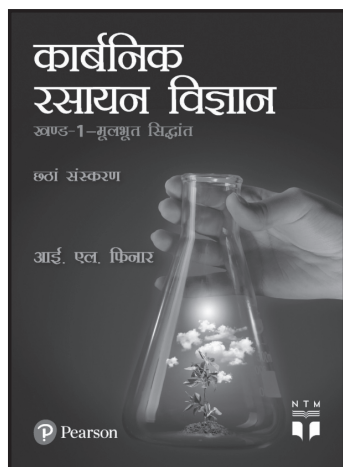
### ABOUT THE BOOK

L. Finar द्वारा लिखित कार्बनिक रासायन विज्ञान, vol.1-मूलभूत सिद्धान्त को यदि आपनी भाषा में पढ़ा जाये तो उसे अच्छी बात ही नहीं सकती। हमारी शिक्षण प्रणाली में सबसे बड़ी कमी यह है कि आज भी विज्ञान एम तकनीक विषय को पढ़ाने एम समझने के लिए English का ही प्रयोग किया जाता है, परीक्षाओं में विद्यार्थी उच्च अंक प्राप्त करने की आकांक्षा में विषय की मूल अवधारणाओं को समझने के बजाय उनके रटने हेतु बर्बाद हो जाते हैं।

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  8. Sanstript Monokarbocsilik aaml ewm unke byutpann
  9. Bahukarbonil Yogik
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  11. Asanstript Elkohal, Ethar, Carbonil yogik ewm Aaml
  12. Naitrozen yukt Yogik
  13. Salfar , Fasforas, Silican ewm Boron ke Elifatik yogik
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  18. Elisaeclik yogik
  19. Ekalchakriya erometik haydrocarbons
  20. Erometic Hellogen Yogic
  21. Erometic Naetro Yogic
  22. Erometic emino Yogic
  23. Daeyejoniyam lavan ewm unse sambandhit Yogic
  24. Erometic Salfonik Aaml
  25. Finaols ewm cvinons
  26. Erometic Elcohals, Eldihaeds ewm kitons
  27. Erometic Aaml
  28. Bahunabhikiy Haydrocarban ewm unke byutpann
  29. Vishamchakriya Yogic
  30. Ranjak ewm Prakashiy Rasayan Sashtra
  31. Parisist
  32. Anukramnik





## Organic Chemistry, Vol 1, 6/e NTM (Hindi)

I. L. Finnar

ISBN: 9788131791394 | © Year: 2017 | Pages: 400

### ABOUT THE BOOK

I L. Finar द्वारा लिखित Carbanik Rasayan Vigyan, vol.1-mulbhut sidhant ko yadi aapni bhasa mein pada jaye to esse aachi bat ho hi nahin sakti. Hamari sikhsan pranali mein sabse badi kami yah hai ki aaj bhi vigyan ewm takniki vishyo ko padhane ewm samjhane ke liye English ka hi prayog kiya jata hai, parinamsawarup vidhyarthi ucch aank prapt karne ki aakanksha mein Vishay ki mul avdharnaoo ko samjhne ke bajay unko ratne hetu badhya ho jate hai.

### CONTENT

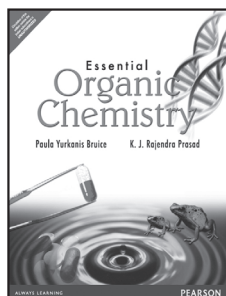
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Sanrachna ka Nirdharan

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12. Naitrozen yukt Yogik
13. Salfar , Fasforas, Silican ewm Boron ke Elifatik yogik
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15. Sanstript Daecarbocsilik Aaml
16. Haidocsi Aaml, Trivim Rasayan Sastra tha Asanstript Aaml
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20. Erometic Hellogen Yogic
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22. Erometic emino Yogic
23. Daeyejoniyam lavan ewm unse sambandhit Yogic
24. Erometic Salfonik Aaml
25. Finaols ewm cvinons
26. Erometic Elcohals, Eldihaeds ewm kitons
27. Erometic Aaml
28. Bahunabhikiy Haydrocarban ewm unke byutpann"



