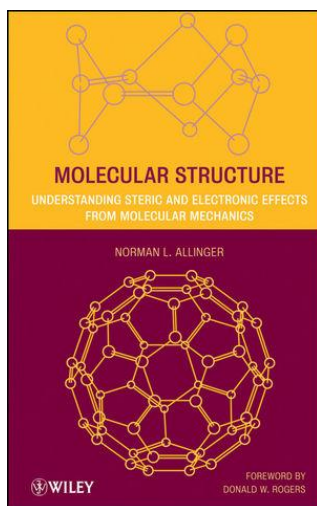


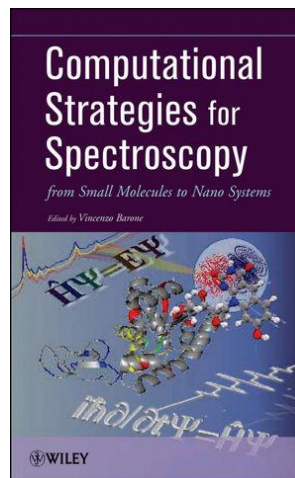
**Biomimetic Organic Synthesis, 2 Volume Set**  
**Edited by Erwan Poupon and Bastien Nay**  
 QP517.B56 B566 2011

In this exciting 2 volume set, the approach and methodology of bio-inspired synthesis of complex natural products is laid out, backed by abundant practical examples from the authors' own work as well as from the published literature.



**Molecular Structure: Understanding Steric and Electronic Effects from Molecular Mechanics**  
**By Norman L Allinger**  
 QD476.A648 2010

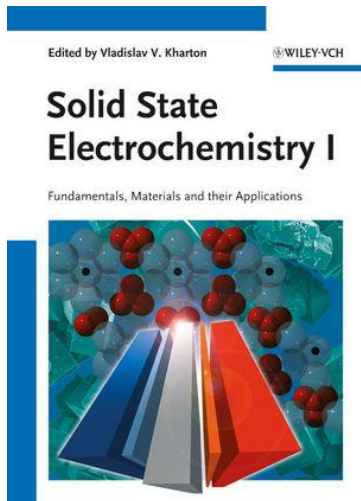
Authored by a founding father of computational chemistry, *Molecular Structure* broadens the scope of the subject by serving as a pioneering guide for workers in the fields of organic, biological, and computational chemistry, as they explore new possibilities to advance their discoveries. This work will also be of interest to many of those in tangential or dependent fields, including medicinal and pharmaceutical chemistry and pharmacology.



**Computational Strategies for Spectroscopy: from Small Molecules to Nano Systems**  
**Edited by Vincenzo Barone**

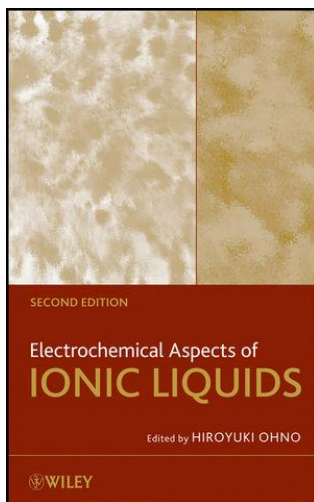
##

This book is devoted to the most significant methodological contributions in computational spectroscopy, and to the computation of IR, UV-VIS, NMR and EPR spectral parameters with reference to the underlying vibronic and environmental effects. Each section starts with a chapter written by an experimental spectroscopist dealing with present challenges in the different fields; comprehensive coverage of conventional and advanced spectroscopic techniques is provided by dedicated chapters written by experts.



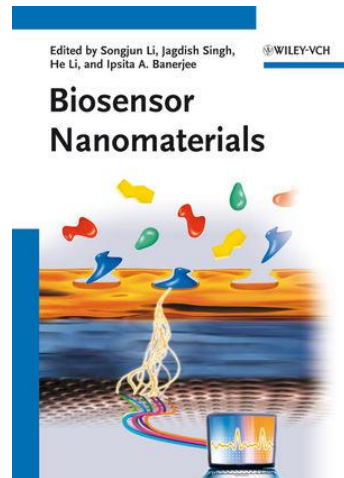
**Solid State Electrochemistry, Two Volume Set**  
**Edited by Vladislav V. Kharton**  
 QD553.S65 2009

The only comprehensive two volume handbook on this important and rapidly developing topic combines fundamental information with a brief overview of recent advances in solid state electrochemistry, primarily targeting specialists working in this scientific field.



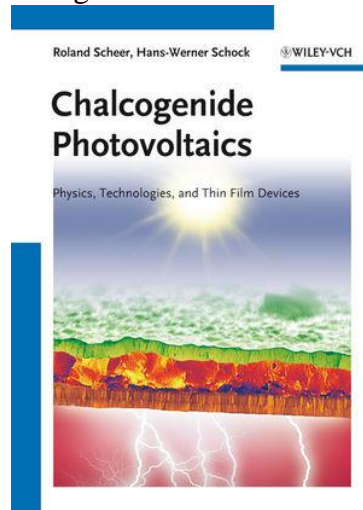
**Electrochemical Aspects of Ionic Liquids, 2<sup>nd</sup> Ed.**  
**By Hiroyuki Ohno**  
 QD562.I65 E38 2011

The second edition is based on the original book, which has been revised, updated and expanded in order to cover the latest information on this rapidly growing field. The new edition includes new chapters on Li ion Batteries and Actuators, as well as a revision of existing chapters to include a discussion on purification and the effects of impurities, adsorption of ionic liquids on interfaces and on the electrochemical double layer, among other topics.



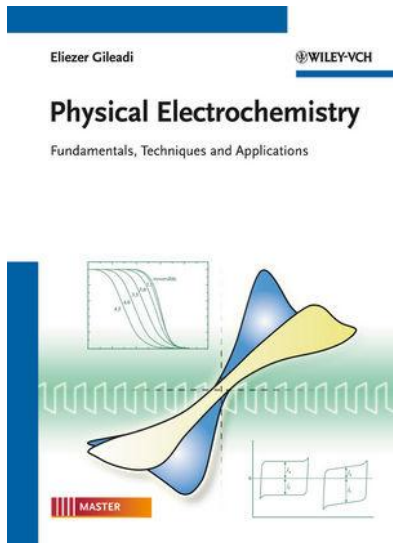
**Biosensor Nanomaterials**  
**Edited by Songjun Li, et al**  
 TA418.9.N35 B56 2011

Focusing on the materials suitable for biosensor applications, such as nanoparticles, quantum dots, meso- and nanoporous materials and nanotubes, this text enables the reader to prepare the respective nanomaterials for use in actual devices by appropriate functionalization, surface processing or directed self-assembly.



