

Springer Life & Earth Sciences Preview

Top Frontlist April – June 2011

**Earth Sciences
Geography
Ecology
Environment
Forestry & Plant Sciences
Life Sciences
Zoology**

**SECOND
QUARTER
2011**

New publications at the forefront of Research & Development

Dear Reader,

Springer is proud to offer you a rich selection of new book titles in major areas of research and development in almost every area of science and technology. We offer you a wide range of publication types – from contributed volumes focusing on current trends to handbooks for in-depth research.

Throughout the world, we provide scientific and professional communities with superior specialist information – produced by authors and colleagues across cultures and continents. You, too, can benefit from the communication fostered by Springer publications and advance knowledge and learning wherever you are.

The new publications in this catalog are representative of the international authorship and high quality contributions you have come to expect from the Springer brand. We hope you will enjoy browsing through our new titles and make your selection today!

Best wishes,
Sandra Cortés
Trade Marketing Manager

P.S. Go to springer.com to find many more titles and search for any specific topic by keyword for even newer publications!

Legend



Book with online
files/update



Book
with CD-ROM



CD-ROM



Textbook



Book
with DVD



DVD



Set

Earth Sciences

M. Armstrong, A. G. Galli, H. Beucher,
G. Loch, D. Renard, B. Doligez, R. Eschard,
F. Geffroy

2ND
EDITION

Plurigaussian Simulations in Geosciences

This much-anticipated second edition of the work covers a technique that is now the preferred method of simulating facies inside reservoirs and ore deposits. An accompanying CD includes demonstration software to illustrate the method's applications.

Due May 2011

Monograph

2nd Edition. 2011. 200 p. Hardcover

ISBN 978-3-642-19606-5 ► approx. \$139.00

M. Baskaran, Wayne State University, Detroit, MI, USA (Ed.)

Handbook of Environmental Isotope Geochemistry

This highly accessible volume presents all of the newer and older applications of isotopes pertaining to environmental problems. It includes a wide array of case studies that illustrate the utility of the isotopes in a wide variety of environments.

Due April 2011

Handbook

2011. 800 p. (Advances in Isotope Geochemistry)
Hardcover

ISBN 978-3-642-10636-1 ► approx. \$279.00



G. Gramelsberger, Free University Berlin, Germany;
J. Feichter, Max Planck Institute for Meteorology,
Hamburg, Germany (Eds.)

Climate Change and Policy

The Calculability of Climate Change and the Challenge of Uncertainty

Climate Change and Policy provides first hand insight into climatologists' strategies in dealing with uncertainty via simulation models. The text

also explores the social, political and economical requirements in future prognoses on climate change.

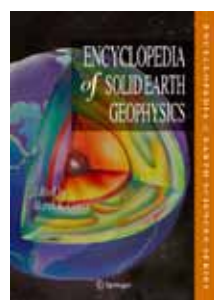
Due March 2011

Monograph

2011. VIII, 241 p. Hardcover

ISBN 978-3-642-17699-9 ► approx. \$159.00

SPRINGER REFERENCE



2ND
EDITION

H. Gupta, (Ed.)

Encyclopedia of Solid Earth Geophysics

This volume provides systematic, up-to-date coverage of important aspects of Solid Earth Geophysics, including reviews and articles by leading experts. The book is organized to present terms, topics and phrases alphabetically in an easily referenced manner.

Due June 2011

Encyclop(a)edia

2nd ed. 2011. XX, 950 p. 500 illus., 100 in color.
(Encyclopedia of Earth Sciences Series) Hardcover

ISBN 978-90-481-8701-0 ► \$549.00

Also available as

eReference

ISBN 978-90-481-8702-7 ► \$549.00

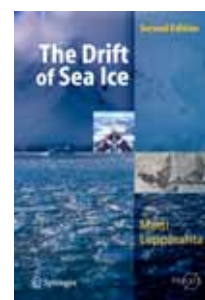
Also available as

Print + eReference

2nd ed. 2011. XX, 950 p. 500 illus., 100 in color.

Hardcover

ISBN 978-90-481-8732-4 ► \$689.00



2ND
EDITION

M. Leppäranta, University of Helsinki, Finland

The Drift of Sea Ice

This book presents the fundamental laws of sea ice drift which come from the material properties of sea ice and the basic laws of mechanics. This edition includes new information on the climate problem, mathematical modeling and ice engineering applications.

Due March 2011

Monograph

2nd ed 2011. X, 350 p. 145 illus., 25 in color. (Springer Praxis Books / Geophysical Sciences) Hardcover

ISBN 978-3-642-04682-7 ► approx. \$189.00

D. F. Levita, University of Delaware, Newark, DE, USA;

D. Carlyle-Moses, Thompson Rivers University,
Kamloops, BC, Canada; T. Tanaka, University of Tsukuba,
Ibaraki, Japan (Eds.)

Forest Hydrology and Biogeochemistry

Synthesis of Past Research and Future Directions

This advanced text for students and researchers in various fields including hydrology and geography is intended to spur the community to new heights. It aims to advance the field with cogent syntheses of past research and by mapping future research directions.

Due June 2011

Contributed volume

2011. 600 p. (Ecological Studies, Volume 216) Hardcover

ISBN 978-94-007-1362-8 ► approx. \$239.00

S. Mukherjee, Geological Survey of India, Kolkata, India


Applied Mineralogy

Applications in Industry and Environment

This book covers the entire spectrum of mineralogy and consolidates its applications in various fields. It starts (Part I) with the very basic concept of mineralogy describing in detail the implications of the various aspects of mineral chemistry, crystallographic structures and their effects producing different mineral properties. Part II of the book describes different aspects of mineralogy used to extend the studies of geothermobarometry, mineral thermodynamics and phase diagrams, mineral exploration and analysis, including some aspects of marine minerals etc. The book finally handles the applications in industrial, medicinal and environmental mineralogy along with precious – semiprecious stone studies. The various analytical techniques, their significance in handling specific types of mineralogical problems are also well covered.

Due June 2011

Graduate/Advanced undergraduate textbook

 2011. X, 440 p. 215 illus., 15 in color. Hardcover
ISBN 978-94-007-1161-7 ► \$89.95

Y. Ogawa, R. Anma, University of Tsukuba, Japan;
Y. Dilek, Miami University, Oxford, OH, USA (Eds.)

Accretionary Prisms and Convergent Margin Tectonics in the Northwest Pacific Basin

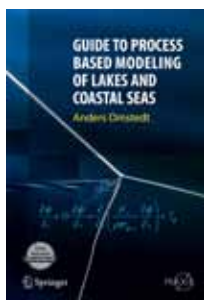
This book documents the geological, geophysical, geochemical and paleontological features of modern accretionary prisms and trenches in the northwestern Pacific Ocean, based on 10 years of submersible dive cruises, ODP drilling projects and geophysical surveys.

Due June 2011

Monograph

2011. 450 p. 170 illus., 75 in color. (Modern Approaches in Solid Earth Sciences, Volume 8) Hardcover

ISBN 978-90-481-8884-0 ► \$179.00



A. Omstedt, University Gothenburg, Göteborg, Sweden

Guide to Process Based Modeling of Lakes and Coastal Seas

Mounting concern over humanity's influence on climate and the environment has sharpened the need for multi-disciplinary modelling efforts. Tackling the issue from a fresh perspective, this book introduces a process-oriented approach to aquatic modelling.

Due April 2011

Monograph

2011. X, 300 p. 55 illus., 30 in color. (Springer Praxis Books / Geophysical Sciences, Volume) Hardcover

ISBN 978-3-642-17727-9 ► approx. \$139.00



R. A. Ramalho, School of Earth Sciences, University of Bristol, UK

Building the Cape Verde Islands

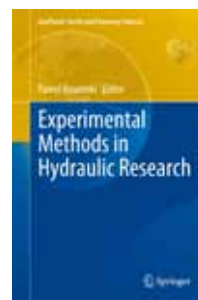
This volume offers a geological summary and detailed mapping of paleo sea level markers on Cape Verde. It documents uplift of the islands relative to sea level and uses the uplift features to test various models of hotspot development.

Due April 2011

Monograph

2011. 262 p. 67 illus., 23 in color. (Springer Theses) Hardcover

ISBN 978-3-642-19102-2 ► \$129.00



P. Rowinski, Academy of Sciences, Warsaw, Poland (Ed.)

Experimental Methods in Hydraulic Research

This volume is the result of the meeting that took place during the 30th International School of Hydraulics in Poland. It presents the state-of-the-art on experimental methods in hydraulic research, and offers a sample of studies at the frontier of the field.

