

Chemistry & Material Science

January to April 2022



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Lead Title



Adoptable Textbook

All information are correct at press time but are subject to change without prior notice.

ANALYTICAL CHEMISTRY

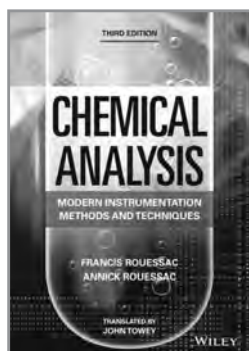
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Modern Instrumentation Methods and Techniques,
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Francis Rouessac, Annick Rouessac & John Towey

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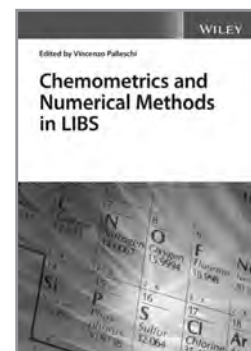
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Vincenzo Palleschi

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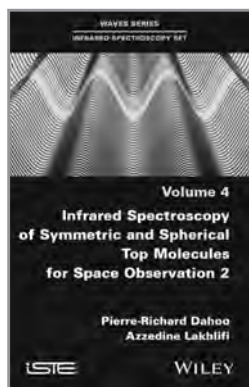
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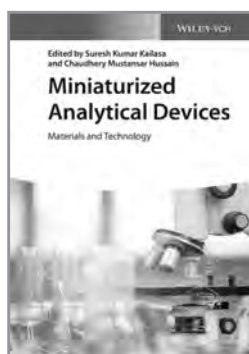
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Materials and Technology

Suresh Kumar Kailasa & Chaudhery Mustansar Hussain

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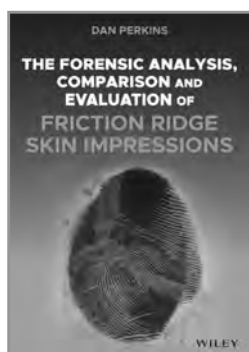


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The Forensic Analysis, Comparison and Evaluation of Friction Ridge Skin Impressions*Dan G. Perkins*

Written by a leading practitioner in the field, this highly accessible, practical guide offers new and qualified fingerprint practitioners an indispensable introduction to the analysis of comparative friction ridge skin impressions. The book assumes no prior knowledge of fingerprint analysis and breaks down the ACE (Analysis, Comparison and Evaluations) process into 11 key questions which must be considered by the practitioner for every friction ridge detail mark to print comparison.

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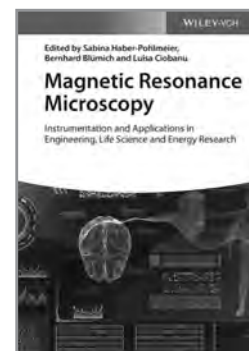
Magnetic Resonance Microscopy

Technology and Applications

Sabine Haber-Pohlmeier, Bernhard Blumich & Luisa Ciobanu

A comprehensive book with up-to-date information on method and application-oriented development of Magnetic Resonance Microscopy (MRM), presented as an interdisciplinary discussion of applications in diverse fields such as food and material chemistry, energy, chemical, and process engineering.

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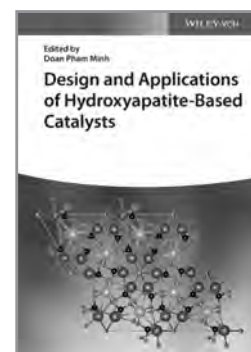
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Design and Applications of Hydroxyapatite-Based Catalysts

Doan Pham Minh

The book gives a detailed overview of the synthesis, characterization, kinetics, mechanism, and use of hydroxyapatite-based materials in catalysis. It covers synthetic hydroxyapatites, natural apatites and materials from eggshells and animal bones. Aimed at further stimulating research on hydroxyapatite-based catalysts, this is an indispensable source-of-information for researchers in academia and industry working in (heterogeneous) catalysis, renewable energy, and organic synthesis.