Also Available



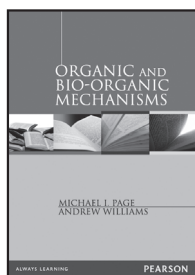
## Essential Organic Chemistry

Paula Yurkanis Bruice • Rajendra Prasad

ISBN: 9788131703731 | © Year: 2007 | Pages: 672

### ABOUT THE BOOK

*Essential Organic Chemistry* is designed to help students see organic chemistry as an interesting and exciting science and to give them an opportunity to develop critical-thinking skills. It engages students through detailed presentation of reactions, providing a solid understanding of reactivity rather than requiring rote memorization. Once students understand the reasons behind the reactivity of organic compounds, they then will be better prepared to understand the reactions involved in such areas as metabolism, PCR and genetic engineering.



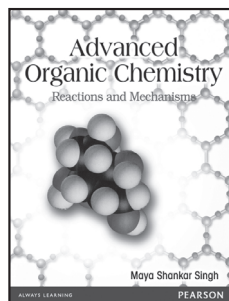
## Organic and Bio-organic Mechanisms

Michael I. Page • Andrew Williams

ISBN: 9788131729496 | © Year: 2009 | Pages: 312

### ABOUT THE BOOK

This text provides a comprehensive and detailed discussion of the investigation of organic and bioorganic reaction mechanisms. It addresses questions such as: 'How are bonds between atoms rearranged?', 'What sort of structural changes take place to cause bond fission and formation?' and 'How do catalysts lower the activation energies of reactions?'



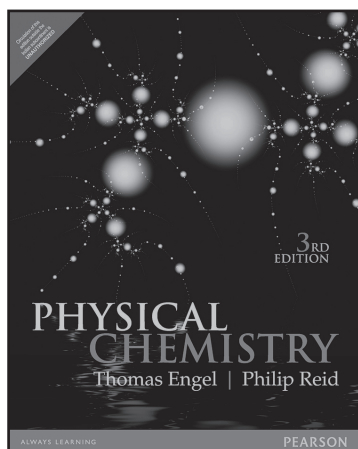
## Advanced Organic Chemistry: Reactions and Mechanisms

Maya Shankar Singh

ISBN: 9788131711071 | © Year: 2004 | Pages: 528

### ABOUT THE BOOK

For students of B.Sc./M.Sc. Chemistry. Practising professionals in various chemical, bio-chemical and pharmaceutical industries.



## Physical Chemistry, 3/e

Thomas Engel • Philip Reid

ISBN: 9789332519015 | © Year: 2014 | Pages: 1048

### ABOUT THE BOOK

Engel and Reid's *Physical Chemistry* gives students a contemporary and accurate overview of physical chemistry while focusing on basic principles that unite the sub-disciplines of the field. The Third Edition continues to emphasize fundamental concepts and presents cutting-edge research developments that demonstrate the vibrancy of physical chemistry today.

### FEATURES

- Modern applications are drawn from biology, environmental science, and material science to help give Physical Chemistry immediate relevance to students.
- An emphasis on problem solving includes:
- Numerous Worked Examples and highlighted Key Equations throughout help students understand the math and develop their own problem-solving skills.
- Concept Questions, Quantitative Problems, and a unique set of problems related to the web-based simulations and animations at the end of each chapter offer students a variety of study and assessment resources.
- Additional math-development resources available in an Appendix provide a quick reference.
- Current research is featured throughout along with new developments in the field, such as gap engineering, quantum dots, quantum wells, teleportation, and scanning tunneling microscopy to reflect the vibrancy of the field today.

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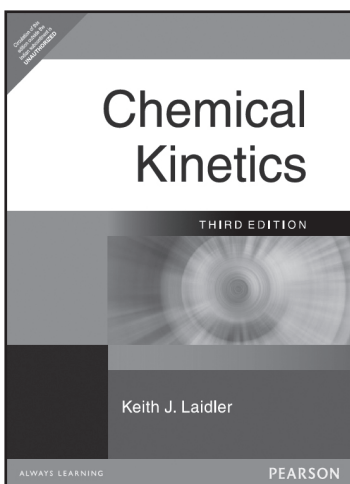
1. Fundamental Concepts of Thermodynamics
2. Heat, Work, Internal Energy, Enthalpy, and the First Law of Thermodynamics
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28. Ensemble and Molecular Partition Functions
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32. Elementary Chemical Kinetics
33. Complex Reaction Mechanisms



