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Chemistry

Spring 2014 - Title Selection

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978-1-4614-7387-9	Korotcenkov	Handbook of Gas Sensor Materials	Properties, Advantages and Shortcomings for Applications Volume 2: New Trends and Technologies
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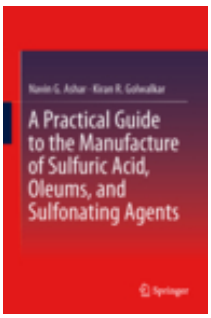

N.G. Ashar, K.R. Golwalkar

A Practical Guide to the Manufacture of Sulfuric Acid, Oleums, and Sulfonating Agents

This critical volume provides practical insights on sulfuric acid and related plant design and on techniques to improve and enhance substantially the efficiency of an existing plant by means of small modifications. The book provides readers with a better understanding of the state-of-art in sulfuric acid manufacture as well as, importantly, in the manufacture of value-added products based on sulfur that are also associated with the manufacture of sulfuric acid. Overall, engineers and plant managers will be introduced to technologies for making their sulfuric acid enterprises more productive, remunerative, and environmentally friendly. A Practical Guide to the Manufacture of Sulfuric[...]

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H.-J. Bässler, F. Lehmann

Containment Technology

Progress in the Pharmaceutical and Food Processing Industry

This book covers all aspects of containment technology in depth and the latest developments in this exciting field are introduced. This book is a key publication to planning engineers, production managers and those interested in getting a picture of the different applications of the isolator technology. References on literature, laws, norms and guidelines will support the reader to become acquainted with the containment technology.

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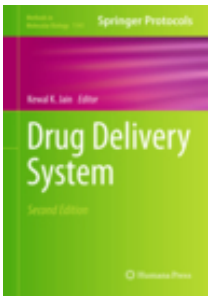

FORTH-COMING

K.K. Jain (Ed.)

Drug Delivery System

Drug Delivery Systems, Second Edition expands upon the previous edition with current, detailed methods and technologies to further study drug delivery. With new chapters on nanobiotechnology techniques, experimental methods and the clinical use for the intrathecal delivery of analgesics. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols and tips on troubleshooting and avoiding known pitfalls.Authoritative and practical, Drug Delivery Systems, Second Edition will be useful for pharmaceutical[...]

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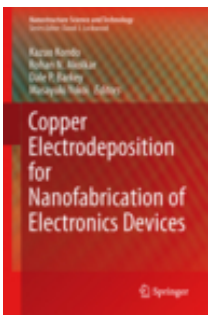

K. Kondo, R.N. Akolkar, D.P. Barkey, M. Yokoi (Eds.)

Copper Electrodeposition for Nanofabrication of Electronics Devices

This book discusses the scientific mechanism of copper electrodeposition and it's wide range of applications. The book will cover everything from the basic fundamentals to practical applications. In addition, the book will also cover important topics such as: • ULSI wiring material based upon copper nanowiring • Printed circuit boards • Stacked semiconductors • Through Silicon Via • Smooth copper foil for Lithium-Ion battery electrodes. This book is ideal for nanotechnologists, industry professionals, and practitioners.

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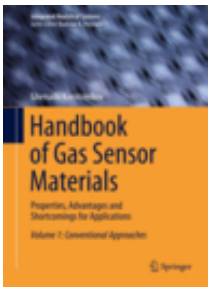

G. Korotcenkov

Handbook of Gas Sensor Materials

Properties, Advantages and Shortcomings for Applications Volume 1: Conventional Approaches

The two volumes of Handbook of Gas Sensor Materials provide a detailed and comprehensive account of materials for gas sensors, including the properties and relative advantages of various materials. Since these sensors can be applied for the automation of myriad industrial processes, as well as for everyday monitoring of such activities as public safety, engine performance, medical therapeutics, and in many other situations, this handbook is of great value. Gas sensor designers will find a treasure trove of material in these two books.

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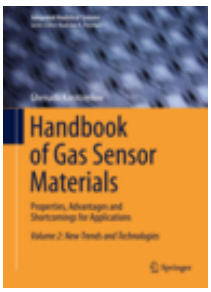

G. Korotcenkov

Handbook of Gas Sensor Materials

Properties, Advantages and Shortcomings for Applications Volume 2: New Trends and Technologies

The two volumes of Handbook of Gas Sensor Materials provide a detailed and comprehensive account of materials for gas sensors, including the properties and relative advantages of various materials. Since these sensors can be applied for the automation of myriad industrial processes, as well as for everyday monitoring of such activities as public safety, engine performance, medical therapeutics, and in many other situations, this handbook is of great value. Gas sensor designers will find a treasure trove of material in these two books.

