

Due November 2011

Halogenated Heterocycles

Synthesis, Application and Environment

ISBN 978-3-642-25102-3

2012. XIV, 279 p. Hardcover

▶ € 229,00 | £206.50

▶ *€ (D) 245,03 | € (A) 251,90 | sFr 305,00

Bookstore Location

Chemistry

Fields of interests

Organic Chemistry; Medicinal Chemistry;

Pharmacy

Target groups

Research

Product category

Contributed volume

Topics in Heterocyclic Chemistry

S. V. Ley, G. Mehta, R. Noyori, K. Nicolaou, A. Padwa, L. E. Overman, Editorial board: D. Enders,
Series editor: B. U. Maes, S. Polanc, J. Cossy

Volume 27

Halogenated Heterocycles

Synthesis, Application and Environment

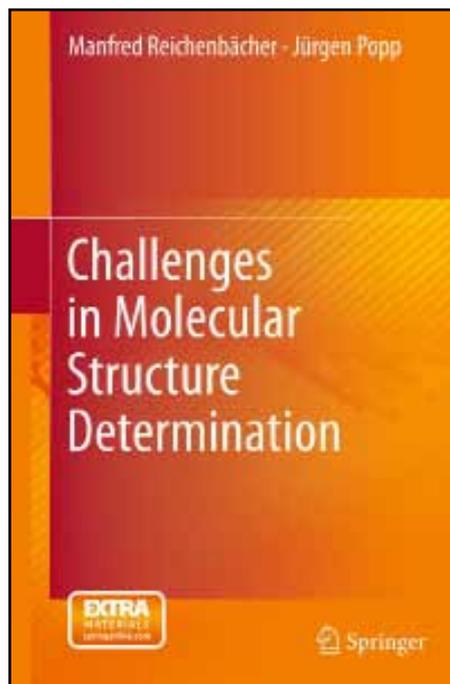
J. Iskra, Jozef Stefan Institute, Ljubljana, Slovenia (Ed.)

Features

- ▶ **Heterocyclic chemistry is the biggest branch of chemistry covering two-third of the chemical literature**
- ▶ **The series covers hot topics of frontier research summarized by reputed scientists in the field**
- ▶ **Our review series is topic related**
- ▶ **Online version available on SpringerLink.com**

G. Sandford: Perfluoroheteroaromatic Chemistry: Multifunctional Systems from Perfluorinated Heterocycles by Nucleophilic Aromatic Substitution Processes.- A. A. Gakh: Monofluorinated Heterocycles.- R. Dembinski · Y. Li · D. Gundapuneni · A. Decker: Synthesis of beta-Halofurans.- Y. Shermolovich · S. Pazenok: Synthesis of halogenated 5- and 6-membered sulfur- and Sulfur, Nitrogen Containing Heterocycles.- S. Minakata · Y. Takeda · J. Hayakawa: Heterocyclic Reagents Containing Nitrogen-Halogen Bond: Recent Applications.- Michael Schnürch: Recent Progress on the Halogen Dance Reaction on Heterocycles.- T. Kosjek · E. Heath: Halogenated Heterocycles as Pharmaceuticals.- E. Heath · T. Kosjek: Sources, Occurrence and Fate of Halogenated Heterocyclic Pharmaceuticals in the Environment.- J. Iskra: Green Methods in Halogenation of Heterocycles.

Due February 2012



ISBN 978-3-642-24389-9
2012. XI, 616 p. 656 illus., 67 in color.
Softcover
▶ € 69,95 | £62.99
▶ *€ (D) 74,85 | € (A) 76,95 | sFr 93,50

Bookstore Location

Chemistry

Fields of interests

Spectroscopy/Spectrometry; Atomic/
Molecular Structure and Spectra; Organic
Chemistry

Target groups

Upper undergraduate

Product category

Graduate/Advanced undergraduate textbook

Challenges in Molecular Structure Determination

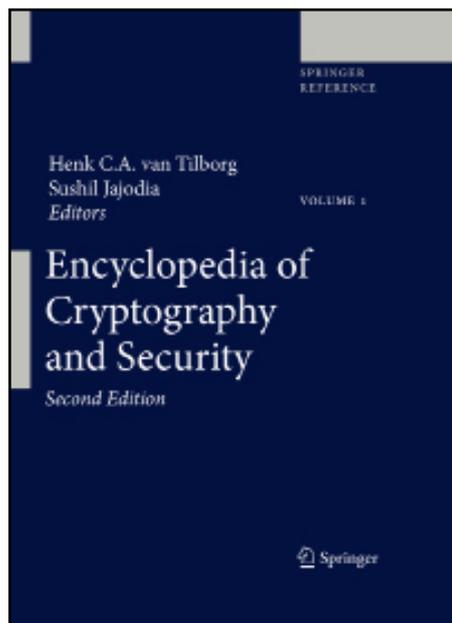
M. Reichenbacher, J. Popp, University of Jena, Germany

Features

- ▶ Problem-based approach to communicating the principles of spectroscopic structure determination
- ▶ Problems and solutions for interactive self-study available as extra materials
- ▶ English edition of successful German textbook

Taking a problem-based approach, the authors provide a practice-oriented and systematic introduction to both organic and inorganic structure determination by spectroscopic methods. This includes mass spectrometry, vibrational spectroscopies, UV/VIS spectroscopy and NMR as well as applying combinations of these methods. The authors show how to elucidate chemical structures with a minimal number of spectroscopic techniques. Readers can train their skills by more than 400 problems with varying degree of sophistication. Interactive Powerpoint-Charts are available as Extra Materials to support self-study.

Due September 2011



Bookstore Location
Computer Science

Fields of interests

Data Structures, Cryptology and Information Theory; Data Encryption; Coding and Information Theory

Target groups

Research

Product category

Encyclop(a)edia

**SPRINGER
REFERENCE**

Encyclopedia of Cryptography and Security

H. C. Tilborg, Technische Universiteit Eindhoven, Netherlands; S. Jajodia, George Mason University, Fairfax, VA, USA (Eds)

Features

- ▶ **Definitive information on cryptography and information security from highly regarded researchers**
- ▶ **Effective tool for professionals in many fields and researchers of all levels**
- ▶ **5643 references, more than twice the number of references that appear in the First Edition**

Expanded into two volumes, the Second Edition of Springer's Encyclopedia of Cryptography and Security brings the latest and most comprehensive coverage of the topic: Definitive information on cryptography and information security from highly regarded researchers Effective tool for professionals in many fields and researchers of all levels Extensive resource with more than 700 contributions in Second Edition 5643 references, more than twice the number of references that appear in the First Edition With over 300 new entries, appearing in an A-Z format, the Encyclopedia of Cryptography and Security provides easy, intuitive access to information on all aspects of cryptography and security. As a critical enhancement to the First Edition's base of 464 entries, the information in the Encyclopedia is relevant for researchers and professionals alike. Topics for this comprehensive reference were elected, written, and peer-reviewed by a pool of distinguished researchers in the field. The Second Edition's editorial board now includes 34 scholars, which was expanded from 18 members in the First Edition. Representing the work of researchers from over 30 countries, the Encyclopedia is broad in scope, covering everything from authentication and identification to quantum cryptography and web security. The text's practical style is instructional, yet fosters investigation. Each area presents concepts, designs, and specific implementations. The highly-structured essays in this work include synonyms, a definition and discussion of the topic, bibliographies, and links to related literature. Extensive cross-references to other entries within the Encyclopedia support efficient, user-friendly searches for immediate access to relevant information. Key concepts presented in the Encyclopedia of Cryptography and Security include: Authentication and identification; Block ciphers and stream ciphers; Computational issues; Copy protection; Cryptanalysis and security; Cryptographic protocols; Electronic payment and digital certificates; Elliptic curve cryptography; Factorization algorithms and primality tests; Hash functions and MACs; Historical systems; Identity-based cryptography; Implementation aspects for smart cards and standards; Key management; Multiparty computations like voting schemes; Public key cryptography; Quantum cryptography; Secret sharing schemes; Sequences; Web Security. Topics covered: Data Structures, Cryptography and Information Theory; Data Encryption; Coding and Information Theory; Appl.Mathematics/ Computational Methods of Engineering; Applications of Mathematics; Complexity. This authoritative reference will be published in two formats: print and online. The online edition features hyperlinks to cross-references, in addition to significant research.

Print

2nd ed. 2011. XL, 1435 p. (In 2 volumes, not available separately)
ISBN 978-1-4419-5905-8
▶ € 499,00 | £449.50
▶ *€ (D) 533,93 | € (A) 548,90 | sFr 664,50

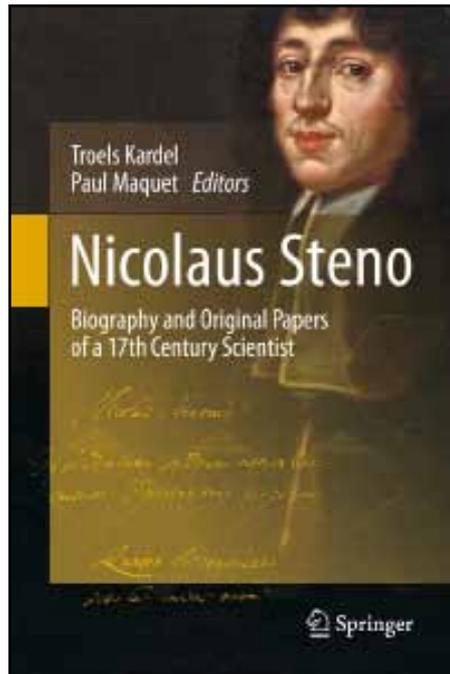
eReference

2nd ed. 2011
ISBN 978-1-4419-5906-5
▶ € 499,00 | £449.50
▶ **€ (D) 593,81 | € (A) 598,80 | sFr 698,00

Print + eReference

2nd ed. 2011. XL, 1435 p. (In 2 volumes, not available separately)
ISBN 978-1-4419-5907-2
▶ € 624,00 | £562.00
▶ *€ (D) 667,68 | € (A) 686,40 | sFr 831,00

Due January 2012



ISBN 978-3-642-25078-1
2012. XX, 900 p. 130 illus., 50 in color.
Hardcover
▶ € 169,95 | £153.00
▶ *€ (D) 181,85 | € (A) 186,94 | sFr 226,50

Bookstore Location
Geosciences/Geography

Fields of interests
Geology; Anatomy; History of Philosophy

Target groups
Popular/general

Product category
Biography

Nicolaus Steno
Biography and Original Papers of a 17th Century Scientist
T. Kardel, Holte, Denmark; P. Maquet, Aywaille, Belgium (Eds)

Features

- ▶ **By far the most exhaustive biography of Niels Stensen "Nicolaus Steno", anatomist, geologist and bishop**
- ▶ **An avenue through the erudite Europe in 17th century**
- ▶ **First publication of the complete set of original scientific papers on anatomy and geology, including full translation and rich footnotes.**
- ▶ **A key to early geoscience**
- ▶ **A must for understanding early modern research on brain and motor control**

This is by far the most exhaustive biography on Niels Stensen, anatomist, geologist and bishop, better known as „Nicolaus Steno“. We learn about the scientist’s family and background in Lutheran Denmark, of his teachers at home and abroad, of his studies and travels in the Netherlands, Belgium, France, Italy, Austria, Hungary, Bohemia and Germany, of his many pioneering achievements in anatomy and geology, of his encounters with Swammerdam, Malpighi and with members of the newly established Royal Society of London and the Accademia del Cimento in Florence, and with the philosopher Spinoza. It further treats Stensen’s religious conversion. The book includes the full set of Steno’s anatomical and geological scientific papers in original language. The editors thoroughly translated the original Latin text to English, and included numerous footnotes on the background of this bibliographic and scientific treasure from the 17th century.

Due January 2012

Applied General Equilibrium An Introduction

ISBN 978-3-642-24745-3

2012. X, 230 p. 5 illus. in color. (Springer

Texts in Business and Economics) Hardcover

▶ € 69,95 | £62.99

▶ *€ (D) 74,85 | € (A) 76,95 | sFr 93,50

Bookstore Location

Business / Economics

Fields of interests

Economic Theory; Microeconomics; Economic Systems

Target groups

Graduate

Product category

Graduate/Advanced undergraduate textbook

Applied General Equilibrium An Introduction

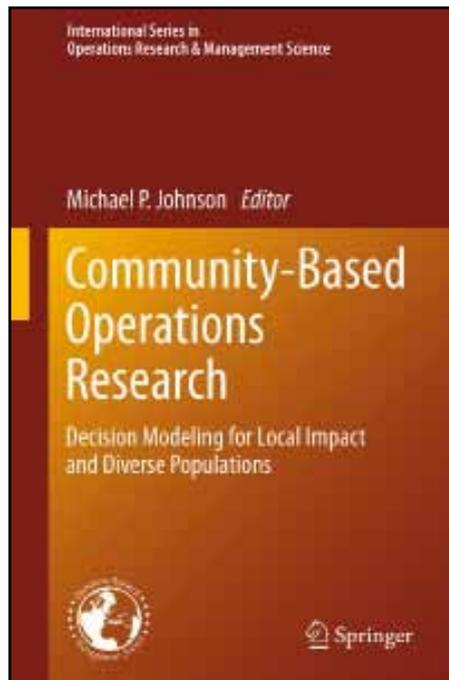
M. A. Cardenete, A.-I. Guerra, University Pablo de Olavide, Seville, Spain; F. Sancho, Universitat Autònoma de Barcelona, Cerdanyola del Vallès, Spain

Features

- ▶ Provides step-by-step procedure for building empirically oriented large-scale economic models
- ▶ Facilitates quick learning by isolating problems and providing solutions in an incremental manner
- ▶ Integrates basic modelling tips with data handling to give empirical background to economic models
- ▶ Software code will be included in text format along the chapters (Required GAMS software available at no cost)
- ▶ Incorporates practical economic policy issues with sensible interpretation of results in terms of micro, macro and welfare indicators

This advanced textbook aims at providing a simple but fully operational introduction to applied general equilibrium. General equilibrium is the backbone of modern economic analysis and as such generation after generation of economics students are introduced to it. As an analytical tool in economics, general equilibrium provides one of the most complete views of an economy since it incorporates all economic agents (households, firms, government, foreign sector) in an integrated way that is compatible with microtheory and microdata. The integration of theory and data handling is required for successful modeling but it requires a double ability that is not found in standard books. With this book we aim at filling the gap and provide advanced students with the required tools, from the building of consistent and applicable general equilibrium models to the interpretation of the results that ensue from the adoption of policies. The topics include: model design, model development, computer code examples, calibration and data adjustments, practical policy examples.

September 2011



ISBN 978-1-4614-0805-5
2012. XXIII, 340 p. 68 illus., 54 in color.
(International Series in Operations Research
& Management Science, Volume 167)
Hardcover
▶ € 139,95 | £126.00
▶ *€ (D) 149,75 | € (A) 153,94 | sFr 201,00

Bookstore Location
Business / Economics

Fields of interests
Operation Research/Decision Theory;
Financial Economics; Operations Research,
Management Science

Target groups
Professional/practitioner

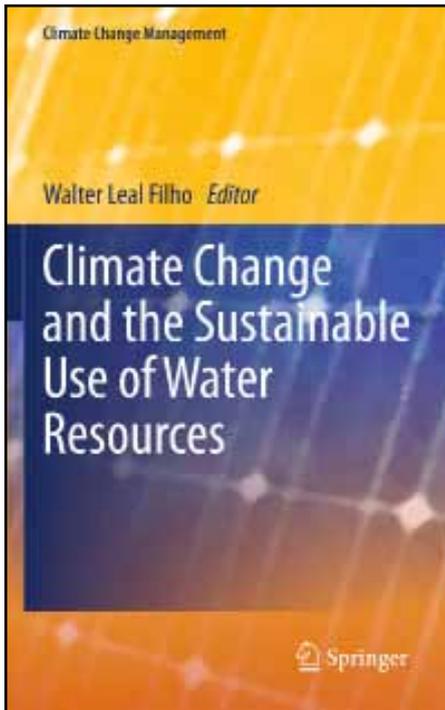
Product category
Contributed volume

Community-Based Operations Research Decision Modeling for Local Impact and Diverse Populations

M. P. Johnson, University of Massachusetts Boston, MA, USA (Ed.)

Community-based operations research (CBOR) is the use of analytical methods with government and organizations in the formal and informal non-profit sector to improve the lives of individuals and communities. The beneficiaries of these methods tend to be localized, as well as members of disadvantaged and underserved groups. Examples of problems amenable to CBOR include: design of public infrastructure such as parks and public art; location of facilities such as homeless shelters or elder care facilities; social interventions such as public health initiatives or anti-violence programs, and improved processes such as grants management or human service provision, among many others. Solutions to these problems may be difficult and/or controversial due to conflicting notions of fairness, social impacts or social norms, or because of stigmatized or marginalized populations. CBOR applications address the needs of organizations working for the public good which typically have limited exposure to operations research/management science. Thus, CBOR extends traditional OR/MS practice to allow for 'solutions' that consist of identification and formulation of decision problems, linkages between model-based prescriptions and social impacts relevant to providers and policy-makers, and a diversity of solution methods. This domain was first discussed in a chapter in *Tutorials in Operations Research 2007 - OR Tools and Applications: Glimpses of Future Technologies (INFORMS 2007)* by Johnson and Smilowitz and subsequently in an article that appeared in the February 2008 issue of *OR/MS Today*. Community-based operations research is not primarily a new methodology or theory – its antecedents include community operational research, public-sector operations research and problem structuring methods. Instead, CBOR is a framework for applications of models and methods to address problems with common characteristics. The relevant analytical tools for CBOR come primarily from the decision sciences; these tools are intended to help individuals and organizations make better choices regarding strategies to design, services to deliver, facilities to locate, infrastructure to design, and so on. CBOR applications are drawn from disciplines with public-sector applications, including public policy, public management, urban and regional planning, housing and community development, urban affairs, human services, public health and gerontology. The research in this book is intended to be normative (defined by stylized models of the real world) and prescriptive (what ought to be done) in nature. However, other research perspectives, defined by descriptive and positive approaches traditionally used in the social sciences are appropriate as well. It is hoped that this book will inspire researchers and practitioners to develop new models and methods, or adapt existing ones, in order that public-focused organizations may better fulfill their missions, and for individuals and communities to develop to their fullest potential. „The topic of this book is timely. The public sector is ready more than ever to implement Operations Research and Analytics methodologies and derive substantial benefits. While this book looks specifically at OR in local communities, this is the case across the local and federal sectors – in the US and in other countries. In the past few years we have observed a rise in applying analytical methods to challenges faced by public sector agencies. Moreover, these entities are actively looking today to implement new business processes which are analytically based. As government and non-profit organizations gather more high-quality data and make it available for analysts and the public, they are increasingly well-positioned to apply descriptive methods (getting insight from the data), predictive methods (forecasting outcome based on the data) and prescriptive methods (determining best course of action). The contributions in this volume provide welcome examples of using real-world data to design policies and practices that generate tangible improvements in the quality of life of individuals and communities.“ Rina Schneur, PhD, President, Institute for Operations Research and the Management Sciences and Director, Verizon „This is an original book that demonstrates with clarity and passion that Operations Research can be successfully applied to a range of issues affecting public sector institutions, voluntary organizations and community groups. The authors build on the traditional strengths of US Operations Research (applied, quantitative modeling and analytic techniques) and show how they can be of significant value in improving the lives of disadvantaged and underserved sections of the community. This is an important contribution to the renewed relevance of OR in a changing America.“ Prof. Gerald Midgley, Centre for Systems Studies, Business School, University of Hull, UK

September 2011



ISBN 978-3-642-22265-8
2012. XII, 823 p. 190 illus. (Climate Change Management) Hardcover
▶ € 199,95 | £180.00
▶ *€ (D) 213,95 | € (A) 219,94 | sFr 287,00

Bookstore Location

Business / Economics

Fields of interests

Environmental Economics; Sustainable Development; Climate Change

Target groups

Research

Product category

Contributed volume

Climate Change and the Sustainable Use of Water Resources

W. Leal Filho, Hamburg University of Applied Sciences, Germany (Ed.)

Features

- ▶ Explores the geo-chemical, physical, social and economic impacts of climate change on water supplies
- ▶ Contains examples of initiatives and projects addressing the need to promote sustainable water use across the world
- ▶ Contains suggestions of practical, mostly field-tested measures, to mitigate the impact of climate change on water supplies.

