

Essential Reference Books For Science and the Humanities

2010–2011

From These Fine Publishers:

Georgetown University Press

University Press of Mississippi

Northwestern University Press

Parmenides Publishing

University of Pennsylvania Press

Rutgers University Press

University of Virginia Press

World Scientific Publishing Company

**METHODS OF
WAVE THEORY IN
DISPERSIVE MEDIA**

M.V. Kuzulev · A.A. Pukhov



**HANDBOOK OF
PATTERN RECOGNITION
AND COMPUTER VISION**
4th Edition

editor
C.H. Chen



Biologically-responsive
Hybrid

**HANDBOOK OF
BUSINESS PRACTICES AND
GROWTH IN
EMERGING MARKETS**

edited by
Satyendra Singh



World Scientific

**THE FUTURE OF
PUBLIC ADMINISTRATION
AROUND THE WORLD**

The Minessobrook Perspective



**HANDBOOK OF
ELECTRONIC
SECURITY AND
DIGITAL FORENSICS**

edited by
Hamid Jahankhani, David Liburn Watson,
Chinluigi Me & Frank Leonhardt



World Scientific

**HANDBOOK OF
PI AND PID CONTROLLER
TUNING RULES**

3rd Edition

Aidan O'Dwyer



**HANDBOOK OF
MICROFINANCE**

edited by
Beatriz Armendáriz · Marc Labie



World Scientific

**HANDBOOK OF
RESEARCH IN
MASS CUSTOMIZATION AND
PERSONALIZATION**

edited by
Frank T Piller · Mitchell M Tseng



World Scientific

MATERIALS FOR
ENGINEERING Vol. 1

**Crystalline Materials
for
Actinide Immobilisation**

B. E. Burakov
M. Ojovan
W. E. Lee

**HANDBOOK OF
COASTAL AND
OCEAN ENGINEERING**

edited by
Young C Kim



**Witchcraft and Magic
in the
Nordic Middle Ages**

STEPHEN A. MITCHELL

GLOBAL ENVIRONMENTS



World Scientific

encyclopedia of
and ubiquitous
theory and design of
sensor, and mesh net

World Scientific

**THE FRAGMENTS OF
PARMENIDES**



Edited with New Translations by
Richard McKirahan
With 16 New Poems by
Malcolm Schofield

EXCLUSIVELY DISTRIBUTED IN CANADA BY
SCHOLARLY BOOK SERVICES INC.

Essential Reference Books in Humanities

Alan Lomax, Assistant in Charge

The Library of Congress Letters, 1935-1945



Ronald D. Cohen

Alan Lomax (1915-2002) was one of the most stimulating and influential cultural workers of the twentieth century. He began working for the Archive of American Folk Song at the Library of Congress in 1936, first as a special and temporary assistant, then as the permanent Assistant in Charge, starting in June 1937, until he left in late 1942. He recorded such important musicians as Woody Guthrie, Muddy Waters, Aunt Molly Jackson, and Jelly Roll Morton. A reading and examination of his letters from 1935 to 1945 reveal someone who led an extremely complex, fascinating, and creative life, mostly as a public employee. While Lomax is noted for his field recordings, these collected letters, many signed "Alan Lomax, Assistant in Charge," are a trove of information until now available only at the Library of Congress. They make it clear that Lomax was very interested in the commercial hillbilly, race, and even popular recordings of the 1920s and after. These letters serve as a way of understanding Lomax's public and private life during some of his most productive and significant years. Here he speaks for himself through his voluminous correspondence. An award-winning and Grammy-nominated producer, Ronald D. Cohen, Gary, Indiana, is the author of several books, including *Work and Sing: A History of Occupational and Labor Union Songs in the United States*; *Chicago Folk: Images of the Sixties Music Scene: The Photographs of Raeburn Flerlage*; *A History of Folk Music Festivals in the United States: Feasts of Musical Celebration*; and *Alan Lomax: Selected Writings, 1934-1997*.

University Press of Mississippi, January 2011

9781604738001, Cloth, \$65.00

The Philosophy of Hegel as a Doctrine of the Concreteness of God and Humanity: The Doctrine of Humanity (Topics in Historical Philosophy)

I.A. Il'in

The publication of volume 2 of Philip T. Grier's translation of *The Philosophy of Hegel as a Doctrine of the Concreteness of God and Humanity* completes the first appearance in English of any of the works of Russian philosopher I. A. Il'in. Most of the contents of volume 2 will be unknown even to those who have read the 1946 German version prepared by Il'in, because in that version he omitted eight of the original ten chapters. These omitted chapters provide an extended reflection on the central categories of Hegel's moral, legal, and political philosophies, as well as of the philosophy of history. The topics examined are, in order: freedom, humanity, will, right, morality, ethical life, personhood and its virtue, and the state. Contained within these chapters are some notably insightful expositions of core doctrines in Hegel's philosophy. Il'in's colleague A. F. Losev accurately observed in the same year the text first appeared: "Neither the study of Hegel nor the study of contemporary Russian philosophical thought is any longer thinkable without this book of I. A.

Northwestern University Press, March 28, 2011

978-0810126107, Cloth, \$112.50

Knowing Global Environments

Jeremy Vetter



Knowing Global Environments brings together nine leading scholars whose work spans a variety of environmental and field sciences, including archaeology, agriculture, botany, climatology, ecology, evolutionary biology, oceanography, ornithology, and tidology. Collectively their essays explore the history of the field sciences, through the lens of place, practice, and the production of scientific knowledge, with a wide-ranging perspective extending outwards from the local to regional, national, imperial, and global scales. The book also shows what the history of the field sciences can contribute to environmental history—especially how knowledge in the field sciences has intersected with changing environments—and addresses key present-day problems related to sustainability, such as global climate, biodiversity, oceans,

and more. Contributors to *Knowing Global Environments* reveal how the field sciences have interacted with practical economic activities, such as forestry, agriculture, and tourism, as well as how the public has been involved in the field sciences, as field assistants, students, and local collaborators.

Rutgers University Press, October 2010

9780813548753, Cloth, \$62.50

Essential Reference Books in Humanities

The Diaries of Gouverneur Morris European Travels, 1794–1798

Melanie Miller

In October 1794, Gouverneur Morris, Jefferson's successor as American minister to France, left Paris forever. A friend of George Washington and a major contributor to the American Constitution, Morris had witnessed the igniting of the French Revolution, the fall of the old regime, and the plunge into war and terror—events he predicted shortly after his arrival in 1789. In 1794, the revolutionary regime, worried that Morris was influencing the United States against France, requested and obtained Morris's recall.

Instead of returning to America immediately, Morris spent the years 1794–98 traveling through Europe, continuing to keep the splendid diaries he began in Paris. This volume is the first modern edition of the diaries of those years, newly transcribed and annotated. Morris's voice is remarkably modern, and he wrote with humor and an eloquence that could match, even surpass, Jefferson's. The diaries provide vivid descriptions of the fascinating people he met (including King George III and Frances II of Austria), tourist spots, his love affairs, the beginnings of the Industrial Revolution in England, and the daily business of travel in late-eighteenth-century Europe. Morris also recorded his reflections on American matters, the war on the Continent, conspiracies to return a monarchy to France, and the rise of Napoleon. The diaries of Gouverneur Morris are a national treasure and will reward anyone who reads them.

