

Pearson Education Hydrocarbon Compounds

This latest edition of The Pearson General Studies Manual continues to provide exhaustive study material for the General Studies paper of the UPSC Civil Services Preliminary Examination. This student-friendly book has been completely revised, thoroughly updated and carefully streamlined and is strictly exam-centric. In this new edition, a large number of new boxes and marginalia with additional and relevant information have been added to provide cutting-edge information to the aspirant. Readers will find that important facts and information have been presented in the form of well-structured tables and lists.

This book provides the reader with the comprehensive view necessary to understand and critically evaluate the design, implementation, and monitoring of phytoremediation at sites characterized by contaminated groundwater. Part I presents the historical foundation of the interaction between plants and groundwater, introduces fundamental groundwater concepts for plant physiologists, and introduces basic plant physiology for hydrogeologists. Part II presents information on how to assess, design, implement, and monitor phytoremediation projects for hydrologic control. Part III presents how plants take up and detoxify a wide range of organic xenobiotics in contaminated groundwater systems, and provides various approaches on how this can be assessed and monitored. Throughout, concepts are emphasized with numerous case studies, illustrations and pertinent literature citations.

Why are some plants so important to humans? The chemistry of the plants has a lot to do with it! The plant world offers a fascinating way to explore basic chemistry concepts. The spectacular variety of colors, fragrances and other characteristics of plants are driven by the seemingly subtle differences in the structure and properties of organic compounds. Well-known flowers, like daffodils and narcissus, are examples of plants that provide ample perfumes, pigments and poisons as part of their intricate and fascinating chemistry. This second edition retains its accessibility, expanding on the first edition and combining scientific concepts with colorful pictures and stories in simple, clear language. Readers will find introductory information on some chemistry and plant biology. This prepares them for the more complex chemical structures that compose plant substances, many of them of vital importance to humans. The final chapter has been expanded, in particular the sections on medicinal plants and on genetic modification. The end-of chapter references have been thoroughly updated with articles, books, and relevant websites that illustrate the topics discussed. Dr Margareta Sequin, an organic chemist and plant enthusiast, has taught popular undergraduate college level courses on plant chemistry to non-chemistry majors and has led numerous field seminars for the general public. The comments and questions from these audiences and the topics that especially captured people's interest have greatly shaped this book. The Chemistry of Plants addresses an audience with little previous chemistry knowledge, but will appeal to the expert reader looking for an understanding of more complex plant compounds. It can be used both as a text to introduce organic chemistry as it relates to plants and as a text of reference for more advanced readers.

The new and updated edition of the Pearson IIT Foundation Series continues to be a source of comprehensive and reliable content for competitive readiness. Conceptual clarity and gaining mastery over the art of problem-solving are the central themes of the series. To ensure this, the series has lucid content along with neatly sketched diagrams and real-life application-based examples.

Over the past 4 billion years, microorganisms have contributed to shaping the earth and making it more habitable for higher forms of life. They are remarkable in their metabolic diversity and their ability to harvest energy from oxidation and reduction reactions. Research on these microbiological processes has led to the newly evolving fields of geomicrobiology and biogeochemistry, linking the geosphere and the biosphere. This volume of the Soil Biology series provides an overview of the biogeochemical processes and the microorganisms involved, with an emphasis on the industrial applications. Topics treated include aspects such as bioremediation of contaminated environments, biomining, biotechnological applications of extremophiles, subsurface petroleum microbiology, enhanced oil recovery using microbes and their products, metal extraction from soil, soil elemental cycling and plant nutrition.

Introduction what is organic chemistry all about?; Structural organic chemistry the shapes of molecules functional groups; Organic nomenclature; Alkanes; Stereoisomerism of organic molecules; Bonding in organic molecules atomic-orbital models; More on nomenclature compounds other than hydrocarbons; Nucleophilic substitution and elimination reactions; Separation and purification identification of organic compounds by spectroscopic techniques; Alkenes and alkynes. Ionic and radical addition reactions; Alkenes and alkynes; Oxidation and reduction reactions; Acidity of alkynes.