Due May 2011

Monograph

2011. 350 p. (Geoplanet: Earth and Planetary Sciences, Tentative volume) Hardcover

ISBN 978-3-642-17474-2 ► \$179.00



G. Schernewski, T. Neumann, Leibniz Institute for Baltic Sea Research, Warnemünde, Germany; J. Hofstede, Schleswig-Holstein State Ministry for Agriculture, Environment and Rural Areas, Kiel, Germany (Eds.)

Global Change and Baltic Coastal Zones

Climate change and transformations in economy and agriculture will have a major impact on the Baltic region. Focusing on coastal zones, this book addresses these changes, their consequences, practical challenges and adaptation strategies and measures.

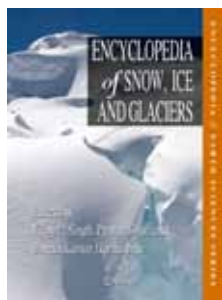
Due April 2011

Monograph

2011. XX, 280 p. 160 illus., 60 in color. (Coastal Research Library, Volume 1) Hardcover

ISBN 978-94-007-0399-5 ► approx. \$129.00

SPRINGER REFERENCE



V. P. Singh, Texas A & M University, College Station, TX, USA; **P. Singh**, Hydro Tasmania Consulting, New Delhi, India; **U. K. Haritashya**, University of Dayton, OH, USA (Eds.)

Encyclopedia of Snow, Ice and Glaciers

Focusing on snow, ice and glaciers, this encyclopedia provides an up-to-date resource of basic concepts and relevant topics. Research and teaching materials are included, in addition to specialized literature for geologists, geographers, climatologists and hydrologists.

Due June 2011

Encyclop(a)edia

2011. 1000 p. (Encyclopedia of Earth Sciences Series) Hardcover

ISBN 978-90-481-2641-5 ► \$549.00

Also available as
eReference

ISBN 978-90-481-2642-2 ► \$549.00

Also available as

Print + eReference

2011. 1000 p. (Encyclopedia of Earth Sciences Series) Hardcover

ISBN 978-90-481-2643-9 ► \$689.00



M. Srbulov

Practical Soil Dynamics

Case Studies in Earthquake and Geotechnical Engineering

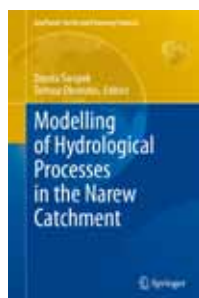
The objective of this practical book is to fill some of the gaps in the existing engineering codes and standards related to soil dynamics, concerning issues in earthquake engineering and ground vibrations, by using formulas and hand calculators.

Due June 2011

Monograph

2011. XX, 240 p. 110 illus., 10 in color. (Geotechnical, Geological and Earthquake Engineering, Volume 20) Hardcover

ISBN 978-94-007-1311-6 ► approx. \$129.00



D. Świątek, **T. Okruszko**, Warsaw University of Life Sciences, Warsaw, Poland (Eds.)

Modelling of Hydrological Processes in the Narew Catchment

This book focuses on the modelling of flow paths that affect the fluxes of dissolved compounds from a small agricultural catchment (the Narew Catchment) during snowmelt, as this is the dominant hydrological event in many moderate and high latitude catchments.

Due June 2011

Monograph

2011. 200 p. (Geoplanet: Earth and Planetary Sciences, Tentative volume 4) Hardcover

ISBN 978-3-642-19058-2 ► \$129.00



R. Tappert, **M. C. Tappert**, University of Alberta, Edmonton, Canada

Diamonds in Nature A Guide to Rough Diamonds

This wonderfully illustrated book provides in depth information about rough diamonds. It contains photographs that show the unique physical characteristics of the diamonds, and the accompanying text describes the processes that led to their formation.

Due March 2011

Professional book

2011. IX, 142 p. 221 illus. in color. Hardcover

ISBN 978-3-642-12571-3 ► \$69.95

S. M. Vicente-Serrano, Spanish National Research Council, Zaragoza, Spain; **R. M. Trigo**, University of Lisbon, Portugal (Eds.)

Hydrological, Socioeconomic and Ecological Impacts of the North Atlantic Oscillation in the Mediterranean Region

The impact of the NAO on northern Europe has been reviewed in detail, but no work has been done for the Mediterranean, which is the other key area impacted by the NAO. This multidisciplinary work assesses the phenomenon's impact on the Mediterranean region.

Due June 2011

Contributed volume

2011. X, 240 p. 20 illus. (Advances in Global Change Research, Volume 46) Hardcover

ISBN 978-94-007-1371-0 ► \$129.00



W. Wagner, Hannover, Germany

Groundwater in the Arab Middle East

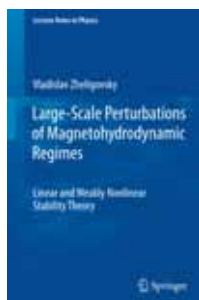
Not only does this volume outline the prevailing hydrogeological conditions in the Arab Middle East, it also details the region's geological background. It covers key influences on the groundwater of every Arab country from Lebanon, Jordan and Syria to Yemen.

Due May 2011

Monograph

2011. 300 p. 111 illus. Hardcover

ISBN 978-3-642-19350-7 ► \$129.00



V. Zheligovsky, CNRS, Nice, France

Large-Scale Perturbations of Magnetohydrodynamic Regimes

Linear and Weakly Nonlinear Stability Theory

Hydrodynamical dynamo theory has been spurred by recent developments. The emphasis in the present volume is on the introduction of powerful mathematical techniques required to tackle modern multiscale analysis of continuous systems and their application.

Due March 2011

Monograph

2011. 320 p. (Lecture Notes in Physics, Volume 829) Softcover

ISBN 978-3-642-18169-6 ► \$89.95

Geography



R. Chandrappa, Karnataka State Pollution Control Board, Bangalore, India; S. Gupta, Risk Management Solutions, Noida, India; U. C. Kulshrestha, Jawaharlal Nehru University, New Delhi, India

Coping with Climate Change

Principles and Asian Context

Climate change is real and coping with it is a major concern in coming days. This book offers recent and customized data on climate change in Asia, making it an ideal resource for those working on the subject in this specific geographic area.

Due June 2011

Monograph

2011. X, 470 p. 70 illus., 50 in color. Hardcover

ISBN 978-3-642-19673-7 ► \$179.00

J. A. Flannery, K. M. Smith, Boston Spa Media, Leeds, UK

Eco-Urban Design

Architects and designers face unprecedented challenges from today's environmental and ecological problems. This book takes a positive perspective by featuring fully realized design solutions from some of the world's most innovative architects and engineers.

Due April 2011

Monograph

2011. X, 210 p. 440 illus., 340 in color. Hardcover

ISBN 978-94-007-0368-1 ► approx. \$139.00

S. J. Jansen, H. C. Coolen, Delft University of Technology, Delft, The Netherlands; R. W. Goetgeluk, ABF Research, Delft, The Netherlands (Eds.)

The Measurement and Analysis of Housing Preferences and Choice

This comprehensive text offers an overview of methods to measure housing preferences and housing choice research. It discusses and compares numerous methods, detailing the limitations of each one, all within the context of meeting residents' needs.

Due June 2011

Contributed volume

2011. IV, 260 p. Hardcover

ISBN 978-90-481-8893-2 ► \$139.00

L. Litwin, Institute of Spatial and Cadastral Systems, Gliwice, Poland; M. Rossa, General Directorate for Environmental Protection, Warsaw, Poland

Geoinformation Metadata in INSPIRE and SDI

Understanding. Editing. Publishing

This book offers comprehensive coverage on geoinformation metadata in INSPIRE Directive and Spatial Information Infrastructures. It details required ISO and OGC standards as well as creating and publishing geoinformation metadata.

Due July 2011

Monograph

2011. X, 290 p. 100 illus. (Lecture Notes in Geoinformation and Cartography) Hardcover

ISBN 978-3-642-15861-2 ► \$129.00



W. Reinhardt, UniBw München, Neubiberg, Germany; S. Geertman, S. de Jong, University of Utrecht, Utrecht, The Netherlands (Eds.)

Advancing Geoinformation Science for a Changing World

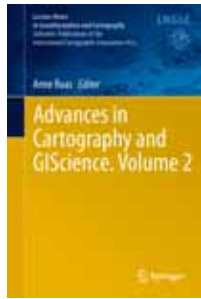
This book collects research papers from the 14th Conference of the Association of Geographic Information Laboratories in Europe (AGILE), 2011. Covers measuring spatiotemporal phenomena, quality and semantics, analysis, modeling and decision support and more.

