

Carruthers Organic Chemistry

Organic Chemistry is primarily intended for the third year students pursuing B.Sc Chemistry (Honours) at the University of Calcutta and other major universities across eastern India. It offers 'learning by practice' approach and provides an up-to-date and comprehensive account of the subject matter.

The know-how about reactivity, reaction mechanisms, thermodynamics and other basics in physical organic chemistry is the key for successful organic reactions. This textbook presents comprehensively this knowledge to the student and to the researcher, too. Includes Q&As.

originally published in 1995. Houben-Weyl is the acclaimed reference series for preparative methods in organic chemistry, in which all methods are organized accor ding to the class of compound or functional group to be synthesized. The Houben-Weyl volumes contain 146 000 product-specific experi mental procedures, 580 000 structures, and 700 000 references. The preparative significance of the methods for all classes of compou nds is critically evaluated. The series includes data from as far back as the early 1800s to 2003. // The content of this e-book was

One Hundred Reaction Procedures

Bizarre wetenschappelijke adviezen voor alledaagse problemen

Exercises in Synthetic Organic Chemistry

Advanced Organic Chemistry

Progress in Organic Chemistry

The explosive growth of organoselenium chemistry over the past 12 years can be attributed to the specific properties of organic selenium molecules, which fit the requirements of modern organic synthesis. Most of them are well adapted to chemo-, regio- and stereo-selectivities. In addition, they can be used in mild experimental conditions which are compatible with the stability of both substrates and products in the preparation of unsaturated and functional complex molecules, especially in the field of natural products. This book describes and illustrates different synthetic routes to organic structures using selenium reagents or intermediates. The approach emphasizes that such transformations are simple, efficient and often carried out at room temperature. The scope ranges from the preparation of both inorganic and organic selenium reagents, through descriptions of structure, toxicity, biological aspects and nuclear magnetic resonance, to applications of specific selenium compounds in various syntheses including natural products and biologically active compounds.

A concise, useful guide to good laboratory practice in the organic chemistry lab with hints and tips on successful organic synthesis.

Although organotransition metal chemistry has been developing rapidly over the past 20 years, it is only recently that applications of transition metal complexes to organic synthesis have started to be exploited. This unique book provides an introduction to organometallic chemistry for chemists who have little or no experience in the field, describes the work that has already been done using organotransition metal complexes for synthesis, and indicates to organic and organometallic chemists the type of synthetic problems that can be solved using organometallic compounds. It covers all major advances that have been made in this rapidly expanding area of chemistry, including not only reactions that already have well established applications for synthesis but also many recently discovered potentially useful reactions, providing a survey of recent literature.

Selenium Reagents & Intermediates in Organic Synthesis

Modern Methods of Organic Synthesis

Reactions, Mechanisms, and Structure

High-resolution NMR Techniques in Organic Chemistry

Stereoselective Synthesis: C-C Bond Formation by Addition to C=C, Cycloaddition Reactions, Ene Reactions

The third edition of this well-known textbook discusses some modern methods used in organic synthesis, and aims to show the value and scope of these methods and how they are used in the synthesis of complex molecules. The general plan of the book follows that of the second

edition, but the opportunity has been taken to bring the book up to date and to take account of advances in knowledge and of new reactions which have come into use since publication of the earlier editions. Particular emphasis is placed on highly stereoselective organic

chemistry, including stereoselective alkylations, aldol reactions, oxidations, epoxidations and reductions. New methods for the stereoselective formation of carbon-carbon double bonds, and modern application reactions are also fully considered. The book will be of use to students of chemistry and biochemistry at graduate and senior undergraduate level. It will also interest practising scientists in industry and research establishments who wish to familiarise themselves with modern synthetic methods.