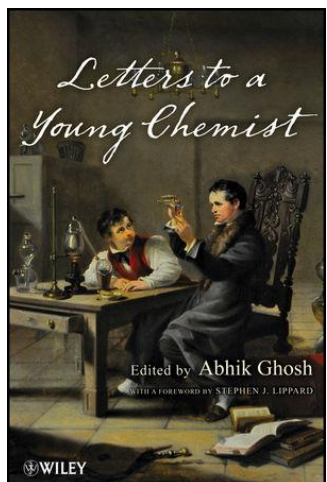
**Chalcogenide Photovoltaics: Physics, Technologies, and Thin Film Devices**  
**by Roland Scheer and Hans-Werner Schock**  
 TK8322.S34 2011

Written by two very renowned authors with years of practical experience in the field, the book covers II-VI and I-III-VI<sub>2</sub> materials as well as energy conversion at heterojunctions. It also discusses the latest semiconductor heterojunction models and presents modern analysis concepts. Thin film technology is explained with an emphasis on current and future techniques for mass production, and the book closes with a compendium of failure analysis in photovoltaic thin film modules.



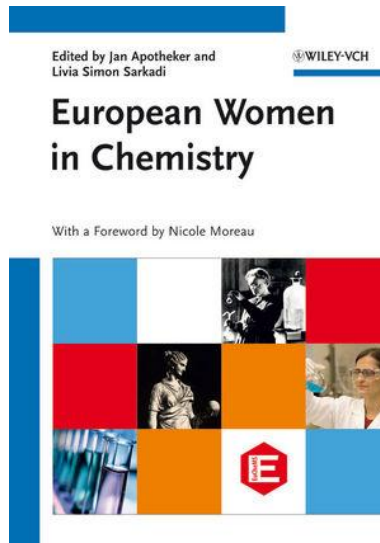
**Physical Electrochemistry: Fundamentals, Techniques and Applications**  
By Eliezer Gileadi  
QD553.G55 2011

This textbook covers the field of physical electrochemistry by introducing the reader to its central topics, including electrode kinetics and reactions, electrocapillarity, electrosorption, electrocatalysis, as well as the most important electrochemical methods.



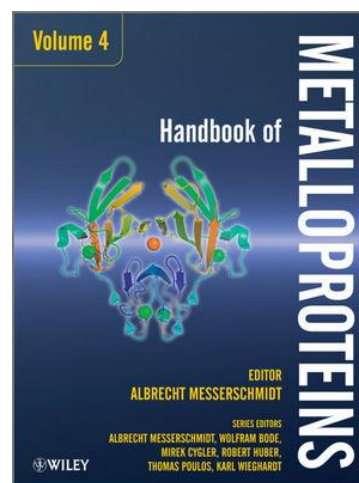
**Letters to a Young Chemist**  
Edited by Abhik Ghosh  
QD39.5.L58 2011

Written with a humorous touch by some of today's leading chemists, this book presents missives to "Angela," a fictional undergraduate considering a career in chemistry. The different chapters offer a mix of fundamental principles, contemporary issues, and challenges for the future.



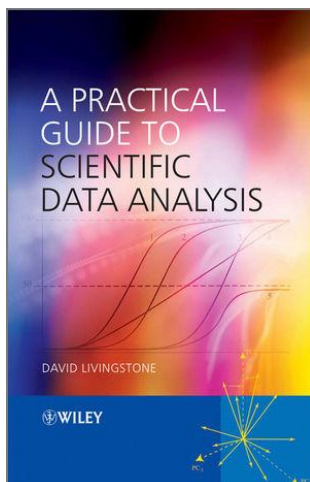
**European Women in Chemistry**  
Edited by Jan Apotheker and Livia Simon Sarkadi  
QD21.E97 2011

The official book of the EuCheMS societies for the *International Year of Chemistry*, it provides a collection of lively stories about remarkable European female chemists through the centuries.



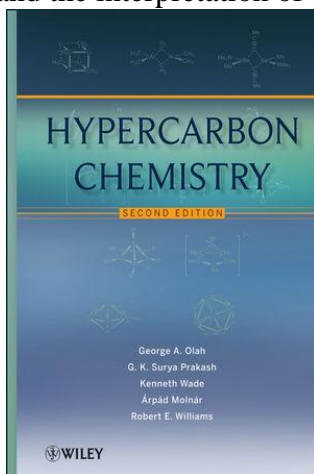
**Handbook of Metalloproteins, 2 Volume Set, Volumes 4&5**  
By Albrecht Messerschmidt  
##

Researching the structure and function of metalloproteins is one of the biggest challenges in modern biological chemistry – and several Nobel Prizes have been awarded to research in the field, including to the Co-Editor Robert Huber in 1988. Volumes 4 & 5 help bring together the very latest new and exciting metalloproteins in two volumes to help keep you up-to-date in this continually expanding field.



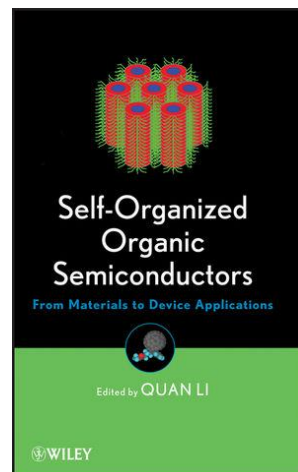
**A Practical Guide to Scientific Data Analysis**  
**By David J. Livingstone**  
 QA279.L597 2009

Inspired by the author's need for practical guidance in the processes of data analysis, *A Practical Guide to Scientific Data Analysis* has been written as a statistical companion for the working scientist. This handbook of data analysis with worked examples focuses on the application of mathematical and statistical techniques and the interpretation of their results.