Due April 2011

Monograph

2011. X, 520 p. (Lecture Notes in Geoinformation and Cartography, Tentative volume 1) Hardcover

ISBN 978-3-642-19788-8 ► approx. \$239.00



A. Ruas, COGIT, Saint Mandé, France (Ed.)

Advances in Cartography and GIScience. Volume 2

Selection from ICC 2011, Paris

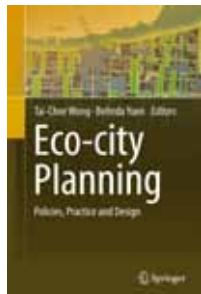
Comprising of the best papers presented at the 25th International Cartography Conference, this volume explores recent advances in cartography and GIScience. Topics include GeoVisualization, Semiotics, SDI, data quality and integration, and more.

Due June 2011

Monograph

2011. 500 p. 100 illus. (Lecture Notes in Geoinformation and Cartography / Publications of the International Cartographic Association (ICA), Tentative volume 6) Hardcover

ISBN 978-3-642-19213-5 ► approx. \$239.00



T. Wong, Nanyang Technological University, Singapore; B. Yuen, National University of Singapore, Singapore (Eds.)

Eco-city Planning

Policies, Practice and Design

Eco-city Planning emphasizes environmental planning policies that save energy, take anti-pollution measures, and reduce the need for driving. The text focuses on the construction of green buildings, safeguarding of nature and natural habitats in urban areas, and more.

Due April 2011

Monograph

2011. XIV, 266 p. 60 illus. Hardcover

ISBN 978-94-007-0382-7 ► \$129.00

Ecology

B. Jonsson, N. Jonsson, Norwegian Institute for Nature Research, Oslo, Norway

Ecology of Atlantic Salmon and Brown Trout

Habitat as a template for life histories

Destruction of habitat is the major cause for loss of biodiversity. This volume presents the population ecology of Atlantic salmon and brown trout and how it is influenced by the environment in terms of growth, migration, spawning and recruitment.

Due May 2011

Monograph

2011. 600 p. (Fish & Fisheries Series, Tentative volume 33) Hardcover

ISBN 978-94-007-1188-4 ► \$229.00



J. G. Kelcey, Cejkovice, Czech Republic; N. Müller, University of Applied Sciences, Erfurt, Germany (Eds.)

Plants and Habitats of European Cities

Plants and habitats that make up the ecological systems of various European cities are the focus of this volume. The natural and historical development of each city is discussed, as well as local flora, environmental planning, design and management.

Due April 2011

Contributed volume

2011. XVII, 663 p. Hardcover

ISBN 978-0-387-89683-0 ► \$209.00



K. Kikuzawa, Ishikawa Prefectural University, Japan; M. J. Lechowicz, McGill University, Montreal, Canada

Ecology of Leaf Longevity

Leaf longevity is a fundamental process underlying patterns of variation in foliar phenology and determining the distinction between deciduous and evergreen plant species. Variation in leaf longevity is associated with a wide array of differences in the physiology, anatomy, morphology and ecology of plants. This book brings together for the first time information scattered widely in the botanical literature to provide a clear and comprehensive introduction to the nature and significance of variation in leaf longevity.

Due April 2011

Monograph

2011. XIII, 139 p. 62 illus. (Ecological Research Monographs) Hardcover

ISBN 978-4-431-53917-9 ► \$139.00



R. S. Krannich, A. E. Luloff, D. R. Field

People, Places and Landscapes

Social Change in High Amenity Rural Areas

This analysis of the relationship between socio-economic trends and natural resource amenities focuses on the inter-mountain West of the USA, but its strong empiricism makes it a valuable resource for rural development, sociology and demography researchers.

Due June 2011

Monograph

2011. VIII, 250 p. 32 illus. in color. (Landscape Series, Volume 14) Hardcover

ISBN 978-94-007-1262-1 ► approx. \$139.00

U. Lüttge, University of Darmstadt, Germany; **E. Beck**, University of Bayreuth, Germany; **D. Bartels**, University of Bonn, Germany (Eds.)

Plant Desiccation Tolerance

Plant desiccation tolerance is found in all phyla of chlorophyll-containing species, from prokaryotes and cryptogams to angiosperms. This volume covers the organismic as well as the cell biological and molecular levels of this phenomenon.

Due April 2011

Contributed volume

2011. 380 p. (Ecological Studies, Volume 215) Hardcover

ISBN 978-3-642-19105-3 ► approx. \$179.00

E. Ritter, Aalborg, Denmark; **D. Daukstra**, Builth Wells, Powys, Wales, UK (Eds.)

New Perspectives on People and Forests

The aim of this important and relevant book is to elucidate the role of forests as part of a landscape in the life of people. It deals with important topics in landscape ecology, and explores links between people and forest landscapes.

Due April 2011

Contributed volume

2011. XX, 244 p. 23 illus. in color. (World Forests, Volume 9) Hardcover

ISBN 978-94-007-1149-5 ► approx. \$179.00

J. Seckbach, The Hebrew University of Jerusalem, Israel; **P. Kociolek**, University of Colorado, Boulder, CO, USA (Eds.)

The Diatom World

This volume presents up-to-date information on diatom classification, biology and ecology, in addition to genomics and applied uses. The text discusses the tree of life of diatoms, their classifications, the habitats and ecological spectra the group exploits, and the beauty of their form.

Due June 2011

Contributed volume

2011. XX, 580 p. 40 illus., 20 in color. (Cellular Origin, Life in Extreme Habitats and Astrobiology, Volume 19) Hardcover

ISBN 978-94-007-1326-0 ► \$239.00

J. A. Zinck, University of Twente, Enschede, The Netherlands; **O. Huber**, Fundación Instituto Botánico de Venezuela, Caracas, Venezuela (Eds.)

Peatlands of the Western Guayana Highlands, Venezuela Properties and Paleogeographic Significance of Peats

This volume is composed of 10 chapters covering a variety of features including geology, geomorphology, vegetation and soils that characterize the biophysical environment of tepui summits in the western Guayana Highlands, southern Venezuela. The core subject concentrates on the properties, age record, and paleogeographic significance of the peats that have deposited during the Holocene in pseudokarstic depressions on siliceous sedimentary and igneous/metamorphic rocks.

Due June 2011

Contributed volume

2011. 280 p. (Ecological Studies, Tentative volume 217) Hardcover

ISBN 978-3-642-20137-0 ► approx. \$139.00

Environment

M. Behnassi, Ibn Zohr University of Agadir, Morocco; **S. Draggan**, Environmental Protection Agency, Washington, DC, USA; **S. Yaya**, University of Ottawa, ON, Canada (Eds.)

Global Food Insecurity

Rethinking Agricultural and Rural Development Paradigm and Policy

Humankind and the world's ecosystems face the toughest of challenges: how to feed billions more people while the climate changes, energy becomes scarcer and competition for resources intensifies. This book advocates paradigm- and policy shifts at all levels.

Due April 2011

Contributed volume

2011. X, 290 p. 20 illus. in color. Hardcover

ISBN 978-94-007-0889-1 ► approx. \$179.00



R. Burritt, University of South Australia, Adelaide, SA, Australia; **S. Schaltegger**, Leuphana Universität Lüneburg, Germany; **M. Bennett**, University of Gloucestershire, Cheltenham, UK; **T. Pohjola**, Aalto University, Helsinki, Finland; **M. Csutora**, Corvinus University of Budapest, Hungary (Eds.)

Environmental Management Accounting and Supply Chain Management

Inspired by the 2007 EMAN conference in Finland on the links between environmental management accounting and supply chain administration, this book includes research first presented there as well as independent contributions covering a range of related issues.

Due June 2011

Contributed volume

2011. XI, 338 p. 42 illus., 29 in color. (Eco-Efficiency in Industry and Science, Volume 27) Hardcover

ISBN 978-94-007-1389-5 ► \$209.00

W. Endlicher, Humboldt University of Berlin, Germany (Ed.)

Perspectives of Urban Ecology Ecosystems and Interactions between Humans and Nature in the Metropolis of Berlin

This interdisciplinary overview of urban ecology uses the metropolitan region of Berlin as a case study and assesses not only empirical environmental data but also developments in social dimensions such as urban planning, traffic management and the economy.

