Organic Reaction Mechanisms William C Groutas

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Transactions of the Kansas Academy of Science - 1996

Comprehensive Dissertation Index - University Microfilms International 1984

Comprehensive Dissertation Index - 1984
Vols. for 1973- include the following subject areas: Biological sciences, Agriculture, Chemistry, Environmental sciences, Health sciences, Engineering, Mathematics and statistics, Earth sciences, Physics, Education, Psychology, Sociology, Anthropology, History, Law & political science, Business & economics, Geography & regional planning, Language & literature, Fine arts, Library & information science, Mass communications, Music, Philosophy and Religion.

Frustrated Lewis Pairs II - Gerhard Erker 2013-12-12
Frustrated Lewis Pairs: From Dihydrogen Activation to Asymmetric Catalysis, by Dianjun Chen, Jürgen Klankermayer Coexistence of Lewis Acid and Base Functions: A Generalized View of the Frustrated Lewis Pair Concept with Novel Implications for Reactivity, by Heinz Berke, Yanfeng Jiang, Xianghua Yang, Chunfang Jiang, Subrata Chakraborty, Anne Landwehr New Organoboranes in "Frustrated Lewis Pair" Chemistry, by Zhenpin Lu, Hongyan Ye, Huadong Wang Paracyclophane Derivatives in Frustrated Lewis Pair Chemistry, by Lutz Greb, Jan Paradies Novel Al-Based FLP Systems, by Werner Uhl, Ernst-Ulrich Würthwein N-Heterocyclic Carbenes in FLP Chemistry, by Eugene L. Kolychev, Eileen Theuergarten, Matthias Tamm Carbon-Based Frustrated Lewis Pairs, by Shabana Khan, Manuel Alcarazo Selective C-H Activations Using Frustrated Lewis Pairs. Applications in Organic Synthesis, by Paul Knochel, Konstantin Karaghiosoff, Sophia Manolikakes FLP-Mediated Activations and Reductions of CO2 and CO, by Andrew E. Ashley, Dermot O'Hare Radical Frustrated Lewis Pairs, by Timothy H. Warren and Gerhard Erker Polymerization by Classical and Frustrated Lewis Pairs, by Eugene Y.-X. Chen Frustrated Lewis Pairs Beyond the Main Group: Transition Metal-Containing Systems, by D. Wass Reactions of Phosphine-

Boranes and Related Frustrated Lewis Pairs with Transition Metal Complexes, by Abderrahmane Amgoune, Ghenwa Bouhadir, Didier Bourissou

Green Photocatalytic Semiconductors - Seema Garg 2021-09-20

This book comprises a detailed overview on the role of photocatalysts for environmental remediation, hydrogen production and carbon dioxide reduction. Effective ways to enhance the photocatalytic activity of the material via doping, hybrid material, laser light and nanocomposites have been discussed in this book. The book also further elaborates the role of metal nanoparticles, rare earth doping, sensitizers, surface oxygen vacancy, interface engineering and band gap engineering for enhancing the photocatalytic activity. An approach to recover the photocatalytic material via immobilization is also presented. This book brings to light much of the recent research in the development of such semiconductor photocatalytic systems. The book will thus be of relevance to researchers in the field of: material science, environmental science & technology, photocatalytic applications, newer methods of energy generation & conversion and industrial applications.

Directory of Graduate Research 2001 - Dorothy L. Milner 2001

This book contains a manual for high schools, colleges, and graduate programs focusing on teaching chemistry to students with disabilities. Contents include: (1) "Disability Laws and Services"; (2) "In the Classroom"; (3) "Testing and Evaluation"; (4) "Assistive Technology and Accessible Computing"; (5) "In the Laboratory"; (6) "Mentoring and Advocacy: Ensuring Successful Transitions to Higher Education and Employment"; and (7) "Universal Design: Accessibility for Everyone". (Contains 135 references.) (YDS).