University of Virginia Press, January 2011

9780813929491, Cloth, \$124.50

The Pamphlets of Lewis Carroll Volume 4 The Logic Pamphlets of Lewis Carroll and Related Pieces

Lewis Carroll

Edited by Francine F. Abeles

In the history of mathematics, Charles Lutwidge Dodgson (1832–1898), better known as Lewis Carroll, stands out as the rare mathematician who also was an exceptional literary figure.

In *The Pamphlets of Lewis Carroll*, each volume of a projected six volumes deals with a particular aspect of his work. When the series is complete, it will include all of his works that were not originally issued in hard cover with the exception of his poetry and fiction. This fourth volume focuses on his writings on logic. It includes pamphlets and sheets privately printed by Dodgson, unpublished manuscript sheets, rare previously published documents, and early versions of published works. These are collected together for the first time, organized by subject, and presented with suitable commentary so that the reader can fully appreciate Dodgson's contributions to the logic of his time and of ours.

University of Virginia Press, July 2010

9780930326258, Cloth, \$94.00

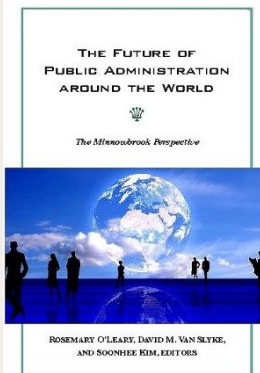
The Future of Public Administration around the World The Minnowbrook Perspective

Rosemary O'Leary David M. Van Slyke Soonhee Kim

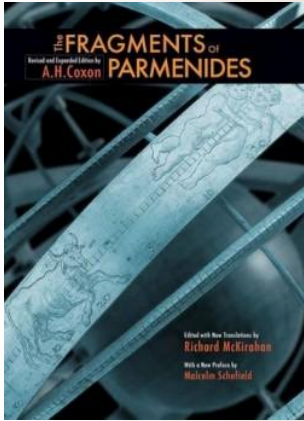
A once-in-a-generation event held every twenty years, the Minnowbrook conference brings together the top scholars in public administration and public management to reflect on the state of the field and its future. This unique volume brings together a group of distinguished authors—both seasoned and new—for a rare critical examination of the field of public administration yesterday, today, and tomorrow. The book begins by examining the ideas of previous Minnowbrook conferences, such as relevance and change, which are reflective of the 1960s and 1980s. It then moves beyond old Minnowbrook concepts to focus on public administration challenges of the future: globalism, twenty-first century collaborative governance, the role of information technology in governance, deliberative democracy and public participation, the organization of the future, and teaching the next generation of leaders. The book ends by coming full circle to examine the current challenge of remaining relevant. There is no other book like this—nor is there ever likely to be another—in print. Simply put, the ideas, concepts, and spirit of Minnowbrook are one-of-a-kind. This book captures the soul of public administration past, present, and future, and is a must-read for anyone serious about the theory and practice of public administration.

Georgetown University Press, December 15, 2010

9781589017115, Paper, \$37.50



Essential Reference Books in Humanities



Richard McKirahan

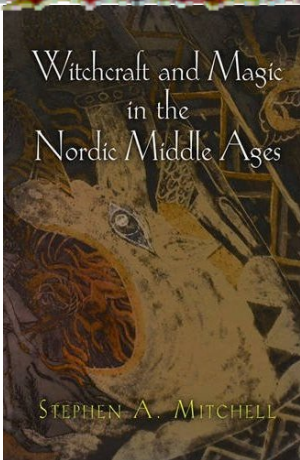
The Fragments of Parmenides Revised and Expanded Edition

This book is a revised and expanded version of A.H. Coxon's full critical edition of the extant remains of Parmenides of Elea—the fifth-century B.C. philosopher by many considered "one of the greatest and most astonishing thinkers of all times." (Karl Popper) Coxon's presentation of the complete ancient evidence for Parmenides and his comprehensive examination of the fragments, unsurpassed to this day, have proven invaluable to our understanding of the Eleatic since the book's first publication in 1986. This edition, edited by Richard McKirahan and with a new preface by Malcolm Schofield, is released on the 100th anniversary of Coxon's birth. This new edition for the first time includes English translations of the testimonia and of any Ancient Greek throughout the book, as well as an English/Greek glossary by Richard McKirahan, and revisions by the late author himself.

2009 Book of the Year Award in Philosophy!

Parmenides Publishing

978-1-930972-67-4, Paper \$109.00



Witchcraft and Magic in the Nordic Middle Ages

Stephen A. Mitchell

In *Witchcraft and Magic in the Nordic Middle Ages*, Stephen A. Mitchell offers the fullest examination available of witchcraft in late medieval Scandinavia. He focuses on those people believed to be able—and who in some instances thought themselves able—to manipulate the world around them through magical practices, and on the responses to these beliefs in the legal, literary, and popular cultures of the Nordic Middle Ages. His sources range from the Icelandic sagas to cultural monuments much less familiar to the nonspecialist, including legal cases, church art, law codes, ecclesiastical records, and runic spells. Mitchell's starting point is the year 1100, by which time Christianity was well established in elite circles throughout Scandinavia, even as some pre-Christian practices and beliefs persisted in various forms. The book's endpoint coincides with the coming of the Reformation and the onset of

the early modern Scandinavian witch hunts. Mitchell provides a portrait of both the practitioners of medieval Nordic magic and its performance.

University of Pennsylvania Press, December 17, 2010

978-0812242904, Cloth, \$62.50

Alexis de Tocqueville and Gustave de Beaumont in America Their Friendship and Their Travels

Olivier Zunz

Alexis de Tocqueville, a young aristocrat of twenty-five, worried deeply about the future of France as well as his own fate in his native country, which had just experienced its second revolution in less than fifty years. Along with Gustave de Beaumont, a fellow magistrate, Tocqueville conceived the idea that by traveling to America he could penetrate the secret of the modern world, in which democracy and equality were destined to rule. Alexis de Tocqueville and Gustave de Beaumont in America reproduces the journey of these two friends in an authoritative and elegant volume.

Zunz and Goldhammer present most of the surviving letters, notebooks, and other texts that Tocqueville and Beaumont wrote during their decisive American journey of 1831–32, as well as their reflections and correspondence on America following their return to France.

Also reproduced here are most of the sketches from the two sketchbooks Beaumont filled during their travels. These extraordinarily rich and often profound texts constitute the indispensable record of their intertwined engagement with the United States, which we see here through the unfailingly intelligent gaze of two young Frenchmen with a unique appreciation of what was novel in the American experiment.

University of Virginia Press, November 2010

9780813930626, Cloth, \$62.50

Essential Reference Books in Science

Handbook of Business Practices and Growth in Emerging Markets

Satyendra Singh University of Winnipeg, Canada

The Handbook of Business Practices and Growth in Emerging Markets consists of a collection of specially commissioned chapters that describe the current business environment, organizational culture, consumer behavior, financial investment climate, and examples of best prevailing practices in emerging markets.

It covers all the major functional areas of business — marketing, strategy, operations and finance — in all continents.

