Linda Nilson puts forward an innovative but practical and tested approach to grading—the specifications grading paradigm—which restructures assessments to streamline the grading process and greatly reduce grading time, empower students to choose the level of attainment they want to achieve, reduce antagonism between the evaluator and the evaluated, and increase student receptivity to meaningful feedback, thus facilitating the learning process—all while upholding rigor. In addition, specs grading increases students' motivation to do well by making expectations clear, lowering their stress and giving them agency in determining their course goals. Among the unique characteristics of the schema, all of which simplify faculty decision making, are the elimination of partial credit, the reliance on a one-level grading rubric and the "bundling" of assignments and tests around learning outcomes. Successfully completing more challenging bundles (or modules) earns a student a higher course grade. Specs grading works equally well in small and large class settings and encourages "authentic assessment." Used consistently over time, it can restore credibility to grades by demonstrating and making transparent to all stakeholders the learning outcomes that students achieve.

This book brings together fifteen contributions from presenters at the 25th IUPAC International Conference on Chemistry Education 2018, held in Sydney. Written by a highly diverse group of chemistry educators working within different national and institutional contexts with the common goal of improving student learning, the book presents research in multiple facets of the cutting edge of chemistry education, offering insights into the application of learning theories in chemistry combined with practical experience in implementing teaching strategies. The chapters are arranged according to the themes novel pedagogies, dynamic teaching environments, new approaches in assessment and professional skills—each of which is of substantial current interest to the science education communities. Providing an overview of contemporary practice, this book helps improve student learning outcomes. Many of the teaching strategies presented are transferable to other disciplines and are of great interest to the global community of tertiary chemistry educators as well as readers in the areas of secondary STEM education and other disciplines.

The 'Red Book' is the definitive guide for scientists requiring internationally approved inorganic nomenclature in a legal or regulatory environment.

Peterson's Graduate Programs in the Physical Sciences, Mathematics, Agricultural Sciences, the Environment & Natural Resources contains a wealth of information on colleges and universities that offer graduate work in these exciting fields. The institutions listed include those in the United States and Canada, as well international institutions that are accredited by U.S. accrediting bodies. Up-to-date information, collected through Peterson's Annual Survey of Graduate and
Professional Institutions, provides valuable information on degree offerings, professional accreditation, jointly offered degrees, part-time and evening/weekend programs, postbaccalaureate distance degrees, faculty, students, degree requirements, entrance requirements, expenses, financial support, faculty research, and unit head and application contact information. Readers will find helpful links to in-depth descriptions that offer additional detailed information about a specific program or department, faculty members and their research, and much more. In addition, there are valuable articles on financial assistance, the graduate admissions process, advice for international and minority students, and facts about accreditation, with a current list of accrediting agencies.

A Concise and Easy Study Guide to Ace Organic Chemistry I Learn the important concepts covered in the first semester of a college Organic Chemistry course in this concise but comprehensive study guide. This study guide is a supplemental resource to help students learn/review the important concepts covered in the first semester of a college Organic Chemistry course. The guide is broken down into 11 easy to read chapters and covers: Review of General Chemistry Concepts Functional Groups IUPAC Nomenclature Stereoisomerism and Chirality Alkanes, Cycloalkanes, Alkene, Alkynes, Haloalkanes, and Alcohols Acids and Bases Reactions of Alkenes with Mechanisms and Reaction Summaries Reactions of Alkynes with Mechanisms and Reaction Summaries Radical Reactions with Mechanisms and Reaction Summaries Nucleophilic Substitution and Beta-elimination Reactions of Alcohols with Mechanisms and Reaction Summaries Ethers and Epoxides And MUCH MUCH MORE... Buy a Copy and Begin Learning Today!

Organic Chemistry Study Guide
Atkins' Physical Chemistry: Molecular Thermodynamics and Kinetics is designed for use on the second semester of a quantum-first physical chemistry course. Based on the hugely popular Atkins' Physical Chemistry, this volume approaches molecular thermodynamics with the assumption that students will have studied quantum mechanics in their first semester. The exceptional quality of previous editions has been built upon to make this new edition of Atkins' Physical Chemistry even more closely suited to the needs of both lecturers and students. Re-organised into discrete 'topics', the text is more flexible to teach from and more readable for students. Now in its eleventh edition, the text has been enhanced with additional learning features and maths support to demonstrate the absolute centrality of mathematics to physical chemistry. Increasing the digestibility of the text in this new approach, the reader is brought to a question, then the math is used to show how it can be answered and progress made. The expanded and redistributed maths support also includes new 'Chemist's toolkits' which provide students with succinct reminders of mathematical concepts and techniques right where they need them. Checklists of key concepts at the end of each topic add to the extensive learning support provided throughout the book, to reinforce the main take-home messages in each section.
The coupling of the broad coverage of the subject with a structure and use of pedagogy that is even more innovative will ensure Atkins' Physical Chemistry remains the textbook of choice for studying physical chemistry.