Verzeichnis lieferbarer Bücher - 2002

Heterocyclic N-Oxides - Oleg V. Larionov 2017-07-12

The series Topics in Heterocyclic Chemistry presents critical reviews on present and future trends in the research of heterocyclic compounds. Overall the scope is to cover topics dealing with all areas within heterocyclic chemistry, both experimental and theoretical, of interest to the general heterocyclic chemistry community. The series consists of topic related volumes edited by renowned editors with contributions of experts in the field. All chapters from Topics in Heterocyclic Chemistry are published Online First with an individual DOI. In references, Topics in Heterocyclic Chemistry is abbreviated as Top Heterocycl Chem and cited as a journal.

Dissertation Abstracts International - 1999

Schaum's Outline of Organic Chemistry - George J. Hademenos 1999-04-21

Confusing Textbooks? Missed Lectures? Not Enough Time? Fortunately for you, there's Schaum's Outlines. More than 40 million students have trusted Schaum's to help them succeed in the classroom and on exams. Schaum's is the key to faster learning and higher grades in every subject. Each Outline presents all the essential course information in an easy-to-follow, topic-by-topic format. You also get hundreds of examples, solved problems, and practice exercises to test your skills. This Schaum's Outline gives you Practice problems with full explanations that reinforce knowledge Coverage of the most up-to-date developments in your course field In-depth review of practices and applications Fully compatible

with your classroom text, Schaum's highlights all the important facts you need to know. Use Schaum's to shorten your study time-and get your best test scores! Schaum's Outlines-Problem Solved.

Faculties, Publications, and Doctoral Theses in Chemistry and Chemical Engineering at United States Universities - American Chemical Society. Committee on Professional Training 1991

An Introduction to Medicinal Chemistry - Graham L. Patrick 2013-01-10

This volume provides an introduction to medicinal chemistry. It covers basic principles and background, and describes the general tactics and strategies involved in developing an effective drug.

Organic Reaction Mechanisms, Selected Problems, and Solutions - WILLIAM C. GROUTAS 2023-05-25

This organic chemistry text presents Part A focusing on chemistry, biology, biochemistry, pharmacy, and pre-professional students. Part B presents more difficult questions benefiting undergraduates and graduates in chemistry and related disciplines. Part C has questions in organic medicinal chemistry demonstrating real life problems.

Arthur Miller - Martin Gottfried 2004-09-08

Arthur Miller has been delivering powerful drama to the stage for decades with such masterpieces as Death of a Salesman, The Crucible, and A View from the Bridge. But, remarkably, no one has yet told the full story of Miller's own extraordinary life-a rich life, much of it shrouded from public view. To achieve this groundbreaking portrait of the artist and the man, the award-winning drama critic and biographer Martin Gottfried masterfully draws on his interviews, on Miller's voluminous lifelong correspondence, and on the annotated scripts and notebooks that reveal Miller's creative process in stunning detail. From Miller's childhood and adolescence in Depression-era New York City to the 1947 play All My Sons that established him as a voice to be reckoned with...from his heroic defiance of the House Un-American Activities Committee during the McCarthy years to his most unlikely pairing with Marilyn Monroe: Here is a highly acclaimed book that is "compulsively readable" (Booklist, starred review).

American Book Publishing Record - 2000-07

Glycoscience - Bertram O. Fraser-Reid 2008-04-14

As a reflection of the quantum leap that has been made in the study of glycostructures, the first edition of this book has been completely revised and updated. The editors give up-to-date information on glycostructures, their chemistry and chemical biology in the form of a completely comprehensive survey. Glycostructures play highly diverse and crucial roles in a myriad of organisms and important systems in biology, physiology, medicine, bioengineering and technology. Only in recent years have the tools been developed to partly understand the highly complex functions and the chemistry behind them. While many facts remain undiscovered, this MRW has been contributed to by a large number of the world’s leading researchers in the field.

Organic Reaction Mechanisms - William C. Groutas 1999-09-16

This hands-on manual allows readers to gain a better understanding of organic reaction mechanisms by solving a wide range of problems. Answers for the problems are included along with mini-reviews that

summarize and emphasize fundamental principles. This approach sharpens readers' reasoning ability and critical thinking.