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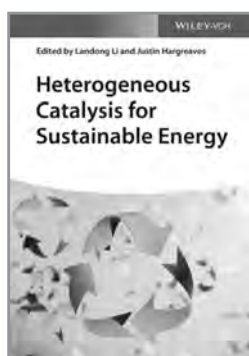
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Landong Li & Justin S. J. Hargreaves

A team of distinguished researchers delivers a comprehensive and cutting-edge treatment of recent advancements in energy-related catalytic reactions and processes in the field of heterogeneous catalysis. The book includes extensive coverage of the hydrogen economy, methane activation, methanol-to-hydrocarbons, carbon dioxide conversion, and biomass conversion methane activation.

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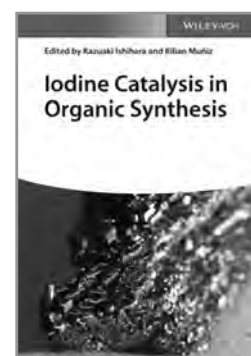
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Iodine Catalysis in Organic Synthesis

Kilian Muniz & Kazuaki Ishihara

The first book of its kind to highlight iodine as an environmentally sustainable alternative to conventional transition metal catalysis. *Iodine Catalysis in Organic Synthesis* provides detailed coverage of recent advances in iodine chemistry and catalysis, focusing on the utilization of various iodine-containing compounds as oxidative catalysts, and includes case studies and industrial applications. Editor **Kazuaki Ishihara** is Full Professor at Nagoya University, Japan.

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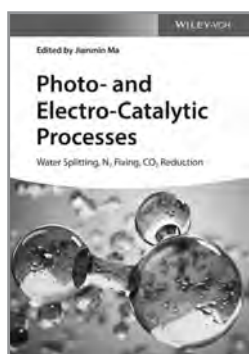
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Jianmin Ma

This book covers the comprehensive knowledge of photo-, electro- and photocatalytic catalysts in important reactions which are critical for solving energy shortage and environmental pollution. It offers detailed information on the underlying mechanisms, the cost and synthetic methods of catalysts in terms of different reaction systems.

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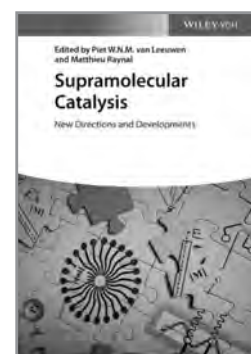
Supramolecular Catalysis

New Directions and Developments

Piet W.N.M. van Leeuwen & Matthieu Raynal

Edited by two world-renowned researchers, *Supramolecular Catalysis* summarizes the most significant developments in the dynamic, interdisciplinary field. Contributions from an international panel of more than forty experts address a broad range of topics covering both organic and metal catalysts, including emergent catalysis by self-replicating molecules, switchable catalysis using allosteric effects, supramolecular helical catalysts, and transition metal catalysis in confined spaces.

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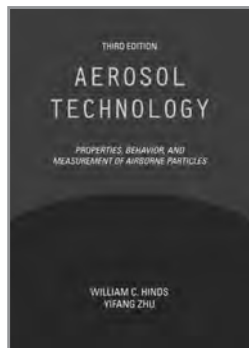
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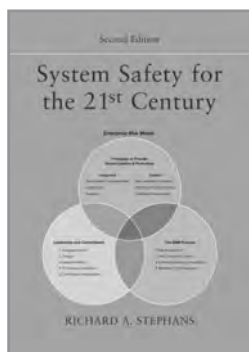


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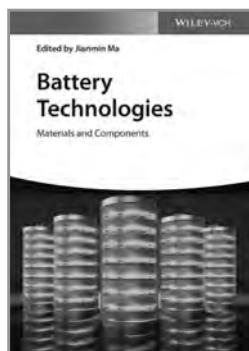
ELECTROCHEMISTRY

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Materials and Components

Jianmin Ma

Battery Technologies features a comprehensive and robust overview of battery technology and new and emerging technologies related to lithium, aluminum, dual-ion, flexible, and biodegradable batteries. It also considers potential approaches to some of the primary challenges facing battery designers and manufacturers today. Perfect for inorganic chemists, materials scientists, and electrochemists.