Develop and assess your students' knowledge and skills throughout A level with worked examples, practical assessment guidance and differentiated end of topic questions in this updated, all-in-one textbook for Years 1 and 2. Combining everything your students need to know for the Pearson Edexcel A level Chemistry specification, this revised textbook will:

- Identify the level of your students' understanding with diagnostic questions and a summary of prior knowledge at the start of the Student Book.
- Provide support for all 16 required practicals with various activities and questions, along with a 'Practical' chapter covering procedural understanding and key ideas related to measurement.
- Improve mathematical skills with plenty of worked examples, including notes on methods to help explain the strategies for solving each type of problem.
- Offer plenty of practice with 'Test yourself' questions to help students assess their understanding and measure progress.
- Encourage further reading and study with short passages of extension material.
- Develop understanding with free online access to 'Test yourself' answers and an extended glossary.

The new Pearson Chemistry program combines our proven content with cutting-edge digital support to help students connect chemistry to their daily lives. With a fresh approach to problem-solving, a variety of hands-on learning opportunities, and more math support than ever before, Pearson Chemistry will ensure success in your chemistry classroom. Our program provides features and resources unique to Pearson--including the Understanding by Design Framework and powerful online resources to engage and motivate your students, while offering support for all types of learners in your classroom.

Introductory chemistry students need to develop problem-solving skills, and they also must see why these skills are important to them and to their world. Introductory Chemistry, Fourth Edition extends chemistry from the laboratory to the student's world, motivating students to learn chemistry by demonstrating how it is manifested in their daily lives.

Throughout, the Fourth Edition presents a new student-friendly, step-by-step problem-solving approach that adds four steps to each worked example (Sort, Strategize, Solve, and Check). Tro's acclaimed pedagogical features include Solution Maps, Two-Column Examples, Three-Column Problem-Solving Procedures, and Conceptual Checkpoints. This proven text continues to foster student success beyond the classroom with MasteringChemistry®, the most advanced online tutorial and assessment program available. This package contains: Tro, Introductory Chemistry with MasteringChemistry® Long, Introductory Chemistry Math Review Toolkit

Forensic Engineering, the latest edition in the Advanced Forensic Science series that grew out of recommendations from

the 2009 NAS Report: Strengthening Forensic Science: A Path Forward, serves as a graduate level text for those studying and teaching digital forensic engineering, as well as an excellent reference for a forensic scientist's library or for their use in casework. Coverage includes investigations, transportation investigations, fire investigations, other methods and professional issues. Edited by a world-renowned leading forensic expert, this series is a long overdue solution for the forensic science community. Provides basic principles of forensic science and an overview of forensic engineering Contains sections on investigations, transportation investigations, fire investigations and other methods Includes a section on professional issues, such as: from crime scene to court, forensic laboratory reports and health and safety Incorporates effective pedagogy, key terms, review questions, discussion questions and additional reading suggestions 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. NOTE: This is the standalone book Organic Chemistry, 8/e if you want the book/access card order the ISBN below: 0321768140 / 9780321768148 Organic Chemistry Plus MasteringChemistry with eText -- Access Card Package Package consists of: 0321768418 / 9780321768414 Organic Chemistry 0321773799 / 9780321773791 MasteringChemistry with Pearson eText -- Valuepack Access Card -- for Organic Chemistry

Over nine successful editions, CAMPBELL BIOLOGY has been recognised as the world's leading introductory biology textbook. The Australian edition of CAMPBELL BIOLOGY continues to engage students with its dynamic coverage of the essential elements of this critical discipline. It is the only biology text and media product that helps students to make connections across different core topics in biology, between text and visuals, between global and Australian/New Zealand biology, and from scientific study to the real world. The Tenth Edition of Australian CAMPBELL BIOLOGY helps launch students to success in biology through its clear and engaging narrative, superior pedagogy, and innovative use of art and photos to promote student learning. It continues to engage students with its dynamic coverage of the essential elements of this critical discipline. This Tenth Edition, with an increased focus on evolution, ensures students receive the most up-to-date, accurate and relevant information.