The focus of each chapter is on the identification of different business issues in different emerging markets (including Asia, Africa and South America) and on the implementation of a proposed set of recommendations, using both qualitative and quantitative techniques to assist in decision-making and in improving organizational efficiency and effectiveness.

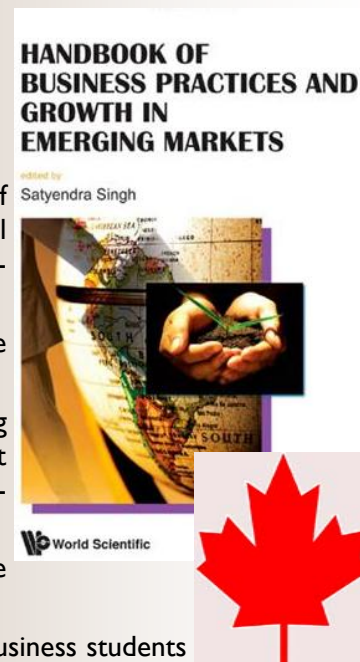
Readers will also appreciate the multidimensional view of financial and non-financial performance measurement of businesses.

Specifically, the goal of this research-based handbook is to provide a comprehensive guide for business students and managers by discussing a range of issues from the diverse emerging markets and enabling them to develop a strategic mindset for a market-oriented culture. Given the changing business dynamics, government policies and demands in industries, this handbook is both timely and topical.

Readership: Students of business administration courses which focus on organizational culture, managers and management consultants dealing with issues related to emerging markets.

World Scientific Publishing Company

978-981-279-177-1, Cloth, \$169.00



Handbook on Business Information Systems

Angappa Gunasekaran

Univ. of Massachusetts USA

Maqsood Sandhu

United Arab Emirates University, UAE

This handbook covers the vast field of business information systems, focusing particularly on developing information systems to capture and integrate information technology together with the people and their businesses.

Part I of the book, “Health Care Information Systems”, focuses on providing global leadership for the optimal use of health care information technology (IT). It provides knowledge about the best use of information systems for the betterment of health care services.

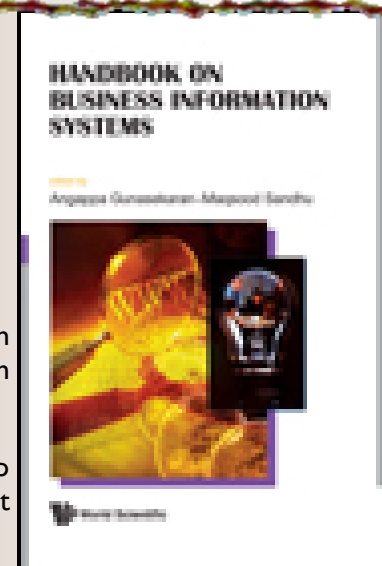
Part II, “Business Process Information Systems”, extends the previous theory in the area of process development by recognizing that improvements in intra-organizational business processes need to be complemented by corresponding improvements in inter-organizational processes. Part III deals with “Industrial Data and Management Systems” and captures the main challenges faced by the industry, such as the changes in the operations paradigm of manufacturing and service organizations.

Finally, Part IV, “Evaluation of Business Information Systems”, discusses the empirical investigation into the adoption of systems development methodologies and the security pattern of the business systems along with the mathematical models.

Readership: Academia and practitioners in business information systems and management.

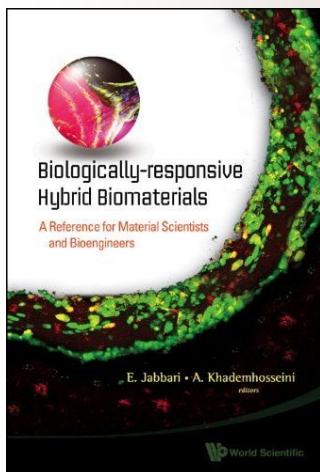
World Scientific Publishing Company

978-981-4289-34-4, Cloth \$197.50



Essential Reference Books in Science

Biologically-Responsive Hybrid Biomaterials a Reference for Material Scientists and Bioengineers



E Jabbari Univ. of South Carolina, USA

A Khademhosseini Harvard-MIT, USA

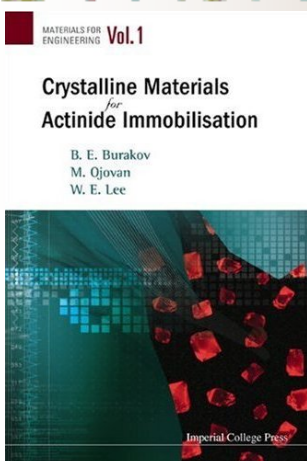
Conjugation of synthetic materials with cell-responsive biologically-active molecules, in addition to providing structural support and release of biomolecules in the regenerating region, can provide the signaling factors required to initiate the cascade of cell migration, adhesion, differentiation, maturation, growth factor modulation, maintenance of matrix integrity, and tissue morphogenesis. Nanoparticles conjugated with ligands that preferentially interact with cell surface receptors in the tumor environment have the potential to drastically improve bioavailability, selectivity and residence time of the chemotherapeutic agent in the tumor microenvironment, while limiting their peripheral toxicity. Multivalent presentation of tumor-associated antigens on a targeted delivery system containing T and

B cell epitopes can result in strong, long-lasting, self-adjutant immunity against cancer and other diseases in vaccination. These examples demonstrate that cell-responsive conjugate biomaterials have profoundly impacted the medical field.

This book is divided into three sections. In the first section, synthesis and characterization, conformation, structure-activity, self-assembly, and host response of conjugate hybrid biomaterials are covered. The second section is dedicated to the applications of conjugate biomaterials in drug delivery and vaccination while the last section is devoted to tissue engineering applications including cell adhesion, control of the stem cell niche, cartilage regeneration, neural and vascular tissue engineering, and dynamic cell culture systems for functionalized biomaterials.

World Scientific Publishing Company

978-981-4295-67-3, Cloth, \$150.00



CRYSTALLINE MATERIALS FOR ACTINIDE IMMOBILISATION

Boris E Burakov V G Khlopin Radium Inst. Russia

Michael I Ojovan Univ. of Sheffield, UK

William (Bill) E Lee Imperial College, UK

This book summarises approaches and current practices in actinide immobilisation using chemically-durable crystalline materials such as ceramics and monocrystals. As a result of the increasing worldwide growth of the nuclear industry, long-lived α -emitting actinides such as Pu, Np, Am and Cm are fast becoming a serious environmental concern — actinide-bearing wastes have accumulated in different countries due to nuclear weapons production. On the other hand, as actinides are chemical elements with unique properties they could be beneficially used for humankind in areas such as medicine and technology. Durable actinide-containing materials are attractive for various applications. These

include in chemically-inert sources of α -irradiation used for a variety of functions such as energy sources for unmanned space vehicles and microelectronic devices, as well as hosts for nuclear waste and in nuclear fuels to burn excess Pu. **Readership:** Undergraduates, post-graduates, researchers and specialists studying physics, chemistry, geology and environmental engineering with an interest in the welfare of planet.