Be prepared for exam day with Barron's. Trusted content from AP experts! Barron’s AP Chemistry Premium: 2022-2023 includes in-depth content review and online practice. It’s the only book you’ll need to be prepared for exam day. Written by Experienced Educators Learn from Barron's--all content is written and reviewed by AP experts Build your understanding with comprehensive review tailored to the most recent exam Get a leg up with tips, strategies, and study advice for exam day--it’s like having a trusted tutor by your side Be Confident on Exam Day Sharpen your test-taking skills with 6 full-length practice tests--3 in the book and 3 more online Strengthen your knowledge with in-depth review covering all Units on the AP Chemistry Exam Reinforce your learning with practice questions at the end of each chapter Interactive Online Practice Continue your practice with 3 full-length practice tests on Barron's Online Learning Hub Simulate the exam experience with a timed test option Deepen your understanding with detailed answer explanations and expert advice Gain confidence with automated scoring to check your learning progress

Foundations of Inorganic Chemistry by Gary Wulfsberg is our newest entry into the field of Inorganic Chemistry textbooks, designed uniquely for a one-semester stand alone course, or to be used in the first semester of a full year inorganic sequence. By covering virtually every topic in the test from the 2016 ACS Exams Institute, this book will prepare your students for success. The new book combines careful pedagogy, clear writing, beautifully rendered two-color art, and solved examples, with a broad array of original, chapter-ending exercises. It assumes a background in General Chemistry, but reviews key concepts, and also assumes enrollment in a Foundations of Organic Chemistry course. Symmetry and molecular orbital theory are introduced after the student has developed an understanding of fundamental trends in chemical properties and reactions across the periodic table, which allows MO theory to be more broadly applied in subsequent chapters. Key Features include: Over 900 end-of-chapter exercises, half answered in the back of the book.Over 180 worked examples.Optional experiments & demos.Clearly cited connections to other areas in chemistry and chemical sciencesChapter-opening biographical vignettes of noted scientists in Inorganic Chemistry.Optional General Chemistry review sections.

Study more effectively and improve your performance at exam time with this guide! The Study Guide for CHEMISTRY: THE MOLECULAR SCIENCE, FOURTH EDITION contains helpful learning tools, such as brief notes on chapter sections with examples, review of key terms, and practice tests (with answers).

More people get into medical school with a Kaplan MCAT course than all major courses combined. Now the same results are available with Kaplan's MCAT Physics and Math Review. This book features thorough subject review, more questions than any competitor, and the highest-yield questions available. The commentary and instruction come directly from Kaplan MCAT experts and include targeted focus on the most-tested concepts plus more questions than any other guide. Kaplan's MCAT Physics and Math Review offers: UNPARALLELED MCAT KNOWLEDGE: The Kaplan MCAT team has spent years studying every document related to the MCAT available. In conjunction with our expert psychometrists, the Kaplan team is able to ensure the accuracy and realism of our practice materials. THOROUGH SUBJECT REVIEW: Written by top-rated, award-winning Kaplan instructors. All material has been vetted by editors with advanced science degrees and by a medical doctor. EXPANDED CONTENT THROUGHOUT: While the MCAT has continued to develop, this book has been updated continuously to match the AAMC's guidelines precisely—no more worrying if your prep is comprehensive! MORE PRACTICE THAN THE
COMPETITION: With questions throughout the book and online, Kaplan's MCAT Physics and Math Review has more practice than any other MCAT Physics and Math book on the market. ONLINE COMPANION: Access to online resources to augment content studying, including practice questions and videos. The MCAT is a computer-based test, so practicing in the same format as Test Day is key. TOP-QUALITY IMAGES: With full-color, 3-D illustrations, charts, graphs and diagrams from the pages of Scientific American, Kaplan's MCAT Physics and Math Review turns even the most intangible, complex science into easy-to-visualize concepts. KAPLAN'S MCAT REPUTATION: Kaplan gets more people into medical school than all other courses, combined. UTILITY: Can be used alone or with other companion books in Kaplan's MCAT Review series.