The book explores the geo-chemical, physical, social and economic impacts of climate change on water supplies. It contains examples and case studies from a wide range of countries, and addresses the need to promote sustainable water use across the world.

Due January 2012

Volume II Economics and the Interpretation and Application of U.S. and E.U. Antitrust Law

Economics-Based Legal Analyses of Mergers, Vertical Practices, and Joint Ventures

ISBN 978-3-642-24312-7

2012. X, 340 p. Hardcover

▶ approx. € 79,95 | £72.00

▶ approx. *€ (D) 85,55 | € (A) 87,95 | sFr 106,50

Bookstore Location

Business / Economics

Fields of interests

Economic Policy; Public Law

Target groups

Graduate

Product category

Graduate/Advanced undergraduate textbook

Volume II Economics and the Interpretation and Application of U.S. and E.U. Antitrust Law**Economics-Based Legal Analyses of Mergers, Vertical Practices, and Joint Ventures**

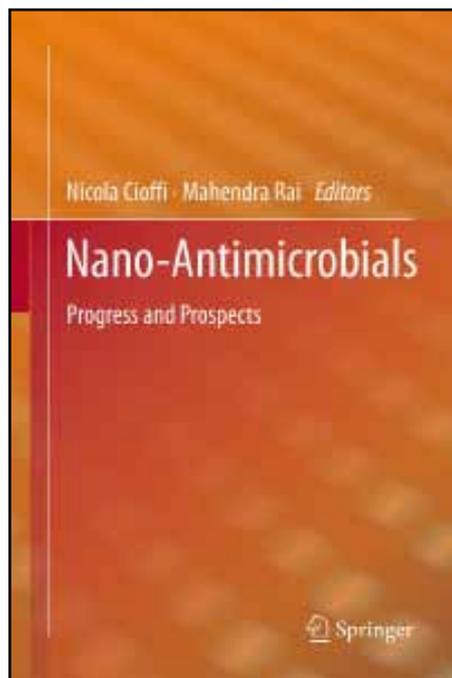
R. Markovits, University of Texas School of Law, Austin, TX, USA

Features

- ▶ **Volume II (Chapters 13 - 15)- see Volume I, ISBN 978-3-642-24306-6 (Chapters 1 - 14)**
- ▶ **Explains why market definitions are inherently arbitrary, develops non-market-oriented approaches to assessing the monopolizing character and competitive impact of mergers, joint ventures, and long-term requirements contracts, and criticizes the market-oriented approaches to these issues proposed by academics and used by U.S. and E.U. courts and antitrust-enforcement agencies**
- ▶ **Defines "oligopolistic" and "predatory" conduct, analyzes the determinants of the profitability of all variants of such conduct, examines the evidence that can and cannot be used to prove that defendants have engaged in them, and criticizes the contrary tests for predation and illegal oligopolistic conduct that academics and U.S. and E.U. courts and enforcement-agencies have proposed/used**
- ▶ **Delineates the legitimate functions of vertical integration, (B) examines the ability of various horizontal pricing techniques, resale price maintenance, and vertical territorial restraints and customer-allocation clauses, other sorts of contractual provisions and sales policies that are designed to reduce independent retailers to promote a producer's product, and long-term full-requirements contracts can perform these functions, (C) examines the legal implications of the foregoing analyses under both U.S. and E.U. antitrust law, and (D) criticizes the contrary analyses and conclusions of scholars and U.S. and E.U. courts and antitrust-enforcement agencies**
- ▶ **Provides a comprehensive account and comparison of U.S. antitrust law and E.U. competition law both as written and as applied (which points out the purely legal as well as the legal/economic errors that U.S. and E.U. authorities have made when interpreting and applying respectively the U.S. statutes and the E.U. treaty), and examines whether historically and contemporaneously these errors make U.S. and E.U.**

The standard economic-efficiency analysis of antitrust (1) ignores many kinds of inefficiency (e.g., the kinds generated when resources are misallocated among unit-output-increasing, quality-or-variety-increasing [QV]-investment-creating, and production-process-research [PPR]-executing uses and when the resources allocated to QV-investment creation [PPR execution] are misallocated among areas of product-space) and (2) ignores Second-Best Theory (viz., the fact that, to determine a competition-increasing policy's impact on any kind of inefficiency, one must take appropriate account not only of the targeted competition-imperfection's tendency to cause such inefficiency in an otherwise-Pareto-perfect economy but also of the tendency of the economy's other Pareto imperfections to cause such inefficiency and the way in which the relevant Pareto imperfections interact to cause such inefficiency). This book develops a „distortion-analysis“ approach to economic-efficiency analysis that responds appropriately to Second-Best Theory and uses it to analyze the economic efficiency of selective and universal prohibitions of every kind of antitrust-law-covered business conduct.

Due February 2012



ISBN 978-3-642-24427-8

2012. VIII, 504 p. 204 illus., 100 in color.

Hardcover

► € 189,95 | £171.00

► *€ (D) 203,25 | € (A) 208,94 | sFr 253,00

Bookstore Location

Engineering

Fields of interests

Nanotechnology and Microengineering;
Medical Microbiology; Medicinal Chemistry

Target groups

Research

Product category

Monograph

Nano-Antimicrobials

Progress and Prospects

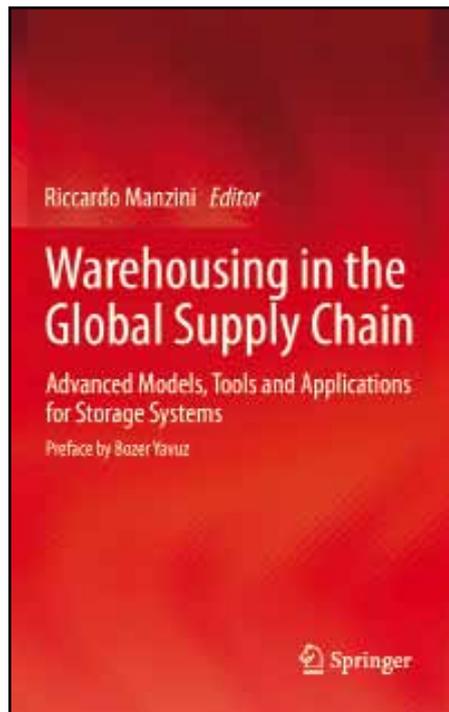
N. Cioffi, Università degli Studi di Bari, Italy; M. Rai, SGB Amravati University, India (Eds)

Features

- **The first comprehensive overview of nanoscience-based drug development against microbial diseases**
- **With contributions by international experts**
- **Introduces new concepts**

There is a high demand for antimicrobials for the treatment of new and emerging microbial diseases. In particular, microbes developing multidrug resistance have created a pressing need to search for a new generation of antimicrobial agents, which are effective, safe and can be used for the cure of multidrug-resistant microbial infections. Nano-antimicrobials offer effective solutions for these challenges; the details of these new technologies are presented here. The book includes chapters by an international team of experts. Chemical, physical, electrochemical, photochemical and mechanical methods of synthesis are covered. Moreover, biological synthesis using microbes, an option that is both eco-friendly and economically viable, is presented. The antimicrobial potential of different nanoparticles is also covered, bioactivity mechanisms are elaborated on, and several applications are reviewed in separate sections. Lastly, the toxicology of nano-antimicrobials is briefly assessed.

Due November 2011



ISBN 978-1-4471-2273-9
2012. XVII, 478 p. 166 illus., 25 in color.
Hardcover
▶ € 199,95 | £180.00
▶ *€ (D) 213,95 | € (A) 219,94 | sFr 266,50

Bookstore Location
Engineering

Fields of interests
Engineering Economics, Organization,
Logistics, Marketing; Production/Logistics/
Supply Chain Management; Operating
Procedures, Materials Treatment

Target groups
Research

Product category
Monograph

Warehousing in the Global Supply Chain

Advanced Models, Tools and Applications for Storage Systems

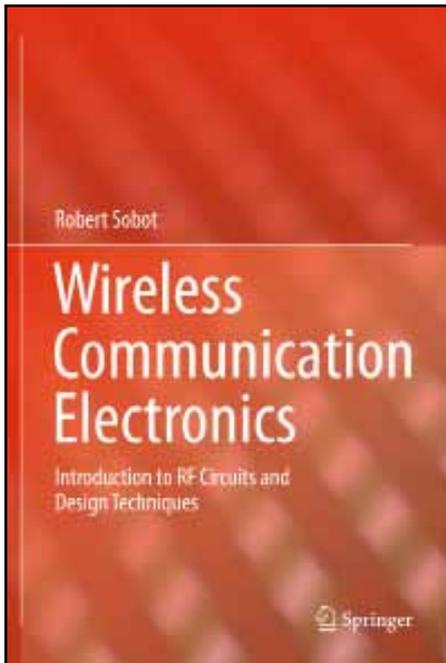
R. Manzini, Bologna University, Italy (Ed.)

Features

- ▶ **Includes original applications of advanced models and methods useful for practitioners in industry**
- ▶ **Gives easy access to the problems related to storage and warehousing in industrial systems**
- ▶ **Provides case studies rarely presented in the literature**

With increased globalization and offshore sourcing, global supply chain management is becoming an important issue for many businesses as it involves a company's worldwide interests and suppliers rather than simply a local or national orientation. The storage systems significantly affect the level of quality of products, the customer's service level, and the global logistic cost. The mission of warehousing systems design, control and optimization is to effectively ship products in the right place, at the right time, and in the right quantity (i.e. in any configuration) without any damages or alterations, and minimizing costs. Warehousing in the Global Supply Chain presents and discusses a set of models, tools and real applications, including a few case studies rarely presented with a sufficient detail by other literature, to illustrate the main challenges in warehousing activities. This includes all warehouse operations (from receiving to shipping), problems and issues (e.g. storage allocation, assignment, layout, vehicle routing) for industrial and service systems as parts of global supply chains. Advanced and effective solving methods are also illustrated and the discussed case studies help the reader to quickly apply the proposed models and techniques/algorithms. Warehousing in the Global Supply Chain is useful to managers and practitioners of industry and service sectors for the determination and modeling of the critical issues concerning warehousing systems planning and design. It is a valuable source of information for engineering students, doctoral and post-doctoral students, and researchers of academic institutions who are searching for advanced modeling approaches and solving techniques to complex logistic decision making problems. Warehousing in the Global Supply Chain presents and discusses a set of models, tools and real applications, including a few case studies rarely presented with a sufficient detail by other literature, to illustrate the main challenges in warehousing activities. This includes all warehouse operations (from receiving to shipping), problems and issues (e.g. storage allocation, assignment, layout, vehicle routing) for industrial and service systems as parts of global supply chains. Advanced and effective solving methods are also illustrated and the discussed case studies help the reader to quickly apply the proposed models and techniques/algorithms. Warehousing in the Global Supply Chain is useful to managers and practitioners of industry and service sectors for the determination and modeling of the critical issues concerning warehousing systems planning and design. It is a valuable source of information for engineering students, doctoral and post-doctoral students, and researchers of academic institutions who are searching for advanced modeling approaches and solving techniques to complex logistic decision making problems.

Due February 2012



ISBN 978-1-4614-1116-1

2012. XVI, 450 p. 255 illus., 124 in color.

Hardcover

▶ € 69,95 | £62.99

▶ *€ (D) 74,85 | € (A) 76,95 | sFr 93,50

Bookstore Location

Engineering

Fields of interests

Circuits and Systems; Microwaves, RF and
Optical Engineering

Target groups

Graduate

Product category

Graduate/Advanced undergraduate textbook

Wireless Communication Electronics

Introduction to RF Circuits and Design Techniques

R. Sobot, The University of Western Ontario, London, ON, Canada

Features

- ▶ Offers readers a complete, self-sufficient tutorial style textbook
- ▶ Includes all relevant topics required to study and design an RF receiver in a consistent, coherent way with appropriate depth for a one-semester course
- ▶ The labs and the book chapters are synchronized throughout a 13-week semester so that the students first study each sub-circuit and the related theory in class, practice problems, work out design details and then build and test the sub-circuit in the lab, before moving onto the next chapter
- ▶ Includes detailed derivations of all key equations related to new concepts

This book is intended for senior undergraduate and graduate students as well as practicing engineers who are involved in design and analysis of radio frequency (RF) circuits. Detailed tutorials are included on all major topics required to understand fundamental principles behind both the main sub-circuits required to design an RF transceiver and the whole communication system. Starting with review of fundamental principles in electromagnetic (EM) transmission and signal propagation, through detailed practical analysis of RF amplifier, mixer, modulator, demodulator, and oscillator circuit topologies, all the way to the system communication theory behind the RF transceiver operation, this book systematically covers all relevant aspects in a way that is suitable for a single semester university level course.

Due December 2011

Model Predictive Vibration Control

Efficient Constrained MPC Vibration Control for Lightly Damped Mechanical Structures

ISBN 978-1-4471-2332-3

2012. XXXIV, 579 p. 170 illus., 4 in color.

Hardcover

▶ € 199,95 | £180.00

▶ *€ (D) 213,95 | € (A) 219,94 | sFr 266,50

Bookstore Location

Engineering

Fields of interests

Control; Mathematical Modeling and Industrial Mathematics; Vibration, Dynamical Systems, Control

Target groups

Research

Product category

Monograph

Model Predictive Vibration Control**Efficient Constrained MPC Vibration Control for Lightly Damped Mechanical Structures**

G. Takács, B. Rohal-Ilkiv, Slovak University of Technology, Bratislava, Slovakia

Features

- ▶ Includes more than 230 illustrations, photographs, diagrams and several tables to clearly illustrate and explain content
- ▶ Takes the reader through the necessary steps in understanding the founding idea of predictive control
- ▶ Compares different predictive control strategies in simulations and experiments

Real-time model predictive controller (MPC) implementation in active vibration control (AVC) is often rendered difficult by fast sampling speeds and extensive actuator-deformation asymmetry. If the control of lightly damped mechanical structures is assumed, the region of attraction containing the set of allowable initial conditions requires a large prediction horizon, making the already computationally demanding on-line process even more complex. Model Predictive Vibration Control provides insight into the predictive control of lightly damped vibrating structures by exploring computationally efficient algorithms which are capable of low frequency vibration control with guaranteed stability and constraint feasibility. In addition to a theoretical primer on active vibration damping and model predictive control, Model Predictive Vibration Control provides a guide through the necessary steps in understanding the founding ideas of predictive control applied in AVC such as: · the implementation of computationally efficient algorithms · control strategies in simulation and experiment and · typical hardware requirements for piezoceramics actuated smart structures. The use of a simple laboratory model and inclusion of over 230 figures and illustrations provides readers with clear and methodical explanations, making Model Predictive Vibration Control the ideal support material for graduates, researchers and industrial practitioners with an interest in efficient predictive control to be utilized in active vibration attenuation.

Due March 2012

Raman Spectroscopy for Nanomaterials Characterization

ISBN 978-3-642-20619-1

2012. 600 p. Hardcover

▶ € 249,00 | £224.50

▶ *€ (D) 266,43 | € (A) 273,90 | sFr 331,50

Bookstore Location

Materials Science

Fields of interests

Nanotechnology; Nanochemistry; Nanoscale
Science and Technology

Target groups

Research

Product category

Encyclop(a)edia

Raman Spectroscopy for Nanomaterials Characterization

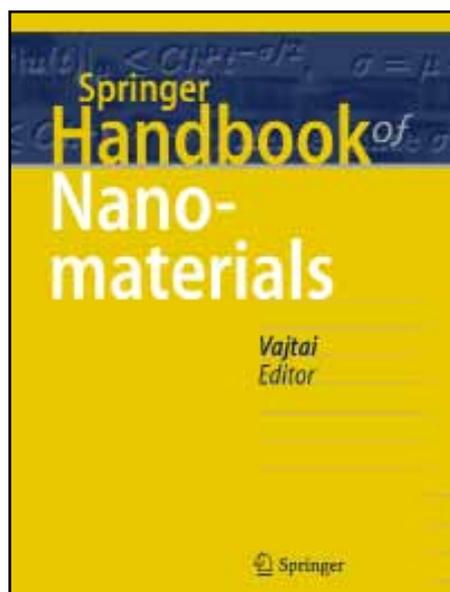
C. Kumar, Center for Advanced Microstructures and Devices, Baton Rouge, LA, USA (Ed.)

Features

- ▶ **Encyclopedic presentation of Raman spectroscopy in nanomaterials. Comprehensive presentation of Raman spectroscopy for the characterization of nanomaterials.**
- ▶ **First volume of a 40-volume series on nanoscience and nanotechnology included in SpringerMaterials.**
- ▶ **Highly application-oriented overview of modern topics in Raman spectroscopy.**

First volume of a 40-volume series on nanoscience and nanotechnology, edited by the renowned scientist Challa S.S.R. Kumar. This handbook gives a comprehensive overview about Raman spectroscopy for the characterization of nanomaterials. Modern applications and state-of-the-art techniques are covered and make this volume essential reading for research scientists in academia and industry.

Due August 2012



ISBN 978-3-642-20594-1

2012. 1500 p. 900 illus. in color. Hardcover

► approx. € 349,00 | £314.00

► approx. *€ (D) 373,43 | € (A) 383,90 |

sFr 500,50

Bookstore Location

Materials Science

Fields of interests

Nanotechnology; Structural Materials; Optical and Electronic Materials

Target groups

Professional/practitioner

Product category

Handbook

Springer Handbook of Nanomaterials

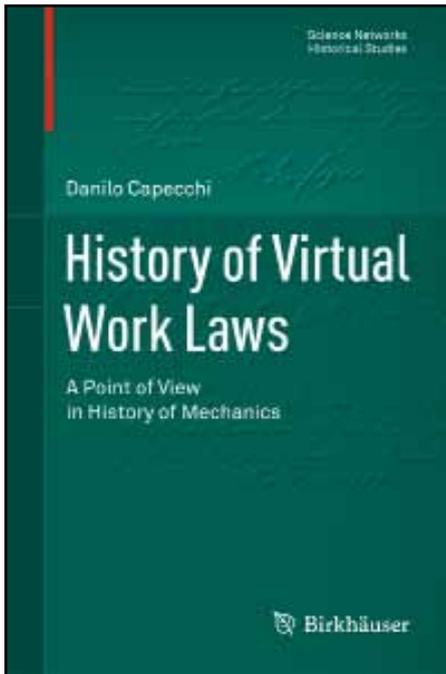
R. Vajtai, Rice University, Houston, TX, USA (Ed.)

Features

- Meets the need for a comprehensive, easily accessible source of application-oriented, authoritative information by integrating knowledge from key subfields
- Highly detailed single-volume treatment of a rapidly evolving field

The Springer Handbook of Nanomaterials covers the description of materials which have dimension on the „nanoscale“. The description of the nanomaterials in this Handbook follows the thorough but concise explanation of the synergy of structure, properties, processing and applications of the given material. The Handbook mainly describes materials in their solid phase; exceptions might be e.g. small sized liquid aerosols or gas bubbles in liquids. The materials are organized by their dimensionality. Zero dimensional structures collect clusters, nanoparticles and quantum dots, one dimensional are nanowires and nanotubes, while two dimensional are represented by thin films and surfaces. The chapters in these larger topics are written on a specific materials and dimensionality combination, e.g. ceramic nanowires. Chapters are authored by well-established and well-known scientists of the particular field. They have measurable part of publications and an important role in establishing new knowledge of the particular field.