World Scientific Publishing Company

978-1-84816-418-5, Cloth, \$160.00

HANDBOOK OF RENEWABLE ENERGY TECHNOLOGYx

Ahmed F Zobaa & Ramesh Bansal

This book, consisting a series of papers written by experts in their respective fields of specialization, will provide a comprehensive coverage of renewable energy technologies, such as wind, wave and solar thermal energy. Other industrial terms like photovoltaic systems, biomass, distributed generations and small hydro power systems are also discussed and further elaborated upon. The Handbook of Renewable Energy Technology will be of great practical benefit to professionals, scientists and researchers in the relevant industries, and will be of interest to those of the general public wanting to know more about renewable energy technologies. **Readership:** Academics and professionals in the energy research field.

World Scientific Publishing Company, May 2011

978-981-4289-06-1, Cloth, \$231.50

Scholarly Book Services Inc.

www.sbookscan.com

To order fax: 1-800-220-9895

HANDBOOK OF CLIMATE CHANGE AND AGROECOSYSTEMS

Impacts, Adaptation, and Mitigation

Daniel Hillel Columbia University, USA

Cynthia Rosenzweig NASA Goddard Institute for Space Studies, USA

The portending process of climate change, induced by the anthropogenic accumulations of greenhouse gases in the atmosphere, is likely to generate effects that will cascade through the biosphere, impacting all life on earth and bearing upon human endeavors. Of special concern is the potential effect on agriculture and global food security.

Anticipating these effects demands that scientists widen their field of vision and cooperate across disciplines to encompass increasingly complex interactions. Trans-disciplinary cooperation should aim to generate effective responses to the portending changes, including actions to mitigate the emissions of greenhouse gases and to adapt to those climate changes that cannot be avoided.

This handbook presents an exposition of current research on the impacts, adaptation, and mitigation of climate change in relation to agroecosystems. It is offered as the first volume in what is intended to be an ongoing series dedicated to elucidating the interactions of climate change with a broad range of sectors and systems, and to developing and spurring effective responses to this global challenge. As the collective scientific and practical knowledge of the processes and responses involved continues to grow, future volumes in the series will address important aspects of the topic periodically over the coming years.

Readership: Advanced undergraduates and graduate students, academia and researchers in climate change, agricultural sciences and biology.

World Scientific Publishing Company , Oct. 2010

978-1-84816-655-4, Cloth, \$225.00

Handbook of Thermoluminescence

Second Edition

Claudio Furetta Touro University Rome, Italy

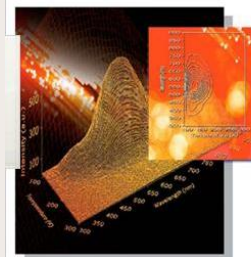
This second edition of the Handbook of Thermoluminescence enlarges on all the subjects which were treated in the first edition and adds further arguments, including the theory of thermoluminescent dose measurement, several examples concerning the kinetics parameters determination using various methods such as peak shape, isothermal decay, and so on. A special section is devoted to food irradiation, an important subject at the present time, and to the thermoluminescent characterization of the minerals extracted from the irradiated food. Another new section is devoted to the thermoluminescent phosphors and their main characteristics. The analytical treatments of the various thermoluminescent models are fully developed. As in the first edition, the arguments are given in alphabetical order to ease research. This second edition therefore aims to provide real practical support for researchers, students and personnel involved in radiation protection services, as well as in medical applications. **Readership:** Researchers in applied physics, theoretical physics, condensed matter physics, new materials and glasses, insulators and optical materials.

World Scientific Publishing Company

978-981-283-891-9, Cloth, \$210.00

HANDBOOK OF THERMOLUMINESCENCE

Second Edition
Claudio Furetta



World Scientific

HISTORICAL ENERGY STATISTICS Global, Regional and National Trends Since Industrialization

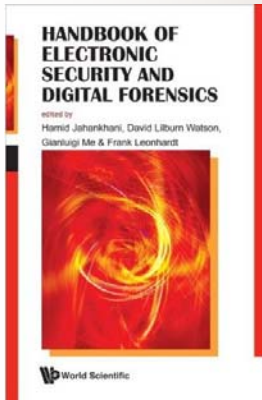
T S Gopi Rethinaraj National Univ. of Singapore

Clifford E Singer University of Illinois at Urbana-Champaign, USA

This essential book presents a comprehensive statistical survey of global and regional energy trends since early industrialization, primarily based on 19th- and 20th-century records from various European and Western Hemisphere sources. Besides containing up-to-date information, it also traces trends from before the 1980s in global, regional and national energy histories. The time series data from earlier years are systematically patched to current political boundaries and officially reported data since the formation of the UN and changes since the end of the Cold War. The result of this careful reconstruction is a consistent country-by-country time series dataset for production and consumption of commercially-traded primary energy sources. A first in its field, this reference volume is an invaluable resource for those working on energy, environment and climate issues.

World Scientific Publishing Company , May 2011

978-981-270-739-0, Cloth \$147.50



HANDBOOK OF ELECTRONIC SECURITY AND DIGITAL FORENSICS

Hamid Jahankhani University of East London, UK

David Lilburn Watson Watson Business Solutions Ltd., UK

Gianluigi Me Università degli Studi di Roma "Tor Vergata", Italy

Frank Leonhardt Independent Consultant and Commentator

The widespread use of information and communications technology (ICT) has created a global platform for the exchange of ideas, goods and services, the benefits of which are enormous. However, it has also created boundless opportunities for fraud and deception. Cybercrime is one of the biggest growth industries around the globe, whether it is in the form of violation of company policies, fraud, hate crime, extremism, or terrorism. It is therefore paramount that the security industry raises its game to combat

these threats. Today's top priority is to use computer technology to fight computer crime, as our commonwealth is protected by firewalls rather than firepower. This is an issue of global importance as new technologies have provided a world of opportunity for criminals. This book is a compilation of the collaboration between the researchers and practitioners in the security field; and provides a comprehensive literature on current and future e-security needs across applications, implementation, testing or investigative techniques, judicial processes and criminal intelligence. The intended audience includes members in academia, the public and private sectors, students and those who are interested in and will benefit from this handbook.

Readership: Final year undergraduate students, graduates, computer scientist and professionals who are involved in information security and digital forensics investigation practise, research and development.

World Scientific Publishing Company

978-981-283-703-5, cloth \$247.50

HANDBOOK OF METADATA, SEMANTICS AND ONTOLOGIES

Miguel-Angel Sicilia University of Alcalá, Spain

Metadata research has emerged as a discipline cross-cutting many domains, focused on the provision of distributed descriptions (often called annotations) to Web resources or applications. Such associated descriptions are supposed to serve as a foundation for advanced services in many application areas, including search and location, personalization, federation of repositories and automated delivery of information. Indeed, the Semantic Web is in itself a concrete technological framework for ontology-based metadata. The Handbook of Metadata, Semantics and Ontologies is intended as an authoritative reference for students, practitioners and researchers, serving as a roadmap for the variety of metadata schemas and ontologies available in a number of key domain areas, including culture, biology, education, healthcare, engineering and library science.

Readership: Graduates and senior undergraduates in computing or information science; researchers in metadata, semantics and ontologies; practitioners in planning or managing information systems.