2008 Best Reference, Library Journal "The impact of global warming is rapidly evolving. This valuable resource provides an excellent historical overview and framework of this topic and serves as a general resource for geography, oceanography, biology, climatology, history, and many other subjects. A useful reference for a wide audience of business professionals and government officials as well as for the general public; essential for both academic and public libraries." —Library Journal "This is a useful set because of the individual country entries as well as the general-audience language . . ." —Booklist (Starred Review) The Encyclopedia of Global Warming and Climate Change helps readers learn about the astonishingly intricate processes that make ours the only planet known to be habitable. These three volumes include more than 750 articles that explore major topics related to global warming and climate change—ranging geographically from the North Pole to the South Pole, and thematically from social effects to scientific causes. Key Features Contains a 4-color, 16-page insert that is a comprehensive introduction to the complexities of global warming Includes coverage of the science and history of climate change, the polarizing controversies over climate-change theories, the role of societies, the industrial and economic factors, and the sociological aspects of climate change Emphasizes the importance of the effects, responsibilities, and ethics of climate change Presents contributions from leading scholars and institutional experts in the geosciences Serves as a general resource for geography, oceanography, biology, climatology, history, and many other subjects The Encyclopedia of Global Warming and Climate Change provides a primarily nonscientific resource to understanding the complexities of climate change for academic and public libraries. READER'S GUIDE Atmospheric Sciences Climate climate and Society Climate Change, Effects Climate Feedbacks Climate Models Countries: Africa Countries: Americas Countries: Asia Countries: Europe Countries: Pacific Glaciology Government and International Agencies Institutions Studying Climate Change Oceanography Paleo-Climates People Programs And Conventions

ALERT: Before you purchase, check with your instructor or review your course syllabus to ensure that you select the correct ISBN. Several versions of Pearson's MyLab & Mastering products exist for each title, including customized versions for individual schools, and registrations are not transferable. In addition, you may need a CourseID, provided by your instructor, to register for and use Pearson's MyLab & Mastering products. Packages Access codes for Pearson's MyLab & Mastering products may not be included when purchasing or renting from companies other than Pearson; check with the seller before completing your purchase. Used or rental books If you rent or purchase a used book with an access code, the access code may have been redeemed previously and you may have to purchase a new access code. Access codes Access codes that are purchased from sellers other than Pearson carry a higher risk of being either the wrong ISBN or a previously redeemed code. Check with the seller prior to purchase. xxxxxxxxxxxx Carrying through an atoms-first approach from the first four editions, and helping you focus on mastering the quantitative skills and conceptual knowledge you need to get a true understanding of chemistry, Russo and Silver's Introductory Chemistry, Fifth Edition continues the tradition of relevance that makes it so effective. Now including MasteringChemistry®, the leading online homework, tutorial, and assessment product with a demonstrated record of helping students quickly master concepts, this Fifth Edition includes new opportunities for you to practice key concepts.

MasteringChemistry provides seamless synergy with the text to create a dynamic learning program that enables you to learn both in and out of the classroom. With Russo and Silver's Introductory Chemistry, Fifth Edition and MasteringChemistry, you get a complete teaching and learning program that gives you critical tools for ensuring a successful introduction to chemistry, including: An atoms-first approach to chemistry: Through an atoms-first approach used effectively in the previous four editions, you begin to learn starting from the building blocks of matter and progress to understanding complex concepts from a logical point of view and