Due January 2012



ISBN 978-88-470-2055-9
2012. X, 480 p. 141 illus., 1 in color. (Science Networks. Historical Studies) Hardcover
▶ approx. € 129,95 | £117.00
▶ approx.*€ (D) 139,05 | € (A) 142,94 | sFr 186,50

Bookstore Location

Physics/Astronomy

Fields of interests

Mechanics;; History of Science

Target groups

Research

Product category

Monograph

History of virtual work laws

D. Capecchi, University La Sapienza, Rome, Italy

Features

- ▶ It gives a particular view of mechanics
- ▶ It is one of the few books focused on fundamentals of western mechanics
- ▶ The book is very rich of original quotations

The book presents a history of classical mechanics by focusing on issues of equilibrium, documenting the way it was studied from the fourth century BC, in Greece, until the end of the nineteenth century AD, in Europe. The adopted historical point of view restricts attention to cases where the effectiveness of forces is assessed on the basis of the virtual motion of their points of application. For completeness, hints of the alternative approach are also referred, the Archimedean for ancient mechanics and the Newtonian for modern mechanics. The laws resulting from consideration of the virtual motions are named laws of virtual work. The modern formulations of the principle of virtual work are only a particular form of them.

Due January 2012

Binary Liquid Systems of Nonelectrolytes III

supplement to IV/10A, 13A1, 13A2, and IV/23A

ISBN 978-3-642-22851-3

2012. 602 p. 1 illus. in color. Hardcover

► approx. € 4590,00 | £4131.00

► approx. *€ (D) 4911,30 | € (A) 5049,00 |

sFr 6580,50

Bookstore Location

Physics/Astronomy

Fields of interest

Physics, general

Target groups

Research

Product category

Reference work

Landolt-Börnstein: Numerical Data and Functional Relationships in Science and Technology - New Series

Editor-in-chief: W. Martienssen

Physical Chemistry

Subvolume 26C

Binary Liquid Systems of Nonelectrolytes III

supplement to IV/10A, 13A1, 13A2, and IV/23A

I. Cibulka, Inst. of Chem. Technol., Prague, Czech Republic; J.-C. Fontaine, ITODYS-CNRS, Paris, France; H. V. Kehiaian, K. Sosnkowska-Kehiaian, ITODYS-CNRS, Paris, France

Vapor-liquid equilibrium data, heat of mixing (excess enthalpies), and volumetric properties of systems are required for both the applications in design of industrial technological processes and the understanding the structure and the intermolecular interactions in the systems. On the basis of classical thermodynamics the measured experimental data combined together enable us the calculation of non-measurable thermodynamic properties significant for the technological calculations. The present volume is a compilation of experimental and derived property data on subcritical binary homogeneous (single-phase) or heterogeneous (two-phase) liquid-liquid mixtures. All the components are well-defined pure substances, which are organic nonelectrolytes and water. The present volume is divided into three subvolumes (A, B, C). 800 representative data sets that cover all types of properties and chemical systems are selected for Subvolume A. While Subvolume B comprises 1032 data sets for binary mixtures containing one or two hydrocarbons, Subvolume C is providing 1014 data sets for non-hydrocarbon binary mixtures.

Due January 2012

**Advanced Quantum
Mechanics**

Materials and Photons

ISBN 978-1-4419-8076-2

2012. XX, 546 p. 61 illus., 36 in color.

(Graduate Texts in Physics) Hardcover

▶ € 89,95 | £81.00

▶ *€ (D) 96,25 | € (A) 98,95 | sFr 120,00

Bookstore Location

Physics/Astronomy

Fields of interests

Quantum Physics; Optical and Electronic

Materials; Nanotechnology

Target groups

Graduate

Product category

Graduate/Advanced undergraduate textbook

Advanced Quantum Mechanics**Materials and Photons**

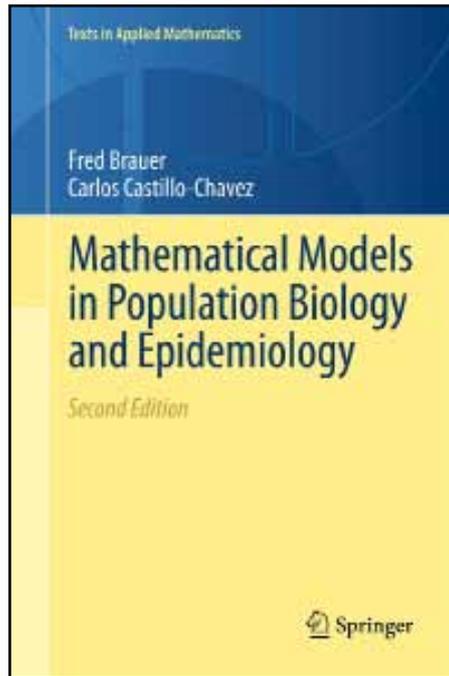
R. Dick, University of Saskatchewan, Saskatoon, SK, Canada

Features

- ▶ **Introduces quantum mechanics with a unique focus on examples and applications in materials science and photon-matter interactions**
- ▶ **Presents advanced quantum mechanics clearly enough to make it accessible to graduate students in physics, chemistry and engineering**
- ▶ **Includes over 150 problems to aid in student's comprehension**

Advanced Quantum Mechanics, Materials and Photons is a textbook which emphasizes the importance of advanced quantum mechanics for materials science and all experimental techniques which employ photon absorption, emission, or scattering. Important aspects of introductory quantum mechanics are covered in the first seven chapters to make the subject self-contained and accessible for a wide audience. The textbook can therefore be used for advanced undergraduate courses and introductory graduate courses which are targeted towards students with diverse academic backgrounds from the Natural Sciences or Engineering. To enhance this inclusive aspect of making the subject as accessible as possible, Appendices A and B also provide introductions to Lagrangian mechanics and the covariant formulation of electrodynamics. Other special features include an introduction to Lagrangian field theory and an integrated discussion of transition amplitudes with discrete or continuous initial or final states. Once students have acquired an understanding of basic quantum mechanics and classical field theory, canonical field quantization is easy. Furthermore, the integrated discussion of transition amplitudes naturally leads to the notions of transition probabilities, decay rates, absorption cross sections and scattering cross sections, which are important for all experimental techniques that use photon probes. Quantization is first discussed for the Schrödinger field before the relativistic Maxwell, Klein-Gordon and Dirac fields are quantized. Quantized Schrödinger field theory is not only important for condensed matter physics and materials science, but also provides the easiest avenue to general field quantization and is therefore also useful for students with an interest in nuclear and particle physics. The quantization of the Maxwell field is performed in Coulomb gauge. This is the appropriate and practically most useful quantization procedure in condensed matter physics, chemistry, and materials science because it naturally separates the effects of Coulomb interactions, exchange interactions, and photon scattering. The appendices contain additional material that is usually not found in standard quantum mechanics textbooks, including a completeness proof of eigenfunctions of one-dimensional Sturm-Liouville problems, logarithms of matrices, and Green's functions in different dimensions.

Due November 2011



ISBN 978-1-4614-1685-2
2nd ed. 2012. XXIII, 508 p. (Texts in Applied Mathematics, Volume 40) Hardcover
▶ € 64,95 | £58.99
▶ *€ (D) 69,50 | € (A) 71,45 | sFr 86,50

Bookstore Location
Mathematics

Fields of interests
; Community & Population Ecology

Target groups
Graduate

Product category
Graduate/Advanced undergraduate textbook

Mathematical Models in Population Biology and Epidemiology

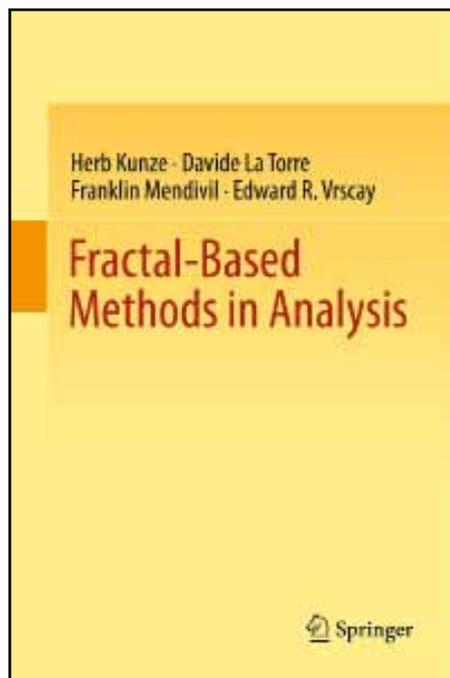
F. Brauer, University of British Columbia, Vancouver, BC, Canada; C. Castillo-Chavez, Arizona State University, Phoenix, AZ, USA

Features

- ▶ Free supplementary material available on the author's website involving problems using both Mathematica and Maple
- ▶ Text offers nice balance of theory and application
- ▶ Concentration is on applications in population biology, epidemiology, and resource management

This textbook provides an introduction to the field of mathematical biology through the integration of classical applications in ecology with more recent applications to epidemiology, particularly in the context of spread of infectious diseases. It integrates modeling, mathematics, and applications in a semi-rigorous way, stating theoretical results and giving references but not necessarily giving detailed proofs, providing a solid introduction to the field to undergraduates (junior and senior level), graduate students in applied mathematics, ecology, epidemiology or evolutionary biology, sustainability scientists, and to researchers who must routinely read the practical and theoretical results that come from modeling in ecology and epidemiology. This new edition has been updated throughout. In particular the chapters on epidemiology have been updated and extended considerably, and there is a new chapter on spatially structured populations that incorporates dispersal. The number of problems has been increased and the number of projects has more than doubled, in particular those stressing connections to data. In addition some examples, exercises, and projects include use of Maple and Matlab. Review of first edition: „A strength of the book is the large number of biologically-motivated problem sets. These and the references to the original biological papers would be valuable resources for an instructor.“ (UK Nonlinear News, 2001)

Due November 2011



ISBN 978-1-4614-1890-0
2012. XII, 424 p. 72 illus., 8 in color.
Hardcover
▶ € 89,95 | £81.00
▶ *€ (D) 96,25 | € (A) 98,95 | sFr 120,00

Bookstore Location
Mathematics

Fields of interests
Dynamical Systems and Ergodic Theory;
Mathematical Methods in Physics;
Approximations and Expansions

Target groups
Research

Product category
Monograph

Fractal-Based Methods in Analysis

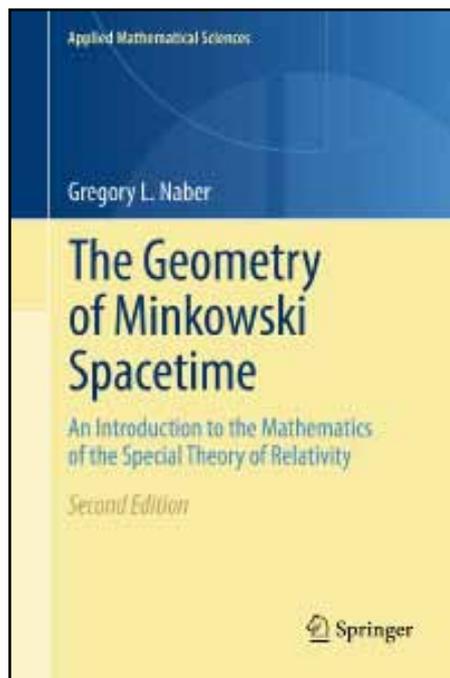
H. Kunze, University of Guelph, ON, Canada; D. La Torre, University of Milan, Italy; F. Mendivil, Acadia University, Wolfville, NS, Canada; E. R. Vrscay, University of Waterloo, ON, Canada

Features

- ▶ Extensive coverage of both the theory and the applications of IFS fractals
- ▶ Unified presentation of almost 20 years of research literature, with new viewpoints and results which stimulate the reader and show the state-of-the-art of research in this area
- ▶ The book illustrates a large number of analytical applications of IFS methods
- ▶ Includes both direct applications of IFS methods as well as new analytical methods inspired by the IFS fractal framework
- ▶ Self-contained and readable mathematical book with background appendices on topological and metric spaces, measure theory, and basic notions from set-valued analysis, which make the book suitable for self-study or for specialized graduate courses

The idea of modeling the behaviour of phenomena at multiple scales has become a useful tool in both pure and applied mathematics. Fractal-based techniques lie at the heart of this area, as fractals are inherently multiscale objects; they very often describe nonlinear phenomena better than traditional mathematical models. In many cases they have been used for solving inverse problems arising in models described by systems of differential equations and dynamical systems. „Fractal-Based Methods in Analysis“ draws together, for the first time in book form, methods and results from almost twenty years of research in this topic, including new viewpoints and results in many of the chapters. For each topic the theoretical framework is carefully explained using examples and applications. The second chapter on basic iterated function systems theory is designed to be used as the basis for a course and includes many exercises. This chapter, along with the three background appendices on topological and metric spaces, measure theory, and basic results from set-valued analysis, make the book suitable for self-study or as a source book for a graduate course. The other chapters illustrate many extensions and applications of fractal-based methods to different areas. This book is intended for graduate students and researchers in applied mathematics, engineering and social sciences. Herb Kunze is a professor of mathematics at the University of Guelph in Ontario. Davide La Torre is an associate professor of mathematics in the Department of Economics, Management and Quantitative Methods of the University of Milan. Franklin Mendivil is a professor of mathematics at Acadia University in Nova Scotia. Edward Vrscay is a professor in the department of Applied Mathematics at the University of Waterloo in Ontario. The major focus of their research is on fractals and the applications of fractals.

Due December 2011



ISBN 978-1-4419-7837-0

2nd ed. 2012. X, 330 p. 55 illus. (Applied Mathematical Sciences, Volume 92)

Hardcover

► approx. € 44,95 | £39.99

► approx.*€ (D) 48,10 | € (A) 49,45 | sFr 64,00

Bookstore Location

Mathematics

Fields of interests

Manifolds and Cell Complexes (incl. Diff.Topology); Classical and Quantum Gravitation, Relativity Theory; Mathematical Methods in Physics

Target groups

Graduate

Product category

Graduate/Advanced undergraduate textbook

The Geometry of Minkowski Spacetime

An Introduction to the Mathematics of the Special Theory of Relativity

G. L. Naber, Drexel University, Department of Mathematics, Philadelphia, PA

Features

- **Mathematically rigorous treatment of special relativity with precise statement of the physical interpretation**
- **Detailed introduction to the theory of spinors in Minkowski spacetime**
- **Thorough treatments of numerous topics not generally discussed at the introductory level**

This book offers a presentation of the special theory of relativity that is mathematically rigorous and yet spells out in considerable detail the physical significance of the mathematics. It treats, in addition to the usual menu of topics one is accustomed to finding in introductions to special relativity, a wide variety of results of more contemporary origin. These include Zeeman's characterization of the causal automorphisms of Minkowski spacetime, the Penrose theorem on the apparent shape of a relativistically moving sphere, a detailed introduction to the theory of spinors, a Petrov-type classification of electromagnetic fields in both tensor and spinor form, a topology for Minkowski spacetime whose homeomorphism group is essentially the Lorentz group, and a careful discussion of Dirac's famous Scissors Problem and its relation to the notion of a two-valued representation of the Lorentz group. This second edition includes a new chapter on the de Sitter universe which is intended to serve two purposes. The first is to provide a gentle prologue to the steps one must take to move beyond special relativity and adapt to the presence of gravitational fields that cannot be considered negligible. The second is to understand some of the basic features of a model of the empty universe that differs markedly from Minkowski spacetime, but may be recommended by recent astronomical observations suggesting that the expansion of our own universe is accelerating rather than slowing down. The treatment presumes only a knowledge of linear algebra in the first three chapters, a bit of real analysis in the fourth and, in two appendices, some elementary point-set topology. The first edition of the book received the 1993 CHOICE award for Outstanding Academic Title. Reviews of first edition: "... a valuable contribution to the pedagogical literature which will be enjoyed by all who delight in precise mathematics and physics." (American Mathematical Society, 1993) "Where many physics texts explain physical phenomena by means of mathematical models, here a rigorous and detailed mathematical development is accompanied by precise physical interpretations." (CHOICE, 1993) "... his talent in choosing the most significant results and ordering them within the book can't be denied. The reading of the book is, really, a pleasure." (Dutch Mathematical Society, 1993)

Due November 2011

Modular Forms: Basics and Beyond

ISBN 978-1-4614-2124-5
2012. X, 176 p. (Springer Monographs in Mathematics) Hardcover
▶ € 79,95 | £72.00
▶ *€ (D) 85,55 | € (A) 87,95 | sFr 106,50

Bookstore Location
Mathematics**Fields of interest**
Numerical Analysis**Target groups**
Research**Product category**
Monograph**Modular Forms: Basics and Beyond**

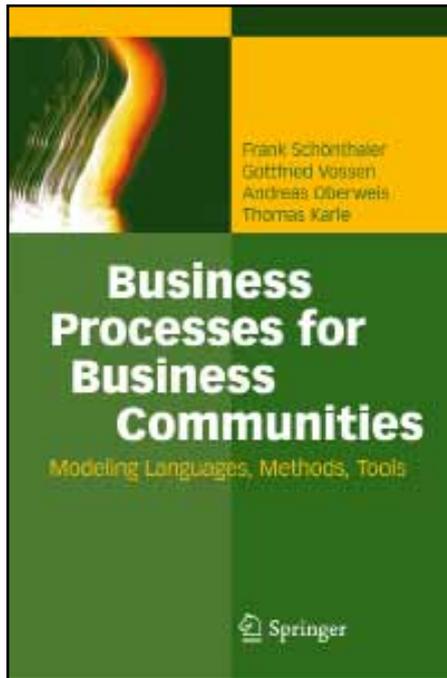
G. Shimura, Princeton University, NJ, USA

Features

- ▶ **Contains advanced material but always reminds the reader of basic facts**
- ▶ **Features the theory of modular forms of half-integral weight, and the discussion of theta functions and Eisenstein series of holomorphic and nonholomorphic types**
- ▶ **Discusses special values of various Dirichlet series associated to one or two modular forms**

This is an advanced book on modular forms. While there are many books published about modular forms, they are written at an elementary level, and not so interesting from the viewpoint of a reader who already knows the basics. This book offers something new, which may satisfy the desire of such a reader. However, we state every definition and every essential fact concerning classical modular forms of one variable. One of the principal new features of this book is the theory of modular forms of half-integral weight, another being the discussion of theta functions and Eisenstein series of holomorphic and nonholomorphic types. Thus the book is presented so that the reader can learn such theories systematically. Ultimately, we concentrate on the following two themes: (I) The correspondence between the forms of half-integral weight and those of integral weight. (II) The arithmeticity of various Dirichlet series associated with modular forms of integral or half-integral weight.

Due February 2012



ISBN 978-3-642-24790-3

2012. X, 200 p. 99 illus., 18 in color.

Hardcover

► approx. € 39,95 | £35.99

► approx.*€ (D) 42,75 | € (A) 43,95 | sFr 53,50

Bookstore Location

Professional Computing

Fields of interests

Simulation and Modeling; Models and Principles; e-Commerce/e-business

Target groups

Professional/practitioner

Product category

Professional book

Business Processes for Business Communities

Modeling Languages, Methods, Tools

F. Schönthaler, PROMATIS software GmbH, Germany; G. Vossen, University of Münster, Germany; A. Oberweis, Karlsruhe Institute of Technology (KIT), Germany; T. Karle, PROMATIS software GmbH, Germany

Features

- Unique and practically proven method for business process engineering
- Support through a tool that can be freely downloaded
- Formally precise foundations based on latest research results
- Simulation offers a preview of business process performance

After a brief introduction to the topic of business process modeling, the book offers a quick-start into model-based business process engineering. After that, the foundations of the modeling languages used are conveyed. Meaningful examples are in the foreground - each of the underlying formalisms is treated only as far as needed. Next the Horus Method is described in detail. The book defines a sequence of activities which finally leads to the creation of a complete business process model. The Horus Method, incidentally, is not bound to the use of the Horus software tools. It can be used with other tools or, if necessary, be used even without tool support. Important application fields of business process engineering are described, where the spectrum ranges from business process reengineering to the development and implementation of information systems. The book concludes with an outlook on the future of business process engineering and highlights current research activities in the area.