Name Reactions - Jie Jack Li 2014-01-30

In this fifth edition of Jack Jie Li's seminal "Name Reactions", the author has added twenty-seven new name reactions to reflect the recent advances in organic chemistry. As in previous editions, each reaction is delineated by its detailed step-by-step, electron-pushing mechanism and supplemented with the original and the latest references, especially from review articles. Now with addition of many synthetic applications, this book is not only an indispensable resource for advanced undergraduate and graduate students, but is also a good reference book for all organic chemists in both industry and academia. Unlike other books on name reactions in organic chemistry, Name Reactions, A Collection of Detailed Reaction Mechanisms and Synthetic Applications focuses on the reaction mechanisms. It covers over 320 classical as well as contemporary name reactions.

Textbook of Drug Design and Discovery, Third Edition - Tommy Liljefors 2002-07-25

Building on the success of the previous editions, Textbook of Drug Design and Discovery has been thoroughly revised and updated to provide a complete source of information on all facets of drug design and discovery for students of chemistry, pharmacy, pharmacology, biochemistry, and medicine. The book follows drug design from the initial lead identification through optimization and structure-activity relationship with reference to the final processes of clinical evaluation and registration. Chapters investigate the design of enzyme inhibitors and drugs for particular cellular targets such as ion channels and receptors, and also explore specific classes of drug such as peptidomimetics, antivirals and anticancer agents. The use of gene technology in pharmaceutical research, computer modeling techniques, and combinatorial approaches are also included.

Frontiers in the Chemical Sciences - William Spindel 1986

Anion Coordination Chemistry - Kristin Bowman-James 2011-12-19

Building on the pioneering work in supramolecular chemistry from the last 20 years or so, this monograph addresses new and recent approaches to anion coordination chemistry. Synthesis of receptors, biological receptors and metallareceptors, the energetics of anion binding, molecular structures of anion complexes, sensing devices are presented and computational studies addressed to aid with the understanding of the different driving forces responsible for anion complexation. The reader is promised an actual picture of the state of the art for this exciting and constantly evolving field of supramolecular anion coordination chemistry. The topics range from ion channels to selective sensors, making it attractive to all researchers and PhD students with an interest in supramolecular chemistry.

Structural Biology in Drug Discovery - Jean-Paul Renaud 2020-01-09

With the most comprehensive and up-to-date overview of structure-based drug discovery covering both experimental and computational approaches, Structural Biology in Drug Discovery: Methods, Techniques, and Practices describes principles, methods, applications, and emerging paradigms of structural biology as a tool for more efficient drug

development. Coverage includes successful examples, academic and industry insights, novel concepts, and advances in a rapidly evolving field. The combined chapters, by authors writing from the frontlines of structural biology and drug discovery, give readers a valuable reference and resource that: Presents the benefits, limitations, and potentiality of major techniques in the field such as X-ray crystallography, NMR, neutron crystallography, cryo-EM, mass spectrometry and other biophysical techniques, and computational structural biology Includes detailed chapters on druggability, allostery, complementary use of thermodynamic and kinetic information, and powerful approaches such as structural chemogenomics and fragment-based drug design Emphasizes the need for the in-depth biophysical characterization of protein targets as well as of therapeutic proteins, and for a thorough quality assessment of experimental structures Illustrates advances in the field of established therapeutic targets like kinases, serine proteinases, GPCRs, and epigenetic proteins, and of more challenging ones like protein-protein interactions and intrinsically disordered proteins

Applications of Transition Metal Catalysis in Drug Discovery and Development - Matthew L. Crawley 2012-05-14

This book focuses on the drug discovery and developmentapplications of transition metal catalyzed processes, which canefficiently create preclinical and clinical drug candidates as wellas marketed drugs. The authors pay particular attention tothe challenges of transitioning academically-developed reactionsinto scalable industrial processes. Additionally, the book lays thegroundwork for how continued development of transition metalcatalyzed processes can deliver new drug candidates. This workprovides a unique perspective on the applications of transitionmetal catalysis in drug discovery and development – it is aguide, a historical prospective, a practical compendium, and asource of future direction for the field.