Tetrahedron Reports on Organic Chemistry

This book provides an introduction to the chemistry of conjugate reactions, a group of reactions that constitute one of the most important classes of chemical reactions in organic synthesis. The book is organised in terms of the major classes of conjugate acceptors. Within each of these classes, the chemistry and applications of conjugate additions with several different categories of nucleophiles have been examined. Where several different nucleophiles achieve the same synthetic transformation, they are cross-referenced within the book and qualitative comparisons offered where appropriate. Examples of the use of conjugate additions in total synthesis of important molecules are included, with a special emphasis throughout the book on stereoselectivity. This will be a useful main text for graduate and

postgraduate courses on conjugate addition reactions or the Michael reaction. It could also serve as a supplementary text for courses on topics such as the chemistry of organocopper reagents, enamines and carbanion chemistry.

Organic Chemistry: The Name Game

Organotransition Metal Chemistry: Applications to Organic Synthesis

Houben-Weyl Methods of Organic Chemistry Vol. E 21d, 4th Edition Supplement

Theory, Reactivity and Mechanisms in Modern Synthesis

Modern Methods of Organic Synthesis South Asia Edition

"Nuclear Magnetic Resonance (NMR) Spectroscopy remains the foremost analytical technique for the structure elucidation of organic molecules and an indispensable tool for the synthetic, medicinal and natural product chemist. New techniques continue to emerge and the application of NMR methods continues to expand. High-Resolution NMR Spectroscopy: Principles and Applications is an excellent text for use in academic and industrial NMR facilities, as a text for graduate-level NMR courses, and as an accessible reference for the chemist's or spectroscopist's desk." --Book Jacket.

From the initial observation of proton magnetic resonance in water and in paraffin, the discipline of nuclear magnetic resonance has seen unparalleled growth as an analytical method. Modern NMR spectroscopy is a highly developed, yet still evolving, subject which finds application in chemistry, biology, medicine, materials science and geology. This book describes the most recently developed methods of solution-state NMR applicable to chemical research, which are chosen for their wide applicability and robustness. These have, in many cases, already become established techniques in NMR laboratories, in both academic and industrial establishments. A considerable amount of information and guidance is given on the use of the techniques described in this book.

Textbook on modern methods of organic synthesis.

A Student's Guide

Cycloaddition Reaction in Organic Synthesis

Organic chemistry

Tetrahedron Reports on Organic Chemistry

Applied Organic Chemistry

Serieuze wetenschappelijke antwoorden op belangrijke hypothetische vragen Wat als? geeft hilarische en informatieve antwoorden op belangrijke vragen waar je nooit aan zou denken. Vragen als:
• Als iedereen op aarde een paar weken bij elkaar uit de buurt blijft, is de verkoudheid dan niet de wereld uit? / br• Wat als je een baseball probeert te raken die met 90% van de snelheid van het licht op je af komt? / br• Van welke hoogte moet je een steak laten vallen om hem gaar te laten zijn als hij de grond raakt? / br• Als mijn printer letterlijk geld kan drukken, heeft dat dan grote gevolgen voor de wereld? / br• Wat gebeurt er als iedereen op aarde zo dicht mogelijk bij elkaar gaat staan en opspringt, waarna iedereen op hetzelfde moment neerkomt? De antwoorden van Munroe zijn kleine meesterwerken van duidelijkheid en hilariteit aangevuld met zijn kenmerkende tekeningen. De antwoorden voorspellen vaak volgende vernietiging van de mensheid of op z'n minst een heel grote explosie. Randall Munroe is de bedenker van xkcd.com, de razend populaire website die elke week door miljoenen mensen wordt bezocht. Na z'n studie fysica bouwde Munroe robots bij NASA, waarna hij in 2006 fulltime striptekenaar werd.

During the miners' strike in the 1980s, a worker is killed in the striking coalfields of Wales. Some months later, a government minister thought to be connected with the death is also shot. Lewis Redfern—once a radical but now a political analyst and journalist—pursues the sniper, a lonely hunt that leads him through an imbroglio of civil service leaks to a secret organization: a source of insurrection far more powerful than anyone could have suspected known as the Volunteers. In this fast-paced narrative of espionage and intrigue, Redfern, through his obsessive pursuit of justice, finally encounters the truth about himself as the novel discusses the conflict between moral choice and political loyalty.

