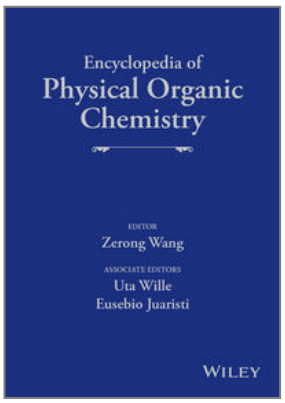
洋書ニュース
有限会社 ブックマン 〒113—0033 東京都文京区本郷3丁目 4-8-501
Tel 03-5684-0561 Fax 03-5684-0562 E-Mail : sales @e-bookman.co.jp
中部東海営業所 Tel 052-740-1829 Fax 052-782-4771 関西営業所 Tel 0568-65-7228 Fax 0568-65-7988

物理有機化学の方法論および技法に関する包括的な情報を提供する参考図書の決定版。
古典的で基本的な化学分野である物理有機化学から発展し続ける最新の生化学過程や分子エレクトロニクス分野など幅広くカバーします。学術界、政府研究機関、企業の化学および材料科学関連図書室にお薦めします。



物理有機化学百科事典・全 5 巻
Encyclopedia of Physical Organic Chemistry

5 Volume Set

Editor: **Zerong Wang**
Associate Editors: **Uta Wille** & **Eusebio juaristi**

2017 年 2 月出版予定　全 5 巻／4000 ページ　約 ¥305,200

This encyclopedia, in its 5 volumes, serves as a platform to update the knowledge and tools of physical organic chemistry (POC) and to accelerate further development of relevant interdisciplinary fields. Those five volumes are: 1) Basics and Theories, 2) Organic Reactions and Mechanisms, 3) Molecular Designs and Syntheses, 4) Tools and Experimental Techniques, and 5) Applications and Future Directions. Topics covered include not only traditional POC like reaction kinetics and mechanisms, but also subjects in many other related fields where the principles of POC have been widely implemented -- bioorganic chemistry, organometallic chemistry, theoretical and computational chemistry, catalysis, photochemistry, electrochemistry, supramolecular chemistry, polymer chemistry, materials science, and nanotechnology.

- ◇ **Offers a comprehensive and easy reference to physical organic chemistry (POC) methodology and techniques applied across interdisciplinary scientific research**
- ◇ **Puts POC, a classical and fundamental discipline of chemistry, into the context of modern and dynamic fields like biochemical processes, materials science, and molecular electronics**
- ◇ **Breaks into 5 logical volumes moving from basic terms and theories into organic reactions/mechanisms, molecular designs/syntheses, tools and experimental techniques, and applications and future directions**
- ◇ **Reviews different strategies for molecular design and synthesis of functional molecules**
- ◇ **Discusses computational methods, software packages, and more than 34 kinds of spectroscopies and techniques for studying structures and mechanisms**

(Wiley) ISBN 9781118470459

BOOKMAN

ご注文・お問い合わせは下記へお申し込み下さい。

有限会社 ブックマン
〒113—0033
東京都文京区本郷3丁目 4-8-501
Tel 03-5684-0561 Fax 03-5684-0562
E-Mail : sales @e-bookman.co.jp
ホームページ:
http://e-bookman.co.jp/

㈲ブックマン
中部東海営業所
Tel 052-740-1829
Fax 052-782-4771
chubu@e-bookman.co.jp

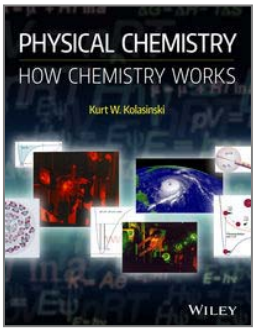
㈲ブックマン
関西営業所
Tel 0568-65-7228
Fax 0568-65-7988
kansai@e-bookman.co.jp

広島海外㈱
Tel 082-236-3522
Fax 082-236-3530
books@dear.ne.jp

福岡海外㈱
Tel 092-741-2685
Fax 092-741-8418
fkaigai@lime.ocn.ne.jp

ワイリー社の物理化学新刊のご案内

Physical Chemistry: How Chemistry Works

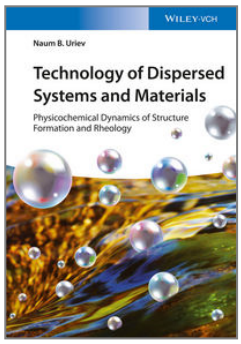


Kurt W. Kolasinski, Queen Mary, University of London, UK

ISBN: 978-1-118-75112-1
出版予定: 2016 年 11 月 4 日
装丁: ペーパー版
ページ数: 744
予価: ¥15,260
(2016 年 8 月現在価/変動有り)

Much of chemistry is motivated by asking 'How'? How do I make a primary alcohol? React a Grignard reagent with formaldehyde. Physical chemistry is motivated by asking 'Why'? The Grignard reagent and formaldehyde follow a molecular dance known as a reaction mechanism in which stronger bonds are made at the expense of weaker bonds. If you are interested in asking 'why' and not just 'how', then you need to understand physical chemistry.
Physical Chemistry: How Chemistry Works takes a fresh approach to teaching in physical chemistry. This modern textbook is designed to excite and engage undergraduate chemistry students and prepare them for how they will employ physical chemistry in real life. The student-friendly approach and practical, contemporary examples facilitate an understanding of the physical chemical aspects of any system, allowing students of inorganic chemistry, organic chemistry, analytical chemistry and biochemistry to be fluent in the essentials of physical chemistry in order to understand synthesis, intermolecular interactions and materials properties. For students who are deeply interested in the subject of physical chemistry, the textbook facilitates further study by connecting them to the frontiers of research.