World Scientific Publishing Company, June 2011

978-981-283-629-8, cloth, \$194.00

ENCYCLOPEDIA ON AD HOC AND UBIQUITOUS COMPUTING Theory and Design of Wireless Ad Hoc, Sensor, and Mesh Networks

Dharma P Agrawal University of Cincinnati, USA

Bin Xie University of Cincinnati, USA

This book aims to provide a complete understanding of these networks by investigating the evolution of ad hoc, sensor, and mesh networking technologies from theoretic concept to implementation protocols, from fundamentals to real applications. It provides the necessary background material needed to go deeper into the subject and explore the research literature. The explanation in the book is therefore sufficiently detailed to serve as a comprehensive reference for students, instructors, researchers, engineers, and other professionals, building their understanding of these networks.

Readership: Advanced undergraduates and graduate students in computer engineering; instructors; researchers; engineers and other professionals.

World Scientific Publishing Company

978-981-283-348-8, Cloth, \$210.00

Essential Reference Books in Science

HANDBOOK ON SENSOR NETWORKS

Yang Xiao University of Alabama, USA

Hui Chen Virginia State University USA

Frank Haizhon Li University of South Carolina Upstate, USA

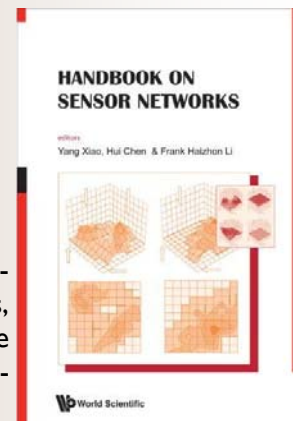
Sensor networks have many interesting applications with great utility; however, their actual deployment and realization rely on continuous innovations and solutions to many challenging problems. Thus, sensor networks have recently attracted the attention of many researchers and practitioners. The compilation of the Handbook on Sensor Networks will meet the demand of the sensor network community for a comprehensive reference and summary of the current state of the area.

The Handbook on Sensor Networks is a collection of approximately 40 chapters on sensor network theory and applications. The book spans a wide spectrum and includes topics in medium access control, routing, security and privacy, coverage and connectivity, modeling and simulations, multimedia, energy efficiency, localization and tracking, design and implementation, as well as sensor network applications.

Readership: Professionals and researchers in the area of sensor networks. It is also a comprehensive textbook for senior undergraduate students and graduate students who are interested in sensor network theory and applications.

World Scientific Publishing Company, July 2010

978-981-283-730-1, Cloth, \$220.00



HANDBOOK OF SECURITY AND NETWORKS

Yang Xiao The University of Alabama, USA

Frank H Li The Univ. of South Carolina Upstate, USA , **Hui Chen** Virginia State University, USA

This valuable handbook is a comprehensive compilation of state-of-art advances on security in computer networks. More than 40 internationally recognized authorities in the field of security and networks contribute articles in their areas of expertise. These international researchers and practitioners are from highly-respected universities, renowned research institutions and IT companies from all over the world. Each self-contained chapter covers one essential research topic on security in computer networks. Through the efforts of all the authors, all chapters are written in a uniformed style; each containing which contains a comprehensive overview, the latest pioneering work and future research direction of a research topic. **Readership:** Graduate students, professionals and researchers in the areas of security in computer networks.

World Scientific Publishing Company, March 2011

978-981-4273-03-9, cloth \$197.50

HANDBOOK OF PI AND PID CONTROLLER TUNING RULES

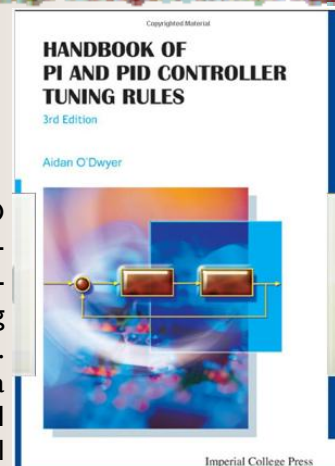
3rd Edition

Aidan O'Dwyer Dublin Institute of Technology Ireland

The vast majority of automatic controllers used to compensate industrial processes are PI or PID type. This book comprehensively compiles, using a unified notation, tuning rules for these controllers proposed from 1935 to 2008. The tuning rules are carefully categorized and application information about each rule is given. The book discusses controller architecture and process modeling issues, as well as the performance and robustness of loops compensated with PI or PID controllers. This unique publication brings together in an easy-to-use format material previously published in a large number of papers and books. This wholly revised third edition extends the presentation of PI and PID controller tuning rules, for single variable processes with time delays, to include additional rules compiled since the second edition was published in 2006. **Readership:** Control engineering researchers in academia and industry with an interest in PID control and control engineering practitioners using PID controllers. The book also serves as a reference for postgraduate and undergraduate students.

World Scientific Publishing Company

978-1-84816-242-6, cloth \$222.50



DEPENDENCE MODELING Vine Copula Handbook

DEPENDENCE
MODELING
Vine Copulae Handbook

editors
Dorota Kurowicka & Harry Joe



World Scientific



Kurowicka Dorota Delft Univ. of Technology, The Netherlands

Harry Joe University of British Columbia, Canada

This book is a collaborative effort from three workshops held over the last three years, all involving principal contributors to the vine-copula methodology. Research and applications in vines have been growing rapidly and there is now a growing need to collate basic results, and standardize terminology and methods. Specifically, this handbook will (1) trace historical developments, standardizing notation and terminology, (2) summarize results on bivariate copulae, (3) summarize results for regular vines, and (4) give an overview of its applications. In addition, many of these results are new and not readily available in any existing journals. New research directions are also discussed.

Readership: Students, researchers and professionals in probability, statistics, finance and engineering.

World Scientific Publishing Company, August 2010

978-981-4299-87-9, Cloth, \$131.50

HANDBOOK OF
RESEARCH IN
MASS CUSTOMIZATION AND
PERSONALIZATION

edited by
Frank T Piller - Mitchell M Tseng

Strategies
and Concepts



World Scientific

HANDBOOK OF RESEARCH IN MASS CUSTOMIZATION
AND PERSONALIZATION

(In 2 Volumes) Volume 1: Strategies and Concepts; Volume 2: Applications and Cases

Frank T Piller RWTH Aachen University Germany

Mitchell M Tseng The Hong Kong Univ. of Sc. & Technology, Hong Kong

Edited by two leading authorities in the field of mass customization, both volumes of the book discuss, among many other themes, the latest research and insights on customization strategies, product design for mass customization, virtual models, co-design toolkits, customization value measurement, open source architecture, customization communities, and MC supply chains. Through a number of detailed case studies, prominent examples of mass customization are explained and evaluated in larger context and perspective. **Readership:** Academics, students, and consultants in

the field of operations and technology management, marketing, innovation management, and information systems. The book also targets at managers who are leading or wish to implement a mass customization initiative in their organization.

World Scientific Publishing Company

978-981-4280-25-9, 2 volumes Cloth, \$475.00

ADVANCED TOPICS IN BIOMETRICS

Haizhou Li Institute for Infocomm Research, Singapore

Liyuan Li Institute for Infocomm Research, Singapore

Kar-Ann Toh Yonsei University, Korea

Biometrics is the study of methods for uniquely recognizing humans based on one or more intrinsic physical or behavioral traits. After decades of research activities, biometrics, as a recognized scientific discipline, has advanced considerably both in practical technology and theoretical discovery to meet the increasing need of biometric deployments. In this book, the editors provide both a concise and accessible introduction to the field as well as a detailed coverage on the unique research problems with their solutions in a wide spectrum of biometrics research ranging from voice, face, fingerprint, iris, handwriting, human behavior to multimodal biometrics. The contributions also present the pioneering efforts and state-of-the-art results, with special focus on practical issues concerning system development. This book is a valuable reference for established researchers and it also gives an excellent introduction for beginners to understand the challenges. **Readership:** Information scientists and engineers specializing in this field.