Medicinal Chemistry for Practitioners - Jie Jack Li 2020-06-29

Presenting both a panoramic introduction to the essential disciplines of drug discovery for novice medicinal chemists as well as a useful reference for veteran drug hunters, this book summarizes the state-of-the-art of medicinal chemistry. It covers key drug targets including enzymes, receptors, and ion channels, and hit and lead discovery. The book hen surveys a drug's pharmacokinetics and toxicity, with a solid chapter covering fundamental bioisosteres as a guide to structure-activity relationship investigations.

American Doctoral Dissertations - 1973

The Organic Chemistry of Drug Design and Drug Action - Richard B. Silverman 2012-12-02

Standard medicinal chemistry courses and texts are organized by classes of drugs with an emphasis on descriptions of their biological and pharmacological effects. This book represents a new approach based on physical organic chemical principles and reaction mechanisms that allow the reader to extrapolate to many related classes of drug molecules. The Second Edition reflects the significant changes in the drug industry over the past decade, and includes chapter problems and other elements that make the book more useful for course instruction. New edition includes new chapter problems and exercises to help students learn,

plus extensive references and illustrations Clearly presents an organic chemist's perspective of how drugs are designed and function, incorporating the extensive changes in the drug industry over the past ten years Well-respected author has published over 200 articles, earned 21 patents, and invented a drug that is under consideration for commercialization

Organic Chemistry: 100 Must-Know Mechanisms - Roman Valiulin 2020-04-20

This book summarizes 100 essential mechanisms in organic chemistry ranging from classical such as the Reformatsky Reaction from 1887 to recently elucidated mechanism such as the copper(I)-catalyzed alkyne-azide cycloaddition. The reactions are easy to grasp, well-illustrated and underpinned with explanations and additional information.

Basic Concepts in Medicinal Chemistry - Marc Harrold 2013-01-18

Medicinal chemistry is a complex topic. Written in an easy to follow and conversational style, Basic Concepts in Medicinal Chemistry focuses on the fundamental concepts that govern the discipline of medicinal chemistry as well as how and why these concepts are essential to therapeutic decisions. The book emphasizes functional group analysis and the basics of drug structure evaluation. In a systematic fashion, learn how to identify and evaluate the functional groups that comprise the structure of a drug molecule and their influences on solubility, absorption, acid/base character, binding interactions, and stereochemical orientation. Relevant Phase I and Phase II metabolic transformations are also discussed for each functional group. Key features include: • Discussions on the roles and characteristics of organic functional groups, including the identification of acidic and basic functional groups. • How to solve problems involving pH, pKa, and ionization; salts and solubility; drug binding interactions; stereochemistry; and drug metabolism. • Numerous examples and expanded discussions for complex concepts. • Therapeutic examples that link the importance of medicinal chemistry to pharmacy and healthcare practice. • An overview of structure activity relationships (SARs) and concepts that govern drug design. • Review questions and practice problems at the end of each chapter that allow readers to test their understanding, with the answers provided in an appendix. Whether you are just starting your education toward a career in a healthcare field or need to brush up on your organic chemistry concepts, this book is here to help you navigate medicinal chemistry. About the Authors Marc W. Harrold, BS, Pharm, PhD, is Professor of Medicinal Chemistry at the Mylan School of Pharmacy, Duquesne University, Pittsburgh, PA. Professor Harrold is the 2011 winner of the Omicron Delta Kappa "Teacher of the Year" award at Duquesne University. He is also the two-time winner of the "TOPS" (Teacher of the Pharmacy School) award at the Mylan School of Pharmacy. Robin M. Zavod, PhD, is Associate Professor for Pharmaceutical Sciences at the Chicago College of Pharmacy, Midwestern University, Downers Grove, IL, where she was awarded the 2012 Outstanding Faculty of the Year award. Professor Zavod also serves on the adjunct faculty for Elmhurst College and the Illinois Institute of Technology. She currently serves as Editor-in-Chief of the journal Currents in Pharmacy Teaching and Learning.