Due May 2011

Monograph

2011. X, 340 p. 100 illus. Hardcover

ISBN 978-3-642-17730-9 ► approx. \$179.00

A. Kibaroglu, Middle East Technical University, Ankara, Turkey; **W. Scheumann**, University of Technology, Berlin, Germany; **A. Kramer**, Adelphi Research, Berlin, Germany (Eds.)

Turkey's Water Policy

National Frameworks and International Cooperation

Water is a strategic natural resource and of vital importance for social and economic development. This book analyzes the current state of Turkey's water policy and explores all major aspects on transboundary water issues.

Due June 2011

Monograph

2011. XX, 300 p. 40 illus., 10 in color. Hardcover

ISBN 978-3-642-19635-5 ► approx. \$179.00

F. Neuhaus, CASA, University College London, UK (Ed.)

Studies in Temporal Urbanism

The urbanTick Experiment

Based on a two-year public weblog, this volume reflects a vast array of perspectives on how urbanites relate to time. In a city, where time is perceived in ways varying from commuter flows to seasonal blossoms, it's a fascinating and diverse range of views.

Due April 2011

Monograph

2011. X, 375 p. 400 illus. Hardcover

ISBN 978-94-007-0936-2 ► \$179.00

J. Portugali, Tel-Aviv University, Tel-Aviv, Israel

Complexity, Cognition and the City

This book aims to foster a deeper understanding of urbanism, invoking the contributions both the hard and soft sciences have made, and are still making, in grappling with the many issues and facets of regional planning and dynamics.

Due June 2011

Monograph

2011. XV, 415 p. (Understanding Complex Systems) Hardcover

ISBN 978-3-642-19450-4 ► approx. \$199.00

C. Ray, University of Hawaii, Honolulu, USA; **R. Jain**, University of the Pacific, Stockton, USA (Eds.)

Drinking Water Treatment

Focusing on Appropriate Technology and Sustainability

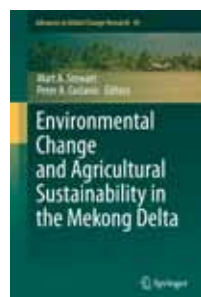
This book examines four sustainable drinking water treatment technologies that are simple, non-energy intensive, inexpensive and easy to maintain: solar pasteurization, membrane desalination, natural filtration (riverbank filtration), and solar distillation.

Due May 2011

Contributed volume

2011. X, 290 p. 89 illus. (Strategies for Sustainability, Volume) Hardcover

ISBN 978-94-007-1103-7 ► \$129.00



M. A. Stewart, Western Washington University, WA, USA; **P. A. Coclanis**, University of North Carolina, Chapel Hill, NC, USA (Eds.)

Environmental Change and Agricultural Sustainability in the Mekong Delta

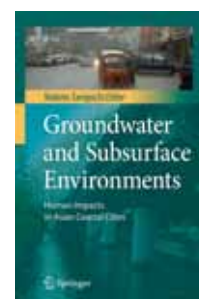
Comprising selected material from a 2010 conference held in the delta itself, the papers assembled in this volume include much technical information and offer a full range of perspectives on the environmental and sustainability issues in this sensitive region.

Due May 2011

Contributed volume

2011. X, 290 p. 50 illus. in color. (Advances in Global Change Research, Volume 45) Hardcover

ISBN 978-94-007-0933-1 ► \$129.00



M. Taniguchi, Research Institute for Humanity and Nature, Kyoto, Japan (Ed.)

Groundwater and Subsurface Environments

Human Impacts in Asian Coastal Cities

This book investigates the subsurface environment problems in Asian coastal cities. It describes advanced methods for evaluating groundwater and subsurface environment, and shows that sustainable management is possible in the region.

Available

Monograph

2011. XIV, 314 p. 179 illus., 2 in color. Hardcover

ISBN 978-4-431-53903-2 ► \$209.00



J. Zhang, **J. Zhuang**, Nanjing Forestry University, China; **D. DeAngelis**, University of Miami, Coral Gables, FL USA

Theory and Practice of Soil Loss Control in Eastern China

This book reports on soil loss prediction and environmental monitoring in eastern China, and recent successes in soil loss control programs there. Coverage includes recycling in local agriculture, and collaborations between urban and agricultural regions.

Due June 2011

Monograph

2011. XIV, 294 p. 144 illus., 38 in color. Hardcover

ISBN 978-1-4419-9678-7 ► approx. \$129.00

Forestry & Plant Sciences

B. Campbell, Cardno ENTRIX, Concord, CA, USA;
S. Lopez Ortiz, Colegio de Postgraduados, Veracruz, Mexico (Eds.)

Integrating Agriculture, Conservation and Ecotourism: Examples from the Field

This book provides concise reviews of current important and complex issues in agroecology. It identifies inadequacies, errors and gaps in knowledge that may hinder or oppose effective progress toward improving sustainability.

Due June 2011

Contributed volume

2011. 400 p. 51 illus., 1 in color. (Issues in Agroecology – Present Status and Future Prospectus, Volume 1) Hardcover

ISBN 978-94-007-1308-6 ► \$209.00

K. Davies, Rothamsted Research, Harpenden, U. K.;
Y. Spiegel, The Volcani Center, Bet Dagan, Israel (Eds.)

Biological Control of Plant-Parasitic Nematodes: Building Coherence between Microbial Ecology and Molecular Mechanisms

The offered volume intends to review the biological control theme of phytonematodes from several prospects: ecological; applicative as well as commercial state of the art; understanding the mode-of-action of various biocontrol systems; interaction between the plant host, nematodes' surface and microorganism's; candidates for biocontrol; extrapolation of the wide knowledge existed in another systems for understanding biocontrol processes: *C. elegans* as a model and lessons from other natural systems; and exploiting advanced genomic tools to promote understanding biocontrol processes and thereafter improve specific biological control agents.

Due May 2011

Contributed volume

2011. XX, 380 p. 40 illus. in color. (Progress in Biological Control, Volume 11) Hardcover

ISBN 978-1-4020-9647-1 ► approx. \$165.00

I. Falk, R. Wallace, Charles Darwin University, Darwin, NT, Australia; **M. L. Ndoen**, Satya Wacana Christian University, Salatiga, CJ, Indonesia (Eds.)

Managing Biosecurity Across Borders

In this book, a multi-disciplinary team of Australian and Indonesian researchers reflect on the challenge of managing invasive species, pathogens and other threats across borders both geographic and disciplinary.

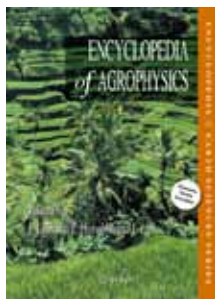
Due June 2011

Contributed volume

2011. XX, 180 p. 40 illus. in color. Hardcover

ISBN 978-94-007-1411-3 ► approx. \$139.00

SPRINGER REFERENCE



J. Glinski, J. Horabik, J. Lipiec, Institute of Agrophysics, Lublin, Poland (Eds.)

Encyclopedia of Agrophysics

The Encyclopedia of Agrophysics offers up-to-date information on the physical properties and processes affecting the quality of the environment and plant production. It presents more than 250 informative articles and 400 glossary terms.

Due June 2011

Encyclop(a)edia

2011. 900 p. 450 illus., 50 in color. (Encyclopedia of Earth Sciences Series) Hardcover

ISBN 978-90-481-3584-4 ► \$549.00

Also available as

eReference

ISBN 978-90-481-3585-1 ► \$549.00

Also available as

Print + eReference

2011. 900 p. 450 illus., 50 in color. Hardcover

ISBN 978-90-481-3536-8 ► \$689.00



S. Günter, M. Weber, B. Stimm, R. Mosandl, Technical University of Munich, Germany (Eds.)

Silviculture in the Tropics

This book integrates the latest developments in forestry science and practice and how they inform sustainable forest management in the tropics. It provides details about the full spectrum of forest formations, from dry to moist and from lowland to mountain.

Due June 2011

Contributed volume

2011. X, 525 p. (Tropical Forestry, Volume 8) Hardcover

ISBN 978-3-642-19985-1 ► approx. \$209.00

S. M. Jain, University of Helsinki, Finland; **J. Al-Khayri**, King Faisal University, Al-Hassa, Saudi-Arabia;
D. V. Johnson, Consultant, Cincinnati, OH, USA (Eds.)

Date Palm Biotechnology

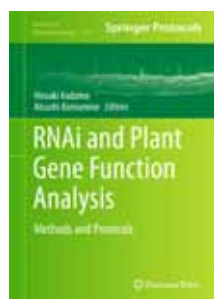
This important reference book is the first comprehensive resource worldwide that reflects research achievements in date palm biotechnology. It documents research events during the last four decades, examines current status, and the future outlook.