Due December 2011

Handbook of Networks in Power Systems I

ISBN 978-3-642-23192-6

2012. X, 600 p. 147 illus., 87 in color. (Energy Systems) Hardcover

▶ € 169,95 | £153.00

▶ *€ (D) 181,85 | € (A) 186,94 | sFr 226,50

Bookstore Location

Mathematics

Fields of interests

Calculus of Variations and Optimal Control; Optimization; Operation Research/Decision Theory; Energy Technology

Target groups

Research

Product category

Handbook

Handbook of Networks in Power Systems I

A. Sorokin, University of Florida, Gainesville, FL, USA; S. Rebennack, Colorado School of Mines, Golden, CO, USA; P. M. Pardalos, University of Florida, Gainesville, FL, USA; N. A. Iliadis, EnerCoRD, Athens, Greece; M. V. Pereira, PSR, Rio de Janeiro, Brazil (Eds)

Features

- ▶ Provides a state-of-the-art overview in the field of networks in power systems
- ▶ Also for non-experts
- ▶ Covers all major fields in power systems networks

The Handbook of Networks in Power Systems has as an objective to include the state-of-the-art developments that occurred in the power systems network, in particular gas, electricity, liquid fuels, freight network and network interactions. It is separated into six sections with different subjects where one scientific paper or more, depending on the importance is included. Each subject is identified following the activity on the domain and the recognition of each subject as an area of research. The scientific papers are authored by a world specialist on the domain. Preliminary.

Due December 2011

Handbook of Networks in Power Systems II

ISBN 978-3-642-23405-7

2012. X, 580 p. 46 illus., 5 in color. (Energy Systems) (In 2 volumes, not available separately) Hardcover

► € 169,95 | £153.00

► *€ (D) 181,85 | € (A) 186,94 | sFr 226,50

Bookstore Location

Mathematics

Fields of interests

Calculus of Variations and Optimal Control; Optimization; Operation Research/Decision Theory; Energy Technology

Target groups

Research

Product category

Handbook

Handbook of Networks in Power Systems II

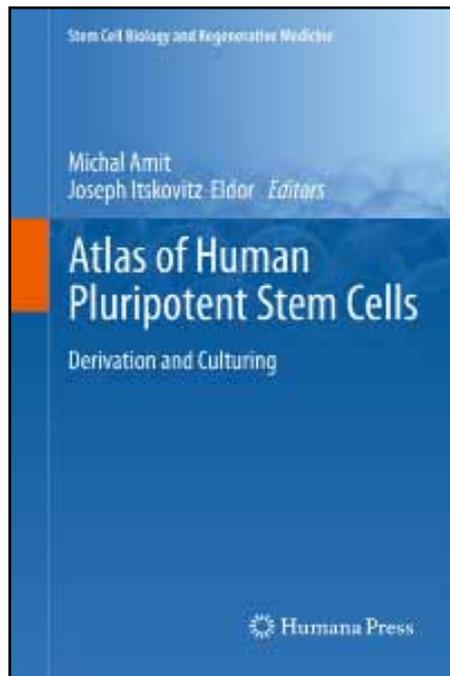
A. Sorokin, University of Florida, Gainesville, FL, USA; S. Rebennack, Colorado School of Mines, Golden, CO, USA; P. M. Pardalos, University of Florida, Gainesville, FL, USA; N. A. Iliadis, EnerCoRD, Athens, Greece; M. V. Pereira, PSR, Rio de Janeiro, Brazil (Eds)

Features

- Covers all major topics in power systems networks
- Contains a collection of state-of-the-art review articles
- Includes topics like natural gas, electricity, liquid fuels, freight and network interactions

The Handbook of Networks in Power Systems has as an objective to include the state-of-the-art developments that occurred in the power systems network, in particular gas, electricity, liquid fuels, freight network and network interactions. It is separated into six sections with different subjects where one scientific paper or more, depending on the importance is included. Each subject is identified following the activity on the domain and the recognition of each subject as an area of research. The scientific papers are authored by a world specialist on the domain. See Volume 1.

Due December 2011



ISBN 978-1-61779-547-3
2012. XIV, 142 p. 105 illus., 88 in color. (Stem Cell Biology and Regenerative Medicine)
Hardcover
▶ € 99,95 | £90.00
▶ *€ (D) 106,95 | € (A) 109,95 | sFr 133,50

Bookstore Location

Life Sciences

Fields of interests

Biological Microscopy; Stem Cells; Cell Biology

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press

Atlas of Human Pluripotent Stem Cells Derivation and Culturing

M. Amit, J. Itskovitz-Eldor, Technion – Israel Institute of Technology, Haifa, Israel (Eds)

Features

- ▶ Provides up-to-date techniques in the field of embryonic and induced pluripotent stem cells
- ▶ Commences with practical aspects of the derivation and growth of human embryonic stem cells from inner cell mass blastocyst stage embryos
- ▶ Describes the principles of karyotyping and fluorescent in situ hybridization (FISH) methods in the field of pluripotent stem cells

Human pluripotent stem cells, including human embryonic stem cells and induced pluripotent stem cells, are a key focus of current biomedical research. The emergence of state of the art culturing techniques is promoting the realization of the full potential of pluripotent stem cells in basic and translational research and in cell-based therapies. This comprehensive and authoritative atlas summarizes more than a decade of experience accumulated by a leading research team in this field. Hands-on step-by-step guidance for the derivation and culturing of human pluripotent stem cells in defined conditions (animal product-free, serum-free, feeder-free) and in non-adhesion suspension culture are provided, as well as methods for examining pluripotency (embryoid body and teratoma formation) and karyotype stability. The Atlas of Human Pluripotent Stem Cells - Derivation and Culturing will serve as a reference and guide to established researchers and those wishing to enter the promising field of pluripotent stem cells.

Due December 2011

Fruit Breeding

ISBN 978-1-4419-0762-2

2012. XV, 825 p. 83 illus., 41 in color.

(Handbook of Plant Breeding, Volume 8)

Hardcover

► approx. € 179,95 | £159.50

► approx. *€ (D) 192,55 | € (A) 197,94 |

sFr 236,00

Bookstore Location

Life Sciences

Fields of interests

Plant Genetics & Genomics; Plant Sciences;

Agriculture

Target groups

Research

Product category

Contributed volume

Fruit Breeding

M. L. Badenes, Instituto Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain;

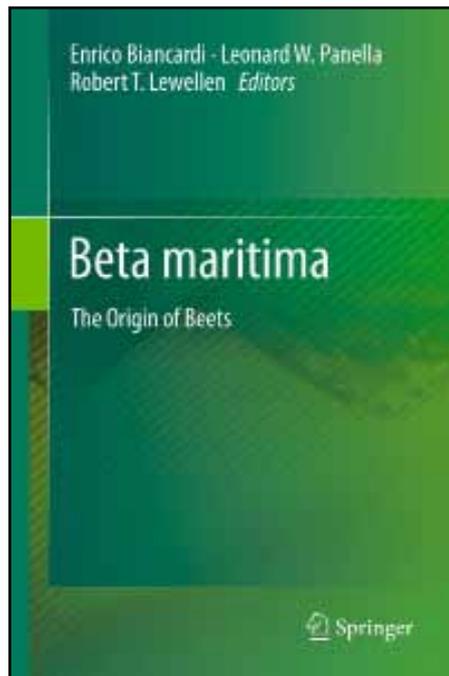
D. H. Byrne, Texas A&M University, College Station, TX, USA (Eds)

Features

- Presents the latest scientific information in applied plant breeding
- Features the current advances in the field, from an efficient use of genetic resources to the impact of biotechnology in plant breeding
- Illustrated with both detailed line drawings and color photos

Fruit Breeding is the eighth volume in the Handbook of Plant Breeding series. Like the other volumes in the series, this volume presents information on the latest scientific information in applied plant breeding using the current advances in the field, from an efficient use of genetic resources to the impact of biotechnology in plant breeding. The majority of the volume showcases individual crops, complemented by sections dealing with important aspects of fruit breeding as trends, marketing and protection of new varieties, health benefits of fruits and new crops in the horizon. The book also features contributions from outstanding scientists for each crop species. Maria Luisa Badenes Instituto Valenciano de Investigaciones Agrarias (IVIA), Valencia, Spain David Byrne Department of Horticultural Sciences, Texas A&M University, College Station, TX, USA

Due December 2011



ISBN 978-1-4614-0841-3

2012. XVIII, 312 p. 126 illus., 81 in color.

Hardcover

► € 149,95 | £135.00

► *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Life Sciences

Fields of interests

Plant Sciences; Plant Breeding/Biotechnology;

Plant Anatomy/Development

Target groups

Research

Product category

Monograph

Beta maritima

The Origin of Beets

E. Biancardi, Consiglio per la Ricerca e la Sperimentazione in Agricoltura, Rovigo, Italy;

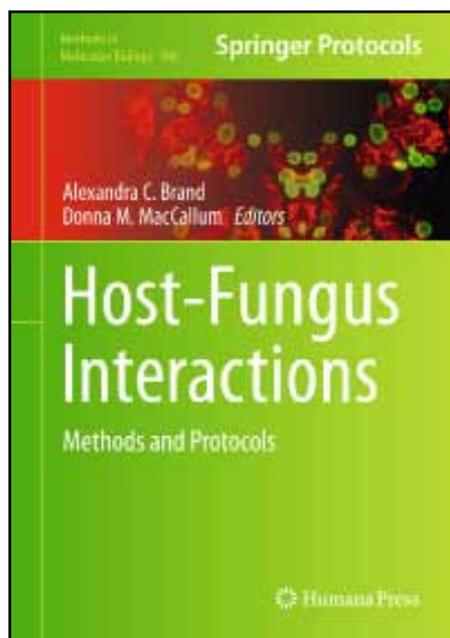
L. W. Panella, USDA-ARS, Fort Collins, CO, USA; R. T. Lewellen, USDA-ARS, Salinas, CA, USA

Features

- **Narrative experiences of researchers that have investigated the sea beet populations around the world and worked with the wild plant**
- **One-of-a-kind text entirely devoted to sea beet**
- **Illustrated with both detailed line drawings and color photos**

Along the undisturbed shores, especially of the Mediterranean Sea and the European North Atlantic Ocean, is a quite widespread plant called *Beta maritima* by botanists, or more commonly sea beet. Nothing, for the inexperienced observer's eye, distinguishes it from surrounding wild vegetation. Despite its inconspicuous and nearly invisible flowers, the plant has had and will have invaluable economic and scientific importance. Indeed, according to Linnè, it is considered „the progenitor of the beet crops possibly born from *Beta maritima* in some foreign country“. Recent molecular research confirmed this lineage. Selection applied after domestication has created many cultivated types with different destinations. The wild plant always has been harvested and used both for food and as a medicinal herb. Sea beet crosses easily with the cultivated types. This facilitates the transmission of genetic traits lost during domestication, which selection processes aimed only at features immediately useful to farmers and consumers may have depleted. Indeed, as with several crop wild relatives, *Beta maritima* has been successfully used to improve cultivated beet's genetic resistances against many diseases and pests. In fact, sugar beet cultivation currently would be impossible in many countries without the recovery of traits preserved in the wild germplasm. Dr. Enrico Biancardi graduated from Bologna University. From 1977 until 2009, he was involved in sugar beet breeding activity by the Istituto Sperimentale per le Colture Industriali (ISCI) formerly Stazione Sperimentale di Bieticoltura (Rovigo, Italy), where he released rhizomania and cercospora resistant germplasm and collected seeds of Mediterranean sea beet populations as a genetic resource for breeding and ex situ conservation. Retired since 2009, he still collaborates with several working breeders, in particular, at the USDA Agricultural Research Stations, at the Chinese Academy of Agricultural Science (CAAS), and at the Athens University (AUA). He has edited books, books chapters and authored more than 150 papers. Dr. Lee Panella is a plant breeder and geneticist with the USDA-ARS at Fort Collins, Colorado. He earned his B.S. in Crop and Soil Science from Michigan State University, an M.S. in Plant Breeding from Texas A&M University, and a Ph.D. in genetics from the University of California at Davis. His research focus is developing disease resistant germplasm using sugar beet wild relatives. He is chairman of the USDA-ARS Sugar Beet Crop Germplasm Committee and has collected and worked extensively with sea beet. Dr. Robert T. Lewellen was raised on a ranch in Eastern Oregon and obtained a B.S. in Crop Science from Oregon State University followed by a Ph.D. from Montana State University in Genetics. From 1966 to 2008 he was a research geneticist for the USDA-ARS at Salinas, California, where he studied the genetics of sugar beet and as a plant breeder, often used sea beet as a genetic source to produce many pest and disease resistant sugar beet germplasm and parental lines, while authoring more than 100 publications.

Due January 2012



ISBN 978-1-61779-538-1
2012. XVII, 598 p. 104 illus., 34 in color.
(Methods in Molecular Biology,
Volume 845) Hardcover
▶ € 124,95 | £112.50
▶ *€ (D) 133,70 | € (A) 137,45 | sFr 166,50

Bookstore Location

Life Sciences

Fields of interests

Microbiology; Pathology; Laboratory
Medicine

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press

Host-Fungus Interactions Methods and Protocols

A. C. Brand, D. M. MacCallum, University of Aberdeen, UK (Eds)

Features

- ▶ Examines the culture and genetic manipulation of primary fungal pathogens as well as interactions in model systems
- ▶ Includes detailed, tested methods that are ready for the lab
- ▶ Features key tips and implementation advice necessary to achieve successful results

Microbiologists, medical mycologists, immunologists, and biochemists are increasingly working together to focus on the processes involved in the progression and treatment of fungal disease. Host-Fungus Interactions: Methods and Protocols is designed for research scientists who are involved in this work and interested in undertaking new or comparative studies of interactions between the mammalian host and clinically important fungal pathogens. Aiming to combine approaches for reverse genetics in pathogenic fungi with methods for their application in vitro and in vivo models of disease, the book includes methods for the culture and genetic manipulation of the primary fungal pathogens and the opportunistic pathogens, as well as methods for investigating host-fungus interactions in model systems. Written in the highly successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Comprehensive and practical, Host-Fungus Interactions: Methods and Protocols describes available molecular methods and fungal infection models in great detail in order to encourage researchers to try new approaches to investigating host-fungus interactions with added levels of confidence.

Due February 2012

Transgenic Plants

Methods and Protocols

ISBN 978-1-61779-557-2

2nd ed. 2012. X, 574 p. 96 illus., 53 in color.

(Methods in Molecular Biology,

Volume 847) Hardcover

▶ € 124,95 | £112.50

▶ *€ (D) 133,70 | € (A) 137,45 | sFr 166,50

Bookstore Location

Life Sciences

Fields of interests

Plant Sciences; Plant Genetics & Genomics;

Transgenics

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press**Transgenic Plants****Methods and Protocols**

J. M. Dunwell, A. C. Wetten, The University of Reading, UK (Eds)

Features

- ▶ Provides access to the most up-to-date improvements being made for the production and analysis of transgenic plants
- ▶ Provides step-by-step detail essential for reproducible results
- ▶ Contains key notes and implementation advice from the experts

In 2010 the global area of transgenic crops reached 148 million hectares, an 87-fold increase since 1996, making it the most rapidly adopted technology in the history of modern agriculture. In *Transgenic Plants: Methods and Protocols, Second Edition* expert researchers in the field provide key techniques to investigate production and analysis of transgenic plants. Focusing on selection and detection methods, transformation technology, gene targeting, silencing and directed mutation, metabolic engineering and pharming, the book encompasses protocols relating to major crops and model plants being used for genomic analysis. Written in the highly successful *Methods in Molecular Biology™* series format, the chapters include the kind of detailed description and implementation advice that is crucial for getting optimal results in the laboratory. Thorough and intuitive, *Transgenic Plants: Methods and Protocols, Second Edition* aids scientists in the continuous improvements being made for the production and analysis of transgenic plants.

Due January 2012

Statistical Human Genetics

Methods and Protocols

ISBN 978-1-61779-554-1

2012. XV, 538 p. 102 illus., 45 in color.

(Methods in Molecular Biology,

Volume 850) Hardcover

► € 124,95 | £112.50

► *€ (D) 133,70 | € (A) 137,45 | sFr 166,50

Bookstore Location

Life Sciences

Fields of interests

Animal Genetics and Genomics; Human

Genetics; Biostatistics

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press

Statistical Human Genetics

Methods and Protocols

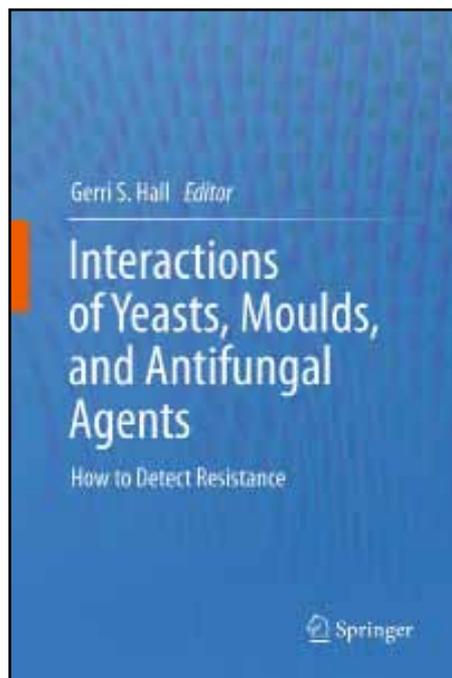
R. C. Elston, Case Western Reserve University, Cleveland, OH, USA; J. M. Satagopan, Memorial Sloan-Kettering Cancer Center, New York, NY, USA; S. Sun, Case Western Reserve University, Cleveland, OH, USA (Eds)

Features

- **Demonstrates methods in a wide variety of computer programs**
- **Provides step-by-step detail essential for reproducible results**
- **Contains key notes and implementation advice from the experts**

Recent advances in genetics over the last quarter of a century, especially in molecular techniques, have dramatically reduced the cost of determining genetic markers and hence opened up a field of research that is increasingly helping to detect, prevent and/or cure many diseases that afflict humans. In *Statistical Human Genetics: Methods and Protocols* expert researchers in the field describe statistical methods and computer programs in the detail necessary to make them more easily accessible to the beginner analyzing data. Written in the highly successful *Methods in Molecular Biology™* series format, with examples of running the programs and interpreting the program outputs, the chapters include the kind of detailed description and implementation advice that is crucial for getting optimal results from human genetic data collected in the laboratory. Thorough and as much as possible intuitive, *Statistical Human Genetics: Methods and Protocols* aids scientists in understanding the computer programs and analytical procedures they need to use.