De hilarische opvolger van Wat als? Van de auteur van Wat als? en het brein achter xkcd.com – al meer dan 90.000 exemplaren verkocht 'Briljant.' Bill Gates Voor elke taak bestaat er een juiste aanpak, een verkeerde aanpak en een aanpak die zo ontzettend bizar is dat niemand er ook maar over peinst hem te gebruiken. Hoe dan? is een humoristische handleiding van bestsellerauteur Randall Munroe voor deze derde aanpak. Een wegwijzer boordevol uiterst onpraktisch advies voor van alles en nog wat, van een gat graven tot hoe je een vliegtuig veilig aan de grond zet. Net als in zijn eerdere boek Wat als? moedigt Randall Munroe ons op briljante wijze aan om de meest absurde uitersten van het mogelijke op te zoeken. In combinatie met zijn scherpe strips en amusante illustraties is Hoe dan? een heerlijke, verbazingwekkende en hilarische manier om de wetenschap en technologie die achter het dagelijkse leven schuilgaan beter te begrijpen. Een perfect cadeauboek voor iedereen die meer te weten wil komen over 'Door de absurditeit en de vrolijke tekeningen voelt het boek vederlicht, maar toch leer je veel. Over raketten, over vinders, over geschiedenis. En je leert vooral om met de onverzadigbaar nieuwsgierige blik van Munroe naar de wereld te kijken.' De Correspondent 'Continu fascinerend en vermakelijk.' The Wall Street Journal

Stereoselective Synthesis: C-C Bond Formation by Sigmatropic Rearrangements, Electrocyclic Reactions, C-H, C-Hal Bond Formation

Current Organic Chemistry

Practical Organic Synthesis

Wat als?

Reaction Mechanisms and Experimental Procedures in Medicinal Chemistry

Microwave-assisted Organic Synthesis: One Hundred Reaction Procedures provides readers with a broad overview of microwave assisted Organic Synthesis, enabling students and researchers alike to produce more efficient and high yield syntheses while saving time and resources. The work addresses key problems faced by chemistry laboratories in academia and in industry, that of an ever increasing need for procedures which are low-waste, energy efficient, high yield, occur over a short reaction period, and use environmentally friendly solvents. All these factors play an important role in the development of Green Chemistry methods, and in this, Microwave-assisted Organic Synthesis: One Hundred Reaction Procedures is an excellent resource for any library. Provides a broad overview of microwave enhanced chemistry Extensive references to the source of each procedure, including equipment used, full operating procedure, and associated hazards Includes exercises and worked problems which can support more independent study

Organic Chemistry: The Name Game: Modern Coined Terms and their Origins is a lighthearted take on the usually difficult and systematic nomenclature found in organic chemistry. However, despite the lightheartedness, the book does not lose its purpose, which is to serve as a source of information on this particular subject of organic chemistry. The book, arranged into themes, discusses some organic compounds and how they are named based on their structure, makeup, and components. The text also explains the use of Greek and Latin prefixes in nomenclature and many other principles in nomenclature. The book also includes an appendix that contains very useful information on nomenclature, such as the etymology of certain element and chemical names, numerical prefixes, and the Greek alphabet. The text is not only for students who wish to be familiarized with a different style of organic chemistry nomenclature, but also for professors who aim to give students an enjoyable yet memorable learning experience.

The control of reactivity to achieve specific syntheses is one of the overarching goals of organic chemistry. In the decade since the publication of the third edition, major advances have been made in the development of efficient new methods, particularly catalytic processes, and in means for control of reaction stereochemistry. This volume assumes a level of familiarity with structural and mechanistic concepts comparable to that in the companion volume, Part A, Structures and Mechanisms. Together, the two volumes are intended to provide the advanced undergraduate or beginning graduate student in chemistry with a sufficient foundation to comprehend and use the research literature in organic chemistry. The New Revised 5th Edition will be available shortly. For details, click on the link in the right-hand column.