World Scientific Publishing Company, June 2011

978-981-4287-84-5, Cloth, \$160.00

HANDBOOK OF MICROFINANCE

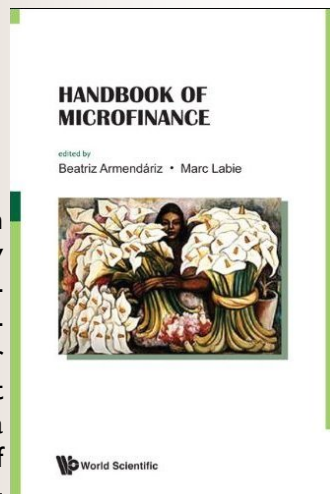
Beatriz Armendáriz Harvard University, USA

Marc Labie Universite de Mons, Belgium

The Handbook of Microfinance gathers selected work from academics and field practitioners. In an attempt to understand the enormous gap between the limited number of clients that are currently benefiting from microfinance services, and the huge number of potential clients that are not, the selected contributions in this handbook have one common thread: the prevailing mismatch between demand by clients of microfinance institutions and potential clients selecting themselves out for their demand for a wider array of financial products is not being met. The scope of the book is wide. It includes successes and failures, main challenges and debates, methodologies for impact evaluation via random trials, leading trends in Asia versus Latin America, main efforts in Africa, the importance of value chains in Central America, ethical and gender issues, savings, microinsurance, governance, commercialization trends and the potential advantages and disadvantages of it. Lastly it features main lessons from informal finance and 19th-century credit cooperatives addressing the above-mentioned mismatch. **Readership:** Advanced undergraduates and graduate students in economics, social sciences or development interested in microfinance.

World Scientific Publishing Company, October 2010

978-981-4295-65-9, Cloth, \$210.00



HANDBOOK ON EMERGING ISSUES IN CORPORATE GOVERNANCE

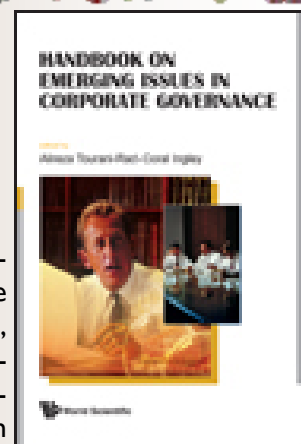
Alireza Tourani-Rad

Coral Ingley

The book highlights emerging topics in key areas of corporate governance with special emphasis on traditionally unexplored issues. It also aims to stimulate thinking and debate on vital aspects of practice and approaches to corporate governance. The topics covered in this book deal with timely subjects, written by eminent academics and renowned professionals with outstanding expertise in their respective fields, who bring to fore the latest theories and provide an up-to-date overview of the extant literature on each topic. More importantly, they draw readers attention to implications for future research and developments. The book not only contributes to the academic literature but also improves the decision making of regulators and investors. **Readership:** Advanced undergraduates and graduate students in business and management; investment professionals, policy makers, general business.

World Scientific Publishing Company, August 2010

978-981-4289-34-4, Cloth, \$135.00



HANDBOOK ON ISLAMIC FINANCE INNOVATIONS

Islamic Funds, Structured Products and Derivatives

Mondher Bellalah Universite de Cergy-Pontoise, France

This book explains the process of financial innovations in Islamic over-the-counter (OTC) markets, and covers the main concepts underlying Islamic funds, derivatives and other structures. Financial instruments are also analyzed, valued and explained within the framework of OTC markets. New structures like energy financial Islamic instruments and their applications in business today are studied. Islamic financial products are valued and analyzed and several suggestions and proposals are developed in order to enhance trading volume in these markets. Some financial models are proposed for valuation and testing. The book examines Islamic financial innovations, structures and funds in a structured manner: implementations, uses, and strategies in the financial industries are thoroughly examined. In particular, practical aspects of Islamic funds, hedge funds, lease structures, energy products, and index funds are investigated in great detail. **Readership:** Graduate students and finance professionals interested in Islamic financial innovations, Islamic structures and Islamic funds.

World Scientific Publishing Company, October 2011

978-981-4313-74-2, Cloth, \$160.00

Essential Reference Books in Science

HANDBOOK OF COASTAL AND OCEAN ENGINEERING

**HANDBOOK OF
COASTAL AND
OCEAN ENGINEERING**

edited by
Young C Kim



World Scientific

Young C Kim California State University, Los Angeles, USA

This handbook contains a comprehensive compilation of topics that are at the forefront of many of the technical advances in ocean waves, coastal, and ocean engineering. More than 70 internationally recognized authorities in the field of coastal and ocean engineering have contributed articles on their areas of expertise to this handbook.

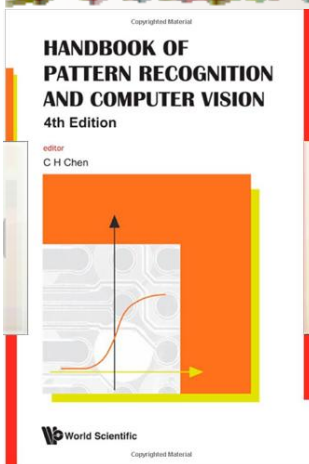
These international luminaries are from highly respected universities and renowned research and consulting organizations from all over the world.

This handbook provides a comprehensive overview of shallow-water waves, water level fluctuations, coastal and offshore structures, port and harbors, coastal sediment processes, environmental problems, coastal hazards, physical modeling, and other issues in coastal and ocean engineering. It is an essential reference for professionals and researchers in the areas of coastal engineering, ocean engineering, oceanography, and meteorology, as well as an invaluable text for graduate students in these fields.

Readership: Graduate students, researchers and professionals in coastal and ocean engineering, oceanography and meteorology.

World Scientific Publishing Company

978-981-281-929-1, Cloth \$247.50



HANDBOOK OF PATTERN RECOGNITION AND COMPUTER VISION 4th Edition

C H Chen University of Massachusetts Dartmouth, USA

Both pattern recognition and computer vision have experienced rapid progress in the last twenty-five years. This book provides the latest advances on pattern recognition and computer vision along with their many applications. It features articles written by renowned leaders in the field while topics are presented in readable form to a wide range of readers. The book is divided into five parts: basic methods in pattern recognition, basic methods in computer vision and image processing, recognition applications, life science and human identification, and systems and technology.

Readership: Graduate students, academics, practitioners, researchers, computer scientists, electrical and medical engineers.

