Springer
Natural Sciences & Engineering Preview
Top Frontlist April – June 2012

Biomedicine
Chemistry
Electrical Engineering
Engineering
Materials Science
Physics
Exon Skipping
Methods and Protocols

Humana Press

Due April 2012
Contributed volume

2012. X, 498 p. 70 illus., 15 in color. (Methods in Molecular Biology, Volume 867) Hardcover

- €109,95 | £99.00
- € (D) 120,95 | sFr 146,50
ISBN 978-1-61779-766-8

Recombinant Protein Production in Yeast
Methods and Protocols

Humana Press

Due April 2012
Contributed volume

2012. X, 270 p. 46 illus., 20 in color. (Methods in Molecular Biology, Volume 866) Hardcover

- €94,95 | £85.50
- € (D) 101,60 | sFr 126,50

New Technologies for Toxicity Testing

M. Balls, FRAME, Nottingham, UK; R. D. Combes, Independent Consultant, Norwich, UK; N. Bhogal, Independent Consultant, Nottingham, UK (Eds.)

Ethical Challenges in Genomics Research
A Guide to Understanding Ethics in Context

This book offers a clear account of the ways that science and technology are outstripping the capacity of previous ethical regulations to cope with current issues in genomic research, together with practical illustrations of possible ways to move forward.

Due April 2012
Monograph

2012. XIV, 232 p. Hardcover

- €139,95 | £126.00
- € (D) 149,75 | (A) 153,94 | sFr 186,50
ISBN 978-3-642-23698-3

Metastasis Research Protocols

Now in a second, revised edition, this practical companion to the methodologies of researching cancer growth includes topical introductions and stepwise, reproducible protocols for laboratory processes, as well as invaluable troubleshooting tips.

Humana Press

Due May 2012
Contributed volume

2nd ed. 2012. X, 262 p. 27 illus., 10 in color. (Methods in Molecular Biology, Volume 878) Hardcover

- €139,95 | £126.00
- € (D) 149,75 | (A) 153,94 | sFr 186,50
ISBN 978-1-61779-575-6
J. Chen, University of Pittsburgh, PA, USA; X.-M. Xu, Z. C. Xu, Indiana University, Indianapolis, IN, USA; J. H. Zhang, Loma Linda University, CA, USA (Eds.)

**Animal Models of Acute Neurological Injuries II**

*Injury and Mechanistic Assessments, Volume 2*

Humana Press

Due April 2012
Contributed volume

2012. XX, 828 p. 172 illus., 116 in color. (Springer Protocols Handbooks, Volume) Hardcover

- € 249.00 | £224.50
- *€ (D) 266.43 | € (A) 273.90 | sFr 331.50
ISBN 978-1-61779-781-1

C. C. Gaither, A. E. Cavazos-Gaither, Killeen, TX, USA (Eds.)

**Gaither's Dictionary of Scientific Quotations**

2nd ed. 2012. XLV, 2770 p. (In 1 volumes, not available separately) Hardcover

- € 249.00 | £224.50
- *€ (D) 266.43 | € (A) 273.90 | sFr 331.50
ISBN 978-1-4614-1113-0

H. Jin, University of California, Riverside, CA, USA; W. Gassmann, University of Missouri, Columbia, MO, USA (Eds.)

**RNA Abundance Analysis**

Methods and Protocols

Humana Press

Due May 2012
Contributed volume

2012. XIV, 238 p. 22 illus., 2 in color. (Methods in Molecular Biology, Volume 883) Hardcover

- € 94.95 | £85.50
- *€ (D) 101.60 | € (A) 104.45 | sFr 126.50

F. T. Christiansen, Royal Perth Hospital, WA, Australia; B. D. Tait, The Royal Melbourne Hospital, Parkville, VIC, Australia (Eds.)