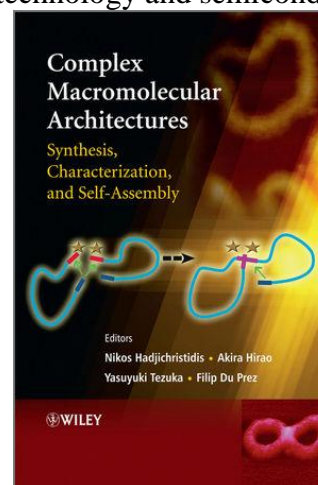
**Hypercarbon Chemistry, 2<sup>nd</sup> Edition**  
**By George A. Olah, et al**  
 QD305.C3 H97 2011

A comprehensive and contemporary treatment of the chemistry of hydrocarbons (alkanes, alkenes, alkynes, and aromatics) towards electrophiles, this book deals with all major aspects of such chemistry involved in hydrocarbon transformations, and of the structural and reaction chemistry of carboranes, mixed hydrides in which both carbon and boron atoms participate in the polyhedral molecular frameworks.



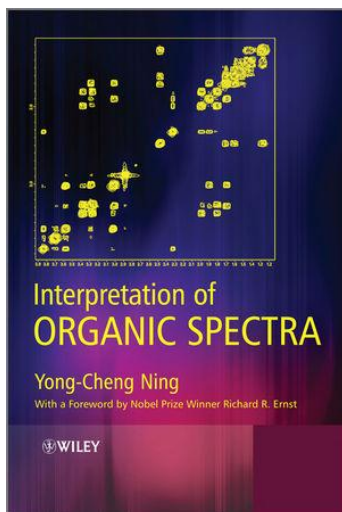
**Self-Organized Organic Semiconductors: From Materials to Device Applications**  
**By Quan Li**  
 TK871.99.O4 S45 2011

This book focuses on the exciting topic on self-organized organic semiconductors. It offers up-to-date and accessible coverage of self-organized semiconductors for organic chemistry, polymer science, liquid crystals, materials science, material engineering, electrical engineering, chemical engineering, optics, optic-electronics, nanotechnology and semiconductors.



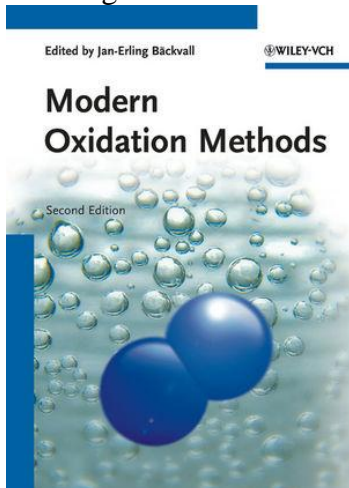
**Complex Macromolecular Architectures: Synthesis, Characterization, and Self-Assembly**  
**Edited by Nikos Hadjichristidis, et al**  
 QD381.C658 2011

The field of CMA (complex macromolecular architecture) stands at the cutting edge of materials science, and has been a locus of intense research activity in recent years. This book gives an extensive description of the synthesis, characterization, and self-assembly of recently-developed advanced architectural materials with a number of potential applications.



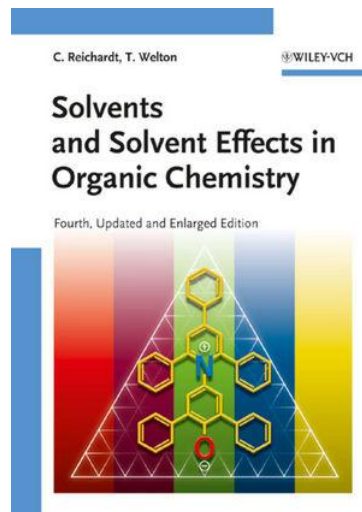
**Interpretation of Organic Spectra**  
**By Yong-Cheng Ning**  
 QD272.S6 N56 2011

The author not only introduces knowledge for analyzing nuclear magnetic resonance spectra, he also arms readers systemically with knowledge of Mass spectra and IR. In each chapter the author presents very practical application skills by providing various challenging examples. The last chapter provides the strategy, skills and methods on how to identify an unknown compound through a combination of spectra.



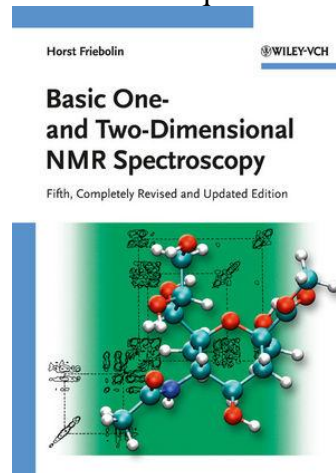
**Modern Oxidation Methods, 2<sup>nd</sup> Edition**  
**Edited by Jan-Erling Bäckvall**  
 QD281.O9 M64 2010

Edited by one of the world leaders in the field, high-quality contributions cover every important aspect from classical to green chemistry methods. This completely revised, updated second edition now includes additional sections on industrial oxidation and biochemical oxidation.



**Solvents and Solvent Effects in Organic Chemistry, 4<sup>th</sup> Edition**  
**By Christian Reichardt and Thomas Welton**  
 QD541.R37 2011

Now in its 4th edition, this remains the ultimate reference for all questions regarding the properties and effects of solvents in organic chemistry. Retaining its proven concept, the handbook is completely updated and contains 15% more content, including new chapters on "Solvents and Green Chemistry", "Classification of Solvents by their Environmental Impact", and "Ionic Liquids"



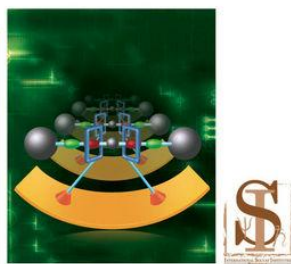
**Basic One- and Two-Dimensional NMR Spectroscopy**  
**By Horst Friebolin**  
 QP519.9.N83 F7513 2011

This is the fifth edition of the highly successful, classic textbook for bachelor and master courses, with over 20 % new material and the contents completely revised and updated.