Due December 2011



ISBN 978-1-58829-847-8

2012. XII, 138 p. 2 illus. in color. Hardcover

▶ € 99,95 | £90.00

▶ *€ (D) 106,95 | € (A) 109,95 | sFr 133,50

Bookstore Location

Life Sciences

Fields of interest

Microbiology

Target groups

Research

Product category

Contributed volume

 Humana Press

Interactions of Yeasts, Moulds, and Antifungal Agents How to Detect Resistance

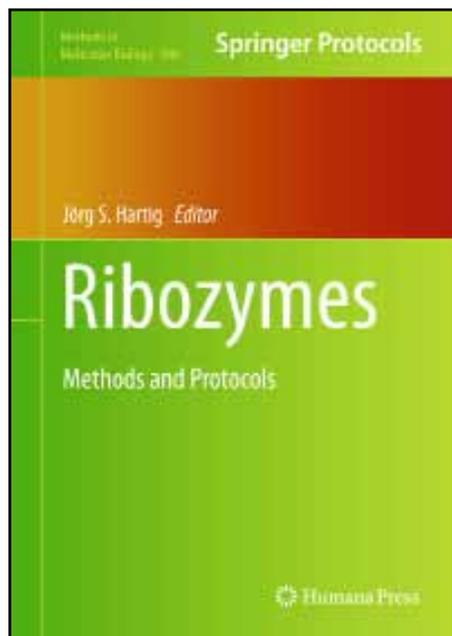
G. S. Hall, Cleveland Clinic Foundation, Cleveland, OH, USA (Ed.)

Features

- ▶ References about antifungal agents and how to test for their resistance and interpret results
- ▶ Standardized up-to-date methods for susceptibility testing
- ▶ Provides a clear overview of the basics

The incidence of fungal infections increases with the increase in antibiotic usage and increasing immunosuppressed populations. There is no longer only one antifungal agent and the response of fungi to various agents is not always predictable. The need for standardized antifungal susceptibility testing, and standardized interpretation of results in conjunction with studies that describe clinical outcomes based on those tools is ever important. *Interactions of Yeasts, Moulds, and Antifungal Agents: How to Detect Resistance* covers the available antifungal agents, how to perform in vitro testing and how those results should be interpreted for the most common fungal pathogens.

Due January 2012



ISBN 978-1-61779-544-2
2012. X, 537 p. 102 illus., 27 in color.
(Methods in Molecular Biology,
Volume 848) Hardcover
▶ € 109,95 | £99.00
▶ *€ (D) 117,65 | € (A) 120,95 | sFr 146,50

Bookstore Location

Life Sciences

Fields of interest

Biochemistry, general

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press

Ribozymes

Methods and Protocols

J. S. Hartig, University of Konstanz, Germany (Ed.)

Features

- ▶ Investigates mechanistic aspects of ribozymes catalysis
- ▶ Provides step-by-step detail essential for reproducible results
- ▶ Contains key notes and implementation advice from the experts

Over the past decade, there have been a variety of fundamental insights into ribozymes which have changed the perspective on RNA catalysis. In, *Ribozymes: Methods and Protocols*, researchers in the field detail many of the protocols and techniques which are now commonly used to study individual ribozymes and the characterization of ribozymes. Written in the highly successful *Methods in Molecular Biology™* series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, *Ribozymes: Methods and Protocols* seeks to aid scientists in further understanding the catalytically active RNAs.

Due February 2012

Stem Cell Transplantation

ISBN 978-1-4614-2097-2

2012. XXVI, 340 p. 48 illus., 17 in color.

(Advances in Experimental Medicine and Biology, Volume 741) Hardcover

► approx. € 154,95 | £139.50

► approx. *€ (D) 165,80 | € (A) 170,44 |

sFr 206,50

Bookstore Location

Life Sciences

Fields of interests

Stem Cells; Cancer Research

Target groups

Research

Product category

Contributed volume

Stem Cell Transplantation

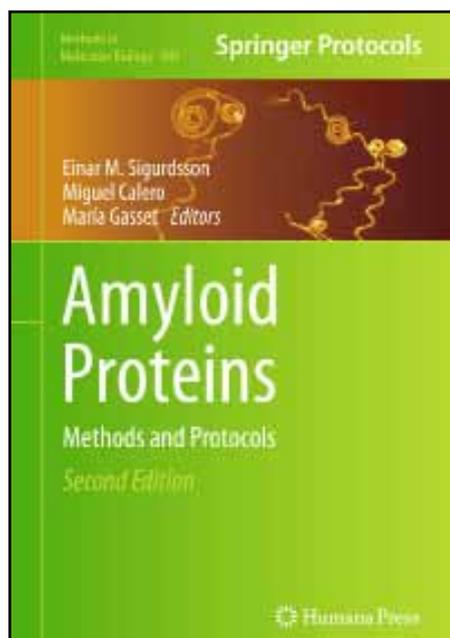
C. López-Larrea, A. López Vázquez, B. Suárez Álvarez, Hospital Universitario Central de Asturias, Oviedo, Spain (Eds)

Features

- **Focuses on the guidance cues and molecular pathways regulating HSC trafficking throughout the lifetime of the organism**
- **Summarizes some ongoing approaches of stem cell regenerative medicine**
- **Introduces recent findings from published studies and clinical trials**

Organ transplantation has been the most important therapeutic advance in the last third of the 20th century. Its development has revolutionized medicine, as demonstrated by the fact that a large number of researchers in this field have been awarded Nobel Prizes. In the beginning of this century, we are witnessing with great expectations the emergence of a new field of medicine related to the arrival of a new player on the scene: "stem cells" and their potential use in regenerative medicine. This volume aims to cover important aspects of the various facets of organ transplantation and regenerative medicine, with leading specialists in these fields setting out their vision. We try to rigorously explain current and novel scientific research in these fields—areas which arouse great interest from society in general, due to their potential use in modern medicine for the treatment of a great number of diseases.

Due January 2012



ISBN 978-1-61779-550-3
2nd ed. 2012. X, 650 p. 115 illus., 46 in color.
(Methods in Molecular Biology,
Volume 849) Hardcover
▶ € 124,95 | £112.50
▶ *€ (D) 133,70 | € (A) 137,45 | sFr 166,50

Bookstore Location

Life Sciences

Fields of interest

Protein Science

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press

Amyloid Proteins Methods and Protocols

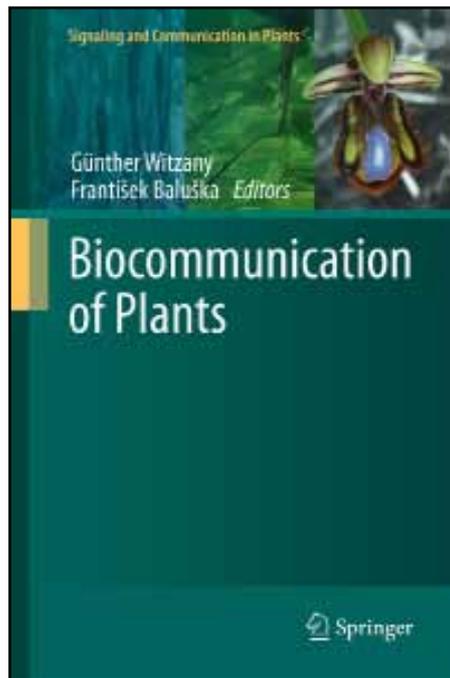
E. M. Sigurdsson, New York University School of Medicine, NY, USA; M. Calero, Instituto de Salud Carlos III, Madrid, Spain; M. Gasset, Consejo Superior de Investigaciones Cientificas, Madrid, Spain (Eds)

Features

- ▶ Detailed protocols for performing a particular procedure
- ▶ Provides step-by-step detail essential for reproducible results
- ▶ Contains key notes and implementation advice from the experts

Amyloid diseases are characterized by the deposition of insoluble fibrous amyloid proteins. The word “amyloid” indicates a starch-like compound, and though a misnomer, continues to be the accepted term for this group of protein conformational disorders. The second edition of Amyloid Proteins expands upon the previous edition with current, detailed protocols for the preparation of amyloid and its precursors, specific analytical methods for studying these proteins, cell culture models and assays for production of amyloid proteins, and protocols for amyloid extraction from tissue, its detection in vitro and in vivo, as well as nontransgenic methods for developing amyloid mouse models. Written in the highly successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, Amyloid Proteins, Second Edition seeks to aid scientists in the amyloid field to establish new techniques in their laboratories. Authoritative and practical, Amyloid Proteins, Second Edition seeks to aid scientists in the amyloid field to establish new techniques in their laboratories.

Due January 2012



ISBN 978-3-642-23523-8
2012. XV, 373 p. 27 illus., 15 in color.
(Signaling and Communication in Plants,
Volume 14) Hardcover
▶ € 149,95 | £135.00
▶ *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Life Sciences

Fields of interests

Plant Ecology; Plant Sciences; Plant
Biochemistry

Target groups

Research

Product category

Contributed volume

Biocommunication of Plants

G. Witzany, Telos, Bürmoos, Austria; F. Baluška, University of Bonn, Germany (Eds)

Features

- ▶ **This volume documents how plant ecosphere inhabitants communicate with each other to coordinate their behavioral patterns and shows the role of viruses in this highly dynamic interactional networks**
- ▶ **State-of-the-art contentstate-of-the-art contents**
- ▶ **Gives a modern approach**

Plants are sessile, highly sensitive organisms that actively compete for environmental resources both above and below the ground. They assess their surroundings, estimate how much energy they need for particular goals, and then realise the optimum variant. They take measures to control certain environmental resources. They perceive themselves and can distinguish between 'self' and 'non-self'. They process and evaluate information and then modify their behaviour accordingly. These highly diverse competences are made possible by parallel sign(aling)-mediated communication processes within the plant body (intraorganismic), between the same, related and different species (interorganismic), and between plants and non-plant organisms (transorganismic). Intraorganismic communication involves sign-mediated interactions within cells (intracellular) and between cells (intercellular). This is crucial in coordinating growth and development, shape and dynamics. Such communication must function both on the local level and between widely separated plant parts. This allows plants to coordinate appropriate response behaviours in a differentiated manner, depending on their current developmental status and physiological influences. Lastly, this volume documents how plant ecosphere inhabitants communicate with each other to coordinate their behavioural patterns, as well as the role of viruses in these highly dynamic interactional networks.

Due February 2012

Statistics Applied to Clinical Studies

ISBN 978-94-007-2862-2

5th ed. 2012. XXVI, 743 p. 178 illus., 44 in color. Hardcover

▶ approx. € 169,95 | £153.00

▶ approx. *€ (D) 181,85 | € (A) 186,94 | sFr 226,50

Bookstore Location

Biomedicine

Fields of interests

Biomedicine general; Laboratory Medicine; Statistics, general

Target groups

Research

Product category

Monograph

Statistics Applied to Clinical Studies

T. J. Cleophas, A. H. Zwinderman, European Interuniversity College Pharmaceutical Medicine, Lyon, France

Features

- ▶ **The authors have both medical and mathematical backgrounds**
- ▶ **Based on famous modules from the Socrates educational project**
- ▶ **Eudipharm of the EC Innovative because of its explanatory rather than mathematical approach**
- ▶ **Emphasizes non-classical but increasingly frequently used methods such as equivalence testing, interaction assessment and analysis of genetic data**
- ▶ **Not equivalent to any current textbook on statistics**

Thanks to the omnipresent computer, current statistics can include data files of many thousands of values, and can perform any exploratory analysis in less than seconds. This development, however fascinating, generally does not lead to simple results. We should not forget that clinical studies are, mostly, for confirming prior hypotheses based on sound arguments, and the simplest tests provide the best power and are adequate for such studies. In the past few years the authors of this 5th edition, as teachers and research supervisors in academic and top-clinical facilities, have been able to closely observe the latest developments in the field of clinical data analysis, and they have been able to assess their performance. In this 5th edition the 47 chapters of the previous edition have been maintained and upgraded according to the current state of the art, and 20 novel chapters have been added after strict selection of the most valuable and promising novel methods. The novel methods are explained using practical examples and step-by-step analyses readily accessible for non-mathematicians. All of the novel chapters have been internationally published by the authors in peer-reviewed journal, including the American Journal of Therapeutics, the European Journal of Clinical Investigation, The International journal of Clinical Pharmacology and therapeutics, and other journals, and permission is granted by all of them to use this material in the current book. We should add that the authors are well-qualified in their fields of knowledge. Professor Zwinderman is president-elect of the International Society of Biostatistics, and Professor Cleophas is past-president of the American College of Angiology. From their expertise they should be able to make adequate selections of modern methods for clinical data analysis for the benefit of physicians, students, and investigators. The authors, although from a different discipline, one clinician and one statistician, have been working and publishing together for over 10 years, and their research of statistical methodology can be characterized as a continued effort to demonstrate that statistics is not mathematics but rather a discipline at the interface of biology and mathematics. They firmly believe that any reader can benefit from this clinical approach to statistical data analysis.

Due January 2012

Neuronal Noise

ISBN 978-0-387-79019-0

2012. XVIII, 462 p. 203 illus., 1 in color.

(Springer Series in Computational Neuroscience, Volume 8) Hardcover

▶ € 149,95 | £135.00

▶ *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Biomedicine

Fields of interests

Neurosciences; Neurobiology

Target groups

Research

Product category

Monograph

Neuronal Noise

A. Destexhe, M. Rudolph-Lilith, CNRS, Gif sur Yvette, France

Features

- ▶ **Neuronal Noise combines experimental, theoretical and computational results to show how noise is inherent to neuronal activity**
- ▶ **The book covers many aspects of noise in neurons, with an emphasis on the largest source of noise: synaptic noise**
- ▶ **Provides students and young researchers with an overview of the important methods and concepts that have emerged from research in this area**
- ▶ **The book covers many aspects of noise in neurons, with an emphasis on the largest source of noise: synaptic noise**
- ▶ **Provides students and young researchers with an overview of the important methods and concepts that have emerged from research in this area**
- ▶ **Provides students and young researchers with an overview of the important methods and concepts that have emerged from research in this area**

Neuronal Noise combines experimental, theoretical and computational results to show how noise is inherent to neuronal activity, and how noise can be important for neuronal computations. The book covers many aspects of noise in neurons, with an emphasis on the largest source of noise: synaptic noise. It provides students and young researchers with an overview of the important methods and concepts that have emerged from research in this area. It also provides the specialist with a summary of the large body of sometimes contrasting experimental data, and different theories proposed to explore the computational power that various forms of „noise“ can confer to neurons.

Due February 2012

Store-operated Ca²⁺ entry (SOCE) pathways

Emerging signaling concepts in human (patho)physiology

ISBN 978-3-7091-0961-8

2012. XII, 500 p. 56 illus., 32 in color.

With online files/update. Hardcover

▶ € 149,95 | £135.00

▶ *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Biomedicine

Fields of interests

Molecular Medicine; Cell Biology; Human Physiology

Target groups

Research

Product category

Contributed volume

 SpringerWienNewYork

Store-operated Ca²⁺ entry (SOCE) pathways

Emerging signaling concepts in human (patho)physiology

K. Groschner, Karl Frazens University, Graz, Austria; W. F. Graier, Medical University, Graz, Austria; C. Romanin, Linz, Austria (Eds)

Features

- ▶ Provides insight into the recent advances that emerged in the field
- ▶ Comprehensive and elaborate overview on a timely topic of cellular signaling
- ▶ Shows clear and concise illustrations that outline the key scientific concepts of SOCE Reviews critically the mechanistic hypothesis and novel therapeutic concepts of SOCE Provides an interdisciplinary approach
- ▶ Combines basic research with clinical aspects

Store-operated Ca²⁺ entry (SOCE) serves to control essential functions throughout the human body and represents a novel and attractive target for therapeutic intervention. This book provides an extensive overview of the role of SOCE pathways in Molecular Physiology and Cell Biology, as well as their clinical significance. (Patho)physiological principles and emerging therapeutic strategies are delineated in a way that is valuable both for the education of graduate students in advanced Cell Biology/Molecular Physiology and for the promotion of innovative research and developments in the clinical/therapeutic fields. A comprehensive, clear and elaborate representation of current concepts is provided, including a pathophysiological section arranged in a tissue/organ/system-oriented manner. The book is intended for basic researchers specializing in cell signaling, ion transport, or pharmacology, as well as biomedical scientists and clinicians with a focus on immunology, neurology or cardiology.

Due February 2012

Stem Cells and Cancer Stem Cells, Volume 4

Therapeutic Applications in Disease and Injury

ISBN 978-94-007-2827-1

2012. XII, 366 p. 44 illus., 32 in color. (Stem Cells and Cancer Stem Cells, Volume 4)

Hardcover

▶ € 149,95 | £135.00

▶ *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Biomedicine

Fields of interests

Cancer Research; Oncology; Stem Cells

Target groups

Research

Product category

Contributed volume

**Stem Cells and Cancer Stem Cells, Volume 4
Therapeutic Applications in Disease and Injury**

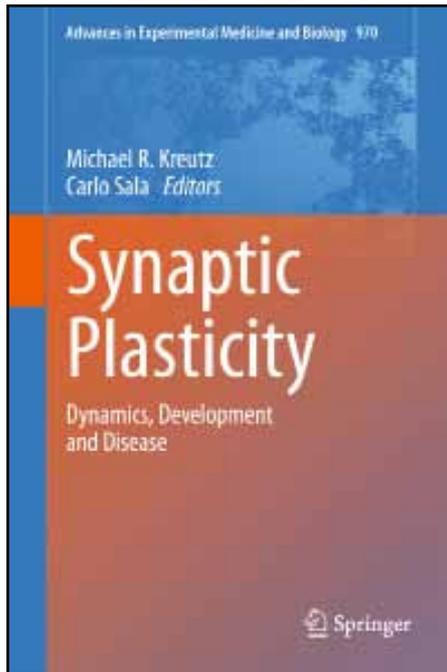
M. Hayat, Kean University, NJ, USA (Ed.)

Features

- ▶ **Tissue engineering is explained in detail**
- ▶ **Role of regenerative medicine in therapy**
- ▶ **Stem cell transplantation to heal tissue injury**
- ▶ **Target medicine Translational medicine**
- ▶ **Role of cancer stem cells in disease such as breast cancer**

Vast therapeutic applications of the following specific stem cells in disease and tissue injury are discussed: embryonic stem cells, induced pluripotent stem cells, human hair follicular stem cells, bone marrow-derived human mesenchymal stem cells, adipose-derived stem cells, periodontal/progenitor cells, cancer stem cells, and breast cancer stem cells. Because human embryonic stem cells possess the potential to produce unlimited quantities of any human cell type, considerable focus is placed on this type of stem cells in this volume. Role of cancer stem cells, specifically in breast cancer is explained. Transplantation of mesenchymal stem cells to aid the injured brain is included. Immune recovery after stem cells transplantation in severe combined immunodeficiency patients is described. Role of mesenchymal stem cells in enhancing the growth and metastasis of colon cancer is discussed. Clinical application of human follicular stem cells as marker is discussed. The impact of cancer stem cell hypothesis on designing new cancer therapies is explained. In the field of regenerative medicine, the use of stem cells in the repair of the central nervous system, tendon injury, and as a cardiac regenerative medicine is described. The role of DNA methylation in maintaining stemness induced pluripotent stem cells from human extraembryonic amnion cells is discussed. Insights on the understanding of molecular pathways involved in tumor biology are explained, which lead to the development of effective drugs. Information on pathways, such as hedgehog, facilitates targeted therapies in cancer.

Due February 2012



ISBN 978-3-7091-0931-1
2012. 600 p. 120 illus., 20 in color.
(Advances in Experimental Medicine and
Biology, Volume 970) Hardcover
▶ € 169,95 | £153.00
▶ *€ (D) 181,85 | € (A) 186,94 | sFr 226,50

Bookstore Location
Biomedicine

Fields of interests
Neurosciences; Neurology; Neurobiology

Target groups
Research

Product category
Contributed volume

 SpringerWienNewYork

Synaptic Plasticity Dynamics, Development and Disease

M. R. Kreutz, Leibniz Institute for Neurobiology, Magdeburg, Germany; C. Sala, Consiglio Nazionale delle Ricerche, Milano, Italy (Eds)

Features

- ▶ Covers all aspects of molecular and cellular neurosciences regarding synaptic plasticity
- ▶ With strong emphasis on synaptopathies
- ▶ Includes cutting edge optical, genetic and proteomic tools and their application
- ▶ Describes recent aspects of synaptic plasticity like retrograde transsynaptic signaling, trafficking, homeostatic plasticity and systems biology

This book introduces the current concepts of molecular mechanisms in synaptic plasticity and provides a comprehensive overview of cutting-edge research technology used to investigate the molecular dynamics of the synapses. It explores current concepts on activity-dependent remodeling of the synaptic cytoskeleton and presents the latest ideas on the different forms of plasticity in synapses and dendrites. Synaptic Plasticity in Health and Disease not only supplies readers with extensive knowledge on the latest developments in research, but also with important information on clinical and applied aspects. Changes in spine synapses in different brain disease states, so-called synaptopathies, are explained and described by experts in the field. By outlining basic research findings as well as physiological and pathophysiological impacts on synaptic plasticity, the book represents an essential state-of-the-art work for scientists in the fields of biochemistry, molecular biology and the neurosciences, as well as for doctors in neurology and psychiatry alike.