**Immunogenetics**

Methods and Applications in Clinical Practice

Humana Press

Due May 2012
Contributed volume


- € 124.95 | £112.50
- *€ (D) 133.70 | € (A) 137.45 | sFr 166.50
ISBN 978-1-61779-781-1

B. A. Hassan, Katholieke Universiteit Leuven, Belgium (Ed.)

**The Making and Un-Making of Neuronal Circuits in Drosophila**

Organized in sections on Physiology and Behavior, this Neuromethods series volume explores ideas and concepts behind the methods, tools, and tricks currently being utilized to decode the secrets of the brain of the small fruit fly, drosophila melanogaster.

Humana Press

Due June 2012
Contributed volume

2012. 280 p. 48 illus., 34 in color. (Neuromethods, Volume 69) Hardcover

- approx. € 89.95 | £79.50
- approx. *€ (D) 96.25 | € (A) 98.95 | sFr 117.50
ISBN 978-1-61779-829-0

A. V. Kalueff, A. M. Stewart, Tulane University, New Orleans, LA, USA (Eds.)

**Zebrafish Protocols for Neurobehavioral Research**

Humana Press

Due May 2012
Contributed volume

2012. XI, 638 p. 103 illus., 42 in color. (Neuromethods, Volume 66) Hardcover

- € 109.95 | £99.00
- *€ (D) 117.65 | € (A) 120.95 | sFr 146.50
ISBN 978-1-61779-596-1
W. J. Kress, D. L. Erickson, Smithsonian Institution, Washington, DC, USA (Eds.)

**DNA Barcodes**

Methods and Protocols

Up-to-date information on methods is crucial in this rapidly advancing field.

Due April 2012
Contributed volume

2012. XXV, 703 p. 72 illus., 54 in color. (Methods in Molecular Biology, Volume 858) Hardcover

* € 104,95 | £93.00
* *€ (D) 112,30 | € (A) 115,45 | sFr 137,50


N. Le Novère (Ed.)

**Computational Systems Biology**

This book introduces the many different types of computational studies that can be used in the study of neuronal systems, covering functional genomics, quantitative modeling of biochemical systems, and examining specific methodologies in detail.

Due March 2012
Contributed volume

2012. 250 p. Hardcover

* € 139,95 | £126.00
* *€ (D) 149,75 | € (A) 153,94 | sFr 186,50

ISBN 978-3-7091-1000-3

Y. V. Li, Ohio University, Athens, OH, USA; J. H. Zhang, Loma Linda University School of Medicine, CA, USA (Eds.)

**Metal Ion in Stroke**

This book examines cellular events following stroke, offering the first systematic discussion of metal ions, their function as co-factors in cellular and genetic signaling and their consequently important roles in biochemistry ranging from essential to toxic.

Due May 2012
Contributed volume

2012. XIV, 843 p. 93 illus., 66 in color. (Springer Series in Translational Stroke Research) Hardcover

* € 199,95 | £180.00
* *€ (D) 213,95 | € (A) 219,94 | sFr 266,50


W. Linert, Technical University of Vienna, Austria; H. Kozlowski, University of Wroclaw, Poland (Eds.)

**Metal Ions in Neurological Systems**

This book explores key topics in the area of metal ions in the brain, focusing on the role of metal ions in neurological systems by describing their advantageous functions in brain activity as well as their poisonous features, in neurodegenerative disorders.

Due June 2012
Contributed volume

2012. 400 p. 30 illus. in color. Hardcover

* € 149,95 | £135.00
* *€ (D) 160,45 | € (A) 164,94 | sFr 200,00

ISBN 978-3-7091-1000-3

H. U. Lutz, Swiss Federal Institute of Technology, Zurich, Switzerland (Ed.)

**Naturally Occurring Antibodies (NAbs)**

Here, pioneering researchers report on the tissue homeostatic, tissue regenerating and regulatory properties of NAbs and NAbs in pooled human IgG. The volume also has a chapter on the history of how pooled plasma was pretreated for safe intravenous use.