Due April 2011

Contributed volume

2011. 666 p. Hardcover

ISBN 978-94-007-1317-8 ► approx. \$239.00



H. Kodama, Chiba University, Chiba, Japan;
A. Komamine, The Research Institute of Evolutionary
Biology, Tokyo, Japan (Eds.)

RNAi and Plant Gene Function Analysis

Methods and Protocols

With RNAi technology now essential to most plant science researchers, this book introduces the central topics, lists the necessary materials and reagents, offers reproducible laboratory protocols, and provides notes on troubleshooting and avoiding pitfalls.

Due May 2011

Contributed volume

2011. XIV, 210 p. 43 illus., 1 in color. (Methods in Molecular Biology, Volume 744) Hardcover

ISBN 978-1-61779-122-2 ► \$119.00

T. K. Lim, Canberra, ACT, Australia

Edible Medicinal and Non-Medicinal Plants

Volume 1, Fruits

This book offers up-to-date information on some 100 species of edible, medicinal and non-medicinal plants, illustrated with many colour images to aid in edible plant and plant part identification. The entire compendium will cover more than a thousand species.

Due June 2011

Monograph

2011. XX, 480 p. 350 illus. in color. Hardcover

ISBN 978-90-481-8660-0 ► approx. \$209.00

F. C. Meinzer, Pacific Northwest Research Station, Corvallis, OR, USA; B. Lachenbruch, Oregon State University, Corvallis, OR, USA; T. E. Dawson, University of California Berkeley, Berkeley, CA, USA (Eds.)

Size- and Age-Related Changes in Tree Structure and Function

During their ontogeny, trees undergo numerous changes in their physiological function, architecture and allometry. This volume examines the central interplay between these changes, and the impact they can have on forest ecosystems.

Due June 2011

Contributed volume

2011. VIII, 442 p. 17 illus. in color. (Tree Physiology, Volume 4) Hardcover

ISBN 978-94-007-1241-6 ► \$209.00

F. H. Schweingruber, Institut for Forest, Snow and Landscape Research WSL, Birmensdorf, Switzerland;
A. Börner, E. Schulze, Max Planck Institute for Biogeochemistry, Jena, Germany

Atlas of Stem Anatomy in Herbs, Shrubs and Trees

Volume 1

This work, published in two volumes, contains descriptions of the wood and bark anatomies of 3000 dicotyledonous plants of 120 families, highlighting the anatomical and phylogenetic diversity of dicotyledonous plants of the Northern Hemisphere. The first volume principally treats families of the Early Angiosperms, Eudicots, Core Eudicots and Rosids, while the second concentrates on the Asterids. Presented in Volume 1 are microsections of the xylem and phloem of herbs, shrubs and trees of 1200 species and 85 families of various life forms of the temperate zone along altitudinal gradients from the lowland at the Mediterranean coast to the alpine zone in Western Europe. The global perspective of the findings is underlined by the analysis of 500 species from the Caucasus, the Rocky Mountains and Andes, the subtropical zone on the Canary Islands, the arid zones in the Sahara, in Eurasia, Arabia and Southwest North America, and the boreal and arctic zones in Eurasia and Canada. The presence of annual rings in all life forms demonstrates that herbs and dwarf shrubs are an excellent tool for the reconstruction of annual biomass production and the interannual dynamic of plant associations.

Due March 2011

Atlas

2011. 500 p. Hardcover

ISBN 978-3-642-11637-7 ► \$139.00



S. Shackleton, C. Shackleton, Rhodes University, South Africa; P. Shanley, Centre for International Forestry Research, Indonesia (Eds.)

Non-Timber Forest Products in the Global Context

Based on a critical analysis of debates and discourses, this volume presents a balanced and realistic perspective of the benefits and challenges associated with NTFP use and management.

Due April 2011

Contributed volume

2011. X, 275 p. (Tropical Forestry, Volume 7) Hardcover

ISBN 978-3-642-17982-2 ► \$189.00

A. Singh, University of Waterloo, ON, Canada;
N. Parmar, Ryerson University, Toronto ON, Canada;
R. C. Kuhad, University of Delhi, New Delhi, India (Eds.)

Bioaugmentation, Biostimulation and Biocontrol

Bioaugmentation, Biostimulation and Biocontrol presents recent advances in molecular methods and metagenomics for microbial diversity evaluation. Contributions from experts in the field deal with the application of biofertilizers and organic amendments.

Due June 2011

Contributed volume

2011. X, 280 p. (Soil Biology, Volume 28) Hardcover

ISBN 978-3-642-19768-0 ► approx. \$189.00



P. Tow, The University of Adelaide, Gawler, Australia;
I. Cooper, The University of Adelaide, Bibaringa,
 Australia; **I. Partridge**, Queensland Department of
 Primary Industry and Fisheries, Toowoomba, QLD,
 Australia; **C. Birch**, The University of Queensland,
 Gatton, QLD, Australia (Eds.)

Rainfed Farming Systems

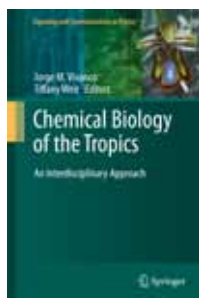
Today's environmental pressures make it more vital than ever to re-assess the value of rain-fed farming systems and find ways to improve their long-term productivity, profitability and sustainability. This well timed analytical volume does precisely that.

Due June 2011

Contributed volume

2011. X, 10 p. Hardcover

ISBN 978-1-4020-9131-5 ► \$239.00



J. M. Vivanco, **T. Weir**, Colorado State University, Fort
 Collins, USA (Eds.)

Chemical Biology of the Tropics An Interdisciplinary Approach

This book introduces the scientific pioneers who first attempted to quantify and understand the vast diversity of tropical forests, along with their successors, who wield modern tools and technologies to dissect the chemical nature of rainforest interactions.

Due April 2011

Contributed volume

2011. XV, 120 p. (Signaling and Communication in
 Plants, Volume 8) Hardcover

ISBN 978-3-642-19079-7 ► \$139.00

P. Wojtaszek, University of Poznan, Poland (Ed.)

Mechanical Integration in Plant Cells and Plants

This book gives an overview of the role played by mechanical forces and signals in plant cells and whole plant growth. It covers all levels of plant hierarchical organisation, providing direct or indirect evidence for the organismal nature of these organisms.

Due June 2011

Contributed volume

2011. XV, 405 p. (Signaling and Communication in
 Plants, Volume 9) Hardcover

ISBN 978-3-642-19090-2 ► approx. \$209.00



J. Xu, Purdue University, West Lafayette, IN, USA;
B. H. Bluhm, University of Arkansas, Fayetteville, AR,
 USA (Eds.)

Fungal Genomics Methods and Protocols

Fungal Genomics explores the three most likely fronts upon which the field will advance: the sequencing of more fungal genomes, the mining of sequenced genomes for useful information, and the use of genomics sequences to explain biological processes.

Due May 2011

Contributed volume

2011. 280 p. 29 illus. (Methods in Molecular Biology,
 Volume 722) Hardcover

ISBN 978-1-61779-039-3 ► \$119.00

Life Sciences

S. Basu, **L. Wiklund**, Uppsala University, Sweden (Eds.)

Studies on Experimental Models

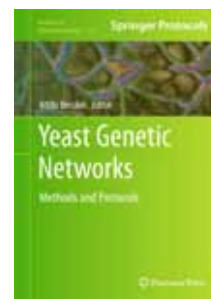
This text contains data on the experimental models or review of such models of oxidative stress in various diseases. It is broken into six sections: diabetes, cardiovascular, neurology, ocular diseases, toxicology/environmental and in vitro/tissue culture.

Due March 2011

Contributed volume

2011. 680 p. 127 illus., 68 in color. (Oxidative Stress in
 Applied Basic Research and Clinical Practice) Hardcover

ISBN 978-1-60761-955-0 ► \$239.00



A. Becskei, University of Zurich, Switzerland (Ed.)

Yeast Genetic Networks Methods and Protocols

Yeast Genetic Networks presents an analysis of small-scale gene networks in yeast. The text discusses different methods to analyze gene expression quantitatively, and describes a collection of mathematical and computational tools.

Due April 2011

Contributed volume

2011. 305 p. 52 illus., 1 in color. (Methods in Molecular
 Biology, Volume 734) Hardcover

ISBN 978-1-61779-085-0 ► \$139.00



T. Dalmay, University of East Anglia, Norwich, UK (Ed.)
MicroRNAs in Development
 Methods and Protocols

MicroRNAs in Development explores how to detect and profile miRNA expression, and outlines how to identify and validate miRNA targets in animals and plants.