The British National Bibliography - Arthur James Wells 2000

New Drug Development for Known and Emerging Viruses - Helga Rübsamen-Schaeff 2022-01-31
Discusses how to fight Ebola, SARS Corona, and other known or emerging human viruses by building on the successes in antiviral therapy of the past decades Written by leading medicinal chemists from academia and industry, this book discusses the entire field of antiviral drug discovery and development from a medicinal chemistry perspective, focusing on antiviral drugs, targets, and viral disease mechanisms. It provides an outlook on emerging pathogens such as Ebola, Zika, West Nile, Lassa, and includes a chapter on SARS Coronoavirus-2 causing the present pandemic. New Drug Development for Known and Emerging Viruses describes the discovery and development process for antiviral agents for different classes of viruses and targets based on the experiences from the nine human viruses for which approved drugs are on the market (HIV, HCV, Influenza, RSV, HBV, HPV, HCMV, HSV, and VZV). It covers the properties and potential of 20 classes of currently approved antivirals, including combination drugs, and looks at novel antiviral strategies against emerging viruses. Covers the entire field of antiviral drug discovery and development Addresses the need for antiviral drugs to combat major health threats such as Ebola, Zika, West Nile, and SARS Coronavirus-2 Summarizes the successes of the past 15 years in developing ground-breaking medicines against 9 major human viruses, both from the medicinal chemistry and the pharmacological angle Discusses practical and strategic challenges in the drug discovery and development process, including screening technologies, latency, and toxicity issues New Developments in Antiviral Drugs is an important book for medicinal chemists, pharmaceutical chemists, virologists, and epidemiologists, and will be of great interest to those in the pharmaceutical industry and public health agencies.
Book Review Index - 2002

Active Pharmaceutical Ingredients in Synthesis - Anthony J. Burke 2018-11-28
Presents the most effective catalytic reactions in use today, with a special focus on process intensification, sustainability, waste reduction, and innovative methods This book demonstrates the importance of efficient catalytic transformations for producing pharmaceutically active molecules. It presents the key catalytic reactions and the most efficient catalytic processes, including their significant advantages over compared previous methods. It also places a strong emphasis on asymmetric catalytic reactions, process intensification (PI), sustainability and waste mitigation, continuous manufacturing processes as enshrined by continuous flow catalysis, and supported catalysis. Active Pharmaceutical Ingredients in Synthesis: Catalytic Processes in Research and Development offers chapters covering: Catalysis and Prerequisites for the Modern Pharmaceutial Industry Landscape; Catalytic Process Design - The Industrial Perspective; Hydrogenation, Hydroformylation and Other Reductions; Oxidation; ; Catalytic Addition Reactions; Catalytic Cross-Coupling Reactions; Catalytic Metathesis Reactions; Catalytic Cycloaddition Reactions: Coming Full-Circle; Catalytic Cyclopropanation Reactions; Catalytic C-H insertion Reactions; Phase Transfer Catalysis; and Biocatalysis.

-Provides the reader with an updated clear view of the current state of the challenging field of catalysis for API production -Focuses on the application of catalytic methods for the synthesis of known APIs -Presents every key reaction, including Diels-Alder, CH Insertions, Metal-catalytic coupling-reactions, and many more -Includes recent patent literature for completeness Covering a topic of great interest for synthetic chemists and R&D researchers in the pharmaceutical industry, Active Pharmaceutical Ingredients in Synthesis: Catalytic Processes in Research and Development is a must-read for every synthetic chemist working with APIs.

Aziridines and Epoxides in Organic Synthesis - Andrei K. Yudin 2006-02-20

Aziridines and epoxides are among the most widely used intermediates in organic synthesis, acting as precursors to complex molecules due to the strains incorporated in their skeletons. Besides their importance as reactive intermediates, many biologically active compounds also contain these three-membered rings. Filling a gap in the literature, this clearly structured book presents the much needed information in a compact and concise way. The renowned editor has succeeded in gathering together excellent authors to cover synthesis, applications, and the biological aspects in equal depth. Divided roughly equally between aziridines and epoxides, the twelve chapters discuss: * Synthesis of aziridines * Nucleophilic ring-opening of aziridines and epoxides * Organic synthesis with aziridine building blocks * Vinyl aziridines in organic synthesis * Diastereoselective aziridination reagents * Synthetic aspects of aziridinomitocene chemistry * Biosynthesis of biologically important aziridines * Organic catalysis of epoxide and aziridine ring formation * Metal-mediated synthesis of epoxides * Asymmetric epoxide ring opening chemistry * Epoxides in complex molecule synthesis * Biological activity of epoxide-containing molecules A high-quality reference manual for academic and industrial chemists alike.