Edited by Jean-Pierre Sauvage  
and Pierre Gaspard

WILEY-VCH

## From Non-Covalent Assemblies to Molecular Machines



### From Non-Covalent Assemblies to Molecular Machines

Edited by J.P. Sauvage and Pierre Gaspard  
QD381.F76 2011

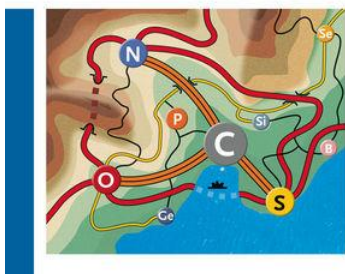
Based on the Solvay conference, which gathers the leading scientists in the field, this monograph collects review articles from the six topics of the conference, while also including comments, discussions and debates obtained during the conference.

Edited by Andrei K. Yudin

WILEY-VCH

## Catalyzed Carbon-Heteroatom Bond Formation

With a Foreword by John F. Hartwig



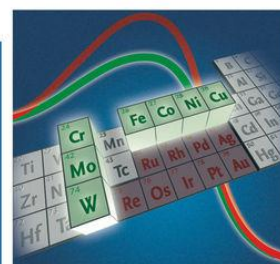
### Catalyzed Carbon-Heteroatom Bond Formation Edited by Andrei K. Yudin QD262.C272 2010

Written by an experienced editor widely acclaimed within the scientific community, this book covers everything from oxygen to nitrogen functionalities. The result is an indispensable source of information for the strategic planning of the synthetic routes for organic, catalytic and medicinal chemists, as well as chemists in industry.

Edited by R. Morris Bullock

WILEY-VCH

## Catalysis Without Precious Metals



### Catalysis without Precious Metals Edited by R. Morris Bullock QD505.C3836 2010

Written for chemists in industry and academia, this ready reference and handbook summarizes recent progress in the development of new catalysts that do not require precious metals. The research thus presented points the way to how new catalysts may ultimately supplant the use of precious metals in some types of reactions, while highlighting the remaining challenges.

INTRODUCTION TO ORGANIC CHEMISTRY

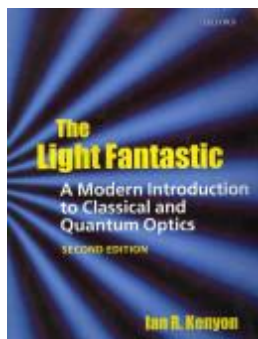
Fourth Edition



WILLIAM BROWN | THOMAS POON

### Introduction to Organic Chemistry By William Brown and Thomas Poon QC253.2 B6 2011

This text provides an introduction to organic chemistry for students who require the fundamentals of organic chemistry as a requirement for their major. It is most suited for a one semester organic chemistry course. In an attempt to highlight the relevance of the material to students, the authors place a strong emphasis on showing the interrelationship between organic chemistry and other areas of science, particularly the biological and health sciences.

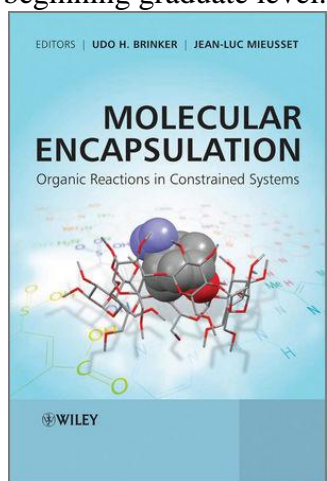


**The Light Fantastic: A Modern Introduction to Classical and Quantum Physics**

**By Ian R. Kenyon**

QC355.3 K46 2011

This book presents a thorough and self-contained introduction to modern optics, covering in full the three components--ray optics, wave optics, and quantum optics. The text covers all that would be needed over a comprehensive course in optics at the advanced undergraduate or beginning graduate level.

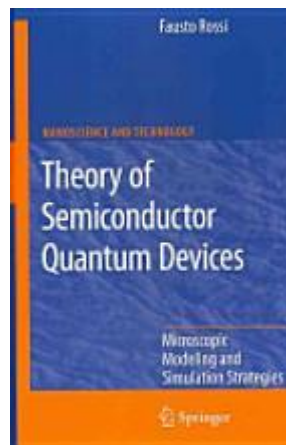


**Molecular Encapsulation: Organic Reactions in Constrained Systems**

**Edited by Udo H. Brinker and Jean-Luc Miesusset**

##

The inclusion of small guest molecules within suitable host compounds results in constrained systems that imbue novel properties upon the incarcerated organic substrates. Supramolecular tactics are becoming widely employed and this treatise spotlights them. Often, the impact of encapsulation on product formation is substantial. The use of constrained systems offers the means to steer reactions along desired pathways. A broad overview of various supramolecular approaches aimed to manipulate chemical reactions are featured.

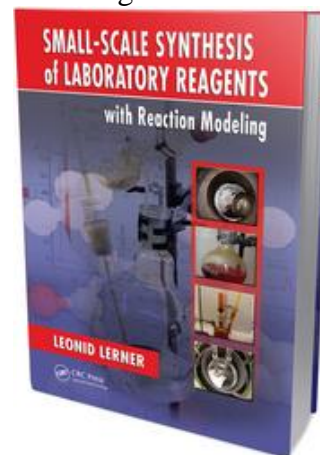


**Theory of Semiconductor Quantum Devices**

**By Fausto Rossi**

QC611.6 Q35 R67 2011

The primary goal of this book is to provide a cohesive description of the vast field of semiconductor quantum devices, with special emphasis on basic quantum-mechanical phenomena governing the electro-optical response of new-generation nanomaterials.

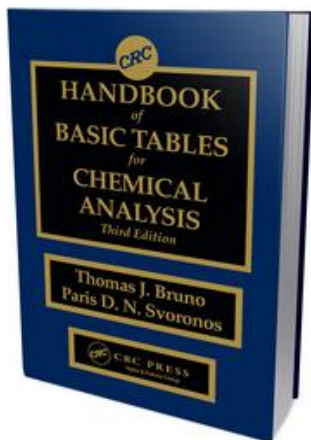


**Small-Scale Synthesis of Laboratory Reactions**

**By Leonid Lerner**

QD77 L47 2011

This volume presents preparations chosen for their short duration, availability of apparatus, high yield, and high purity of the product. Adding an educational component, the book also discusses fundamental processes in inorganic chemistry, presenting original modeling of reactions and their practical implementation. Theoretical aspects are discussed to a greater extent than is usual in synthetic literature in cases where there is a direct impact on experimental parameters, such as the reaction time, yield, and purity of the product.