Due March 2011

Contributed volume

2011. 200 p. 36 illus., 2 in color. (Methods in Molecular Biology, Volume 732) Hardcover

ISBN 978-1-61779-082-9 ► \$119.00

T. Denk, Swedish Museum of Natural History, Stockholm, Sweden; **F. Grimsson**, **R. Zetter**, University of Vienna, Austria; **L. A. Simonarson**, University of Iceland, Reykjavik, Iceland

Late Cainozoic Floras of Iceland
15 Million Years of Vegetation and Climate History in the Northern North Atlantic

This book examines the plant fossil record from Iceland over the past 15 million years. It details 11 sedimentary rock formations holding over 320 plant taxa and describes palaeoecology and floristic affinities within the Northern Hemisphere for each flora.

Due April 2011

Monograph

2011. X, 440 p. (Topics in Geobiology, Volume 35) Hardcover

ISBN 978-94-007-0371-1 ► \$209.00

A. Fasolo, University Torino, Italy (Ed.)

The Theory of Evolution and its Impact

This assessment of the impact of Darwin's theory on a range of scientific fields covers everything from the history of science to language and philosophy. Within the scope of this coverage, fundamental biological concepts such as genetics are elaborated.

Due June 2011

Contributed volume

2011. Approx. 200 p. 24 illus., 16 in color. Softcover

ISBN 978-88-470-1973-7 ► approx. \$129.00



M. Filippi, **H. Geiger**, Cincinnati Children's Hospital Medical Center, OH, USA (Eds.)

Stem Cell Migration

Methods and Protocols

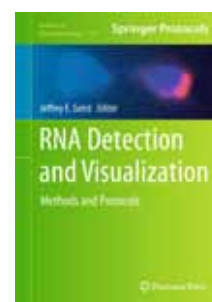
In this succinct and practical guide, expert contributors cover standard and novel techniques that facilitate the study of stem cell migration. The book emphasizes in vivo technologies and includes protocols on germ, neuronal, and hematopoietic stem cells.

Due June 2011

Contributed volume

2011. 285 p. 60 illus., 10 in color. (Methods in Molecular Biology, Volume 750) Hardcover

ISBN 978-1-61779-144-4 ► approx. \$139.00



J. E. Gerst, Weizmann Institute of Science, Rehovot, Israel (Ed.)

RNA Detection and Visualization

Methods and Protocols

This book presents methods and protocols for both fixed and live cells from everything from bacteria to mammalian models, offering detailed techniques from experts in the field. The text includes vital notes on troubleshooting and avoiding known pitfalls.

Due April 2011

Contributed volume

2011. 465 p. 71 illus., 30 in color. (Methods in Molecular Biology, Volume 714) Hardcover

ISBN 978-1-61779-004-1 ► \$139.00



C. Hagedorn, State University, Blacksburg, VA, USA; **A. R. Blanch**, University of Barcelona, Spain; **V. Harwood**, University of South Florida, Tampa, FL, USA (Eds.)

Microbial Source Tracking: Methods, Applications, and Case Studies

With the extant literature on microbial source tracking both complex and contradictory, the goal of this volume is to reflect the diversity of MST approaches as well as to foster the design of more standardized approaches that include performance criteria.

Due June 2011

Contributed volume

2011. 480 p. 20 illus. in color. Hardcover

ISBN 978-1-4419-9385-4 ► \$209.00



T. C. Hobman, University of Alberta, Edmonton, AB, Canada; **T. F. Duchaine**, McGill University, Montreal, QC, Canada (Eds.)

Argonaute Proteins

Methods and Protocols

Part of the respected Methods in Molecular Biology™ series, this practical volume features brief introductions to the key topics, lists the necessary materials and reagents, and includes reproducible laboratory protocols as well as key troubleshooting tips.

Due May 2011

Contributed volume

2011. 315 p. 65 illus., 2 in color. (Methods in Molecular Biology, Volume 725) Hardcover

ISBN 978-1-61779-045-4 ► \$139.00



O. Holst, Forschungszentrum Borstel, Germany (Ed.)

Microbial Toxins

Methods and Protocols

Divided into three comprehensive sections, this detailed volume covers bacterial protein toxins, endotoxins, and mold fungus toxins. The chapters contain introductions to their respective topics, readily reproducible step-by-step laboratory protocols, and more.

Due May 2011

Contributed volume

2011. 215 p. 43 illus., 3 in color. (Methods in Molecular Biology, Volume 739) Hardcover

ISBN 978-1-61779-101-7 ► \$119.00



S. Horvath, University of California, Los Angeles, CA, USA

Weighted Network Analysis

Applications in Genomics and Systems Biology

This book offers current methods, software and applications involved in weighted networks, reviewing data mining methods and analysis strategies and showing how to use them in practice. The self-contained presentation requires minimal knowledge of statistics.

Due May 2011

Monograph

2011. XXII, 414 p. 54 illus., 46 in color. Hardcover

ISBN 978-1-4419-8818-8 ► \$209.00



H. Insam, B. A. Knapp, University of Innsbruck, Austria (Eds.)

Recycling of Biomass Ashes

As our consumption of 'renewable' bioenergy increases, so does the production of its associated waste product, 'biomass ash.' This book presents a number of options for recycling this ash, from using it as fertilizer to making it an ingredient of bricks.

Due May 2011

Contributed volume

2011. X, 183 p. Hardcover

ISBN 978-3-642-19353-8 ► \$189.00

International Association for Food Protection, Des Moines, USA

Procedures to Investigate Foodborne Illness

This revised sixth edition of the procedural guide provides public health professionals with a clear set of principles for investigating alleged foodborne illnesses. It covers everything from sample collection to interviewing victims and those at risk.

Due June 2011

Monograph

6th Edition 2011. 150 p. 9 illus. Softcover

ISBN 978-1-4419-8395-4 ► \$29.95



J. Z. Kubiak, University of Rennes, Rennes, France (Ed.)

Cell Cycle in Development

This book thoroughly examines current understanding of processes accompanying embryonic transitions, in which cell cycle machinery is implicated. The authors explain numerous questions of how the basic cell cycle events are controlled at the cellular level.

Due April 2011

Contributed volume

2011. 500 p. (Results and Problems in Cell Differentiation, Volume 53) Hardcover

ISBN 978-3-642-19064-3 ► approx. \$209.00

N. A. Logan, Glasgow Caledonian University, UK; **P. D. Vos**, Gent University, Belgium (Eds.)

Endospore-forming Soil Bacteria

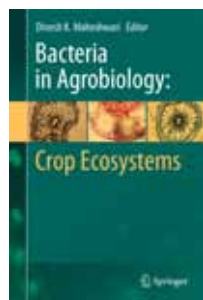
This book explores the classification of endospore-forming bacteria, detection and study methods and dispersal, and discusses their dynamic interaction with other soil inhabitants, and their role in nitrogen fixation, denitrification, and soil remediation.

Due June 2011

Contributed volume

2011. 300 p. (Soil Biology, Volume 27) Hardcover

ISBN 978-3-642-19576-1 ► approx. \$209.00



D. K. Maheshwari (Ed.)

Bacteria in Agrobiolgy: Crop Ecosystems

This book describes the beneficial role of plant growth promoting bacteria with special emphasis on oil yielding crops, cereals, fruits and vegetables. It offers a modern approach and will be a valuable source of information.

Due April 2011

Contributed volume

2011. X, 340 p. Hardcover

ISBN 978-3-642-18356-0 ► \$209.00

A. Marchfelder, W. Hess, (Eds.)

Regulatory RNAs in Prokaryotes

This comprehensive and up-to-date collection of review articles focuses on RNA-mediated regulation in prokaryotes. Written by leading experts in the field, this is the first volume to exclusively cover regulatory RNAs in the prokaryotic domains.

Due April 2011

Contributed volume

2011. 400 p. 100 illus., 50 in color. Hardcover

ISBN 978-3-7091-0217-6 ► approx. \$209.00

S. S. Mark (Ed.)

Bioconjugation Protocols

Strategies and Methods

In this book, researchers update the classic methods and introduce new approaches that go beyond basic conjugation techniques. There is emphasis on the interplay of organic synthesis, molecular biology, surface biotechnology and biomaterials engineering.