More people get into medical school with a Kaplan MCAT course than all major courses combined. Now the same results are available with MCAT Organic Chemistry Review. This book features thorough subject review, more questions than any competitor, and the highest-yield questions available. The commentary and instruction come directly from Kaplan MCAT experts and include targeted focus on the most-tested concepts. MCAT Organic Chemistry Review offers: UNPARALLELED MCAT KNOWLEDGE: The Kaplan MCAT team has spent years studying every MCAT-related document available. In conjunction with our expert psychometricians, the Kaplan team is able to ensure the accuracy and realism of our practice materials. THOROUGH SUBJECT REVIEW: Written by top-rated, award-winning Kaplan instructors, all material has been vetted by editors with advanced science degrees and by a medical doctor. EXPANDED CONTENT THROUGHOUT: As the MCAT has continued to develop, this book has been updated continuously to match the AAMC’s guidelines precisely—no more worrying if your prep is comprehensive! “STAR RATINGS” FOR EVERY SUBJECT: New for the 3rd Edition of MCAT Organic Chemistry Review, every topic in every chapter is assigned a “star rating”—informed by Kaplan’s decades of MCAT experience and facts straight from the testmaker—of how important it will be to your score on the real exam. MORE PRACTICE THAN THE COMPETITION: With questions throughout the book and access to a full-length practice test online, MCAT Organic Chemistry Review has more practice than any other MCAT organic chemistry book on the market. ONLINE COMPANION: One practice test and additional online resources help augment content studying. The MCAT is a computer-based test, so practicing in the same format as Test Day is key. TOP-QUALITY IMAGES: With full-color, 3-D illustrations, charts, graphs and diagrams from the pages of Scientific American, MCAT Organic Chemistry Review turns even the most intangible, complex science into easy-to-visualize concepts. KAPLAN'S MCAT REPUTATION: Kaplan is a leader in the MCAT prep market, and twice as many doctors prepared for the MCAT with Kaplan than with any other course.UTILITY: Can be used alone or with the other companion books in Kaplan’s MCAT Review series. * Doctors refers to US MDs who were licensed between 2001-2010 and used a fee-based course to prepare for the MCAT. The AlphaDetail, Inc. online study for Kaplan was conducted between Nov. 10 - Dec. 9, 2010 among 763 US licensed MDs, of whom 462 took the MCAT and used a fee-based course to prepare for it.

In the time since the second edition of The ACS Style Guide was published, the rapid growth of electronic communication has dramatically changed the scientific, technical, and medical (STM) publication world. This dynamic mode of dissemination is enabling scientists, engineers, and medical practitioners all over the world to obtain and transmit information quickly and easily. An essential constant in this changing environment is the requirement that information remain accurate, clear, unambiguous, and ethically sound. This extensive revision of The ACS Style Guide thoroughly examines electronic tools now available to assist STM writers in preparing manuscripts and communicating with publishers. Valuable updates include discussions of markup languages, citation of electronic sources, online submission of manuscripts, and preparation of figures, tables, and structures. In keeping current with the changing environment, this edition also contains references to many
resources on the internet. With this wealth of new information, The ACS Style Guide's Third Edition continues its long tradition of providing invaluable insight on ethics in scientific communication, the editorial process, copyright, conventions in chemistry, grammar, punctuation, spelling, and writing style for any STM author, reviewer, or editor. The Third Edition is the definitive source for all information needed to write, review, submit, and edit scholarly and scientific manuscripts.

Innovative perspectives on teaching inorganic chemistry

Inorganic chemistry educators are engaged and creative scholars who are fervently committed to improving the development of their students. This volume provides narratives from practicing inorganic faculty who have developed original approaches to teaching at the collegiate level, including broader curriculum issues and connections to the Interactive Online Network of Inorganic Chemists (IONiC) Community of Practice. As many institutions have shifted away from the traditional lecture format, this volume takes readers through the pros and cons of teaching inorganic chemistry in myriad ways. This book is full of innovative techniques and strategies for anyone teaching inorganic chemistry.

Explains the basic principles of organic chemistry and provides help with reactions, synthesis, mechanisms, spectra, reagents, and study methods.

Organic Chemistry I For Dummies, 2nd Edition (9781119293378) was previously published as Organic Chemistry I For Dummies, 2nd Edition (9781118828076). While this version features a new Dummies cover and design, the content is the same as the prior release and should not be considered a new or updated product. The easy way to take the confusion out of organic chemistry Organic chemistry has a long-standing reputation as a difficult course. Organic Chemistry I For Dummies takes a simple approach to the topic, allowing you to grasp concepts at your own pace. This fun, easy-to-understand guide explains the basic principles of organic chemistry in simple terms, providing insight into the language of organic chemists, the major classes of compounds, and top trouble spots. You'll also get the nuts and bolts of tackling organic chemistry problems, from knowing where to start to spotting sneaky tricks that professors like to incorporate. Refreshed example equations New explanations and practical examples that reflect today's teaching methods Fully worked-out organic chemistry problems Baffled by benzines? Confused by carboxylic acids? Here's the help you need—in plain English!