with a deep understanding. Personalized, interactive learning for achieving proficiency of the concepts with MasteringChemistry: Self-paced tutorials guide you through the text's most challenging topics; provide immediate, specific feedback and reinforcement; and present varied content to keep you engaged and on track. An emphasis on core concepts for solving quantitative and qualitative problems: Get a true understanding of introductory chemistry by using material that presents problem solving and comprehension as complimentary skills, rather than encouraging rote memorization. Features that demonstrate how relevant chemistry concepts are in students' lives: A number of outstanding features that show chemistry as a fascinating science. The fifth edition retains all the strengths that have made Microbiology and Infection Control for Health Professionals a best-selling title: A sound scientific orientation Continual application to the clinical setting Coverage of emerging and re-emerging infectious diseases Current statistical information of disease patterns Up-to-date terminology An emphasis on Australian and New Zealand data and clinical settings A central theme of highlighting the relevance of microbiology to patient care Full colour photographs and illustrations throughout

If you think you know the Brown, LeMay Bursten Chemistry text, think again. In response to market request, we have created the third Australian edition of the US bestseller, Chemistry: The Central Science. An extensive revision has taken this text to new heights! Triple checked for scientific accuracy and consistency, this edition is a more seamless and cohesive product, yet retains the clarity, innovative pedagogy, functional problem-solving and visuals of the previous version. All artwork and images are now consistent in quality across the entire text. And with a more traditional and logical organisation of the Organic Chemistry content, this comprehensive text is the source of all the information and practice problems students are likely to need for conceptual understanding, development of problem solving skills, reference and test preparation.

Introduction to Petroleum Biotechnology introduces the petroleum engineer to biotechnology, bringing together the various biotechnology methods that are applied to recovery, refining and remediation in the uses of petroleum and petroleum products. A significant amount of petroleum is undiscoverable in reservoirs today using conventional and secondary methods. This reference explains how microbial enhanced oil recovery is aiding to produce more economical and environmentally-friendly metabolic events that lead to improved oil recovery. Meanwhile, in the downstream side of the industry, petroleum refining operators are facing the highest levels of environmental regulations while struggling to process more of the heavier crude oils since conventional physical and chemical refining techniques may not be applicable to heavier crudes. This reference proposes to the engineer and refining manager the concepts of bio-refining applications to not only render heavier crudes as lighter crudes through microbial degradation, but also through biodenitrogenation, biodemetalization and biodesulfurization, making more petroleum derivatives purified and upgraded without the release of more pollutants. Equipped for both upstream and downstream to learn the basics, this book is a necessary primer for today's petroleum engineer. Presents the fundamentals behind petroleum biotechnology for both upstream and downstream oil and gas operations Provides the latest technology in reservoir recovery using microbial enhanced oil recovery methods Helps readers gain insight into the current and future application of using biotechnology as a refining and fuel blending method for heavy oil and tar sands

General Chemistry 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.

Set of books for classroom use in a middle school science curriculum; all-in-one teaching resources volume includes lesson plans, teacher notes, lab information, worksheets, answer keys and tests.

Examines in a pedagogical way all pertinent molecular and macroscopic processes that govern the distribution and fate of organic chemicals in the environment and provides simple modeling tools to quantitatively describe these processes and their interplay in a given environmental system Treats fundamental aspects of chemistry, physics, and mathematical modeling as applied to environmentally relevant problems, and gives a state of the art account of the field Teaches the reader how to relate the structure of a given chemical to its physical chemical properties and intrinsic reactivities Provides a holistic and teachable treatment of phase partitioning and transformation processes, as well as a more focused and tailor-made presentation of physical, mathematical, and modeling aspects that apply to environmental situations of concern Includes a large number of questions and problems allowing teachers to explore the depth of understanding of their students or allowing individuals who use the book for self-study to check their progress Provides a companion website, which includes solutions for all problems as well as a large compilation of physical constants and compound properties