### **Handbook of Basic Tables for Chemical Analysis**

**By Thomas J. Bruno and Paris D.N. Svoronos**  
QD78 B78 2011

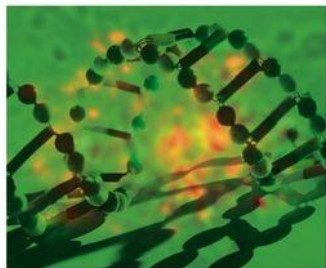
This book is a one-stop reference that presents updated data in a handy format specifically designed for use when reaching a decision point in designing an analysis or interpreting results. In response to a decade of reader input, this new edition has been expanded to include even more of the critical information scientists rely on to perform accurate analysis.

Markus Sauer, Johan Hofkens,  
Jörg Enderlein

WILEY-VCH

### **Handbook of Fluorescence Spectroscopy and Imaging**

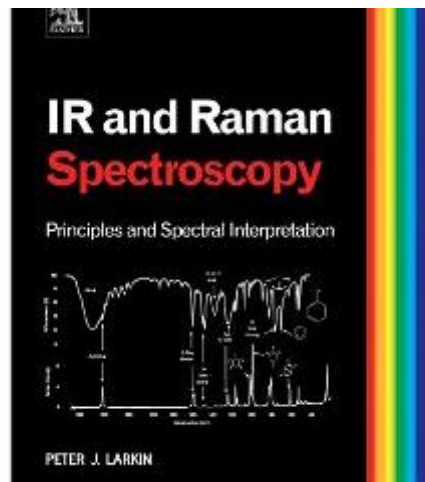
From Ensemble to Single Molecules



### **Handbook of Fluorescence Spectroscopy and Imaging: From Single Molecules to Ensembles**

**By Marcus Sauer et al**  
QD96 F56 S28 2011

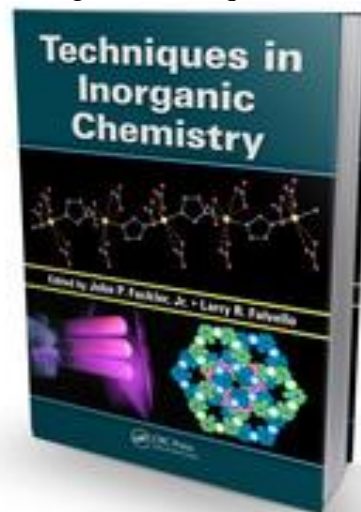
Providing much-needed information on fluorescence spectroscopy and microscopy, this ready reference covers detection techniques, data registration, and the use of spectroscopic tools, as well as new techniques for improving the resolution of optical microscopy below the resolution gap.



### **IR and Raman Spectroscopy: Principles and Spectral Interpretation**

**By Peter J. Larkin**  
QD96.I5 L37 2011

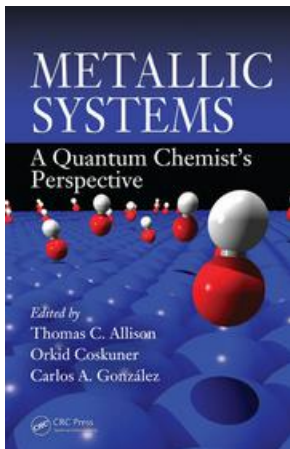
This book provides a solid introduction to vibrational spectroscopy with an emphasis placed upon developing critical interpretation skills. Ideal for those using and analyzing IR and Raman spectra in their laboratories as well as those using the techniques in the field.



### **Techniques in Inorganic Chemistry** **Edited by John P. Fackler and Larry R. Falvello**

QD152.3 T434 2011

Inorganic chemistry continues to generate much current interest due to its array of applications, ranging from materials to biology and medicine. **Techniques in Inorganic Chemistry** assembles a collection of articles from international experts who describe modern methods used by research students and chemists for studying the properties and structures of inorganic chemicals.

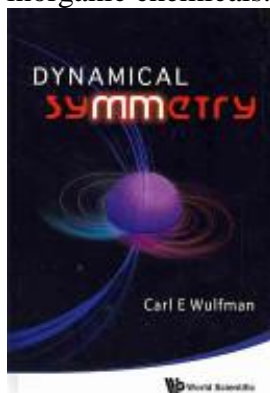


**Metallic Systems: A Quantum Chemist's Perspective**

**Edited by Thomas C. Allison et al**

QD171.M483 2011

Inorganic chemistry continues to generate much current interest due to its array of applications, ranging from materials to biology and medicine. This book assembles a collection of articles from international experts who describe modern methods used by research students and chemists for studying the properties and structures of inorganic chemicals.

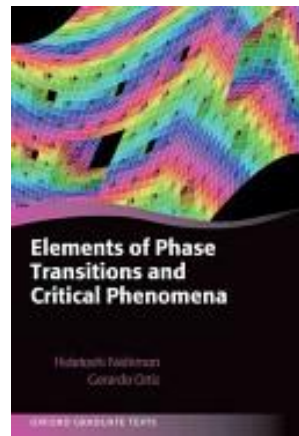


**Dynamical Symmetry**

**By Carl E. Wulfman**

QD 174.17 S9 W85 2011

Whenever systems are governed by continuous chains of causes and effects, their behavior exhibits the consequences of dynamical symmetries, many of them far from obvious. This book introduces the reader to Sophus Lie's discoveries of the connections between differential equations and continuous groups that underlie this observation. It develops and applies the mathematical relations between dynamics and geometry that result. Systematic methods for uncovering dynamical symmetries are described, and put to use.