Organic chemistry courses are often difficult for students, and instructors are constantly seeking new ways to improve student learning. This volume details active learning strategies implemented at a variety of institutional settings, including small and large; private and public; liberal arts and technical; and highly selective and open-enrollment institutions. Readers will find detailed descriptions of methods and materials, in addition to data supporting analyses of the effectiveness of reported pedagogies.

This volume highlights the latest research in frustrated Lewis pair (FLP) chemistry and its applications. The contributions present the recent developments of the use of FLPs in asymmetric catalysis, polymer synthesis, homogeneous and
heterogeneous catalysis, as well as demonstrating their use as a pedagogical tool. The book will be of interest to researchers in academia and industry alike.

Reviews all subjects covered on the exam, presents study and test-taking tips, and provides three diagnostic and three practice tests.

Organic Chemistry, 3rd Edition offers success in organic chemistry requires mastery in two core aspects: fundamental concepts and the skills needed to apply those concepts and solve problems. Students must learn to become proficient at approaching new situations methodically, based on a repertoire of skills. These skills are vital for successful problem solving in organic chemistry. Existing textbooks provide extensive coverage of the principles but there is far less emphasis on the skills needed to actually solve problems.

ACS General Chemistry Study Guide Test Prep and Practice Test Questions for the American Chemical Society General Chemistry Exam [Includes Detailed Answer Explanations]

Study more effectively and improve your performance at exam time with this comprehensive guide. Written to work hand-in-hand with PRINCIPLES OF CHEMISTRY: THE MOLECULAR SCIENCE, 1st Edition, this user-friendly guide includes a wide variety of learning tools to help you master the key concepts of the course.

The gold standard in analytical chemistry, Dan Harris' Quantitative Chemical Analysis provides a sound physical understanding of the principles of analytical chemistry and their applications in the disciplines.

Metal-based drugs are a commercially important sector of the pharmaceutical business, yet most bioinorganic textbooks lack the space to cover comprehensively the subject of metals in medicine. Uses of Inorganic Chemistry in Medicine approaches an understanding of the topic in a didactic and systematic manner. The field of inorganic chemistry in medicine may usefully be divided into two main categories - drugs which target metal ions in some form, whether free or protein-bound, and secondly, metal-based drugs where the central metal ion is usually the key feature of the mechanism of action. This latter category can further be subdivided into pharmacodynamic and chemotherapeutic applications, as well as those of imaging. The book summarises the chemical and biological studies on clinically used agents of lithium, gold and platinum, as well as highlighting the research on prospective new drugs, including those based on vanadium and manganese. The coverage allows a clear distinction between pharmacodynamic and therapeutic properties of metal-based drugs and focuses not only on those clinical agents in current use, but also on new drugs and uses. This book serves to fill an important niche, bridging bioinorganic and medicinal chemistry and will undoubtedly be of use to senior undergraduates and postgraduates, as well as being an invaluable asset for teachers and researchers in the discipline.

This book reviews the current diagnostic and therapeutic uses of metal-containing compounds in medicine, as well as the role of metals in disease.