### ABOUT THE AUTHOR

**Thomas Engel** has taught chemistry for more than 20 years at the University of Washington, where he is currently Professor of Chemistry and Associate Chair for the Undergraduate Program. Professor Engel received his bachelor's and master's degrees in chemistry from the Johns Hopkins University, and his Ph.D. in chemistry from the University of Chicago. He then spent 11 years as a researcher in Germany and Switzerland, in which time he received the Dr. rer. nat. habil. degree from the Ludwig Maximilians University in Munich. In 1980, he left the IBM research laboratory in Zurich to become a faculty member at the University of Washington.

**Philip Reid** has taught chemistry at the University of Washington since he joined the chemistry faculty in 1995. Professor Reid received his bachelor's degree from the University of Puget Sound in 1986, and his Ph.D. in chemistry from the University of California at Berkeley in 1992. He performed postdoctoral research at the University of Minnesota, Twin Cities, campus before moving to Washington.



### Chemical Kinetics, 3/e

Keith J. Laidler

ISBN: 9788131709726 | © Year: 1987 | Pages: 544

#### ABOUT THE BOOK

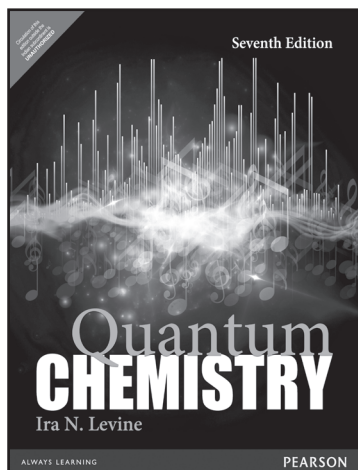
Basic concepts of both experimental and theoretical chemical kinetics are concisely explained for those seeking a general knowledge of the subject from this well-known text, now being totally revised and updated. In addition, the book is an invaluable starting point for those embarking on research in kinetics and physical chemistry. Extensive chapter bibliographies point the way toward more detailed accounts or specialized aspects. Historical background included in both chapter introductions and biographical sketches of important researches in chemical kinetics.

#### FEATURES

- An invaluable starting point for those embarking on research in kinetics and physical chemistry.
- Extensive chapter bibliographies point the way toward more detailed accounts or specialized aspects.
- Historical background included in both chapter introductions and biographical sketches of important researchers in chemical kinetics.

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1. Basic Kinetic Concepts.
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8. Composite Reactions.
9. Photochemical and Radiation-Chemical Reactions.
10. Homogeneous Catalysis.
11. Isotope Effects.
12. Reaction Dynamics.



## Quantum Chemistry, 7/e

Ira N. Levine

ISBN: 9789332558533 | © Year: 2016 | Pages: 720

**NEW**

### ABOUT THE BOOK

This classic text on quantum chemistry has been extensively updated to include the latest research and developments in the field. With its solid presentation of mathematics, this bestseller provides a great introduction to the fundamentals of quantum chemistry and the math needed to master it.

The seventh edition covers quantum mechanics, atomic structure, and molecular electronic structure and clearly demonstrates the usefulness and limitations of current quantum-mechanical methods for the calculation of molecular properties.

### FEATURES

- In-depth treatment of quantum chemistry
- Derivations are presented in full, step-by-step detail
- Comprehensive discussions of the major computational methods of molecular electronic structure (Hartree—Fock, CI, density-functional theory, MP2, coupled cluster, semiempirical, molecular mechanics) are provided.

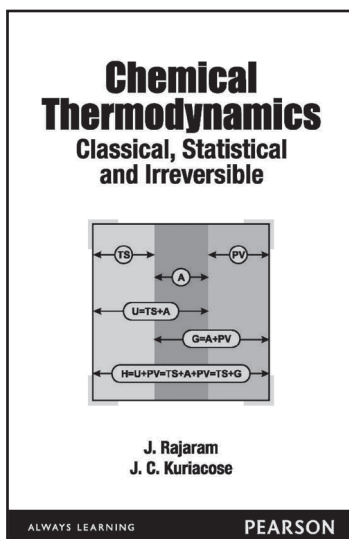
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### ABOUT THE AUTHOR

Ira N. Levine is faculty, Brooklyn College, City University of New York.