This edition features the exact same content as the traditional text in a convenient, three-hole-punched, loose-leaf version. Books a la Carte also offer a great value for your students--this format costs 35% less than a new textbook. With an expanded focus on critical thinking and problem solving, the new Seventh Edition of Introductory Chemistry: Concepts and Critical Thinking prepares students for success in Introductory Chemistry courses. Unlike other introductory chemistry texts, all materials -the textbook, student solutions manual, laboratory manual, instructor's manual and test item file - are written by the author and tightly integrated to work together most effectively. Math and problem solving are covered early in the text; Corwin builds student confidence and ability through innovative pedagogy and technology formulated to meet the needs of today's learners. By presenting chemistry in a clear and interesting way, students to leave their first chemistry course with a positive impression, a set of new skills, and the desire to learn more. Package consists of: Books a la Carte for Introductory Chemistry: Concepts and Critical Thinking, 7/e An Updated and Revised Edition of the Most Popular General Knowledge Manual

This book provides in-situ phytoremediation strategies that are particularly well suited for developing nations. Its goal is to promote the use of field-tested phytoremediation methods for removing soil and water pollutants from agricultural, industrial, military, and municipal sources. These strategies include using algae and a variety of aquatic and terrestrial plants. The book subsequently discusses the use of crops and native plants for phytoremediation, and how phytoremediation efforts impact the rhizosphere. After having finished the book, readers will be able to directly adapt the strategies described here for their specific purposes.

Engineers seek solutions to problems, and the economic viability of each potential solution is normally considered along with the technical merits. This is typically true for the petroleum sector, which includes the global processes of exploration, production, refining, and transportation. Decisions on an investment in any oil or gas field development are made on the basis of its value, which is judged by a combination of a number of economic indicators. Economic Analysis of Oil and Gas Engineering Operations focuses on economic treatment of petroleum engineering operations and serves as a helpful resource for making practical and profitable decisions in oil and gas field development. Reflects major changes over the past decade or so in the oil and gas industry

Provides thorough coverage of the use of economic analysis techniques in decision-making in petroleum-related projects Features real-world cases and applications of economic analysis of various engineering problems encountered in petroleum operations Includes principles applicable to other engineering disciplines This work will be of value to practicing engineers and industry professionals, managers, and executives working in the petroleum industry who have the responsibility of planning and decision-making, as well as advanced students in petroleum and chemical engineering studying engineering economics, petroleum economics and policy, project evaluation, and plant design.

The IIT Foundation Series is a series of nine books-three each for physics, chemistry, and mathematics-that prepares the students for the IIT JEE and various elite competitive examinations. Though aimed primarily at students studying in Classes 8, 9, and 10, the series can also be used by all aspirants for a quick recapitulation of important topics in the core subjects.

Forensic science includes all aspects of investigating a crime, including: chemistry, biology and physics, and also incorporates countless other specialties. Today, the service offered under the guise of 'forensic science' includes specialties from virtually all aspects of modern science, medicine, engineering, mathematics and technology. The Encyclopedia of Forensic Sciences, Second Edition is a reference source that will inform both the crime scene worker and the laboratory worker of each other's protocols, procedures and limitations. Written by leading scientists in each area, every article is peer reviewed to establish clarity, accuracy, and comprehensiveness. As reflected in the specialties of its Editorial Board, the contents covers the core theories, methods and techniques employed by forensic scientists – and applications of these that are used in forensic analysis. This 4-volume set represents a 30% growth in articles from the first edition, with a particular increase in coverage of DNA and digital forensics Includes an international collection of contributors The second edition features a new 21-member editorial board, half of which are internationally based Includes over 300 articles, approximately 10pp on average Each article features a) suggested readings which point readers to additional sources for more information, b) a list of related Web sites, c) a 5-10 word glossary and definition paragraph, and d) cross-references to related articles in the encyclopedia Available online via SciVerse ScienceDirect. Please visit www.info.sciencedirect.com for more information This new edition continues the reputation of the first edition, which was awarded an Honorable Mention in the prestigious Dartmouth Medal competition for 2001. This award honors the creation of reference works of outstanding quality and significance, and is sponsored by the RUSA Committee of the American Library Association

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