Due April 2012
Contributed volume

2012. XXII, 268 p. 46 illus., 3 in color. (Advances in Experimental Medicine and Biology, Volume 750) Hardcover

* € 139,95 | £126.00
* *€ (D) 149,75 | € (A) 153,94 | sFr 186,50


J. M. Matthews, University of Sydney, NSW, Australia (Ed.)

**Protein Dimerization and Oligomerization in Biology**

This book focuses on the phenomenon of homo-oligomerization. Because protein function is often linked to homo- and hetero-oligomerization and many heterologous interactions likely evolved from homologous interaction, coverage includes hetero-oligomerization.

Due March 2012
Contributed volume

2012. XIV, 166 p. 43 illus. (Advances in Experimental Medicine and Biology, Volume 747) Hardcover

* € 139,95 | £126.00
* *€ (D) 149,75 | € (A) 153,94 | sFr 186,50


Humana Press
### Patho-Epigenetics of Disease

This book describes the complex interplay of epigenetic regulatory mechanisms, and shows how these carefully orchestrated processes can go wrong, resulting in epigenetic reprogramming of the cells that may manifest in pathological changes.

**Due May 2012**
Contributed volume

2012. X, 546 p. 25 illus., 19 in color. Hardcover  
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**ISBN 978-1-4614-3344-6**

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### Cognitive Agent-based Computing

Exploring Emergent behavior in Complex Systems using Agent-based Modeling

The numerous non-linear interactions of subcomponents in complex systems give rise to emergent behaviors identifiable at a global level. This book is an essential hands-on guide to building agent-based models with potential applications in a range of sectors.

**Due March 2012**
Brief

2012. Approx. 70 p. 20 illus., 10 in color.  
(SpringerBriefs in Cognitive Computation, Volume 1) Cover

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**ISBN 978-94-007-3851-5**

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### Protein Kinase Technologies

This book examines recent methodologies and techniques generally applicable to protein kinase research as well as to individual protein kinases which require special attention in neuroscience. Covers recent progress in individual protein.

**Due June 2012**
Contributed volume

2012. XVI, 464 p. 70 illus., 36 in color. With online files/update.  
(Neuromethods, Volume 68) Hardcover

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**ISBN 978-1-61779-823-8**

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### Dietary Phytochemicals and Microbes

This book reviews the antimicrobial and antiviral properties of numerous recently reported phytochemicals, and describes their mechanisms of antimicrobial actions. Discusses use of phytochemicals to treat microbial disease, for food preservation and more.

**Due April 2012**
Contributed volume

2012. CDX, 8 p. 50 illus., 2 in color. Hardcover

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**ISBN 978-94-007-3925-3**

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### Data Production and Analysis in Population Genomics

**Due June 2012**
Contributed volume

2012. XV, 253 p. 67 illus., 16 in color.  
(Methods in Molecular Biology, Volume 888) Hardcover

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**ISBN 978-1-61779-869-6**

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### Quantitative Trait Loci (QTL)

**Due May 2012**
Contributed volume

2012. VII, 454 p. 87 illus., 20 in color.  
(Methods in Molecular Biology, Volume 871) Hardcover

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**ISBN 978-1-61779-784-2**
J. Siepmann, University Lille Nord de France, Lille, France; R. A. Siegel, University of Minnesota, Minneapolis, MN, USA; M. J. Rathbone, Griffith University, Southport, QLD, Australia (Eds.)

Fundamentals and Applications of Controlled Release Drug Delivery

Available
Contributed volume
2012. XIII, 592 p. 156 illus., 33 in color. (Advances in Delivery Science and Technology) Hardcover
► € 169,95 | £153.00
► * € (D) 181,85 | € (A) 186,94 | sFr 244,00

K. Suhre, Weill Cornell Medical College, Doha, State of Qatar (Ed.)

Genetics Meets Metabolomics from Experiment to Systems Biology

Written by leading researchers, this book explores the intersection of genetics and metabolomics, and points the way to more comprehensive studies of inborn variation of metabolism. All chapters refer to one or more published experimental datasets.