## Chemical Thermodynamics: Classical, Statistical and Irreversible

J. Rajaram

ISBN: 9788131792155 | © Year: 2013 | Pages: 696

### ABOUT THE BOOK

Aimed at providing undergraduate and postgraduate students with an understanding of thermodynamics, this book brings out the thermodynamic interrelationships in a succinct break-down of its essential elements. It starts with the fundamentals and progresses to advanced concepts to enable students to appreciate the application of thermodynamics in different areas of chemistry. Conforming to the syllabus framed by the U.G.C. curriculum, this course textbook is written in a simple and lucid language, the discussion and explanations being interspersed with appropriate worked-out examples. Every chapter is accompanied by adequate end-of-chapter exercises.

### FEATURES

- Covers all introductory concepts in detail with a rich pedagogy for easy understanding
- Clear explanation of important concepts such as partial molar properties, fugacity and activity
- Over 140 solved examples and 100 end-of-chapter exercises

### CONTENTS

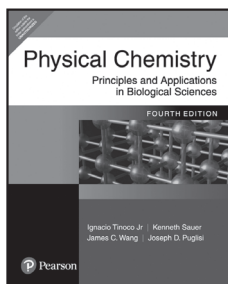
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10. Fugacity and activity
11. Chemical Equilibrium
12. Aqueous solutions of electrolytes

### ABOUT THE AUTHOR

J. Rajaram and J. C. Kuriacose are retired professors of the department of chemistry, Indian Institute of Technology, Madras, Chennai, having devoted over thirty years to teaching chemistry.



## Also Available



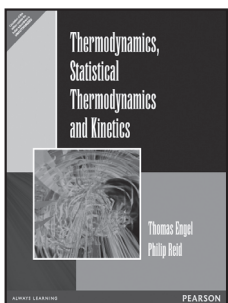
## Physical Chemistry: Principles and Applications in Biological Sciences, 4/e

Ignacio Jr. Tinoco • Kenneth Sauer  
James C. Wang • Joseph D. Puglisi

ISBN: 9788131709757 | © Year: 2007 | Pages: 764

### ABOUT THE BOOK

This best-selling text presents the principles and applications of contemporary physical chemistry as they are used to solve problems in biology, biochemistry, and medicine. This text puts the study of physical chemistry for these students in context.



## Thermodynamics, Statistical Thermodynamics, and Kinetics

Thomas Engel • Philip Reid

ISBN: 9788131712849 | © Year: 2007 | Pages: 610

### ABOUT THE BOOK

This book presents the fundamental concepts of general chemistry in a precise and comprehensive manner for undergraduate students of chemistry and life science at all Indian universities. Adhering strictly to the UGC curriculum, the contents are written in a simple and lucid language enriched with a large number of examples and illustrations.