Due August 2012

Neuroscience in the 21st Century

Basic and Clinical

Bookstore Location

Biomedicine

Fields of interests

Neurosciences; Neurobiology; Neurology

Target groups

Research

Product category

Graduate/Advanced undergraduate textbook

SPRINGER
REFERENCE**Neuroscience in the 21st Century****Basic and Clinical**

D. W. Pfaff, Rockefeller University, New York, NY, USA (Ed.)

Features

- ▶ Offers medical students and graduate researchers around the world a comprehensive introduction and overview of modern neuroscience
- ▶ Aims to encourage the initiation of neuroscience programs in developing countries
- ▶ Edited and authored by a wealth of international experts in neuroscience and related disciplines

Neuroscience in the 21st Century is intended to be the most comprehensive print + online tutorial in neuroscience ever written. Under the editorial direction of the world's leading neuroscientists, and with thorough coverage of both basic and clinical areas (including significant illustration and multimedia content), it will be used as a tutorial and reference by both students and researchers in neuroscience, neurology, and related fields. Its scope will dwarf the two current major neuroscience textbooks in print, and its wide accessibility and ease-of-use in an online format could easily make it a go-to source for information. Since it is intended to be a tutorial, organized by subject, it should not directly compete with our current Encyclopedia of Neuroscience.

Print

2012. 1200 p. (In 2 volumes, not available separately)

ISBN 978-1-4614-1996-9

▶ € 499,00 | £449.50

▶ *€ (D) 533,93 | € (A) 548,90 | sFr 664,50

eReference

2012. 1200 p.

ISBN 978-1-4614-1997-6

▶ € 499,00 | £449.50

▶ **€ (D) 593,81 | € (A) 598,80 | sFr 698,00

Print + eReference

2012. 1200 p. (In 2 volumes, not available separately)

ISBN 978-1-4614-1998-3

▶ € 624,00 | £562.00

▶ *€ (D) 667,68 | € (A) 686,40 | sFr 831,00

Due January 2012

Non-fibrillar Amyloidogenic Protein Assemblies - Common Cytotoxins Underlying Degenerative Diseases

ISBN 978-94-007-2773-1

2012. XVII, 593 p. 81 illus., 37 in color.

Hardcover

▶ € 149,95 | £135.00

▶ *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Life Sciences

Fields of interests

Biomedicine general; Protein Science; Protein Structure

Target groups

Research

Product category

Contributed volume

Non-fibrillar Amyloidogenic Protein Assemblies - Common Cytotoxins Underlying Degenerative Diseases

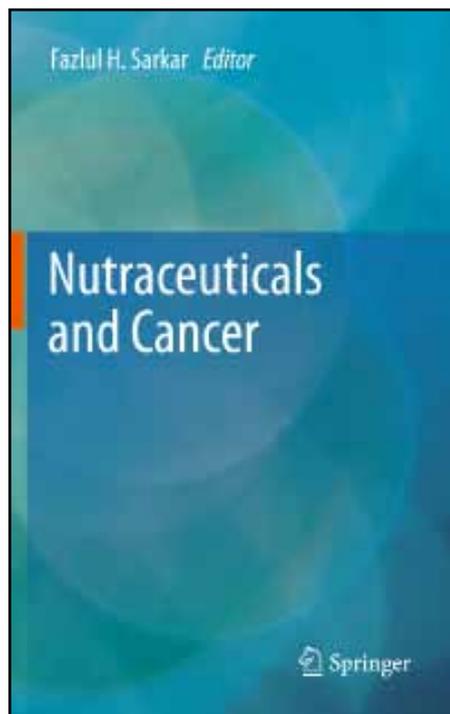
F. Rahimi, Australian National University, Canberra, ACT, Australia; G. Bitan, University of California at Los Angeles, CA, USA (Eds)

Features

- ▶ **An up-to-date review of protein-misfolding diseases which will serve as a complete reference point for readers**
- ▶ **Up-to-date chapters that discuss different diseases associated with protein misfolding and neurodegeneration**
- ▶ **A good reference collection for a broad spectrum of readers**

Amyloid-forming proteins are implicated in over 30 human diseases. The proteins involved in each disease have unrelated sequences and dissimilar native structures, but they all undergo conformational alterations to form fibrillar polymers. The fibrillar assemblies accumulate progressively into disease-specific lesions in vivo. Substantial evidence suggests these lesions are the end state of aberrant protein folding whereas the actual disease-causing culprits likely are soluble, non-fibrillar assemblies preceding the aggregates. The non-fibrillar protein assemblies range from small, low-order oligomers to spherical, annular, and protofibrillar species. Oligomeric species are believed to mediate various pathogenic mechanisms that lead to cellular dysfunction, cytotoxicity, and cell loss, eventuating in disease-specific degeneration and systemic morbidity. The particular pathologies thus are determined by the afflicted cell types, organs, systems, and the proteins involved. Evidence suggests that the oligomeric species may share structural features and possibly common mechanisms of action. In many cases, the structure–function interrelationships amongst the various protein assemblies described in vitro are still elusive. Deciphering these intricate structure–function correlations will help understanding a complex array of pathogenic mechanisms, some of which may be common across different diseases albeit affecting different cell types and systems.

Due December 2011



ISBN 978-94-007-2629-1

2012. VI, 398 p. 19 illus. in color. Hardcover

► € 149,95 | £135.00

► *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

Bookstore Location

Biomedicine

Fields of interests

Biomedicine general; Cancer Research;

Nutrition

Target groups

Research

Product category

Contributed volume

Nutraceuticals and Cancer

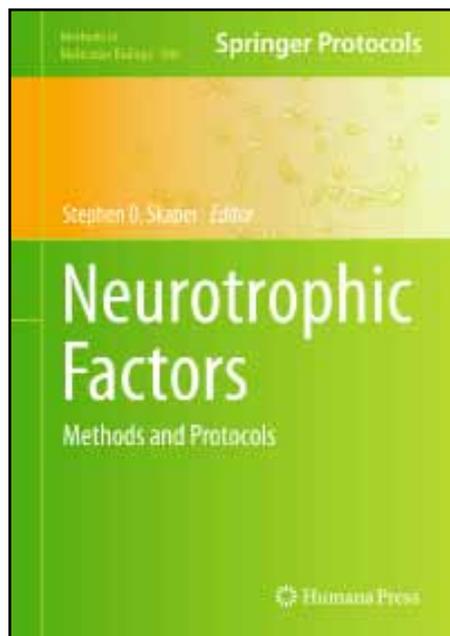
F. H. Sarkar, Wayne State University, Detroit, MI, USA (Ed.)

Features

- **Nutraceuticals and Cancer Therapy**
- **Targeted and Adjuvant Therapy**
- **Approach reducing systemic toxicity**

This book is about Nutraceuticals in cancer therapy, specifically targeted and Adjuvant therapy. It shows several approaches for possibly reducing systemic toxicity. This book illustrates the role of several dietary agents, collectively called nutraceuticals or natural agents in the prevention and/or treatment of human malignancies known to be mediated through alterations in multiple molecular targets. This book contains sixteen chapters which begin with historical perspective on the value of natural agents in the prevention of human malignancies followed by a series of current topics on multiple nutraceuticals targeting multiple cancers. This collection would likely be useful for bringing newer generations with broader perspectives in launching cutting-edge innovative molecular research, which would certainly help in designing targeted clinical trials in order to realize the dream of customize strategies for the prevention and/or treatment of human malignancies without causing any systemic toxicity. Moreover, the knowledge gained would allow novel utilization of nutraceuticals as adjunct to both conventional chemotherapy and radiation therapy in order to improve the overall quality of life and survival of patients diagnosed with cancers.

Due January 2012



ISBN 978-1-61779-535-0
2012. XV, 474 p. 69 illus., 26 in color.
(Methods in Molecular Biology,
Volume 846) Hardcover
▶ € 109,95 | £99.00
▶ *€ (D) 117,65 | € (A) 120,95 | sFr 146,50

Bookstore Location
Biomedicine

Fields of interests
Neurosciences; Neurobiology;
Neurochemistry

Target groups
Professional/practitioner

Product category
Contributed volume

 Humana Press

Neurotrophic Factors Methods and Protocols

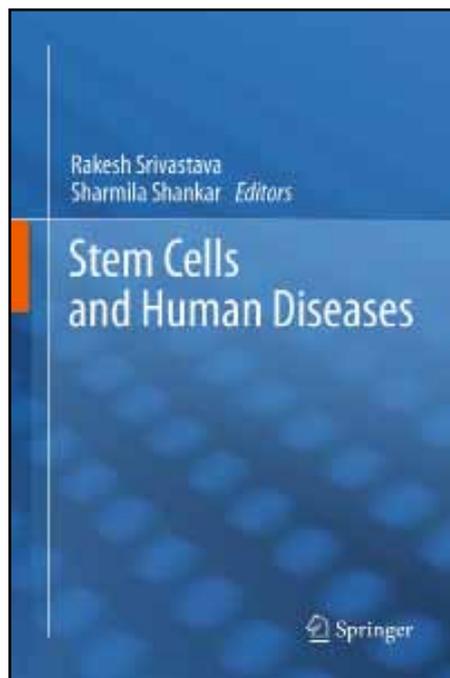
S. D. Skaper, University of Padova, Italy (Ed.)

Features

- ▶ Includes cutting-edge methods and protocols
- ▶ Provides step-by-step detail essential for reproducible results
- ▶ Contains key notes and implementation advice from the experts

Nervous system development evolves from the well-orchestrated processes of neural induction, cell proliferation, differentiation, cell migration, survival, and synapse formation. Among these environmental cues, neurotrophic factors are secreted proteins that promote neurite outgrowth, neuronal cell differentiation and survival both in vivo and in vitro. Nerve growth factor (NGF) is the founding and best characterized member of the neurotrophin family of neurotrophic polypeptides. Neurotrophic Factors: Methods and Protocols presents a selection of protocols and procedures which make use of cellular, tissue, and whole animal models which can be applied to the investigation of neurotrophic factors and other agents impacting on these systems. Chapters cover a wide-range of topics such as dealing with the culture of neurons and glia from the central and peripheral nervous systems, neuron-glia co-culture models, and cell-based assays for the evaluation of neuroprotective molecules, as well as assays which can be applied to the study of agents with neuroregenerative potential. Protocols describing viral- and nanoparticle-based delivery methods to neural cells are also presented, following by chapters dealing with organotypic slice culture protocols. Lastly, several chapters are dedicated to in vivo lesion models of relevance to nervous system pathology, which can be applied to the investigation of neurotrophic factors and peptides. Written in the successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and avoiding known pitfalls. Authoritative and easily accessible, Neurotrophic Factors: Methods and Protocols seeks to serve both professionals and novices alike with its well-honed methodologies in an effort to further our knowledge of what has been described as the last frontier of science.

Due January 2012



ISBN 978-94-007-2800-4
2012. DCCXIII, 13 p. 64 illus., 52 in color.
Hardcover
▶ € 199,95 | £180.00
▶ *€ (D) 213,95 | € (A) 219,94 | sFr 266,50

Bookstore Location

Biomedicine

Fields of interests

Biomedicine general; Literacy; Medicine/
Public Health, general

Target groups

Research

Product category

Contributed volume

Stem Cells and Human Diseases

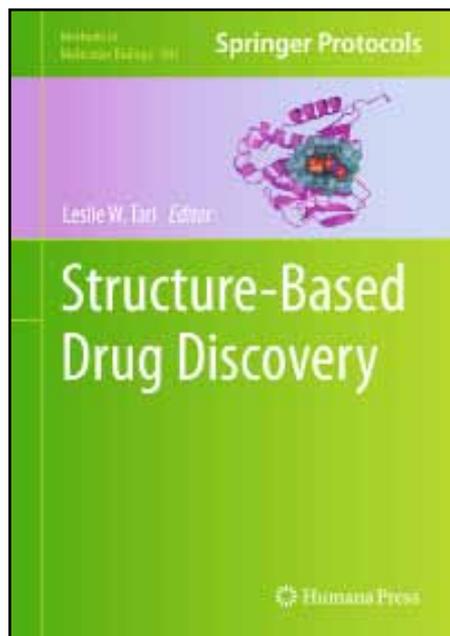
R. Srivastava, S. Shankar, University of Kansas Medical Center, Kansas City, KS, USA (Eds)

Features

- ▶ Mechanisms by which stem cell regulate cellular function and normal organ development
- ▶ Mechanisms by which cancer stem cells regulate cancer initiation and progression
- ▶ Role of cancer stem cells in drug resistance
- ▶ Signaling pathways regulating self-renewal capacity of normal stem cells and cancer stem cells
- ▶ Development of novel drugs to target cancer stem cells
- ▶ Role of microRNA and genes in stem cells and cancer stem cells
- ▶ Genetic and proteomic profiling in stem cells

The main objective of this book is to provide a comprehensive review on stem cells and their role in tissue regeneration, homeostasis and therapy. In addition, the role of cancer stem cells in cancer initiation, progression and drug resistance are discussed. The cell signaling pathways and microRNA regulating stem cell self-renewal, tissue homeostasis and drug resistance are also mentioned. Overall, these reviews will provide a new understanding of the influence of stem cells in tissue regeneration, disease regulation, therapy and drug resistance in several human diseases.

Due January 2012



ISBN 978-1-61779-519-0
2012. X, 454 p. 129 illus., 17 in color.
(Methods in Molecular Biology,
Volume 841) Hardcover
▶ € 109,95 | £99.00
▶ *€ (D) 117,65 | € (A) 120,95 | sFr 146,50

Bookstore Location

Biomedicine

Fields of interestsPharmacology/Toxicology; Medicinal
Chemistry**Target groups**

Professional/practitioner

Product category

Contributed volume

 Humana Press**Structure-Based Drug Discovery**

L. W. Tari, Trius Therapeutics, San Diego, CA, USA (Ed.)

Features

- ▶ Includes cutting-edge methods and protocols
- ▶ Provides step-by-step detail essential for reproducible results
- ▶ Contains key notes and implementation advice from the experts

The last decade has seen the confluence of several enabling technologies that have allowed protein crystallographic methods to live up to their true potential. Taken together, the numerous recent advances have made it possible to tackle difficult biological targets with a high probability of success: intact bacterial ribosomes have been structurally elucidated, as well as eukaryotic trans-membrane proteins like the potassium channel and GPCRs. It is now possible for medicinal chemists to have access to structural information on their latest small molecule candidates bound to the therapeutic target within days of compound synthesis, allowing structure guided ligand optimization to occur in „real time“. Structure-Based Drug Discovery presents an array of methods used to generate crystal structures of biological macromolecules, how to leverage the structural information to design novel ligands anew, and how to iteratively optimize hits and convert them to leads. Written in the successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and avoiding known pitfalls. Authoritative and easily accessible, Structure-Based Drug Discovery aims to provide scientists interested in adding SBDD to their arsenal of drug discovery methods with well-honed, up-to-date methodologies.

Due June 2012

Drug Discovery and Evaluation: Safety and Pharmacokinetic Assays**Bookstore Location**
Biomedicine**Fields of interest**
Pharmacology/Toxicology**Target groups**
Research**Product category**
HandbookSPRINGER
REFERENCE**Drug Discovery and Evaluation: Safety and Pharmacokinetic Assays**

H. G. Vogel, J. Maas, Aventis Pharma, Frankfurt, Germany; F. J. Hock, Dieburg, Germany; D. Mayer, Idstein, Germany (Eds)

Features

- ▶ **A landmark in the continuously changing world of drugs**
- ▶ **Essential reading for scientists and managers in the pharmaceutical industry involved in drug finding, drug development and decision making in the development process**
- ▶ **Of use for government institutions and committees working on official guidelines for drug evaluation worldwide**

Safety aspects have become an outstanding issue in the process of drug discovery and development. Until 15 years ago safety aspects were addressed by pharmacological testing of the selected compound in high doses in tests directed at indications other than the intended indication of the new compound. These tests were followed by pharmacokinetic studies, which were mainly aimed at confirming of a suitable half-life time and at oral activity. Safety aspects relied mostly on toxicity studies, which however gave information on changes of organ structure rather than on organ function. Toxicological and pharmacokinetic studies were adapted to the progress of studies in clinical pharmacology and clinical trials. But the success rate in the pharmaceutical industry and the introduction of new chemical entities to the market per year dropped dramatically, whereas the development time for a new compound increased, sometimes exceeding the patent protection. A change of strategy was therefore adopted, involving the following changes: - Parallel instead of sequential involvement of the various disciplines (multidimensional compound optimization). - The term „Safety Pharmacology“ was coined. The International Conference on Harmonization (ICH) founded a Safety Pharmacology Working Group. Easily accessible and the most informative tests now have to be selected. - Exposure of a drug to the body by pharmacokinetic studies on absorption, distribution, metabolism and excretion has to be investigated at an early stage of development and can contribute to the selection of a compound for development. Toxicology experienced major achievements by the introduction of new methods, e.g., in silico methods, toxicogenomics and toxicoproteomics. The book is a landmark in the continuously changing world of drugs. As such it is important reading for many groups: not only for all students of pharmacology and toxicology but also for physicians, especially those involved in clinical trials of drugs, and for pharmacists who have to know the safety requirements of drugs. The book is absolutely essential for scientists and managers in the pharmaceutical industry who are involved in drug finding, drug development and decision making in the development process. In particular, the book will be of use for government institutions and committees working on official guidelines for drug evaluation worldwide.

Print

2nd ed. 2012. 1000 p. (In 2 volumes, not available separately)
ISBN 978-3-642-25239-6
▶ approx. € 499,00 | £449.50
▶ approx. *€ (D) 533,93 | € (A) 548,90 | sFr 664,50

eReference

2nd ed. 2012.
ISBN 978-3-642-25240-2
▶ approx. € 499,00 | £449.50
▶ approx. **€ (D) 593,81 | € (A) 598,80 | sFr 698,00

Print + eReference

2nd ed. 2012. 1000 p. (In 2 volumes, not available separately)
ISBN 978-3-642-25241-9
▶ approx. € 624,00 | £562.00
▶ approx. *€ (D) 667,68 | € (A) 686,40 | sFr 831,00

Due March 2012

Combined Scintigraphic and Radiographic Diagnosis of Bone and Joint Diseases
Including Gamma Correction Interpretation

ISBN 978-3-642-25143-6
4th Edition 2012. 550 p. 800 illus., 100 in color. Hardcover
▶ approx. € 249,00 | £224.50
▶ approx. *€ (D) 266,43 | € (A) 273,90 | sFr 331,50

Bookstore Location
Medicine

Fields of interests
Imaging / Radiology; Nuclear Medicine; Oncology

Target groups
Professional/practitioner

Product category
Professional book

Combined Scintigraphic and Radiographic Diagnosis of Bone and Joint Diseases

Including Gamma Correction Interpretation

Y.-W. Bahk, Sung Ae General Hospital, Seoul, Korea

Features

- ▶ **New, updated and revised edition that covers important additional topics**
- ▶ **Examines in detail the novel diagnostic use of gamma correction pinhole bone scan in a broad spectrum of skeletal disorders**
- ▶ **Side by side presentation of state of the art scans and corroborative CT, MRI, and/or ultrasound images**

In this fourth edition of Combined Scintigraphic and Radiographic Diagnosis of Bone and Joint Diseases, the text has been thoroughly amended, updated, and partially rearranged to reflect the latest advances. In addition to discussing the role of pinhole imaging in the range of disorders previously covered, the new edition pays detailed attention to the novel diagnostic use of gamma correction pinhole bone scan in a broad spectrum of skeletal disorders. A large number of state of the art pinhole scans and corroborative CT, MRI, and/or ultrasound images are presented side by side. The book has been enlarged to encompass various new topics, including occult fractures; cervical sprain and whiplash trauma; bone marrow edema; microfractures of trabeculae; evident, gaping, and stress fractures; soft tissue diseases; and differential diagnosis. This new edition will be essential reading for practitioners and researchers in nuclear medicine, radiology, orthopedic surgery, and pathology.