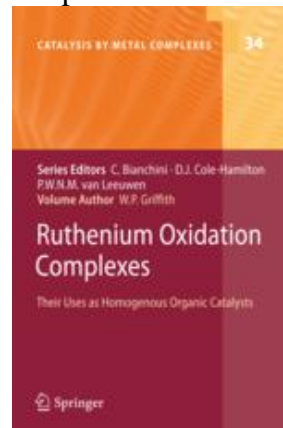


**Elements of Phase Transitions and Critical Phenomena**

**By Hidetoshi Nishimori and Gerardo Ortiz**

QC175.16 P5 N57 2011

As an introductory account of the theory of phase transitions and critical phenomena, this book reflects lectures given by the authors to graduate students at their departments and is thus classroom-tested to help beginners enter the field. It contains new pedagogical presentations of field theory methods, including a chapter on conformal field theory, and various modern developments hard to find in a single textbook on phase transitions.

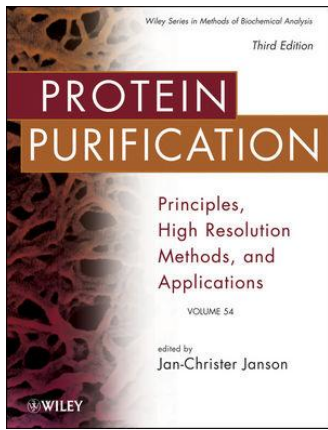


**Ruthenium Oxidation Complexes**

**By W.P. Griffith**

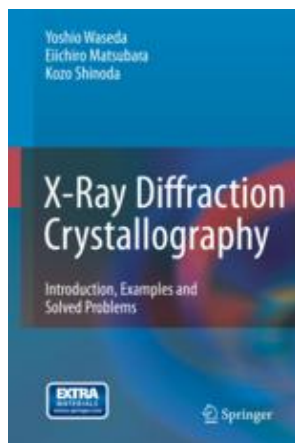
QD181.R9 G754 2011

This book explores ruthenium complexes, particularly those in higher oxidation states, which function as useful and selective organic oxidation catalysts. Particular emphasis is placed on those systems which are of industrial significance.



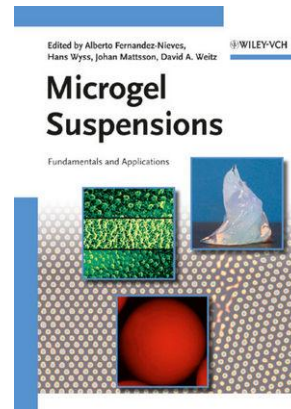
**Protein Purification**  
**Edited by Jan-Christer Janson**  
**QP551.P69754 2011**

This thoroughly revised and updated third edition provides an overview of the principles and methodology of the most frequently used biochemical separation techniques for proteins used today. Balancing theory, procedures, and applications, it offers professionals and students in biochemistry, organic chemistry, and analytical chemistry quick access to a wide range of important techniques.



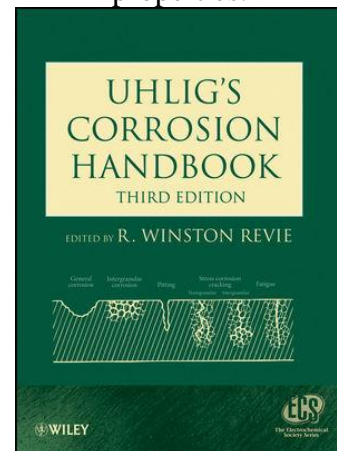
**X-Ray Diffraction Crystallography**  
**By Eiichiro Matsubara and Kozo Shinoda**  
**QD945 W37 2011**

X-ray diffraction crystallography for powder samples is a well-established and widely used method. It is applied to materials characterization to reveal the atomic scale structure of various substances in a variety of states. The book deals with fundamental properties of X-rays, geometry analysis of crystals, X-ray scattering and diffraction in polycrystalline samples and its application to the determination of the crystal structure.



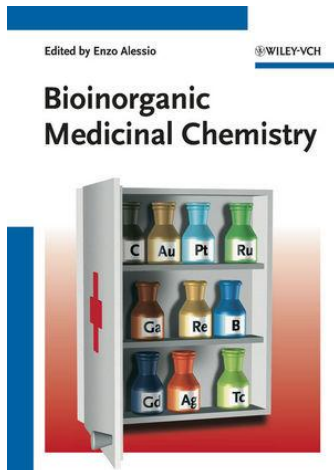
**Microgel Suspensions**  
**Edited by Alberto Fernandez-Nieves et al**  
**QD54+ M53 2011**

Providing a vital link between chemistry and physics on the nanoscale, this book offers concise coverage of the entire topic in five major sections, beginning with synthesis of microgel particles and continuing with their physical properties. The phase behavior and dynamics of resulting microgel suspensions feature in the third section, followed by their mechanical properties.



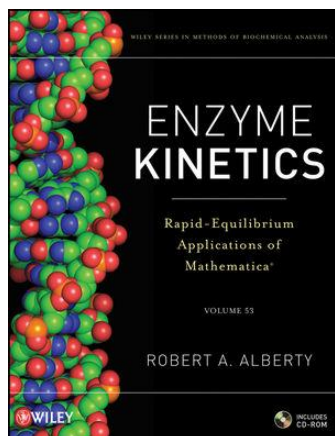
**Uhlig's Corrosion Handbook**  
**Edited by R. Winston Revie**  
**TA462 U4 2011**

This book serves as a reference for engineers, scientists, and students concerned with the use of materials in applications where reliability and resistance to corrosion are important. It updates the coverage of its predecessor, including coverage of: corrosion rates of steel in major river systems and atmospheric corrosion rates, the corrosion behavior of materials such as weathering steels and newer stainless alloys, and the corrosion behavior and engineering approaches to corrosion control for nonmetallic materials.



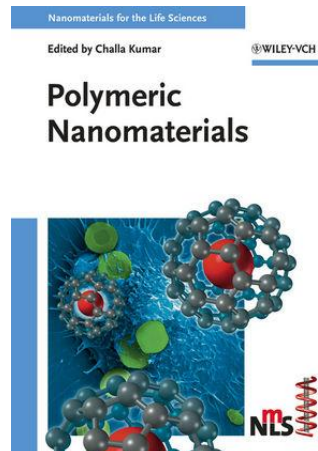
**Bioinorganic Medicinal Chemistry**  
**Edited by Enzo Alessio**  
 RS166 B56 2011

This book gives a comprehensive overview about medicinal inorganic chemistry. Topics like targeting strategies, mechanism of action, Pt-based antitumor drugs, radiopharmaceuticals are covered in detail and offer the reader an in-depth overview about this important topic.