Test Prep Books' ACS General Chemistry Study Guide: Test Prep and Practice Test Questions for the American Chemical Society General Chemistry Exam [Includes Detailed Answer Explanations] Made by Test Prep Books experts for test takers trying to achieve a great score on the ACS General Chemistry exam. This comprehensive study guide includes: Quick Overview Find out what's inside this guide! Test-taking
Strategies
Learn the best tips to help overcome your exam! Introduction
Get a thorough breakdown of what the test is and what's on it!
Atomic Structure
Electronic Structure
Formula Calculations and the Mole
Stoichiometry
Solutions and Aqueous Reactions
Heat and Enthalpy
Structure and Bonding
States of Matter
Kinetics
Equilibrium
Acids and Bases
Solubility Equilibria
Electrochemistry
Nuclear Chemistry
Practice Questions
Practice makes perfect! Detailed Answer Explanations
Figure out where you went wrong and how to improve! Studying can be hard. We get it. That's why we created this guide with these great features and benefits:
Comprehensive Review: Each section of the test has a comprehensive review created by Test Prep Books that goes into detail to cover all of the content likely to appear on the test.
Practice Test Questions: We want to give you the best practice you can find. That's why the Test Prep Books practice questions are as close as you can get to the actual ACS General Chemistry test.
Answer Explanations: Every single problem is followed by an answer explanation. We know it's frustrating to miss a question and not understand why. The answer explanations will help you learn from your mistakes. That way, you can avoid missing it again in the future.
Test-Taking Strategies: A test taker has to understand the material that is being covered and be familiar with the latest test taking strategies. These strategies are necessary to properly use the time provided. They also help test takers complete the test without making any errors.
Customer Service: We love taking care of our test takers. We make sure that you interact with a real human being when you email your comments or concerns. Anyone planning to take this exam should take advantage of this Test Prep Books study guide. Purchase it today to receive access to:
ACS General Chemistry review materials
ACS General Chemistry exam
Test-taking strategies
Peterson’s Graduate Programs in the Physical Sciences contains a wealth of information on colleges and universities that offer graduate work in Astronomy and Astrophysics, Chemistry, Geosciences, Marine Sciences and Oceanography, Meteorology and Atmospheric Sciences, and Physics. The institutions listed include those in the United States, Canada, and abroad that are accredited by U.S. accrediting bodies. Up-to-date information, collected through Peterson's Annual Survey of Graduate and Professional Institutions, provides valuable information on degree offerings, professional accreditation, jointly offered degrees, part-time and evening/weekend programs, postbaccalaureate distance degrees, faculty, students, degree requirements, entrance requirements, expenses, financial support, faculty research, and unit head and application contact information. As an added bonus, readers will find a helpful "See Close-Up" link to in-depth program descriptions written by some of these institutions. These Close-Ups offer detailed information about the physical sciences program, faculty members and their research, and links to the program or department's Web site. In addition, there are valuable articles on financial assistance and support at the graduate level and the graduate admissions process, with special advice for international and minority students. Another article discusses important facts about accreditation and provides a current list of accrediting agencies.
The Frontiers in Chemistry Editorial Office team are delighted to present the inaugural “Frontiers in Chemistry: Rising Stars” article collection, showcasing the high-quality work of internationally recognized researchers in the early stages of their independent careers. All Rising Star researchers featured within this collection were individually nominated by the Journal’s Chief Editors in recognition of their potential to influence the future directions in their respective fields. The work presented here highlights the diversity of research performed across the entire breadth of the chemical sciences, and presents advances in theory, experiment and methodology with applications to compelling problems. This Editorial features the corresponding author(s) of each paper published within this important collection, ordered by section alphabetically, highlighting them as the great researchers of the future. The Frontiers in Chemistry Editorial Office team would like to thank each researcher who contributed their work to this collection. We would also like to personally thank our Chief Editors for their
exemplary leadership of this article collection; their strong support and passion for this important, community-driven collection has ensured its success and global impact. Laurent Mathey, PhD Journal Development Manager

In the ancient world, philosophy was understood to be a practical guide for living, or even itself a way of life. This volume of essays brings historical views about philosophy as a way of life, coupled with their modern equivalents, more prevalently into the domain of the contemporary scholarly world. Illustrates how the articulation of philosophy as a way of life and its pedagogical implementation advances the love of wisdom Questions how we might convey the love of wisdom as not only a body of dogmatic principles and axiomatic truths but also a lived exercise that can be practiced Offers a collection of essays on an emerging field of philosophical research Essential reading for academics, researchers and scholars of philosophy, moral philosophy, and pedagogy; also business and professional people who have an interest in expanding their horizons

The easy way to get a grip on inorganic chemistry Inorganic chemistry can be an intimidating subject, but it doesn't have to be! Whether you're currently enrolled in an inorganic chemistry class or you have a background in chemistry and want to expand your knowledge, Inorganic Chemistry For Dummies is the approachable, hands-on guide you can trust for fast, easy learning. Inorganic Chemistry For Dummies features a thorough introduction to the study of the synthesis and behavior of inorganic and organometallic compounds. In plain English, it explains the principles of inorganic chemistry and includes worked-out problems to enhance your understanding of the key theories and concepts of the field. Presents information in an effective and straightforward manner Covers topics you'll encounter in a typical inorganic chemistry course Provides plain-English explanations of complicated concepts If you're pursuing a career as a nurse, doctor, or engineer or a lifelong learner looking to make sense of this fascinating subject, Inorganic Chemistry For Dummies is the quick and painless way to master inorganic chemistry.

Always study with the most up-to-date prep! Look for AP Chemistry Premium, 2022-2023, ISBN 9781506264103, on sale July 06, 2021. Publisher’s Note: Products purchased from third-party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitles included with the product.

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