Due May 2012
Contributed volume
2012. XIV, 324 p. 76 illus., 45 in color. Hardcover
► € 149,95 | £135.00
► * € (D) 160,45 | € (A) 164,94 | sFr 224,00

M. A. Tabrizi, AnaptysBio, Inc., San Diego, CA, USA;
G. G. Bornstein, AstraZeneca, Waltham, MA, USA;
S. L. Klakamp, Takeda San Francisco, South San Francisco, CA, USA

Surrogate Approaches in Development of Antibody-Based Therapeutics

This book examines many important considerations necessary for the design of the most effective as well as science-based translational strategies necessary for the successful development of antibody-based therapeutics when surrogate approaches are employed.

Due June 2012
Monograph
► approx. € 140,05 | £126.00
► approx. * € (D) 149,85 | € (A) 154,06 | sFr 217,50
ISBN 978-1-4419-5776-4

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

Drug Discovery and Evaluation: Safety and Pharmacokinetic Assays

This book is a landmark in the continuously changing world of drugs. It is essential reading for scientists and managers in the pharmaceutical industry who are involved in drug finding, drug development and decision making in the development process.

► 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

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

eReference
2nd ed. 2012. 1000 p. (In 2 volumes, not available separately)
► approx. € 499,00 | £449.50
► approx. ** € (D) 593,81 | € (A) 598,80 | sFr 698,00
ISBN 978-3-642-25240-9

Print + eReference
2nd ed. 2012. 1000 p. (In 2 volumes, not available separately)
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<td>Development of Novel Vaccines</td>
<td>A. von Gabain, C. Klade, Intercell AG, Vienna, Austria (Eds.)</td>
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<td>Noncovalent Functionalization of Carbon Nanotubes</td>
<td>C. Backes, University Erlangen-Nürnberg, Fürth, Germany</td>
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<td>Pathways to Modern Chemical Physics</td>
<td>S. Califano, Università di Firenze, Italy</td>
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<td>Characterization of Protein Therapeutics using Mass Spectrometry</td>
<td>G. Chen, Bristol-Myers Squibb Company, Bioanalytical and Discovery Analytical Sciences, Princeton, NJ, USA (Ed.)</td>
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<td>Drug Discovery in Africa</td>
<td>K. Chibale, University of Cape Town, South Africa; M. Davies-Coleman, Rhodes University, South Africa; C. Masimirembwa, African Institute of Biomedical Science and Technology, Zimbabwe (Eds.)</td>
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A. J. Dijkstra, St. Eutrope-de-Born, France

Edible Oil Processing from a Patent Perspective

This book explains a variety of aspects of the patent process, using the example of recent developments in edible oil processing. The author explains patent jargon and offers amusing and illustrative personal insights and remarks.

Due May 2012
Monograph

2012. XV, 273 p. 11 illus. Hardcover
► € 129,95 | £117.00
► * (D) 139,05 | (A) 142,94 | sFr 173,00
ISBN 978-1-4614-3350-7

S. S. Djokić, Elchem Consulting Ltd., Edmonton, AB, Canada (Ed.)

Biomedical Applications

This book explains the latest surface treatments for biomedical applications, including orthopedic and dental implants, dressings for wounds and skin diseases, surfaces for the prevention of bio-film formation of corrosion inhibition in biological media.

Due April 2012
Monograph

2012. 350 p. 90 illus., 30 in color. (Modern Aspects of Electrochemistry, Volume 55) Hardcover
► € 139,95 | £126.00
► * (D) 149,75 | (A) 153,94 | sFr 186,50
ISBN 978-1-4614-3124-4

S. S. Djokić, Elchem Consulting, Ltd., Edmonton, AB, Canada (Ed.)

Electrochemical Production of Metal Powders

This book reviews methods for the production of metal powders including mechanical, chemical and electrochemical powders, which have a wide range of applications in automotive, aerospace, energy device and electronics industries.

Due April 2012
Professional book

2012. IX, 340 p. 228 illus., 4 in color. (Modern Aspects of Electrochemistry, Volume 54) Hardcover
► € 139,95 | £126.00
► * (D) 149,75 | (A) 153,94 | sFr 186,50

M. E. Gracheva, Clarkson University, Potsdam, NY, USA (Ed.)

Nanopore-Based Technology

Research into nanopores holds out the promise of ultrafast—and cheaper—DNA sequencing.