Cycloaddition Reactions in Organic Synthesis

Enzymes in Synthetic Organic Chemistry

Progress in Organic Chemistry. Joint Editors: W. Carruthers and J.K. Sutherland

Part B: Reaction and Synthesis

The Nitro Group in Organic Synthesis

Demonstrates the wide scope of cycloaddition reactions, including the Diels-Alder reaction, the ene reaction, 1,3-dipolar cycloadditions and [2+2] cycloadditions in organic synthesis. The author, a leading exponent of the subject, illustrates the ways in which they can be employed in the synthesis of a wide range of carbocyclic and heterocyclic compounds, including a variety of natural products of various types.

Special attention is given to intramolecular reactions, which often provide a rapid and efficient route to polycyclic compounds, and to the stereochemistry of the reactions, including recent and developing work on enantioselective synthesis.

Houben-Weyl is the acclaimed reference series for preparative methods in organic chemistry, in which all methods are organized accor ding to the class of compound or functional group to be synthesized. The Houben-Weyl volumes contain 146 000 product-specific experi mental procedures, 580 000 structures, and 700 000 references. The preparative significance of the methods for all classes of compou nds is critically evaluated. The series includes data from as far back as the early 1800s to 2003. // The content of this e-book was originally published in 1995.

This book covers the most recent development of enzymatic organic synthesis, with particular focus on the use of isolated enzymes. It is organized into one introductory chapter dealing with the characteristics of enzymes as catalysts, and five chapters dealing with different types of chemical transformations. Methods for enzyme immobilization and stabilizaton, the use of enzymes in extreme environments, and the alteration of enzyme properties by chemical modification and site-directed mutagenesis for synthetic purposes are covered.

Organic Chemistry in Action

Organometallic Chemistry

The Design of Organic Synthesis

Applications to Organic Synthesis

March's Advanced Organic Chemistry

Contrary to all other books in the field of organic synthesis, this volume combines Corey's methodology, which is based on the concept of synthon and retrosynthetic analysis, with Evans' methodology based on the `Lapworth model' of alternating polarities. Using this approach, the formation of carbon-carbon bonds and the manipulation of functional groups are treated together, whereas the stereochemical aspects are considered separately. Emphasis is laid on the importance of rigid structures, whether in the starting materials, the synthetic intermediates or the transition states, as a means of controlling the stereochemistry of the organic compounds. Enclosed with the book is a copy of a miniprogram (CHAOS) for an IBM PC, or fully compatible computers, which is an interactive program, affording the beginner a fast and easy way of learning, exploring and looking for new synthetic schemes of molecules of moderate complexity. As a textbook on organic synthesis, this volume will be of immense value at university level.

The book is comprised of a series of exercises in synthetic organic chemistry based around recent published syntheses. The exercises are designed to provide challenges for people with varying levels of experience from final year students to academic staff and industrial group leaders, allowing them to increase their `vocabulary' of synthetic transformations. This novel approach, which actively involves the reader, would be an ideal source of topics for group discussions.

The most useful reactions of organonitro compounds in organic synthesis Compounds containing nitro groups are useful intermediates for the synthesis of natural products and other complex organic molecules. The Nitro Group in Organic Synthesis focuses on reactions that proceed under mild conditions, important functional groups that can be synthesized by conversion of nitro groups, and the stereoselectivity of reactions of nitro compounds. These issues are of great importance to practicing researchers in today's pharmaceutical, agrochemical, and fine chemical industries. The Nitro Group in Organic Synthesis also emphasizes environmentally-friendly methods for nitration, the importance of aliphatic nitro compounds, and modern preparation of nitro compounds. Other topics discussed include:
* Henry reaction
* Asymmetric Michael addition
* Alkylation, acylation, halogenation, and related reactions of RNO2
* Substitution and elimination of NO2 and RNO2
The Nitro Group in Organic Synthesis is a useful resource for researchers and students in organic and medicinal chemistry.