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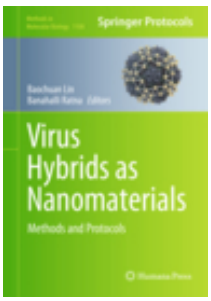

B. Lin, B. Ratna (Eds.)

Virus Hybrids as Nanomaterials

Methods and Protocols

In Virus Hybrids as Nanomaterials: Methods and Protocols expert researchers in the field detail many of the methods used to study virus for medial and nonmedical applications. These include methods and techniques for genetically engineering viruses for therapeutic purpose and vaccine production, chemically modified viruses for virus-templated nanoparticles production, and genetically engineered or chemically modified viral particles as imaging agents. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory[...]

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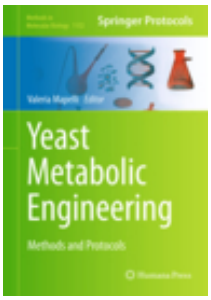

FORTH-COMING

V. Mapelli (Ed.)

Yeast Metabolic Engineering

Methods and Protocols

Yeast Metabolic Engineering: Methods and Protocols provides the widely established basic tools used in yeast metabolic engineering, while describing in deeper detail novel and innovative methods that have valuable potential to improve metabolic engineering strategies in industrial biotechnology applications. Beginning with an extensive section on molecular tools and technology for yeast engineering, this detailed volume is not limited to methods for Saccharomyces cerevisiae, but describes tools and protocols for engineering other yeasts of biotechnological interest, such as Pichia pastoris, Hansenula polymorpha and Zygosaccharomyces bailii. Tools and technologies for the investigation[...]

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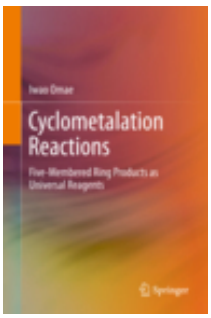

I. Omae

Cyclometalation Reactions

Five-Membered Ring Products as Universal Reagents

This book provides a review of cyclometalation reactions and organometallic intramolecular-coordination five-membered ring products, the most active type of reactions in synthetic organic reactions and their products. Included is the discovery of intramolecular-coordination bonds in cyclometalation reactions and the characteristics of those reactions, as well as the reasons that their five-membered ring compounds are very easily synthesized through such reactions. In addition, the applications of cyclometalation reactions and five-membered ring products, synthetic applications, catalysts, and other products are described. These topics are of special interest for industrial researchers.

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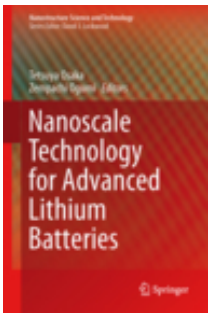

T. Osaka, Z. Ogumi (Eds.)

Nanoscale Technology for Advanced Lithium Batteries

The unfortunate and serious accident at the nuclear power plants in Fukushima, Japan caused by the earthquake and tsunami in March 2011 dealt Japan a serious blow. Japan was nearly deprived of electric power when in response to the accident all nuclear reactors in Japan were shut down. This shortage further accelerated the introduction of renewable energies. This book surveys the new materials and approaches needed to use nanotechnology to introduce the next generation of advanced lithium batteries, currently the most promising energy storage devices available. It provides an overview of nanotechnology for lithium batteries from basic to applied research in selected high technology[...]

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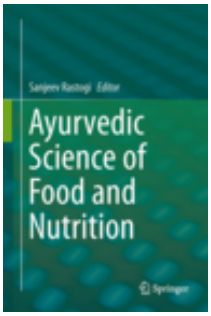

S. Rastogi (Ed.)

Ayurvedic Science of Food and Nutrition

Ayurveda is widely considered to be one of the oldest health care traditions still in practice today. Originating in India over 3,000 years ago, it is now increasingly recognized and practiced globally including in many European countries and the United States.Food and nutrition play a crucial role in the health care wisdom of Ayurveda. The Ayurvedic Science of Food and Nutrition discusses the various principles of healthy eating as prescribed by Ayurveda. Divided into three sections, it addresses the fundamentals, the clinical applications, and the future challenges of Ayurveda. Specifically, the book discusses issues such as the concept of diet, the use of food as medicine,[...]

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