Due April 2012
Contributed volume

2012. XIV, 250 p. 85 illus., 47 in color. (Methods in Molecular Biology, Volume 870) Hardcover
► € 94,95 | £85.50
► * (D) 101,60 | (A) 104,45 | sFr 126,50

W. S. Hu, University of Minnesota, Minneapolis (MN), USA; A.-P. Zeng, Technical University Hamburg-Harburg, Germany (Eds.)

Genomics and Systems Biology of Mammalian Cell Culture

Due March 2012
Reviews

2012. XIV, 288 p. Hardcover
► € 229,00 | £206.50
► * (D) 245,03 | (A) 251,90 | sFr 305,00
ISBN 978-3-642-28349-4
This overview of the industrial applications of ion-exchange materials focuses on their use in a host of fields including chemical and biochemical separation, water purification, biomedical science, toxic metal recovery and manufacturing alcoholic drinks.

Due May 2012
Monograph

2012. XXIV, 486 p. 71 illus., 8 in color. Hardcover
► € 129,95 | £117.00
► *€ (D) 139,05 | € (A) 142,94 | sFr 173,00
ISBN 978-94-007-4025-9

K.-H. Koch, deceased (formerly superintendent of Krupp Hoesch Stahl AG); J. Flock

Process Analytical Chemistry
Control, Optimization, Quality, Economy

In important branches of manufacturing industries, especially those producing chemicals, polymers, semiconductors, ceramics, metals and alloys, analytical process control is already an integral part of the company. Far reaching decisions with respect to quality, ecology and economy are based on the respective analytical data. The goal of this practice-oriented book is to introduce chemists, engineers and technicians to the strategies, techniques and efficiency of modern process analytical chemistry. The authors are especially aiming at those professionals in small and medium enterprises who have to carry out process control tasks in a „solo-run“.

Due April 2012
Monograph

► appr. € 129,95 | £117.00
► appr. *€ (D) 139,05 | € (A) 142,94 | sFr 173,00
ISBN 978-3-642-10717-7

G. G. Láng, University Budapest, Hungary; C. A. Barbero, Universidad Nacional de Rio Curato, Argentina

Laser Techniques for the Study of Electrode Processes

Due May 2012
Monograph

2012. X, 300 p. 104 illus., 5 in color. (Monographs in Electrochemistry) Hardcover
► € 129,95 | £117.00
► *€ (D) 139,05 | € (A) 142,94 | sFr 173,00
ISBN 978-3-642-27650-7
**J. W. Lee**, Old Dominion University, Norfolk, VA, US (Ed.)

**Advanced Biofuels and Bioproducts**

With 40 chapters written by almost 100 contributors, this is the most up-to-date and comprehensive overview of biofuel technology. Discrete sections cover the field’s key topics, including photobiological biofuel production and high-value algal products.

**Due June 2012**

Contributed volume

2012. X, 1190 p. 275 illus., 142 in color. Hardcover

- approx. € 209,00 / £186.50
- approx. * € (D) 223,63 / € (A) 229,90 / sFr 275,50


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A. Mohammad, Inamuddin, Aligarh Muslim University, India (Eds.)

**Green Solvents I**

Properties and Applications in Chemistry

These volumes are an essential primary resource that describe the properties of green solvents crucial to modern green chemistry. The books explore the hazards of regular solvents and the plethora of green solvent applications in analytical, organic and pharmaceutical chemistry.

**Due March 2012**

Monograph

2012. XXVI, 427 p. 216 illus., 33 in color. Hardcover

- € 139,95 / £126.00
- * € (D) 149,75 / € (A) 153,94 / sFr 201,00


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**J. Leszczynski, M. K. Shukla**, Jackson State University, MS, USA (Eds.)