Due February 2012

Pathology of the Human Placenta

ISBN 978-3-642-23940-3

6th ed. 2013 2013. XLVI, 794 p. 132 illus.,

129 in color. Hardcover

▶ € 179,95 | £162.00

▶ *€ (D) 192,55 | € (A) 197,94 | sFr 240,00

Bookstore Location
Medicine

Fields of interests
Pathology; Obstetrics/Perinatology

Target groups
Professional/practitioner

Product category
Professional book

Pathology of the Human Placenta

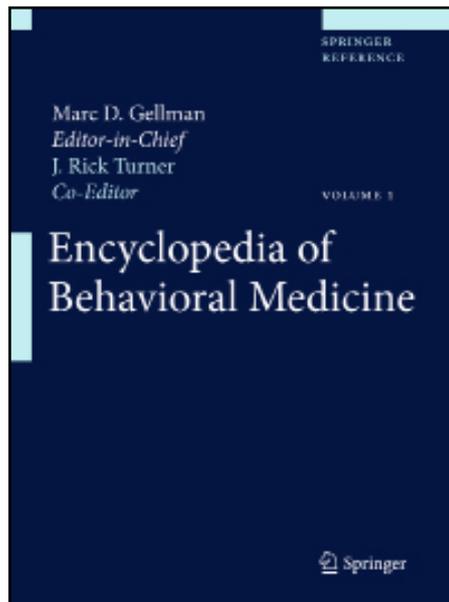
K. Benirschke, La Jolla, CA, USA; G. J. Burton, University of Cambridge, UK; R. N. Baergen, Medical College of Cornell University, New York, NY, USA

Features

- ▶ **Most comprehensive and authoritative text in the field**
- ▶ **Completely revised and updated new edition**
- ▶ **Includes some 800 figures, many of them in color**
- ▶ **More detailed index Of enormous value to both pathologists and obstetrician-gynecologists**

Pathology of the Human Placenta remains the most comprehensive and authoritative text in the field. It provides extensive information on the normal placenta, encompassing physiology, metabolism, and endocrinology, and covers the full range of placental diseases in great detail. Further chapters are devoted to abortions, molar pregnancies, multiple pregnancies, and legal considerations. This sixth edition of the book has been extensively revised and expanded to reflect the most recent progress in the field, and a brand new chapter has been added on artificial reproductive technology. Some 800 illustrations are included, many of them in color. The detailed index has been further improved and tables updated. Pathology of the Human Placenta will be of enormous value to pathologists and obstetrician-gynecologists alike.

Due August 2012



Bookstore Location
Medicine

Fields of interests

Medicine/Public Health, general; Health Psychology; Public Health/Gesundheitswesen

Target groups

Professional/practitioner

Product category

Encyclop(a)edia

**SPRINGER
REFERENCE**

Encyclopedia of Behavioral Medicine

M. Gellman, University of Miami School of Medicine, Miami, FL, USA; J. R. Turner, Campbell University School of Pharmacy, Morrisville, NC, USA (Eds)

Features

- ▶ **The first and only encyclopedia devoted to the interdisciplinary field of behavioral medicine**
- ▶ **International advisory board consisting of leadership and past leadership of SBM and ISBM**
- ▶ **Three sections inclusively cover public health, clinical investigation and basic research**

Behavioral medicine is an interdisciplinary field concerned with the development and integration of sociocultural, psychosocial, behavioral and biomedical knowledge and techniques relevant to the understanding of health and illness and the application of this knowledge and these techniques to disease prevention, health promotion, etiology, diagnosis, treatment and rehabilitation. The original definition of the field of behavioral medicine was developed at the Yale Conference on Behavioral Medicine and later published by Gary Schwartz and Stephen Weiss [1]. Since that time there have been various refinements to the definition as stated in the preceding definition. The overarching content structure will be based on the three fundamental domains within behavioral medicine, which yield three sections: Section I: Basic Research Section II: Clinical Investigation Section III: Public Health The domain of basic research addresses the key questions of mechanisms of action, both in terms of how behavior can have a deleterious effect on health, and how a change in behavior can be beneficial, either preventatively or therapeutically. The domain of clinical investigation then translates this knowledge into clinical interventions on a patient-by-patient basis. The third domain takes the broad view of how behavioral medicine can impact public health, and the system-wide/public education and advocacy/political activities that are needed to facilitate maximum benefits at the global level. It can immediately be seen from these brief descriptions of these domains that behavioral medicine is indeed a multidisciplinary and interdisciplinary field. Researching mechanisms of action requires a detailed knowledge of human biology, starting from the molecular genetic level and progressing to fully interacting body systems. A thorough understanding of environmental interactions with biological functioning is also necessary. The domain of basic research and clinical investigation are linked by the increasingly important concept of Translational Medicine, i.e., how to translate our mechanistic knowledge and understanding into successful clinical interventions most effectively and efficiently. The final challenge is to address these interventions at the public health level. It can therefore be seen that a very wide range of basic scientists, clinicians (physicians, nurses, and other allied health professionals), epidemiologists, and public policy experts contribute to the field of behavioral medicine.

Print

2012. 2000 p. (In 3 volumes, not available separately)
ISBN 978-1-4419-1004-2
▶ approx. € 799,00 | £719.50
▶ approx. *€ (D) 854,93 | € (A) 878,90 | sFr 1064,00

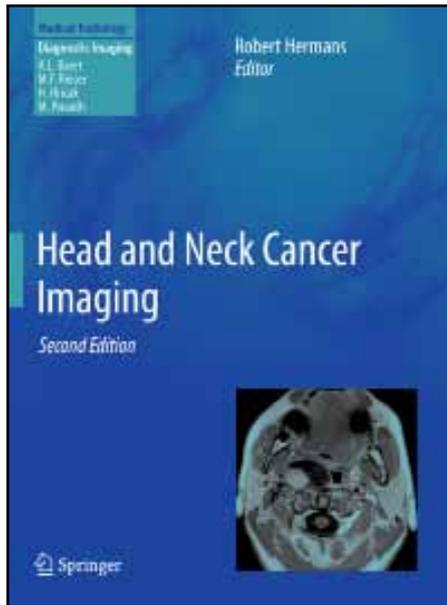
eReference

2012.
ISBN 978-1-4419-1005-9
▶ approx. € 799,00 | £719.50
▶ approx. **€ (D) 950,81 | € (A) 958,80 | sFr 1118,00

Print + eReference

2012. 2000 p. In 3 volumes, not available separately)
ISBN 978-1-4419-1380-7
▶ approx. € 999,00 | £899.50
▶ approx. *€ (D) 1068,93 | € (A) 1098,90 | sFr 1330,00

Due November 2011



ISBN 978-3-642-17868-9
2nd ed. 2012. VIII, 409 p. 357 illus., 78 in color. (Medical Radiology / Diagnostic Imaging) Hardcover
▶ € 239,00 | £215.50
▶ *€ (D) 255,73 | € (A) 262,90 | sFr 318,50

Bookstore Location
Medicine

Fields of interests
Imaging / Radiology; Diagnostic Radiology;
Head and Neck Surgery

Target groups
Professional/practitioner

Product category
Contributed volume

Head and Neck Cancer Imaging

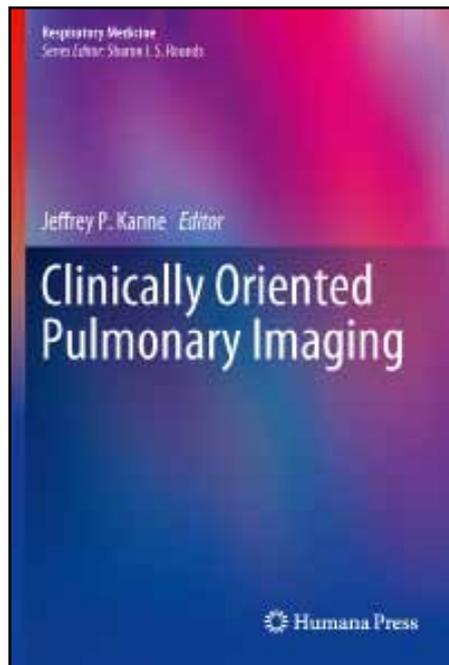
R. Hermans, University Hospitals Leuven, Belgium (Ed.)

Features

- ▶ **Comprehensive overview of imaging findings in patients with head and neck neoplasms, obtained with different technologies and at different subsites**
- ▶ **Explains the clinical relevance of imaging findings**
- ▶ **Includes numerous high-quality, state of the art images**

Imaging is crucial in the multidisciplinary approach to head and neck cancer management. The rapid technological development of recent years makes it necessary for all members of the multidisciplinary team to understand the potential applications, limitations, and advantages of existing and evolving imaging technologies. It is equally important that the radiologist has sufficient clinical background knowledge to understand the clinical significance of imaging findings. This book provides an overview of the findings obtained using different imaging techniques during the evaluation of head and neck neoplasms, both before and after therapy. All anatomic areas in the head and neck are covered, and the impact of imaging on patient management is discussed in detail. The authors are recognized experts in the field, and numerous high-quality images are included. This second edition provides information on the latest imaging developments in this area, including the application of PET-CT and diffusion-weighted magnetic resonance imaging.

Due December 2011



ISBN 978-1-61779-541-1
2012. XVIII, 520 p. 321 illus., 15 in color.
(Respiratory Medicine) Hardcover
▶ € 179,95 | £162.00
▶ *€ (D) 192,55 | € (A) 197,94 | sFr 240,00

Bookstore Location

Medicine

Fields of interests

Pneumology/Respiratory System; Internal
Medicine; Primary Care Medicine

Target groups

Professional/practitioner

Product category

Contributed volume

 Humana Press

Clinically Oriented Pulmonary Imaging

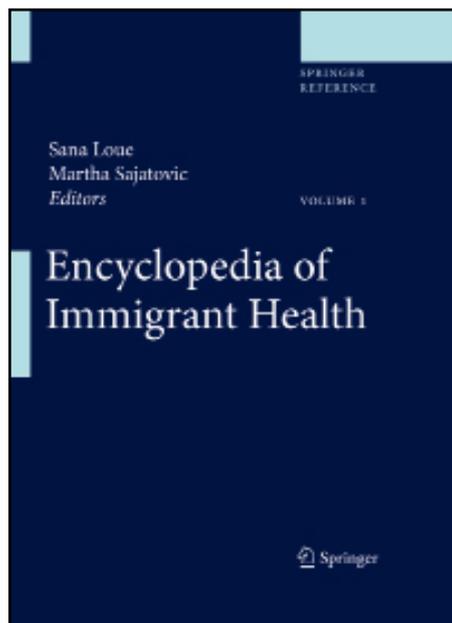
J. P. Kanne, University of Wisconsin, Madison, WI, USA (Ed.)

Features

- ▶ **Delivers a clinically oriented approach to pulmonary imaging**
- ▶ **Provides an organized approach to the different facets of imaging of specific clinical scenarios, focusing on strengths and weaknesses of available imaging tests**
- ▶ **High quality examples of typical imaging findings of specific conditions will supplement the text**

Diagnostic imaging is an essential component in the evaluation of the patient with known or suspected respiratory tract disease. While chest radiography continues to serve as the primary tool for imaging the chest, advances in computed tomography (CT) have led to a variety of applications such as high-resolution CT (HRCT), advanced 3-D airway imaging, and image-guided procedures. The aim of this book is to deliver a clinically-oriented approach to pulmonary imaging. Each chapter of the book will provide an organized approach to the different facets of imaging of specific clinical scenarios, focusing on strengths and weaknesses of available imaging tests. High quality examples of typical imaging findings of specific conditions will supplement the text. The target readers include practicing internists, pulmonologists, thoracic surgeons, and primary care practitioners. Other readers will include respiratory care therapists and medical students. The proposed cohort of authors represents experts in the field of thoracic radiology. These authors have experience in thoracic radiology and medical writing, each will deliver a high-quality chapter meeting the aims and scope of this book while addressing the target audience. Aside from the first three chapters, which are introductory materials, each author will be invited to select a clinician with whom they work closely to serve as a co-author in order to provide a chapter that maintains the clinical orientation of this book.

Due November 2011



Bookstore Location
Medicine

Fields of interests

Medicine/Public Health, general; Sociology, general; Anthropology

Target groups

Research

Product category

Encyclop(a)edia

**SPRINGER
REFERENCE**

Encyclopedia of Immigrant Health

S. Loue, Case Western Reserve University, Cleveland, OH, USA; M. Sajatovic, University Hospital of Cleveland, OH, USA (Eds)

There is increasing interest in the scientific literature on immigrant health and its impact on disease transmission, disease prevention, health promotion, well-being on an individual and population level, health policy, and the cost of managing all these issues on an individual, institutional, national, and global level. The need for accurate and up-to-date information is particularly acute due to the increasing numbers of immigrants and refugees worldwide as the result of natural disasters, political turmoil, the growing numbers of immigrants to magnet countries, and the increasing costs of associated health care that are being felt by governments around the world. Format and Scope: The first portion of the Encyclopedia will contain chapters that are approximately 25 to 40 manuscript pages in length. Each overview chapter will include a list of references and suggested readings for cross referencing within the Encyclopedia. Currently, the opening chapters are planned to be: Immigration in the Global Context, Research Methods for immigrant populations, Ethical consideration for minority groups, Immigration Processes, Alternative / Complementary Medicine, Occupational and Environmental health, Legal Considerations. The second portion of the book will consist of alphabetical entries that relate to the health of immigrants. To date, we have identified about 400 entries and expect that the number will increase as we work on the text. Entries will be interdisciplinary and will be drawn from the following fields of study: anthropology, demographics, history, law, linguistics, medicine, population studies, psychology, religion, and sociology. Each entry will be followed by a listing of suggested readings and suggested resources, and will also link to related terms within the whole. My co-editor and I are corresponding with the field editors to determine the length of each entry. Some only require a small amount of space. But other entries will be quite extensive. There will be small, medium and long entries. We anticipate that the final manuscript will consist of at least 2,000 typed pages. According to Michaela Bilic and Bill Tucker, we should count on the work being printed PTO and estimate it at 3 volumes, but we are open to it being longer and accept that more terms may be added during the development phase of the project. Outstanding Features The book will adopt a biopsychosocial-historical approach to the topics covered in the chapters and the entries. Each entry will include suggested readings and suggested resources. The chapters and entries will be written graduate level that is accessible to all academics, researchers, and professionals from diverse backgrounds. We consider the audience for the entries to be well educated, but a non expert in this area. The primary focus of the book will be on the immigrant populations in and immigration to magnet countries. References will be made to worldwide trends and issues arising globally. In addition to the comprehensive subject coverage offered by the proposed reference, the text will also offer diverse perspectives. The editors themselves reflect the multidisciplinary nature of the topics, with expertise in psychiatry, law, epidemiology, anthropology, and social work. Prospective authors similarly reflect diverse disciplines.

Print

2012. 2200 p. (In 3 volumes, not available separately)
ISBN 978-1-4419-5655-2
▶ € 799,00 | £719.50
▶ *€ (D) 854,93 | € (A) 878,90 | sFr 1145,50

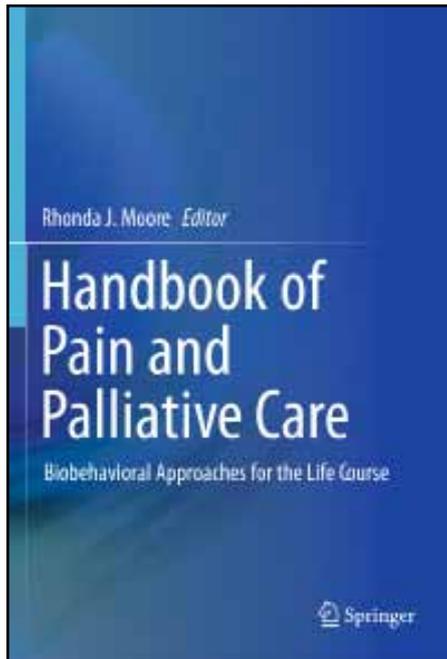
eReference

2012.
ISBN 978-1-4419-5659-0
▶ € 799,00 | £719.50
▶ **€ (D) 950,81 | € (A) 958,80 | sFr 1204,00

Print + eReference

2012. 2200 p. (In 3 volumes, not available separately)
ISBN 978-1-4419-5660-6
▶ € 999,00 | £899.50
▶ *€ (D) 1068,93 | € (A) 1098,90 | sFr 1432,50

Due December 2011



ISBN 978-1-4419-1650-1
2012. XXVII, 1165 p. 58 illus., 32 in color.
Hardcover
▶ € 399,00 | £359.50
▶ *€ (D) 426,93 | € (A) 438,90 | sFr 531,50

Bookstore Location
Medicine

Fields of interests
Pain Medicine; Health Psychology;
Rehabilitation

Target groups
Research

Product category
Handbook

Handbook of Pain and Palliative Care Biobehavioral Approaches for the Life Course

R. J. Moore, Department of Health and Human Services, Rockville, MD, USA (Ed.)

Feature

▶ **Takes unprecedented multidisciplinary approach to understanding the effective evaluation and management of pain across the life process in the context of palliative care Includes expert research from the fields of genetics, biology, psychology, anthropology, neurology, oncology, substance abuse and pharmacology, pharmacoeconomics, gerontology, pediatrics, health services research, rehabilitative medicine, palliative care, and public policy**

Pain has long been regarded as an unpleasant sensory consequence of neuronal activity in specific nociceptive pathways that is triggered by noxious stimuli, inflammation, or damage to the nervous system structure or function. However, classic models of disease and pain mechanisms do not adequately explain the commonly observed discrepancies between the extent of pathology levels of reported pain, the impact of experience of illness, disability, or in certain instances death, on the lived experience of pain. In other words, pain is not only a sensory event but a biobehavioral event as well. As such, it is subjective and therefore a significant cause of psychological suffering and even existential questioning. Thus treatment for many chronic pain syndromes, early in life, over the life course, and certainly at the end of life, remains an inexact science. The broad aim of this edited volume is to take a multidisciplinary, biobehavioral, and life course approach to understanding chronic pain. By way of introduction, the contributing authors review biopsychosocial approaches to understanding chronic pain and disability. Subsequent chapters describe issues related to communication and pain, pain and palliative care assessment, biobehavioral approaches to understanding common pain conditions, including pain in pediatric patients, pain in the older person, pain after traumatic brain injury (TBI), pain in the battlefield injured, pain in whiplash associated disorder (WAD), chronic low back pain, and adult cancer-related pain. Furthermore the volume addresses biobehavioral mechanisms associated with chronic pain, including stress and chronic pain, the biobehavior of hope, temporomandibular disorder and its relationship to fibromyalgia, and pain imaging, and reviews interventions for chronic pain including evidence-based pharmacotherapy's for chronic pain, chronic pain and opioids, nerve block, trigger points and intrathecal therapies for chronic pain, neurosurgical interventions, and rehabilitation treatments for chronic musculoskeletal pain. Finally, the text discusses broader issues in chronic pain management, including psychosocial issues associated with chronic pain, spiritual dimensions of chronic pain and suffering, contributions from the humanities and social sciences in terms of understanding the chronic pain experience, and highlights ethical issues in pain and palliative care. The collaborators for this project are from diverse cultural and biomedical settings, including the United Kingdom, United States, Italy, England, Singapore, Canada, Australia, and Norway. The expertise in this volume span the fields of clinical medicine, neuroscience, neurosurgery, literature, anthropology, art, neuroanatomy, pediatrics, gerontology, pain imaging, health disparities, transportation, rehabilitation, palliative medicine, philanthropy, the medical humanities, oncology, physiology, anesthesiology, pharmacology, genetics, stress management, psychology, dentistry, complementary and alternative medicine, spiritual care, nursing, pain policy, and clinical ethics. Whilst highly multidisciplinary, authors explore the evidence base for chronic pain and palliative care in their individual professional areas and each has provided valuable insights with the hope that it will result in improved pain control and palliative care.