Due June 2011

Contributed volume

2nd Edition 2011. 565 p. 182 illus. (Methods in Molecular Biology, Volume 751) Hardcover

ISBN 978-1-61779-150-5 ► approx. \$159.00



P. Navard, CEMEF, France (Ed.)

Polysaccharide Research

The European Polysaccharide Network of Excellence Views

This overview of the science of polysaccharides considers them as a class of polymers and provides detailed descriptions of the major categories, as well as covering all the main aspects of polysaccharide science and technology such as life-cycle assessment.

Due June 2011

Contributed volume

2011. 450 p. 200 illus., 50 in color. Hardcover

ISBN 978-3-7091-0420-0 ► approx. \$209.00



M. Noda, Tokyo Medical & Dental University, Tokyo, Japan (Ed.)

Mechanosensing Biology

Covering topics such as gravity and tissues and disuse osteoporosis, the book provides up-to-date information on cutting-edge advancements in the field of mechanobiology. It also offers a timely contribution to research major problems in contemporary society.

Available

Monograph

2011. XIV, 218 p. 49 illus., 2 in color. Hardcover

ISBN 978-4-431-89756-9 ► \$189.00



W. C. Parks, University of Washington, Seattle, USA;

R. P. Mecham, Washington University School of Medicine, St. Louis MO, USA (Eds.)

Extracellular Matrix Degradation

This book provides a review of the known classes of proteases that degrade extracellular matrix (ECM) both outside and inside the cell, including cathepsins, bacterial collagenases, matrix metalloproteinases, meprins, serine proteases, and elastases.

Due April 2011

Contributed volume

2011. 300 p. (Biology of Extracellular Matrix, Tentative volume 2) Hardcover

ISBN 978-3-642-16860-4 ► \$189.00

The Mycota

A Comprehensive Treatise on Fungi as Experimental Systems for Basic and Applied Research

Series editor: K. Esser

Volume 14

S. Pöggeler, University of Göttingen, Germany;

J. Wöstemeyer, University of Jena, Germany (Eds.)

Evolution of Fungi and Fungal-Like Organisms

Richly illustrated, and featuring contributions from leading experts in the field, this volume addresses questions concerning the origin of the fungal kingdom and fungal evolution at a level of analytical refinement that has never before been possible.

Due June 2011

Handbook

2011. 250 p. Hardcover

ISBN 978-3-642-19973-8 ► \$229.00



R. L. Price, University of South Carolina, Columbia, SC, USA; **W. G. Jerome**, Vanderbilt University Medical Center, Nashville, TN, USA (Eds.)

Basic Confocal Microscopy

A result of the demand for training in what is a relatively young field, this book covers all the basics needed to design, implement, and interpret the results of biological experiments based on confocal microscopy, as well as resources for continued learning.

Due April 2011

Contributed volume

2011. 200 p. 139 illus., 103 in color. Hardcover

ISBN 978-0-387-78174-7 ► \$189.00

A. Prokop, Chemical and Biological Engineering, Vanderbilt University, Nashville, TN, USA (Ed.)

Intracellular Delivery Fundamentals and Applications

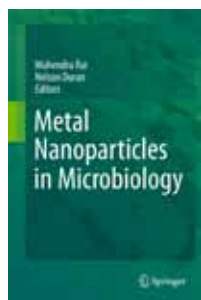
Nanotechnology has the potential to improve diagnosis, treatment and follow-up of diseases. This book features a special subsection of Nanomedicine, an application of nanotechnology aimed at achieving breakthroughs in healthcare.

Due June 2011

Contributed volume

2011. 350 p. (Fundamental Biomedical Technologies, Volume 5) Hardcover

ISBN 978-94-007-1247-8 ► \$209.00



M. Rai, Amravati University, Maharashtra, India; **N. Duran**, Universidade Estadual de Campinas, Campinas, S.P., Brazil (Eds.)

Metal Nanoparticles in Microbiology

Presenting an introduction to biogenic metal nanoparticles, this volume describes how they can be biosynthesized using bacteria, fungi and yeast, as well as their potential applications in biomedicine.

Due April 2011

Contributed volume

2011. VIII, 320 p. Hardcover

ISBN 978-3-642-18311-9 ► \$209.00



R. J. Simpson, **D. W. Greening**, Ludwig Institute for Cancer Research, Parkville, VIC, Australia (Eds.)

Serum/Plasma Proteomics Methods and Protocols

Blood science has become a cornerstone of multiple disciplines. This book, contributed to by leading experts in the field, provides a comprehensive resource of protocols for areas, pre-analytical through to analytical, of plasma and serum proteomics.

Due March 2011

Contributed volume

2011. XIII, 397 p. 69 illus., 3 in color. (Methods in Molecular Biology, Volume 728) Hardcover

ISBN 978-1-61779-067-6 ► \$139.00



Z. Songyang, Baylor College of Medicine, Houston, TX, USA (Ed.)

Telomeres and Telomerase Methods and Protocols

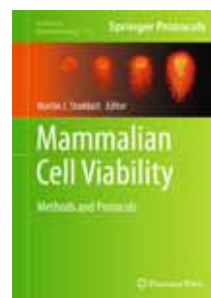
In its updated 2nd Edition, this book builds on the telomerase assays featured in the popular first edition. Using the Methods in Molecular Biology™ format, it includes materials and reagents lists, step-by-step protocols, and expert tips on troubleshooting.

Due March 2011

Contributed volume

2nd Ed. 2011. 185 p. 25 illus. (Methods in Molecular Biology, Volume 735) Hardcover

ISBN 978-1-61779-091-1 ► \$119.00



M. J. Stoddart, AO Research Institute, Davos Platz, Switzerland (Ed.)

Mammalian Cell Viability Methods and Protocols

This book presents methods for monolayer and suspension cells, methods for determining viability within tissue sections and 3 dimensional culture systems, and methods requiring specialized equipment, all in the popular Methods in Molecular Biology™ series format.

Due April 2011

Contributed volume

2011. 220 p. 52 illus., 9 in color. (Methods in Molecular Biology, Volume 740) Hardcover

ISBN 978-1-61779-107-9 ► \$119.00

Zoology

F. Barth, J. A. Humphrey, M. V. Srinivasan (Eds.)
Frontiers in Sensing Systems
 Biology and Engineering

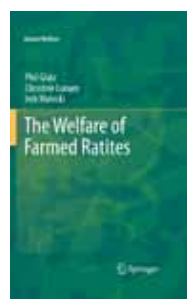
Biological sensing organs have – due to their optimized specialization throughout evolution – an enormous potential for technical, industrial and medical applications. This applies to sensors specialized for different forms of energy such as optical, electrical, magnetic, mechanical and chemical to name a few of them. This book brings together the first hand knowledge of the frontiers of research in their respective specialization, namely biology, engineering, physical sciences and mathematics opening the way for new research strategies and ways of thinking. The specific topics cover a broad spectrum ranging from biological sensing systems of various organisms, processes of energy transformation and transduction to sensor array fabrication and application. These different fields are linked and glued together by what a sensory system has to accomplish, both in biology and engineering.

Due June 2011

Professional book

2011. Approx. 480 p. 100 illus. in color. Hardcover

ISBN 978-3-211-99748-2 ► approx. \$209.00



P. Glatz, University of Adelaide, Roseworthy, SA, Australia; C. Lunam, Flinders University, Adelaide, SA, Australia; I. Malecki, University of Western Australia, Crawley, WA, Australia (Eds.)

The Welfare of Farmed Ratites

This, the first review of the range of factors affecting the welfare of farmed flightless birds, focuses on the ostrich, emu and rhea. It discusses husbandry and management protocols at each stage of the farming process as well as their welfare implications.

Due May 2011

Contributed volume

2011. XIII, 274 p. (Animal Welfare, Volume 11) Hardcover

ISBN 978-3-642-19296-8 ► \$189.00



R. Wehrens, Research and Innovation Centre, San Michele all'Adige, Italy

Chemometrics with R

Multivariate Data Analysis in the Natural Sciences and Life Sciences

This accessible primer on multivariate statistics in the life sciences gives a full description of the general data analysis paradigm, from exploratory analysis to modeling to validation; covers other aspects of chemometrics; and supplies the relevant R code.

Available

Monograph

2011. XIV, 285 p. 99 illus. (Use R) Softcover

ISBN 978-3-642-17840-5 ► \$59.95



G. B. Willars, R. J. Challiss, University of Leicester, UK (Eds.)

Receptor Signal Transduction Protocols

Third Edition

In this third edition of Receptor Signal Transduction Protocols, the expert contributors take into account the constant evolution of the GPCR field. It contains detailed revisions of chapters from the prior editions and a considerable amount of new material.