**Practical Aspects of Computational Chemistry II**

An Overview of the Last Two Decades and Current Trends

Practical Aspects of Computational Chemistry describes the progress made during the last two decades by researchers in theoretical methodologies. The huge variety of applications to problems of chemical interest is presented. Since progress in nanomaterials and associated fields have also been made within the last two decades, this volume provides an extensive and exhaustive description of how existing methodologies have been tailored to this new research area. This volume is divided into various sections covering different areas such as theoretical developments and their applications to biological systems, nanomaterials, nanotechnology, and structure-activity correlation.

**Due June 2012**

Monograph

2012. 350 p. Hardcover

- approx. € 139,95 / £126.00
- approx. * € (D) 149,75 / € (A) 153,94 / sFr 201,00

ISBN 978-94-007-1711-4

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**M. Meier**, Karlsruhe Institute of Technology, Germany; B. M. Weckhuysen, P. C. Bruijnincx, Utrecht University, The Netherlands (Eds.)

**Organometallics and Renewables**


**Due June 2012**

Reviews

2012. X, 254 p. 190 illus., 2 in color. Hardcover

- € 229,00 / £206.50
- * € (D) 245,03 / € (A) 251,90 / sFr 305,00

ISBN 978-3-642-28287-4

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**M. A. Liebschner**, Baylor College of Medicine, Houston, TX, USA (Ed.)

**Computer-Aided Tissue Engineering**

**Humana Press**

**Due April 2012**

Contributed volume


- € 109,95 / £99.00
- * € (D) 117,65 / € (A) 120,95 / sFr 146,50

ISBN 978-1-61779-763-7

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R. F. Nalewajski, Jagiellonian University, Krakow, Poland

**Perspectives in Electronic Structure Theory**

Collating a range of perspectives on electronic structure theory, this monograph covers the principles and techniques of contemporary computational and conceptual quantum chemistry and analyzes concepts such as chemical valence and bond-multiplicity indices.

**Due February 2012**

Monograph

2012. XIX, 450 p. Hardcover

- € 139,95 / £126.00
- * € (D) 149,75 / € (A) 153,94 / sFr 201,00

ISBN 978-3-642-20179-0

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A. Mohammad, Inamuddin, Aligarh Muslim University, India (Eds.)

**Green Solvents II**

Properties and Applications in Chemistry

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- * € (D) 149,75 / € (A) 153,94 / sFr 201,00


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M. Leszczynski, M. K. Shukla, Jackson State University, MS, USA (Eds.)

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An Overview of the Last Two Decades and Current Trends

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M. Orlik, University of Warsaw, Poland

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S. K. Sharma, Institute of Engineering & Technology, Alwar, India; R. Sanghi, LNM Institute of Information Technology, Jaipur, India (Eds.)

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Advances in Research

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R. L. Shewfelt, University of Georgia, Athens, GA, USA

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Here is an ideal guide for those beginning a graduate education in food science or a career in the field. It encourages readers to study the research process, to challenge conventional wisdom and to develop a career path that maximizes the chance for success.

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Principles and Emerging Applications in Biology and Chemistry

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Moon

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S. Chakrabarty, Michigan State University, East Lansing, MI, USA
CMOS Integrated Circuits for Self-powered and Energy-scavenging Systems

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G. J. Dolecek, National Institute for Astrophysics, Puebla, Mexico
Random Signals and Process Primer with MATLAB

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V. E. Brimkov, State University of New York, Buffalo, NY, USA; R. P. Barneva, State University of New York, Fredonia, NY, USA (Eds.)
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A. Das, CDAC, Kolkata, India
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S. Döring, PLANT Engineering GmbH, Neuwied, Germany
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Technology and Applications

This book details the technology of pellet production on the basis of renewable sources as well as the utilization of pellets. It explains what kinds of biomass are usable in addition to wood, how to produce pellets and how to use pellets to produce energy.

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L. Feng, H. Yan, China University of Petroleum, Beijing, China

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C. Fernandez-Maloigne, University of Poitiers, France (Ed.)