World Scientific Publishing Company

978-981-4273-38-1, Cloth, \$219.00

A GUIDE TO MODELLING COASTAL MORPHOLOGY

JA Roelvink UNESCO-IHE, The Netherlands

A J H M Reniers Univ. of Miami, USA & Delft University of Technology, The Netherlands

Process-based morphodynamic modelling is one of the relatively new tools at the disposal of coastal scientists, engineers and managers. On paper, it offers the possibility to analyse morphological processes and to investigate the effects of various measures one might consider to alleviate some problems. For these to be applied in practice, a model should be relatively straightforward to set up. It should be accurate enough to represent the details of interest, it should run long enough and robustly to see the real effects happen, and the physical processes represented in such a way that the sediment generally goes in the right direction at the right rate. Next, practitioners must be able to judge if the patterns and outcomes of the model are realistic and finally, translate these colour pictures and vector plots to integrated parameters that are relevant to the client or end user. In a nutshell, this book provides an in-depth review of ways to model coastal processes, including many hands-on exercises. **Readership:** Graduate students and professionals in ocean engineering, geology/earth science, and oceanography.

World Scientific Publishing Company, April 2011

978-981-4304-25-2, Cloth, \$124.00

HANDBOOK OF MECHANICS AND PHYSICS OF ELECTRONIC BLASTING WITH APPLICATIONS TO MINING AND QUARRYING

Hans Peter Rossmannith Vienna University of Technology, Austria

The book contains 15 semi-independent chapters — history of electric and electronic blasting, rock mass as an engineering material, fracture mechanics, wave propagation, shock waves, wave-crack interaction, damage mechanics, electronic timing, basics of electronic blasting and precise initiation. Special techniques such as air decking, pre-split, vibration and flyrock control, damage control, application in underground mining, pre-conditioning of rock mass, methods to improve fragmentation in hard rock mining, cast blasting, metal ore and coal mining applications are also introduced.

The book uses intermediate to basic mathematics and relies heavily on photographs of dynamic processes taken with high speed photographic equipment. Practical applications from Chile and Australian mines will be discussed and included. A special software package assists the reader in doing a wide range of 2D and 3D blasting problems of his own design and interest.

Readership: Researchers and academics in mechanical engineering.

World Scientific Publishing Company, September 2011

978-1-84816-345-4, Cloth, \$137.50

METHODS OF WAVE THEORY IN DISPERSIVE MEDIA

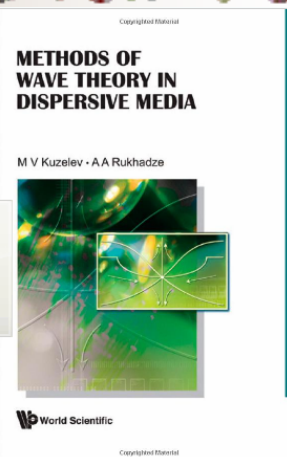
M V Kuzelez Moscow State University, Russia

A A Rukhadze Russian Academy of Sciences, Russia

This book presents the main mathematical methods of description and general problems in the theory of linear waves in dispersive systems and media, including equilibrium and nonequilibrium waves. To show how the general theory can be applied in practice, the authors give a unified description of the waves in all important physical systems which are traditionally studied in the mechanics of continuous media, electrodynamics, plasma physics, electronics and physical kinetics. Consideration is also given to the interaction of waves in coupled systems, the propagation and evolution of localized wave perturbations, and the emission of waves from dispersive media under the action of external sources moving in a prescribed manner. A general theory of instabilities of linear systems is given, in which the criteria for absolute and convective instabilities are formulated and compared, and Green's functions for some nonequilibrium media are calculated. Special attention is paid to problems in the theory of linear electromagnetic waves in plasmas and plasma-like media. The book also contains a number of original results of the present-day wave theory that have thus far been published in scientific journals only. **Readership:** Graduate students and researchers in applied physics, electrodynamics, computational physics, and solid state physics.

World Scientific Publishing Company

978-981-4261-69-2, Cloth, \$119.00



COLLISIONAL LINE BROADENING AND SHIFTING OF ATMOSPHERIC GASES A Practical Guide for Line Shape Modeling by Current Semi-classical Approaches

Jeanna Buldyreva Univ. of Franche-Comte, France, **Nina Lavrentieva** Institute of Atmospheric Optics, Russia, &

Vitaly Starikov Tomsk State Univ. of Control Systems and Radio-Electronics, Russia

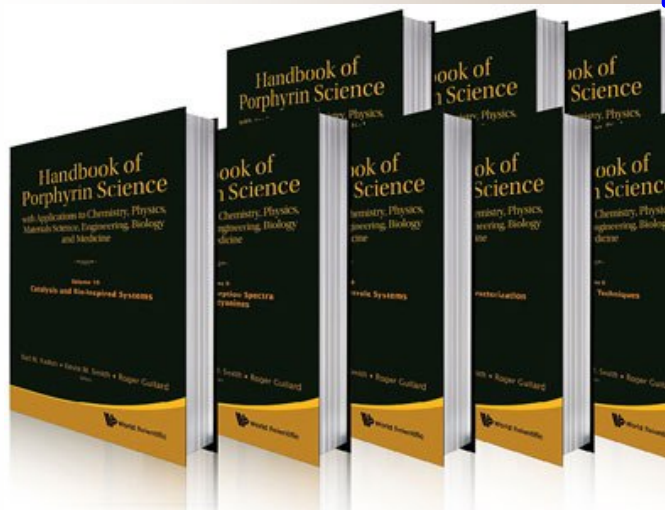
This book presents a comprehensive overview of the modern theory of spectral line broadening and shifting by pressure of atmospheric gases. It describes current semi-classical methods for calculating rovibrational line widths and shifts, including very recent modifications and new developments realized by the authors themselves. For most of the considered molecular systems, analytical formulae are also given, which enable the calculation of line broadening coefficients without the use of semi-classical methods. The results of calculations by various approaches are compared with experimental data available in the literature. Numerous appendices list theoretical expressions and parameters' values required for the writing of computer programs for calculation of line broadening and line shifting coefficients.

The book is **addressed to** undergraduate and postgraduate students as well as to professional scientists and researchers working in the field of molecular physics, molecular spectroscopy, quantum chemistry and mathematical physics.

World Scientific Publishing Company, August 2010

978-1-84816-596-0, Cloth, \$145.00

Essential Reference Books in Science



HANDBOOK OF PORPHYRIN SCIENCE

With Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine

Karl M Kadish Univ. of Houston, USA

Kevin M Smith Louisiana State Univ. USA

Roger Guilard Univ. de Bourgogne, France

Porphyrins, phthalocyanines and their numerous analogues and derivatives are materials of tremendous importance in chemistry, materials science, physics, biology and medicine.

They are the red color in blood (heme) and the green in leaves (chlorophyll); they are also excellent ligands that can coordinate with almost every metal in the Periodic Table. Grounded in natural systems,

porphyrins are incredibly versatile and can be modified in many ways; each new modification yields derivatives, demonstrating new chemistry, physics and biology, with a vast array of medicinal and technical applications.

As porphyrins are currently employed as platforms for study of theoretical principles and applications in a wide variety of fields, the Handbook of Porphyrin Science represents a timely ongoing series dealing in detail with the synthesis, chemistry, physico-chemical and medical properties and applications of polypyrrole macrocycles.