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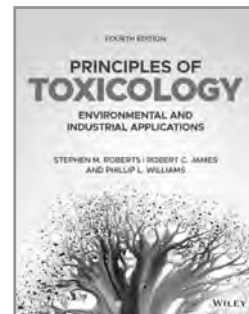
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*Stephen M. Roberts, Robert C. James & Phillip L. Williams*

Building upon the success of the previous editions, the fourth edition provides updated information on the latest developments in the field of toxicology by providing chemical toxicology theory as well as a practical understanding of how to determine the level of risk a substance has of causing harm. The new edition includes new substances of concern that have arisen since the last edition published.

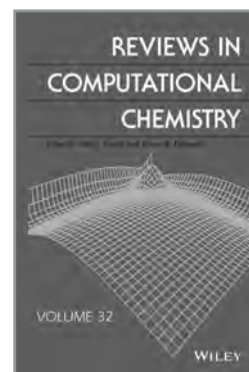


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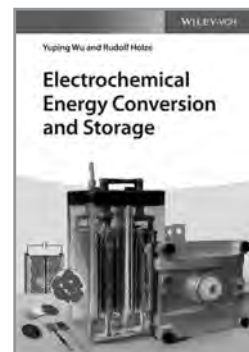


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Electrochemical Energy Conversion and Storage*Yuping Wu & Rudolf Holze*

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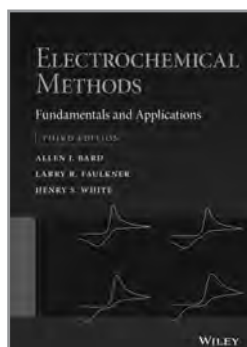
Fundamentals and Applications, 3rd Edition



Allen J. Bard, Larry R. Faulkner & Henry S. White

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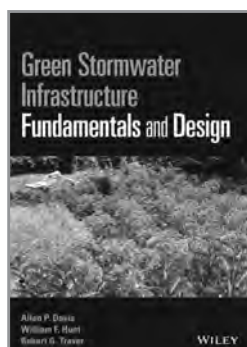
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Green Stormwater Infrastructure Fundamentals and Design

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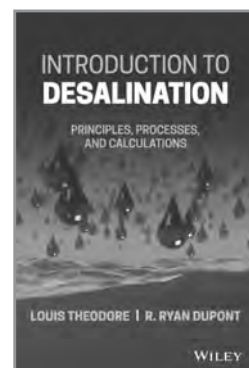
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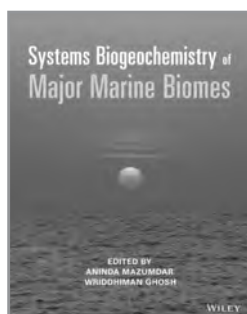
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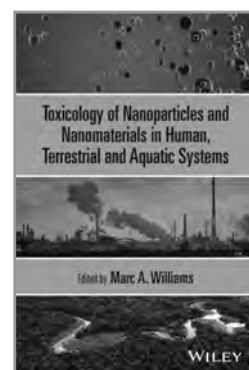
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Toxicology of Nanoparticles and Nanomaterials in Human, Terrestrial and Aquatic Systems

Marc A. Williams

This book investigates human health effects of nanoparticles and nanomaterials that contaminate the environment, or present unique challenges to the occupational environment for personnel working with or affected by exposure to nanoparticles with a focus on disease processes and pathways that are affected by respiratory, dermal and ingestion exposures.

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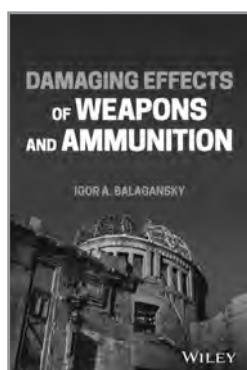
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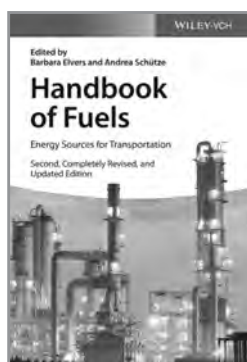
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Barbara Elvers & Andrea Schütze

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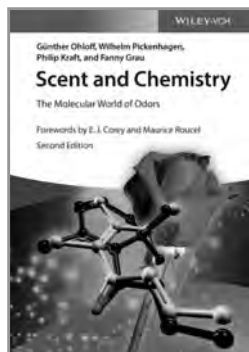
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Günther Ohloff et al.