Advanced Color Image Processing and Analysis

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J. Fernández-Berni, R. Carmona-Galán, A. Rodríguez-Vázquez, Instituto de Microelectrónica de Sevilla, Spain

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D. Gerling, Universität der Bundeswehr, Munich, Neubiberg, Germany

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M. Ghantous, M. Al Najjar, M. Bayoumi, University of Louisiana at Lafayette, LA, USA

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S. Goswami, Stealthmode Systems, Milpitas, CA, USA

Indoor Location Technologies

This comprehensive examination of the theory and engineering behind today’s location technologies covers those already in the marketplace and those under development. The author examines the technologies from end to end as well as the mathematics involved.

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V. Jain, Sabertek, Inc., Irvine, California; P. Heydari, University of California, Irvine (Eds.)

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S. F. Hasan, N. Siddique, University of Ulster, Londonderry, UK; S. Chakraborty, Espoo, Finland

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This book begins by describing a mathematical model that represents disruption in WLAN-based Vehicular Communications. Secondly, it sets out to reduce the handover latency for establishing quick connections between the mobile nodes and the roadside WLAN APs.

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G. Jiang, Central South University, Changsha, Hunan, China; L. Diao, Brewer Science, Springfield, MO, USA; K. Kuang, Torrey Hills Technologies, San Diego, CA, USA

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This book offers a comprehensive and hands-on treatise on the importance of thermal packaging in high performance systems. Covers all aspects of thermal management materials, both traditional and non-traditional, with an emphasis on metal based materials.

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T. Kawahara, H. Mizuno, Hitachi Ltd., Tokyo, Japan (Eds.)

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This volume describes computing innovation using non-volatile memory for a sustainable world. The text presents methods of design and implementation for non-volatile memory, allowing devices to be turned off normally when not in use, yet operate with full performance when needed.

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D. Koch, University of Oslo, Norway

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K. Kondo, Yamagata University, Japan

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S. Li, M. Kokar, Northeastern University, Boston, MA, USA

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P. I. Mak, R. P. Martins, University of Macau, Taipa, Macao, China

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A. Mohammadi, Amirkabir University, Tehran, Iran; F. M. Ghannouchi, University of Calgary, AL, Canada

**RF Transceiver Design for MIMO Wireless Communications**

This book extends classic wireless transceiver design techniques to MIMO transceivers. Covers MIMO single carrier and OFDM modulation, RF and MIMO transceiver design, MIMO transmitter design and much more. Includes many design equations and illustrations.

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S. K. Lim, Georgia Institute of Technology, Atlanta, GA, USA

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A. Mohammadi, Amirkabir University, Tehran, Iran; F. M. Ghannouchi, University of Calgary, AL, Canada

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This book extends classic wireless transceiver design techniques to MIMO transceivers. Covers MIMO single carrier and OFDM modulation, RF and MIMO transceiver design, MIMO transmitter design and much more. Includes many design equations and illustrations.

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A. Monti, University of Bologna, Italy (Ed.)

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A. Nohl, N. Vanspauwen, CoWare Inc., Aachen, Germany (Eds.)

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M. Nicholson, The Pocket, NSW, Australia

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U. Ogras, R. Marculescu, Carnegie Mellon University, Pittsburgh, PA, USA

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M. Onabajo, Northeastern University, Boston, MA, USA; J. Silva-Martinez, Texas A&M University, College Station, TX, USA

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F. Rastello, Computer Parralelism Laboratory, ENS-Lyon (Ed.)

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D. Schwaderer, Symantec Technology Network, Saratoga, CA, USA

**Introduction to Open Core Protocol**

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**Continuous-Time Low-Pass Filters for Integrated Wideband Radio Receivers**

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R. Shen, S. X.-D. Tan, University of California, Riverside, CA, USA; H. Yu, Nanyang Technological University, Singapore

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N. N. Tan, Vango Technologies, Inc., Hangzhou, China; Z. Wang, D. Li, Tsinghua University, Beijing, China (Eds.)

**Ultra-Low Power Integrated Circuit Design**

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