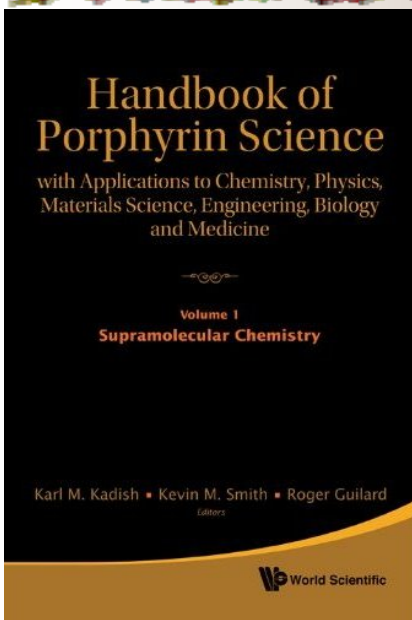
Professors Karl Kadish, Kevin Smith and Roger Guilard are internationally recognized experts in the research field of porphyrins, each having his own separate area of expertise in the field. Between them, they have published over 1500 peer-reviewed papers and edited more than three dozen books on diverse topics of porphyrins and phthalocyanines. In assembling the new volumes of this unique Handbook, they have selected and attracted the very best scientists in each sub-discipline as contributing authors.

This Handbook will prove to be a modern authoritative treatise on the subject as it is a collection of up-to-date works by world-renowned experts in the field.

Complete with hundreds of figures, tables and structural formulas, and thousands of literature citations, all researchers and graduate students in this field will find the Handbook of Porphyrin Science an essential, major reference source for many years to come.

"Vivid testimony to the continuing broad interest and deep impact of the chemistry of these Pigments of Life." -- Jean-Marie Lehn, Nobel Laureate, Chemistry, College de France, France

"Everyone interested in the biological and chemical properties of porphyrins and related macrocycles will want to own the Handbook. The editors have done a terrific job in linking together the volumes in this very valuable resource for investigators in the chemical and biological



Volumes 1-5

With Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine

Contents:

Volume 1: Supramolecular Chemistry

Volume 2: Synthesis and Coordination Chemistry

Volume 3: Synthetic Methodology

Volume 4: Phototherapy, Radioimmunotherapy and Imaging

Volume 5: Heme Proteins

Readership: chemists, physicist, material scientists, polymer scientist, spectroscopists, electrochemists, electronics and photonics engineers, biochemists, biophysicists, medicinal chemists and clinicians.

World Scientific Publishing Company 978-981-4280-16-7, Cloth, \$2312.50

Special 20% discount **\$1850.00**

Essential Reference Books in Science

Contributors Include:



Alison Thompson, PhD, Canada Foundation for Innovation Researcher at **Dalhousie University**, Department of Chemistry in Volume 8 (Open-Chain Oligopyrrole Systems), Chapter 39 (The Synthesis and Properties of Dipyrins)

MD. Imam Uddin - **Dalhousie University**, Department of Chemistry in Volume 8 (Open-Chain Oligopyrrole Systems), Chapter 39 (The Synthesis and Properties of Dipyrins)

Tabitha E. Wood - **Dalhousie University**, Department of Chemistry in Volume 8 (Open-Chain Oligopyrrole Systems), Chapter 39 (The Synthesis and Properties of Dipyrins)

Hasrat Ali MRC Group in the Radiation Sciences, Department of Nuclear Medicine and Radiobiology, **Faculty of Medicine, Université de Sherbrooke**, Québec, in Volume 4 (Phototherapy, Radioimmunotherapy and Imaging), Chapter 16 (Phthalocyanines and Porphyrins as Photoand Radiosensitizers)

Johan E. van Lier, Professor Department of Nuclear Medicine and Radiobiology, **Faculty of Medicine, Université de Sherbrooke**, Québec, in Volume 4 (Phototherapy, Radioimmunotherapy and Imaging), Chapter 16 (Phthalocyanines and Porphyrins as Photoand Radiosensitizers)

Volumes 6-10

With Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine

Contents:

Volume 6: NMR and EPR

Volume 7: Physicochemical Characterization

Volume 8: Open-Chain Oligopyrrole Systems

Volume 9: Electronic Absorption Spectra — Phthalocyanines

Volume 10: Catalysis and Bio-Inspired Systems - Part I

Readership: chemists, physicist, material scientists, polymer scientist, spectroscopists, electrochemists, electronics and photonics engineers, biochemists, biophysicists, medicinal chemists and clinicians.

World Scientific Publishing Company, June 2010 978-981-4307-18-5, Cloth, \$2312.50

Special 20% discount \$1850.00



Volumes 11-15

With Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine

Volume 11: Catalysis and Bio-Inspired Systems - Part II

Volume 12: Applications

Volume 13: Synthesis and Structural Studies

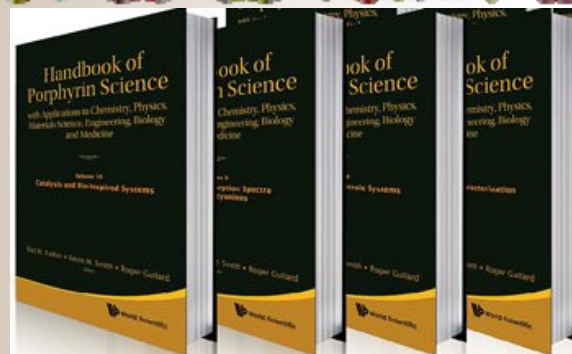
Volume 14: Biochemistry of Tetrapyrroles - Part I

Volume 15: Theoretical, Electron Transfer and Physical Studies

Readership: chemists, physicist, material scientists, polymer scientist, spectroscopists, electrochemists, electronics and photonics engineers, biochemists, biophysicists, medicinal chemists and clinicians.

World Scientific Publishing Company, December 2010 978-981-4322-32-4, Cloth, \$2312.50

Special 20% discount \$1850.00



ORDER FORM



Special **20%** discount for any set of
HANDBOOK OF PORPHYRY SCIENCE

Special **40%** discount for all other orders received before August 31st, 2010

E-mail: orders@sbookscan.com or Fax : 1-800-220-9895

All orders must be prepaid by Visa, Amex, or MasterCard or accompanied by an institutional purchase order number. All prices are in Canadian funds, GST applies to books, and HST to shipping.

Shipping is \$7.00 first book and \$2 each thereafter. Send all orders to SBS at address below.

QTY	ISBN	TITLE	PRICE	
SHIP TO:			Subtotal	\$
NAME:			Less %	\$
ADDRESS:			Shipping	\$
P.O. OR CREDIT CARD #:			Tax	\$
EXPIRY:			Total	\$
DAYTIME TELEPHONE:				

**HANDBOOK OF
COASTAL AND
OCEAN ENGINEERING**

edited by
Young C Kim



World Scientific

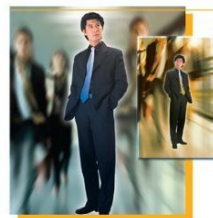
**HANDBOOK OF
MICROFINANCE**



World Scientific

**HANDBOOK OF
RESEARCH IN
MASS CUSTOMIZATION AND
PERSONALIZATION**

edited by
Frank T Piller - Mitchell M Tseng



World Scientific

SCHOLARLY BOOK SERVICES INC.

289 Bridgeland Ave., Unit 105

Toronto, On M6A 1Z6

1-800-847-9736

FAX 1-800-220-9895

orders@sbookscan.com

www.sbookscan.com