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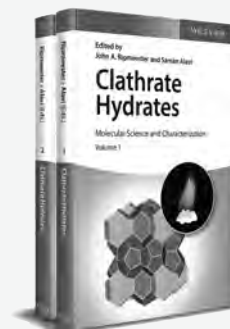
Clathrate Hydrates

Molecular Science and Characterization, 2-Volume Set

John A. Ripmeester & Saman Alavi

Clathrate hydrates are crystalline water-based inclusion compounds that form at high pressures and low temperatures. This comprehensive resource provides detailed information on the molecular science aspects of hydrate research, covering the structural, compositional, spectroscopic, thermodynamic, and mechanical properties of clathrate hydrates as well as simulation methods and selected engineering applications.

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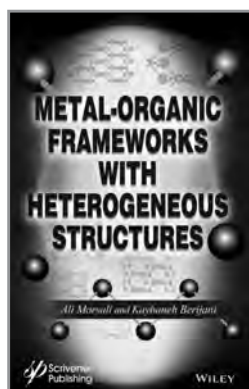


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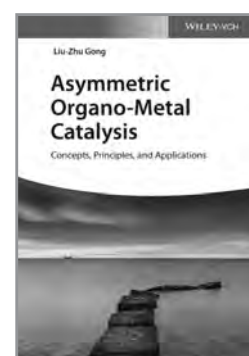
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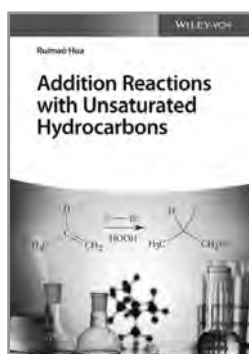


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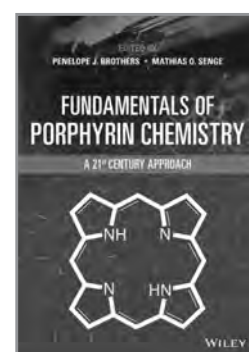
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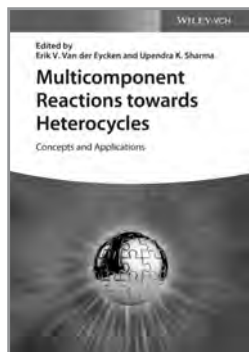


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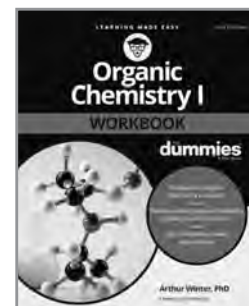


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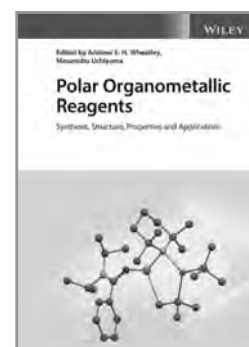
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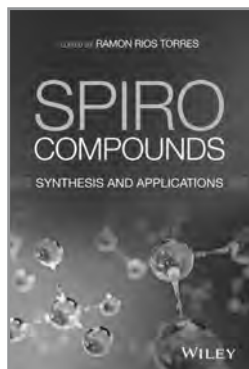
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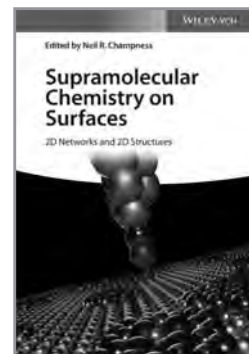
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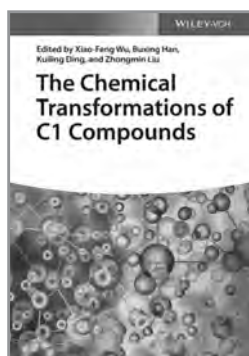


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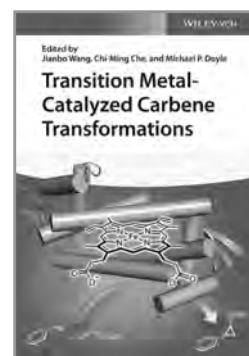