Technology of Dispersed Systems and Materials: Physicochemical Dynamics of Structure Formation and Rheology

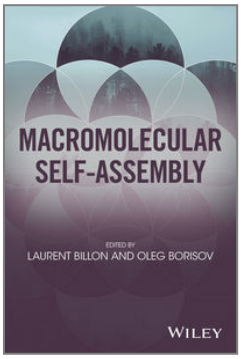


Naum B. Uriev

ISBN: 978-3-527-34211-2
出版予定: 2016 年 9 月 14 日
装丁: ペーパー版
ページ数: 192
予価: ¥19,490
(2016 年 8 月現在価/変動有り)

Written by the founder of the field, this practice-oriented guide summarizes the author's breakthrough research results and their applications in chemical technology.
The book adopts an entirely novel approach, describing the physical chemistry of structure formation and materials synthesis under dynamic conditions. It begins by developing the general theory in the first two chapters with as little mathematics as necessary and substantiated by experimental results in each case. The following chapters deal with the fundamental aspects of rheology, vibrorheology, and superfluidity of structured dispersed systems within the framework of physicochemical dynamics, while the final chapter exemplifies the technological applications of the developed methodology using real-life problems of materials science and chemical engineering.
The authoritative guide to physicochemical dynamics.

Macromolecular Self-Assembly

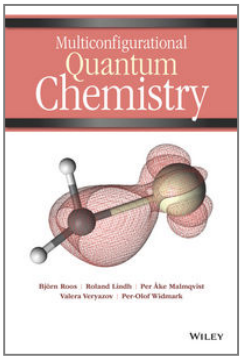


Laurent Billon and **Oleg Borisov**

ISBN: 978-1-118-88712-7
出版予定: 2016 年 10 月 7 日
装丁: クロス版
ページ数: 272
予価: US$150.00
(2016 年 8 月現在価/変動有り)

This book describes self-assembly techniques in the synthesis of biomolecules for developing new compounds and improving functionality of existing ones. Because self-assembly emulates how nature creates molecules, they likely have the best chance at succeeding in real-world biomedical applications.

Multiconfigurational Quantum Chemistry



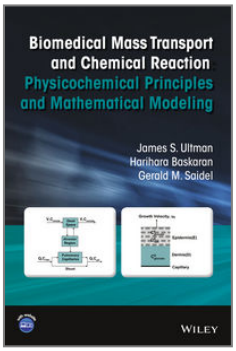
Björn O. Roos; Roland Lindh; Per Åke Malmqvist; Valera Veryazov and **Per-Olof Widmark**

ISBN: 978-0-470-63346-5
出版予定: 2016 年 9 月 2 日
装丁: クロス版
ページ数: 240
予価: ¥21,190
(2016 年 8 月現在価/変動有り)

The first book to aid in the understanding of multiconfigurational quantum chemistry, *Multiconfigurational Quantum Chemistry* demystifies a subject that has historically been considered difficult to learn. Accessible to any reader

with a background in quantum mechanics and quantum chemistry, the book contains illustrative examples showing how these methods can be used in various areas of chemistry, such as chemical reactions in ground and excited states, transition metal and other heavy element systems. The authors detail the drawbacks and limitations of DFT and coupled-cluster based methods and offer alternative, wavefunction-based methods more suitable for smaller molecules.

Biomedical Mass Transport and Chemical Reaction: Physicochemical Principles and Mathematical Modeling

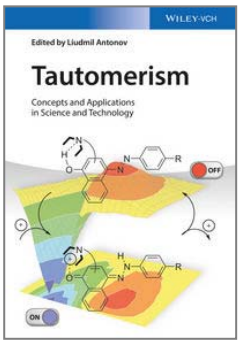


James S. Ultman, Pennsylvania State University; **Harihara Baskaran,** Case Western Reserve University and **Gerald M. Saidel,** Case Western Reserve University

ISBN: 978-0-471-65632-6
出版: 2016 年 7 月
装丁: クロス版
ページ数: 656
価格: ¥25,420
(2016 年 8 月現在価/変動有り

Teaches the fundamentals of mass transport with a unique approach emphasizing engineering principles in a biomedical environment
*Includes a basic review of physiology, chemical thermodynamics, chemical kinetics, mass transport, fluid mechanics and relevant mathematical methods
*Teaches engineering principles and mathematical modelling useful in the broad range of problems that students will encounter in their academic programs as well as later on in their careers
*Illustrates principles with examples taken from physiology and medicine or with design problems involving biomedical devices
*Stresses the simplification of problem formulations based on key geometric and functional features that permit practical analyses of biomedical applications
*Offers a web site of homework problems associated with each chapter and solutions available to instructors