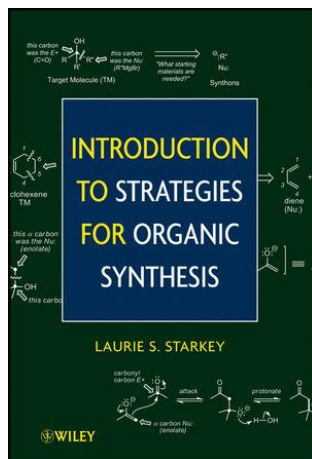
**Enzyme Kinetics: Rapid-Equilibrium Applications of Mathematica**  
**By Robert A. Alberty**  
 QP601.3 A43 2011

This book helps readers emphasize the estimation of kinetic parameters with the minimum number of velocity measurements, thereby reducing the amount of laboratory work necessary, and allowing more time for the consideration of complicated mechanisms. The book systematically progresses through six levels of understanding the enzyme-catalyzed reaction, and includes a CD-ROM so that the reader may use the programs in the book to input their own experimental data.



**Polymeric Nanomaterials**  
**Edited by Challa Kumar**  
 TA418.9 N35 P672 2011

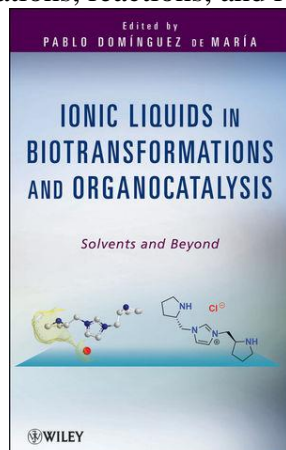
These ten volumes provide an excellent, in-depth overview of all nanomaterial types and their uses in the life sciences. Each volume is dedicated to a specific material class and covers fundamentals, synthesis strategies, structure-property relationships, material behaviour finetuning, biological effects and applications in the life sciences.



## Introduction to Strategies for Organic Synthesis

By Laurie Starkey  
QD262 .I58 2012

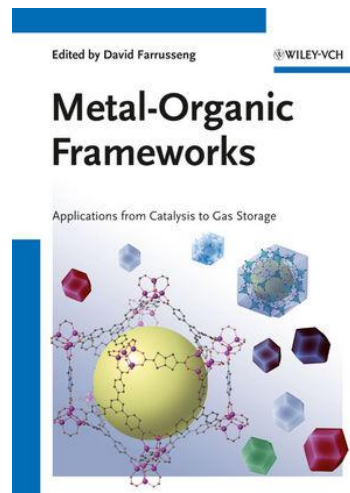
Organic synthesis is an advanced but important field of organic chemistry, however resources for advanced undergraduates and graduate students moving from introductory organic chemistry courses to organic synthesis research are scarce. This book is designed to fill this void, teaching practical skills for making logical retrosynthetic disconnections, while reviewing basic organic transformations, reactions, and reactivities.



## Ionic Liquids in Biotransformations and Organocatalysis: Solvents and Beyond

By Pablo Domínguez de María  
TP248.65.P76 I59 2012

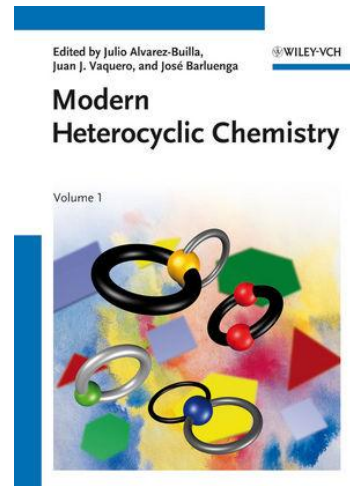
This book addresses the use of ionic liquids in biotransformation and organocatalysis. Its major parts include: an overview of the fundamentals of ionic liquids and their interactions with proteins and enzymes; the use of ILs in biotransformations; non-solvent applications such as additives, membranes, substrate anchoring, and the use of ILs in organocatalysis.



## Metal-Organic Frameworks: Applications from Catalysis to Gas Storage

Edited by David Farrusseng  
QD882 .M478 2011

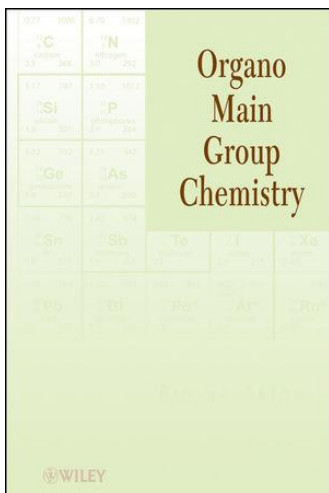
This new book provides a multidisciplinary overview of the wide range of applications of metal-organic frameworks, including solid state chemistry, materials science and process engineering. The advantages and limits of MOFs will be comprehensively discussed from both academic and industrial perspectives.



## Modern Heterocyclic Chemistry

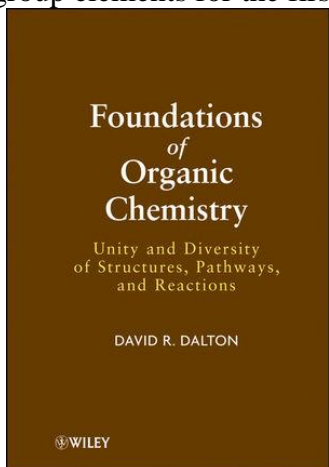
Edited by J. Alvarez-Builla, J. Vaquero, J. Barluenga  
QD400 .M64 2011

This new four volume handbook is THE reference in the field. Presenting a wealth of information in a user-friendly format through highly systematic coverage of the compound classes, this indispensable handbook is essential reading for all organic and medicinal chemists working in this field in industry and academia.