Research Awards Index - 1985

Name Reactions - Jie Jack Li 2007-02-16

This book differs from others on name reactions in organic chemistry by focusing on their mechanisms. It covers over 300 classical as well as contemporary name reactions. Biographical sketches for the chemists who discovered or developed those name reactions have been included. Each reaction is delineated by its detailed step-by-step, electron-pushing mechanism, supplemented with the original and the latest references, especially review articles. This book contains major improvements over the previous edition and the subject index is significantly expanded.

Solvents as Reagents in Organic Synthesis - Xiao-Feng Wu 2018-01-03

Written by highly renowned and experienced authors, this is the only reference on the application of solvents as reagents. Clearly structured, the text describes various methods for the activation and reaction of these small molecules, highlighting the synthetic opportunities as well as process-oriented advantages. To this end, all relevant types of solvents are covered separately and emphasized with numerous synthetic examples, while taking care to explain applications so as to avoid undesired side reactions. The result is a unique resource for every synthetic chemist and reaction engineer in

industry and academia working on the methodical optimization of synthetic transformations.

Name Reactions in Heterocyclic Chemistry - Jie Jack Li 2004-12-27

Covers important name reactions relevant to heterocyclic chemistry The field of heterocyclic chemistry has long presented a specialchallenge for chemists. Because of the enormous amount and varietyof information, it is often a difficult topic to cover forundergraduate and graduate chemistry students, even in simplifiedform. Yet the chemistry of heterocyclic compounds and methods fortheir synthesis form the bedrock of modern medicinal chemical andpharmaceutical research. Thus there is a great need for highquality, up-to-date, and authoritative books on heterocyclicsynthesis helpful to both the professional research chemist as wellas the advanced student. Name Reactions in Heterocyclic Chemistry provides aone-stop repository for this important field of organic chemistry.The primary topics include three- and four-membered heterocycles,five-membered heterocycles including indoles, furans, thiophenes,and oxazoles, six-membered heterocycles including quinolines,isoquinolines, and pyrimidines, and other heterocycles. Each name reaction is summarized in seven sections: Description Historical perspective Mechanism Variations and improvements Synthetic utility Experimental References Authored by a team of world-renowned contributors - some of whomhave discovered the very reactions they describe - NameReactions in Heterocyclic Chemistry represents astate-of-the-art resource for students and researchers alike.

Organic Chemistry - L. G. Wade 2013

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

ENZYMES: Catalysis, Kinetics and Mechanisms - N.S. Punekar 2018-11-11

This enzymology textbook for graduate and advanced undergraduate students covers the syllabi of most universities where this subject is regularly taught. It focuses on the synchrony between the two broad mechanistic facets of enzymology: the chemical and the kinetic, and also highlights the synergy between enzyme structure and mechanism. Designed for self-study, it explains how to plan enzyme experiments and subsequently analyze the data collected. The book

is divided into five major sections: 1] Introduction to enzymes, 2] Practical aspects, 3] Kinetic Mechanisms, 4] Chemical Mechanisms, and 5] Enzymology Frontiers. Individual concepts are treated as stand-alone chapters; readers can explore any single concept with minimal cross-referencing to the rest of the book. Further, complex approaches requiring specialized techniques and involved experimentation (beyond the reach of an average laboratory) are covered in theory with suitable references to guide readers. The book provides students, researchers and academics in the broad area of biology with a sound theoretical and practical knowledge of enzymes. It also caters to those who do not have a practicing enzymologist to teach them the subject.

Heterocyclic Chemistry - John Arthur Joule 1978

Completely rewritten, this third edition aims to teach the fundamentals of heterocyclic reactivity and synthesis in a way that can be understood by undergraduate students. Also, more advanced material has been added for postgraduate courses and for those working with heterocyclic compounds in industry.