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9789332551879	Day / Underwood	Quantitative Analysis, 6/e	659	7
9789332533530	Dogra	Atomic and Molecular Spectroscopy	619	17
9788131773789	Ekambaram	General Chemistry	439	17
9789332519015	Engel / Reid	Physical Chemistry, 3/e	1,039	37
9788131712849	Engel / Reid	Thermodynamics, Statistical Thermodynamics, and Kinetics	789	41
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9788177585414	Finar	Organic Chemistry, Volume 2: Stereochemistry and the Chemistry Natural Products, 5/e	979	24
9788131700938	Finar	Problems and Solution in Organic Chemistry	659	25
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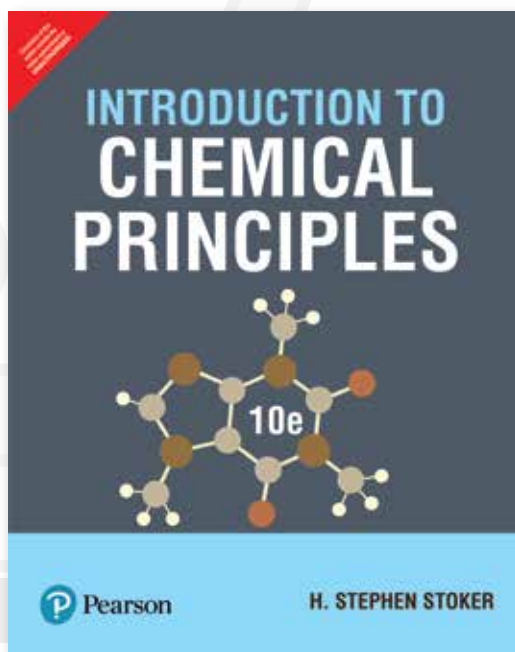
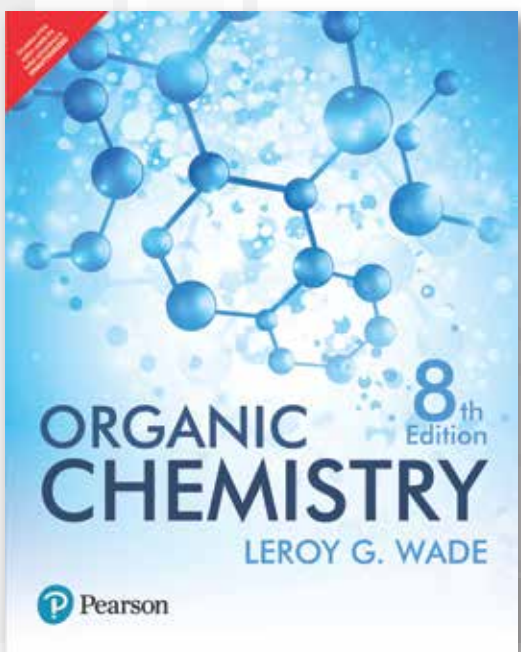
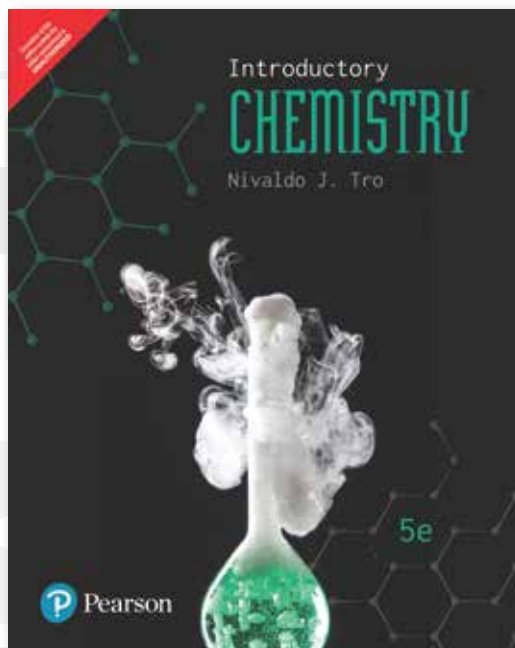
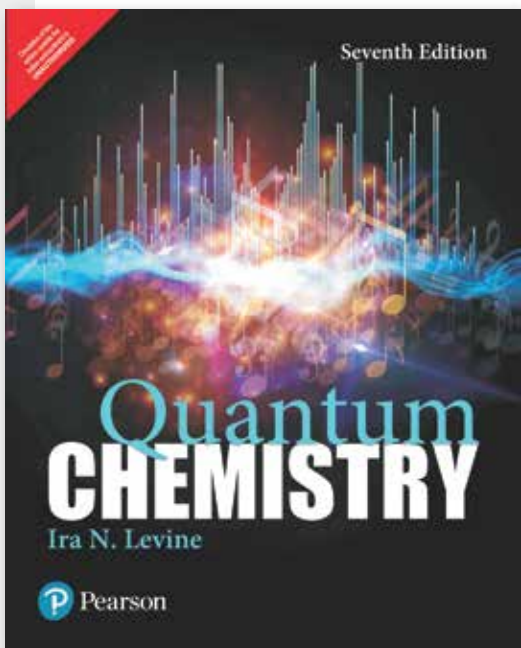
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