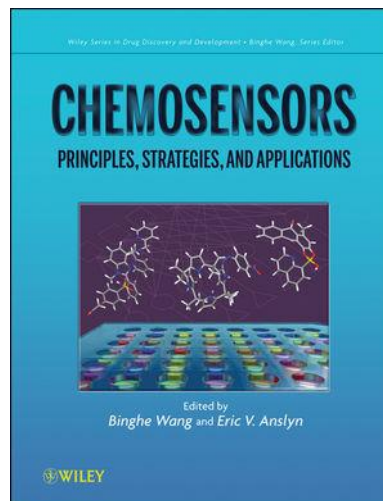
**Organo Main Group Chemistry**  
**By Kin-ya Akiba**  
 QD251.3 .A35 2011

Covering the essentials of all main group elements in organic chemistry, along with the synthesis and reactions of their organic compounds in just one volume, *Organo Main Group Chemistry* breaks important new ground. While main group chemistry has traditionally been classified as part of inorganic chemistry, this book establishes the organic chemistry of main group elements for the first time.



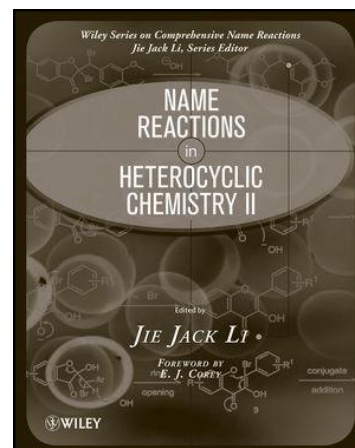
**Foundations of Organic Chemistry: Unity and Diversity of Structures, Pathways, and Reactions**  
**By David R. Dalton**  
 QD251.3 .D35 2011

This book differs from other organic chemistry textbooks in that it is not focused purely on the needs of students studying premed, but rather for all students studying organic chemistry. It directs the reader to question present assumptions rather than to accept what is told, so the second chapter is largely devoted to spectroscopy.



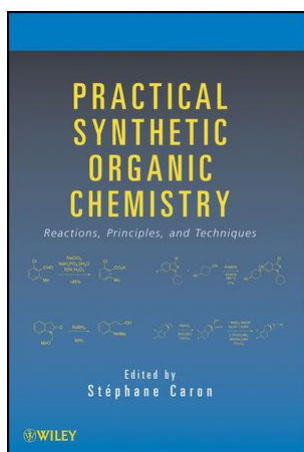
**Chemosensors: Principles, Strategies, and Applications**  
**Edit by Binghe Wang, Eric V. Anslyn**  
 R857.B54 C485 2011

Providing a comprehensive overview of chemosensors—organic molecules designed to bind and sense small molecules or metal ions—and their applications, this book is an accessible one-stop resource for analysts, clinicians, and graduate students studying advanced chemistry and chemosensing.



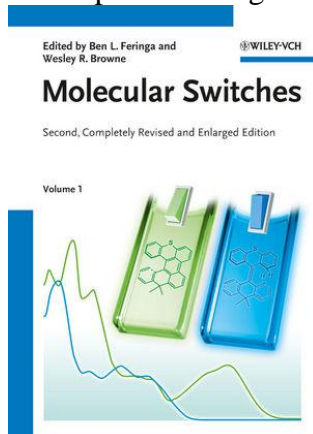
**Name Reactions in Heterocyclic Chemistry II**  
**By Jie Jack Li, Forward by EJ Corey**  
 QD400 .N342 2011

Featuring contributions from the leading authorities in heterocyclic chemistry. Each section includes a description of the given reaction, as well as the relevant historical perspective, mechanism, variations and improvements, synthetic utilities, experimental details, and references to the current primary literature.



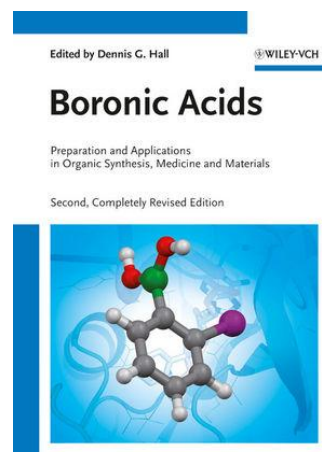
**Practical Synthetic Organic Chemistry:  
Reactions, Principles, and Techniques**  
Edited by Stéphane Caron  
QD262 .P688 2011

Despite the maturity of organic chemistry, it can still be very challenging to identify optimal methods for synthetic transformations that perform as well in real-world manufacturing processes as they do in the laboratory. This detailed and accessible guide attempts to address this and deliver proven methodologies that synthetic chemists will find valuable for identifying reaction conditions that work reliably over the broadest possible range of substrates.



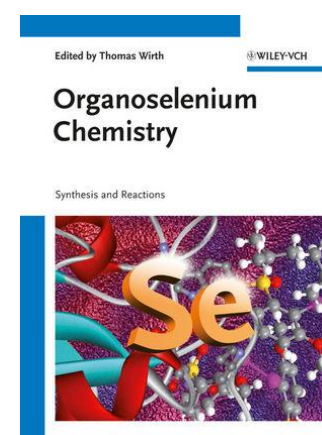
**Molecular Switches, 2<sup>nd</sup> Edition**  
Edited by Ben L. Feringa, Wesley R. Browne  
QD878 .M65 2011

The long-awaited second edition of the successful book covering molecular switches now in two volumes! This book brings you everything you need to know about molecular switches - a hot topic in the nanoworld. The major classes of molecular switches including catenanes, rotaxanes, azobenzenes together with polymer and biomolecular switching systems and DNA based switches are covered.



**Boronic Acids: Preparation and Applications  
in Organic Synthesis, Medicine and Materials**  
Edited by Dennis G. Hall

Following the huge success of the first edition, which has become THE reference source for everyone working in the field, this long-awaited, completely updated edition features almost 50% new content. The world-renowned chemist Prof Dennis Hall is joined by a select group of top authors to cover all modern aspects of boronic acid derivatives in one comprehensive handbook.



**Organoselenium Chemistry: Synthesis and  
Reactions**  
Edited by Thomas Wirth

Selenium-based methods in synthetic chemistry have developed rapidly over the past years and are now offering highly useful tools for organic synthesis. Filling the gap for a comprehensive handbook and ready reference, this book covers all modern developments within the field, incl. biochemical aspects. The chemistry chapters are organized according to the different reactivities of various selenium compounds and reagents, with each chapter dealing with a special reaction type.