Stereoselective Synthesis: Bond Formation, C-N, C-O, C-P, C-S, C-Se, C-Si, C-Sn, C-Te

Modern Coined Terms and Their Origins

Volume 1.1-10

CYCLOADDITION REACTIONS IN ORGANIC SYNTHESIS

Some Modern Methods of Organic Synthesis

An indispensable guide for all synthetic chemists who want to learn about the most relevant reactions and reagents employed to synthesize important heterocycles and drugs! The synthesis of natural products, bioactive compounds, pharmaceuticals, and drugs is of fundamental interest in modern organic chemistry. New reagents and reaction methods towards these molecules are being constantly developed. By understanding the mechanisms involved and scope and limitations of each reaction applied, organic chemists can further improve existing reaction protocols and develop novel efficient synthetic routes towards frequently used drugs, such as Aspirin or Penicillin. Applied Organic Chemistry provides a summary of important (name) reactions and reagents applied in modern organic chemistry and drug synthesis. It covers rearrangement, condensation, olefination, metathesis, aromatic electrophilic substitutions, Pd-catalyzed C-C bond forming reactions, multi-component reactions, as well as oxidations and reductions. Each chapter is clearly structured, providing valuable information on reaction details, step-by-step mechanism, experimental procedures, applications, and (patent) references. By providing mechanistic information and representative experimental procedures, this book is an indispensable guide for researchers and professionals in organic chemistry, natural product synthesis, pharmaceutical, and medicinal chemistry, as well as post-graduates preparing themselves for a job in the pharmaceutical industry. Hot Topic: Reviews important classes of organic reactions (incl. name reactions) and reagents in medicinal chemistry. Useful: Provides information on reaction details, common reagents, and functional group transformations used to synthesize natural products, bioactive compounds, drugs, and pharmaceuticals, e.g. Aspirin, Penicillin. Unique: For every reaction the mechanism is explained step by step, and representative experimental procedures are given, unlike most books in this area. User-friendly: Chapters are clearly structured making it easy for the reader to compare different reactions. Applied Organic Chemistry is an indispensable guide for researchers and professionals in organic chemistry, natural product synthesis, pharmaceutical, and medicinal chemistry, as well as post-graduates preparing themselves for a job in the pharmaceutical industry.

The general plan of the book follows that of the second edition, but the opportunity has been taken to bring the book up to date and to take account of advances in knowledge and of new reactions which have come into use since publication of the earlier editions.

Rev. ed. of: Organic chemistry / Jonathan Clayden ... [et al.].

Conjugate Addition Reactions in Organic Synthesis

Houben-Weyl Methods of Organic Chemistry Vol. E 21e, 4th Edition Supplement

Organic Syntheses Based on Name Reactions

serieuze wetenschappelijke antwoorden op absurde hypothetische vragen

Microwave-assisted Organic Synthesis

Organic Syntheses Based on Name Reactions.

The Book Is A Revised Edition Of A Lucid And Stimulating Introductory Account Of Organometallic Chemistry, An Exciting And Rapidly Developing Interdisciplinary Branch Of Science.A Characteristic Feature Of This Book Is The Presentation Of An Integrated (Covering Different Facets Usually Dealt With Either In Organic Or/And Inorganic Texts) View Of The Rapidly Developing Field Of Organometallic Chemistry. Attempts Have Been Made To Choose The Latest Examples To Illustrate The Fundamental Properties As Well As The Synthetic Procedures Of Organometallic Chemistry. Other Features Include: (A) An Interesting Brief Historical Background Of The Subject Including Some Quotations From Relevant Nobel Lecture Accounts Of Epoch Making Advances By The Discoverers Themselves, (B) The Adoption As Far As Possible Of The Iupac Rules Of Nomenclature, (C) A Brief Account Of The Rapidly Emerging Organometallic Chemistry Of The F-Elements, And (D) Inclusion Of Study Questions At The End Of Each Chapter.During The Revision Of The Book, The Latest Examples Have Replaced The Older Ones Wherever Feasible. The Book Would Be Extremely Useful As A Basic Text For B.Sc. (Hons.) And M.Sc. Chemistry Students.

A Modern Approach, Volume-III

Hoe dan?

Houben-Weyl Methods of Organic Chemistry Vol. E 21c, 4th Edition Supplement

Organic Chemistry