Tautomerism: Concepts and Applications in Science and Technology

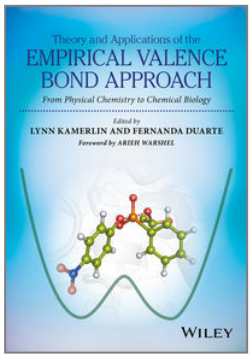


Liudmil Antonov, Bulgarian Academy of Sciences, Sofia, Bulgaria

ISBN: 978-3-527-33995-2
出版: 2016 年 4 月
装丁: クロス版
ページ数: 400
価格: ¥32,210
(2016 年 8 月現在価/変動有り)

Reflecting the substantially increased interest in tautomerism, this book demonstrates the transformation of fundamental knowledge into novel concepts and the latest applications. Each chapter introduces the theoretical background, before reviewing and critically discussing the experimental techniques and corresponding applications. Special emphasis is placed on tautomerism under unusual conditions, such as in supramolecular solids and at surfaces, displaying the wide scope between basic research and timely applications.

Theory and Applications of the Empirical Valence Bond Approach: From Physical Chemistry to Chemical Biology

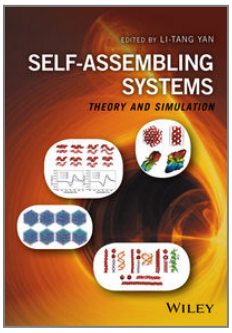


Fernanda Duarte; Shina Caroline Lynn Kamerlin and **Arieh Warshel,** University of Southern California

ISBN: 978-1-119-24539-1
出版予定: 2017 年 2 月 17 日
装丁: クロス版
ページ数: 264
予価: ¥25,430
(2016 年 8 月現在価/変動有り)

A comprehensive overview of current empirical valence bond (EVB) theory and applications, one of the most powerful tools for studying chemical processes in the condensed phase and in enzymes.

Theoretical and Computational Studies of Self-Assembling Systems

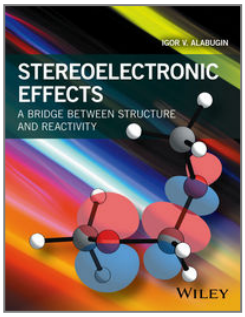


Li-Tang Yan

ISBN: 978-1-119-11314-0
出版予定: 2016 年 12 月 9 日
装丁: クロス版
ページ数: 384
予価: ¥29,670
(2016 年 8 月現在価/変動有り)

Self-Assembly is one of the most prominent and promising candidates for the development of novel materials with high performance, with applications in chemistry, materials science, physics, biotechnology, and chemical engineering. In light of the growing interest in the design and synthesis of building blocks for the self-assembly of complex structures, this book looks at the field of self-assembly from a theoretical perspective, highlighting the importance of theoretical studies and tailored computer simulations to support the design of new self-assembling materials with useful properties.
The book is divided into three parts covering the basic principles of self-assembly, methodology, and emerging topics, as follows:
・Introduction to theory and simulation for self-assembling systems
・Hybrid modeling methods
・Self-assembly of helical particles
・Self-consistent field theory of self-assembling multiblock copolymers
・Metal-ligand self-assembly
・Computer simulation of liquid crystals
・Hierarchical self-assembly in soft matter systems
・Nucleation in colloidal Systems
Written by internationally renowned experts from various disciplines, this book is among the first to provide both

Stereoelectronic Effects: A Bridge Between Structure and Reactivity



Igor V. Alabugin

ISBN: 978-1-118-90634-7
出版予定: 2016 年 10 月 6 日
装丁: ペーパー版
ページ数: 392
価格: ¥16,100
(2016 年 8 月現在価/変動有り)

Stereoelectronic Effects illustrates the utility of stereoelectronic concepts using structure and reactivity of organic molecules. This advanced textbook provides an up-to-date overview of the field, starting from the fundamental principles and presenting a large selection of modern examples of stereoelectronic effects in organic reactivity. Modern theoretical concepts are described in an accessible manner for students and experimentalists working in organic synthesis, medicinal chemistry and materials science; the background/concept part of the book is based on a wealth of computational and theoretical work but the mathematics behind the concepts is distilled in a general non-technical discussion of the role of stereoelectronic effects in chemistry.
Topics covered include:
・Effects of orbital overlap on reactivity
・Experimental and theoretical approaches for studies of stereoelectronic effects
・The fundamentals of stereoelectronic effects
・Hyperconjugative stereoelectronic effects
・Transition state stabilization
・Remote stereoelectronic effects
・Practical applciations of stereoelectronic effects in asymmetric catalysis, photochemical processes, bioorganic chemistry and biochemistry, inorganic and organometallic reactivity, supramolecular chemistry and materials science.
The aim of this book is to make life easier for students of organic chemistry and practicing organic chemists by providing them with a concise set of rules which govern interactions between molecules and between functional groups in molecules. These rules will offer a unifying framework for the understanding of molecular structure and reactivity.