Due June 2011

Contributed volume

3rd Edition. 2011. 450 p. 84 illus. (Methods in Molecular Biology, Volume 746) Hardcover

ISBN 978-1-61779-125-3 ► approx. \$139.00



C. W. Heckman, Olympia, Washington, DC, USA

Encyclopedia of South American Aquatic Insects: Hemiptera - Heteroptera

Illustrated Keys to Known Families, Genera, and Species in South America

This comprehensive assessment of three suborders of insects adapted to an aquatic or littoral habitat looks at everything from their biology, morphology and larval development to the various methods for collecting, preserving and examining specimens.

Due March 2011

Monograph

2011. X, 670 p. 820 illus. Hardcover

ISBN 978-94-007-0704-7 ► \$229.00

W. Klemm, Texas A&M University, College Station, USA

Atoms of Mind

The "Ghost in the Machine" Materializes

This book describes how the mind "thinks", including the nonconscious, the subconscious and the conscious mind; includes current theories of consciousness, and the author's own theory based on patterns of nerve impulses in circuits interlaced in larger networks.

Due May 2011

Monograph

2011. 300 p. 54 illus. Hardcover

ISBN 978-94-007-1096-2 ► \$209.00

T. Liu, Northwest A&F University, Yangling, China;
L. Kang, Chinese Academy of Sciences, Beijing, China
(Eds.)

Recent Advances in Entomological Research

From Molecular Biology to Pest Management

With contributions from dozens of distinguished entomologists, this volume covers the latest trends in the field, ranging from the application of molecular biology to the subject, to insecticide toxicology and emerging technologies in pest management.

Due April 2011

Monograph

- Jointly published with Higher Education Press.
- Distribution rights in China: Higher Education Press.

2011. 500 p. 86 illus. Hardcover

ISBN 978-3-642-17814-6 ► \$239.00



H. Mehlhorn, Heinrich Heine University, Düsseldorf,
Germany (Ed.)

Nature Helps...

How Plants and Other Organisms Contribute
to Solve Health Problems

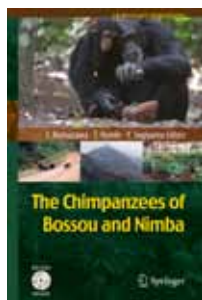
Nature Helps... explores how extracts derived from bacteria, marine organisms, plants and animals may help to treat infectious diseases. A broad spectrum of promising applications are described, including the use of organisms to aid diagnostics.

Due June 2011

Contributed volume

2011. XV, 385 p. (Parasitology Research Monographs,
Volume 1) Hardcover

ISBN 978-3-642-19381-1 ► \$209.00



T. Matsuzawa, Primate Research Institute, Kyoto
University, Japan; T. Humle, School of Anthropology
and Conservation, University of Kent, UK; Y. Sugiyama,
Kyoto University, Japan (Eds.)

The Chimpanzees of Bossou and Nimba

This book examines the unique contribution of the Bossou field site to our knowledge of chimpanzees, particularly the endangered West African subspecies. Coverage ranges from their socio-ecology to cognition, to their ability to use stone and perishable tools.

Due April 2011

Monograph

2011. Approx. 490 p. 158 illus., 8 in color.

With DVD. (Primate Monographs, 0) Hardcover

ISBN 978-4-431-53920-9 ► \$209.00

Springer Life & Earth Sciences Preview

Please mention **H3666** when ordering
to guaranteed listed prices.

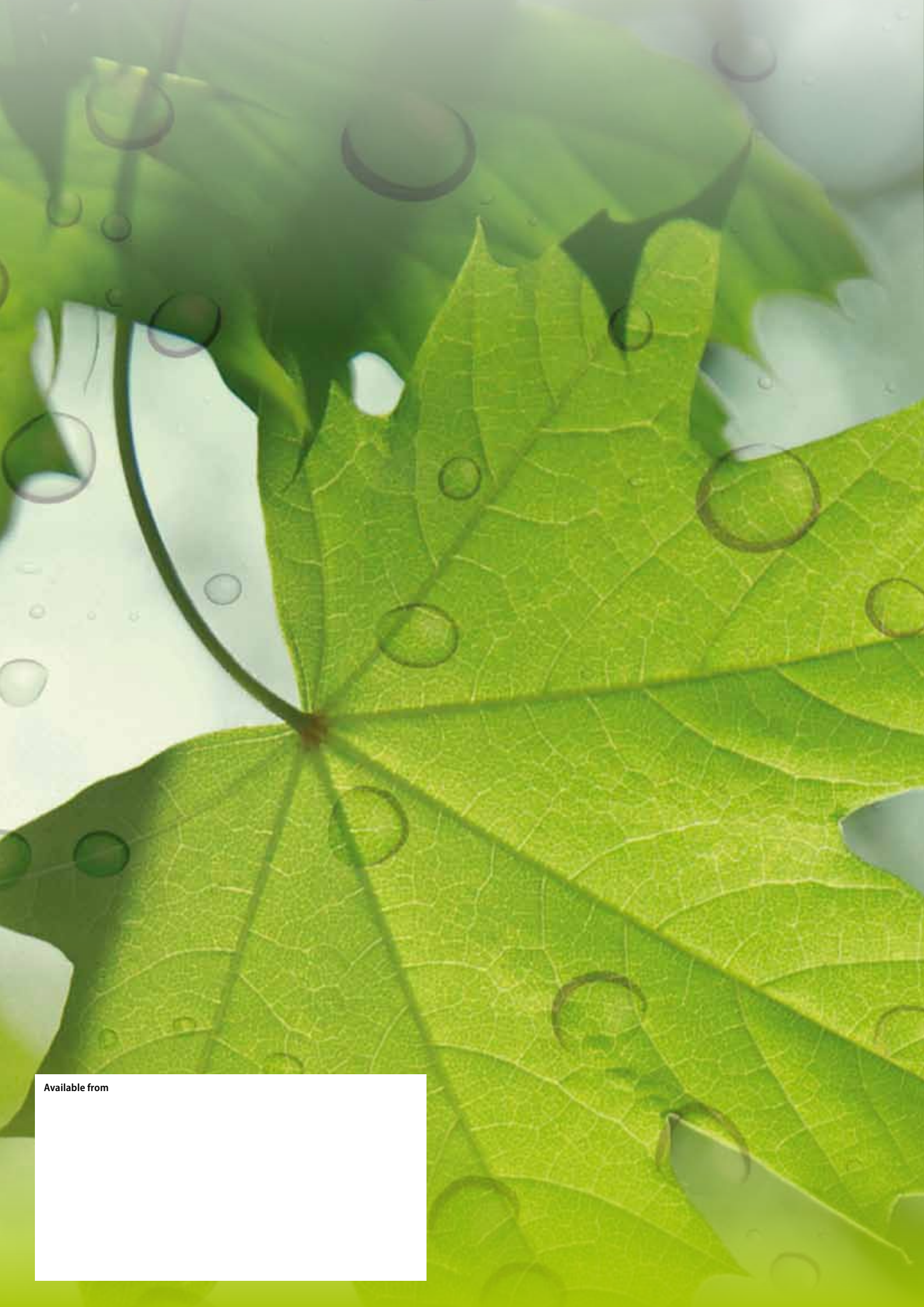
[illegible]

Card No. Exp. Date

Please send orders to: Springer Order Department PO Box 2485 Secaucus, NJ 07096-2485	Subtotal:	Name
	Sales Tax:	Address
	Shipping:	Street Address
	TOTAL:	(Sorry, we cannot deliver to P.O. boxes)
AZ, CA, CT, FL, GA, MA, MI, MN, NC, NJ, NY, OK, PA and TX residents, please add sales tax. Canadian residents, please add 5% GST. Please add \$5.00 for shipping one book and \$1.00 for each additional book. Outside the US and Canada add \$10.00 for first book, \$5.00 for each additional book. All orders are processed upon receipt. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent. Remember, your 30-day return privilege is always guaranteed. Pre-publication pricing: Unless otherwise stated, pre-pub prices are valid through the end of the third month following publication, and therefore are subject to change.		
City / State / ZIP-Code		
Country		
Telephone / Email		
Date ✕		Signature ✕

Outside the Americas: ► **Write:** Springer Customer Service Center GmbH, Haberstrasse 7, 69126 Heidelberg, Germany ► **Call:** + 49 (0) 6221-345-4301 ► **Fax:** +49 (0) 6221-345-4229
► **Web:** springer.com ► **Email:** orders-hd-individuals@springer.com

H3666



Available from