Due March 2012

PET-CT and PET-MRI in Oncology

A Practical Guide

ISBN 978-3-642-01138-2

2012. 300 p. 600 illus. (Medical Radiology /
Diagnostic Imaging) Hardcover

▶ approx. € 239,00 | £215.00

▶ approx. *€ (D) 255,73 | € (A) 262,90 |

sFr 343,00

Bookstore Location

Medicine

Fields of interests

Imaging / Radiology; Diagnostic Radiology;
Nuclear Medicine

Target groups

Professional/practitioner

Product category

Contributed volume

PET-CT and PET-MRI in Oncology

A Practical Guide

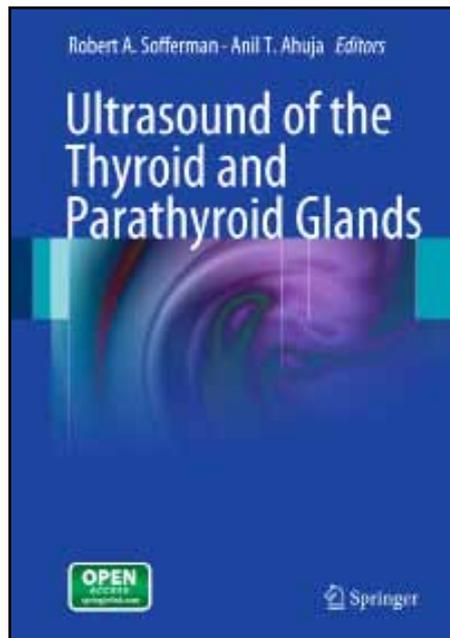
P. Peller, Mayo Clinic College of Medicine, Rochester, NY, USA; R. Subramaniam, Boston, MA, USA;
A. Guermazi, Boston University, MA, USA (Eds)

Features

- ▶ **Clearly explains the basics of PET-CT and PET-MRI, including the scanners, radiotracers, scan performance, quantitation, and scan interpretation**
- ▶ **Presents in detail the imaging findings in cancers of the different body systems**
- ▶ **Identifies common difficulties and provides tips on how to overcome these difficulties**
- ▶ **Written by world-renowned experts Includes numerous high-quality illustrations**

Over the past decade, PET-CT has achieved great success owing to its ability to simultaneously image structure and function, and show how the two are related. More recently, PET-MRI has also been developed, and it represents an exciting novel option that promises to have applications in oncology as well as neurology. The first part of this book discusses the basics of these dual-modality techniques, including the scanners themselves, radiotracers, scan performance, quantitation, and scan interpretation. As a result, the reader will learn how to perform the techniques to maximum benefit. The second part of the book then presents in detail the PET-CT and PET-MRI findings in cancers of the different body systems. The final two chapters address the use of PET/CT in radiotherapy planning and examine areas of controversy. The authors are world-renowned experts from North America, Europe, and Australia, and the lucid text is complemented by numerous high-quality illustrations.

Due December 2011



ISBN 978-1-4614-0973-1
2012. XV, 215 p. 350 illus., 140 in color.
Hardcover
▶ € 109,95 | £99.00
▶ *€ (D) 117,65 | € (A) 120,95 | sFr 146,50

Bookstore Location

Medicine

Fields of interests

Otorhinolaryngology; Ultrasound;
Endocrinology

Target groups

Professional/practitioner

Product category

Professional book

Ultrasound of the Thyroid and Parathyroid Glands

R. A. Sofferman, University of Vermont School of Medicine, Burlington, VT, USA; A. T. Ahuja, Prince of Wales Hospital, Shatin, Hong Kong, New Territories (N.T.) (Eds)

Features

- ▶ **Highly illustrated, comprehensive clinical reference with annotated images and practical teaching points**
- ▶ **Key points summarizing each diagnosis and annotated images with teaching points allow the reader to quickly review and absorb a large amount of information in a short time**
- ▶ **Unique collaboration between a clinician/surgeon and radiologist with extensive experience in head and neck ultrasound**

This highly illustrated book, complete with comprehensive clinical references and annotated images, will serve as a leading text to educate head and neck surgeons, endocrinologists, and radiologists on the basics and nuances of thyroid and parathyroid ultrasound. It emphasizes the use of ultrasound as an office-based modality by clinicians and radiologists who actively care for this special set of patients. This text uniquely combines the collaboration between a clinician/surgeon and radiologist who share their extensive experience in head and neck ultrasound.

Due December 2011

**Biomaterials for Surgical
Operation**

ISBN 978-1-61779-569-5

2012. XII, 224 p. 137 illus., 1 in color.

Hardcover

▶ € 139,95 | £126.00

▶ *€ (D) 149,75 | € (A) 153,94 | sFr 186,50

Bookstore Location

Medicine

Fields of interests

Surgery; Biomaterials; Cell Biology

Target groups

Professional/practitioner

Product category

Monograph

 Humana Press**Biomaterials for Surgical Operation**

S. Suzuki, Y. Ikada, Nara Medical University, Japan

Features

- ▶ **Focuses on the absorbable biomaterials which are the main components of these medical devices**
- ▶ **With numerous illustrations**
- ▶ **Offers a review of the latest advances made in developing bioabsorbable devices for surgical operations**

Biomaterials for Surgical Operation offers a review of the latest advances made in developing bioabsorbable devices for surgical operations which include surgical adhesives (sealants), barriers for the prevention of tissue adhesion, polymers for fractured bone fixation, growth factors for the promotion of wound healing, and sutures. Over the years, many descriptions of biomaterials have appeared in academic journals and books, but most of them have been devoted to limited clinical areas. This is in marked contrast with this volume which covers a wide range of bioabsorbable devices used in surgery from a practical point of view. The currently applied polymeric devices are critical in surgery, but all involve serious problems due to their poor performance. For instance, fibrin glue, the most widely used surgical sealant, can produce only a weak gel with low adhesive strength to tissues, accentuating the limited effectiveness of current treatment options. Likewise, the currently available barrier membranes cannot fully prevent tissue adhesion at the acceptable level and are, moreover, not easy to handle with endoscopes due to their poor mechanical properties. Biomaterials for Surgical Operation is aimed at those who are interested in expanding their knowledge of how the problems associated with the currently used devices for surgical operation can be solved. It primarily focuses on the absorbable biomaterials which are the main components of these medical devices.

Due March 2012

Multislice-CT of the Abdomen

ISBN 978-3-642-17862-7

2012. 220 p. 90 illus., 10 in color. (Medical Radiology / Diagnostic Imaging) Hardcover

▶ approx. € 179,95 | £162.00

▶ approx. *€ (D) 192,55 | € (A) 197,94 | sFr 258,00

Bookstore Location

Medicine

Fields of interests

Imaging / Radiology; Diagnostic Radiology

Target groups

Professional/practitioner

Product category

Contributed volume

Multislice-CT of the Abdomen

C. J. Zech, C. Bartolozzi, Ludwig-Maximilians-University Munich, Germany; R. Baron, The University of Chicago, IL, USA; M. Reiser, Ludwig-Maximilians-University Munich, Germany (Eds)

Features

- ▶ Summarizes the most important imaging findings obtained in a range of diseases using multislice CT of the abdomen
- ▶ Highlights key differential diagnostic features
- ▶ Written and edited by internationally acknowledged experts in the field
- ▶ Includes discussion of the most recent technical innovations and future developments

This book provides a lucid summary of modern multislice CT imaging of the abdomen, with a focus on the essential imaging findings. After a concise technical introduction, the most important abdominal diseases are described and illustrated with high-quality images. Sections are devoted to the liver and biliary system, the pancreas and spleen, the kidneys and urogenital system, and the bowel and peritoneal cavity. Throughout, key differential diagnostic features are highlighted. The editorial team is composed of internationally renowned radiologists from Europe and the United States, and all chapters have been written by recognized experts in the topic under consideration. Multislice CT of the Abdomen will serve as an excellent reference for radiologists participating in further professional training and will prove an ideal source of information for all who wish to deepen their personal knowledge of the subject.

Due March 2012

MATLAB for Psychologists

ISBN 978-1-4614-2196-2

2012. Approx. 160 p. Hardcover

▶ € 44,95 | £40.99

▶ *€ (D) 48,10 | € (A) 49,45 | sFr 64,50

Bookstore Location

Psychology

Fields of interests

Psychological Methods/Evaluation;
Programming Techniques; Statistics and
Computing/Statistics Programs

Target groups

Graduate

Product category

Graduate/Advanced undergraduate textbook

MATLAB for Psychologists

M. Borgo, BioSiLab, Padova, Italy; A. Soranzo, University of Teesside, Middlesbrough, UK;
M. Grassi, BioSiLab, Padova, Italy

Features

- ▶ **Presents examples and terminology that address the specific information needs of psychologists**
- ▶ **Not only supplies MATLAB routines that can be used in psychology, it also provides a conceptual frame of reference for readers to design their own experiments in psychology**
- ▶ **Explores connections to such external programs as Excel**
- ▶ **Is useful for both expert and less-experienced computer programmers**
- ▶ **Examines the use of specific toolboxes dedicated to psychologists**
- ▶ **Uses psychological vocabulary combined with real-case examples**

The matrix laboratory interactive computing environment—MATLAB—has brought creativity to research in diverse disciplines, particularly in designing and programming experiments. More commonly used in mathematics and the sciences, it also lends itself to a variety of applications across the field of psychology. For the novice looking to use it in experimental psychology research, though, becoming familiar with MATLAB can be a daunting task. MATLAB for Psychologists expertly guides readers through the component steps, skills, and operations of the software, with plentiful graphics and examples to match the reader's comfort level. Using an extended illustration, this concise volume explains the program's usefulness at any point in an experiment, without the limits imposed by other types of software. And the authors demonstrate the responsiveness of MATLAB to the individual's research needs, whether the task is programming experiments, creating sensory stimuli, running simulations, calculating statistics, or biosignal processing. Key features of the coverage: Thinking in a matrix way. Handling and plotting data. Guidelines for improved programming, sound, and imaging. Statistical analysis and signal detection theory indexes. The Graphical User Interface. The Psychophysics Toolbox. MATLAB for Psychologists serves a wide audience of advanced undergraduate and graduate level psychology students, professors, and researchers, as well as lab technicians involved in programming psychology experiments.

Due February 2012

Handbook of Research on Student Engagement

ISBN 978-1-4614-2017-0

2012. XIX, 843 p. 69 illus., 26 in color.

Hardcover

▶ € 249,00 | £224.50

▶ *€ (D) 266,43 | € (A) 273,90 | sFr 331,50

Bookstore Location

Psychology

Fields of interests

Child and School Psychology; Educational Psychology; Public Health/Gesundheitswesen

Target groups

Research

Product category

Handbook

Handbook of Research on Student Engagement

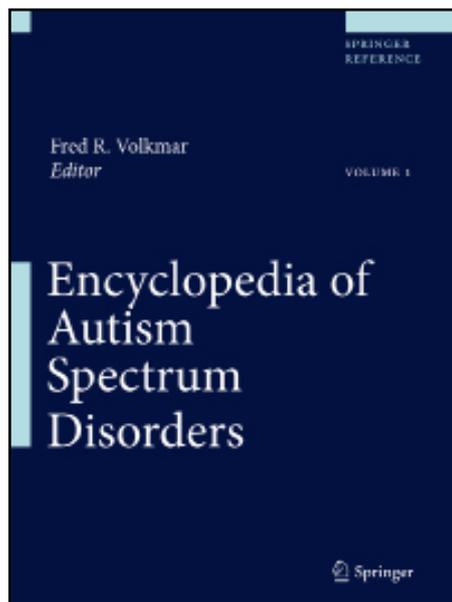
S. L. Christenson, University of Minnesota, Minneapolis, MN, USA; A. L. Reschly, University of Georgia, Athens, GA, USA; C. Wylie, New Zealand Council of Educational Research, Wellington, New Zealand (Eds)

Features

- ▶ Addresses conceptual and methodological concerns of student engagement and motivation
- ▶ Unites leading researchers and scientific practitioners in the areas of overlapping and related, but different, constructs
- ▶ Common set of questions addressed within each topic area
- ▶ Initiates a dialogue on a construct of tremendous interest for the assessment-to-intervention link for all students
- ▶ Critical commentaries within each section are integrated in the Epilogue

For more than two decades, the concept of student engagement has grown from simple attention in class to a construct comprised of cognitive, emotional, and behavioral components that embody and further develop motivation for learning. Similarly, the goals of student engagement have evolved from dropout prevention to improved outcomes for lifelong learning. This robust expansion has led to numerous lines of research across disciplines and are brought together clearly and comprehensively in the Handbook of Research on Student Engagement. The Handbook guides readers through the field's rich history, sorts out its component constructs, and identifies knowledge gaps to be filled by future research. Grounding data in real-world learning situations, contributors analyze indicators and facilitators of student engagement, link engagement to motivation, and gauge the impact of family, peers, and teachers on engagement in elementary and secondary grades. Findings on the effectiveness of classroom interventions are discussed in detail. And because assessing engagement is still a relatively new endeavor, chapters on measurement methods and issues round out this important resource. Topical areas addressed in the Handbook include: Engagement across developmental stages. Self-efficacy in the engaged learner. Parental and social influences on engagement and achievement motivation. The engaging nature of teaching for competency development. The relationship between engagement and high-risk behavior in adolescents. Comparing methods for measuring student engagement. An essential guide to this growing knowledge base, the Handbook of Research on Student Engagement serves as a valuable resource for researchers, scientist-practitioners, and graduate students in such varied fields as clinical child and school psychology, educational psychology, public health, teaching and teacher education, social work, and educational policy.

Due September 2012



Bookstore Location

Psychology

Fields of interests

Child and School Psychology; Psychiatry;
Sociology of Education

Target groups

Research

Product category

Encyclop(a)edia

SPRINGER
REFERENCE

Encyclopedia of Autism Spectrum Disorders

F. R. Volkmar, Yale University School of Medicine, New Haven, CT, USA (Ed.)

Features

- ▶ Edited by Fred R. Volkmar, Director of the Child Study Center of the Yale University School of Medicine
- ▶ Contributions from leading scholars, researchers, and clinicians in autism
- ▶ Offers a foundation of broadly based topics across the broad expanse of autism, pervasive developmental disabilities (PDDs) and related intellectual disabilities
- ▶ Hyperlinks from Journal of Autism and Developmental Disorders articles in both PDF and HTML formats lead interested readers to broader coverage across the encyclopedia entries
- ▶ Serves as a reference repository of knowledge for the field as well as a conduit of information from leading research before it trickles down to the standard textbooks
- ▶ Offers an extensive cross-referencing system that will facilitate the search and retrieval of information

This major reference work breaks new ground as an electronic resource for students, educators, researchers, and professionals. Comprehensive in breath and textbook in depth, the Encyclopedia of Autism Spectrum and Pervasive Developmental Disorders (EASD) will serve as a reference repository of knowledge in the field as well as a regularly updated conduit of new knowledge long before such information trickles down from research to standard textbooks. The EASD consists of 3 volumes and approximately 2,000 entries divided by the major conceptual areas of ASD and PDDs, including: Research trends and findings Behavior/speech Communication Treatments Education Taking advantage of the techniques offered by the electronic medium, the Encyclopedia of Autism Spectrum and Pervasive Developmental Disorders offers an extensive cross-referencing system facilitating search and retrieval of information.

Print

2013. 2500 p. (In 4 volumes, not available separately)

ISBN 978-1-4419-1697-6

▶ € 1200,00 | £1080,00

▶ *€ (D) 1284,00 | € (A) 1320,00 | sFr 1597,50

eReference

2013.

ISBN 978-1-4419-1698-3

▶ € 1200,00 | £1080,00

▶ **€ (D) 1428,00 | € (A) 1440,00 | sFr 1679,00

Print + eReference

2013. 2500 p. In 4 volumes, not available separately)

ISBN 978-1-4419-1699-0

▶ € 1500,00 | £1350,00

▶ *€ (D) 1605,00 | € (A) 1650,00 | sFr 1997,00

Due December 2011

Handbook on Crime and Deviance

ISBN 978-1-4614-1210-6

2012. XVIII, 606 p. 40 illus. (Handbooks of Sociology and Social Research) Softcover

▶ € 74,95 | £67.99

▶ *€ (D) 80,20 | € (A) 82,45 | sFr 100,00

Bookstore Location

Social Sciences

Fields of interests

Criminology & Criminal Justice; Sociology, general

Target groups

Research

Product category

Handbook

Handbook on Crime and Deviance

M. D. Krohn, A. J. Lizotte, G. P. Hall, University at Albany, NY, USA (Eds)

Features

- ▶ Focusing on methodological issues in criminology
- ▶ Contributions by the top researchers in the field
- ▶ Examines interdisciplinary causes of crime, and methods for prevention

This handbook is designed to review the important recent developments in the sociology of crime and deviance. The chapters will identify and discuss the “hot topics” and the cutting edge research of the field. The work is divided into 5 major sections: - History of the Discipline, - Methodological Issues in Crime Research, - Explanations of Crime, - Theory-Based Practice,- Special Topics. The editors have organized a comprehensive treatment of the field of criminology at the turn of the 21st century.

Due February 2012

Happiness Across Cultures

Views of Happiness and Quality of Life in
Non-Western Cultures

ISBN 978-94-007-2699-4

2012. XVIII, 510 p. 23 illus. (Science Across
Cultures: the History of Non-Western
Science, Volume 6) Hardcover

▶ approx. € 139,95 | £126.00

▶ approx.*€ (D) 149,75 | € (A) 153,94 |
sFr 201,00

Bookstore Location

Religion

Fields of interests

Regional and Cultural Studies; Cross Cultural
Psychology; Non-Western Philosophy

Target groups

Research

Product category

Contributed volume

Happiness Across Cultures

Views of Happiness and Quality of Life in Non-Western Cultures

H. Selin, Hampshire College, Amherst, MA, USA; G. Davey, Hong Kong Shue Yan University, China
(Eds)

Features

- ▶ Contributions from international scholars from diverse disciplines and cultures
- ▶ Explores countries from across the world and focuses on special themes of happiness
- ▶ Insightful compilation for researchers who study happiness

Different cultures experience happiness differently. Traditionally, the West is considered materialistic, and happiness is said to come from achievement and acquisition. The East is said to be more people-oriented, where happiness is a result of deep personal interactions. Thus, poor people can be happier in the East than the West, because they are not so concerned with possession and more with society. This book considers happiness and quality of life in non-Western countries and cultures. Its coverage is diverse and spans the breadth of the non-Western world, revealing unique perspectives of happiness and life quality embedded in rich cultural traditions and histories.