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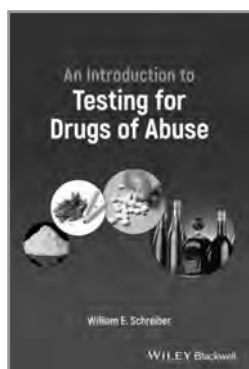


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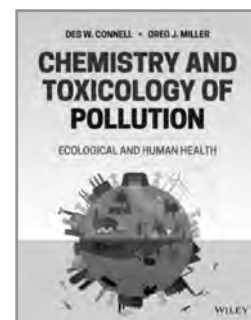
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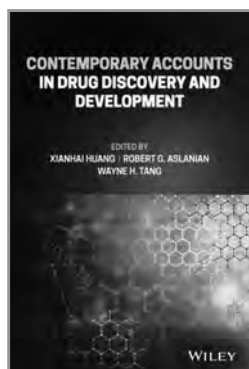


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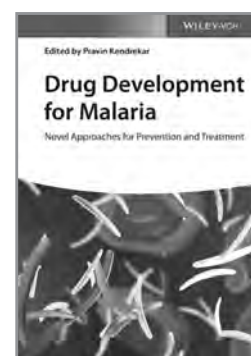
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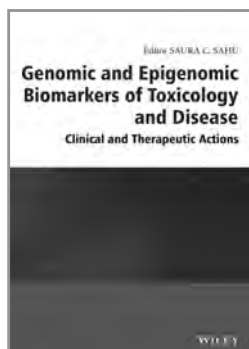
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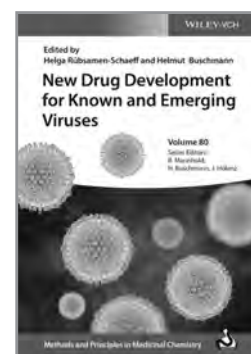


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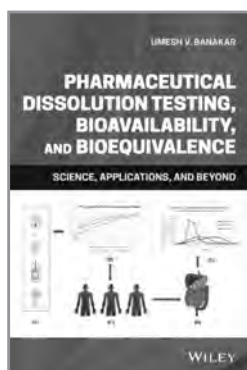
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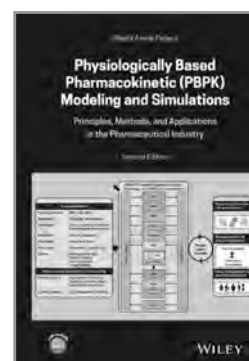
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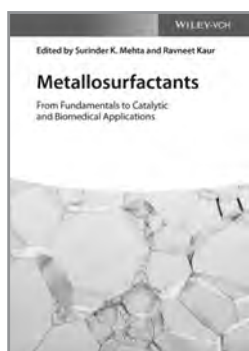
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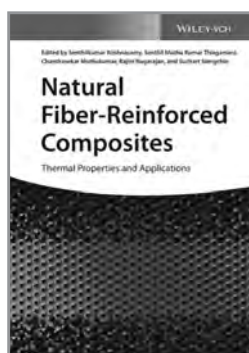
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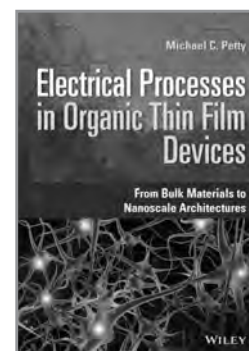
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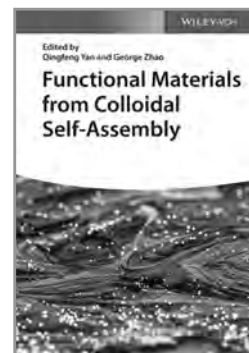
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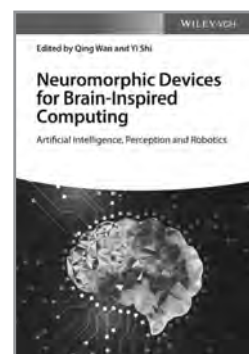
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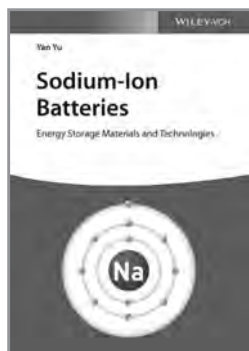
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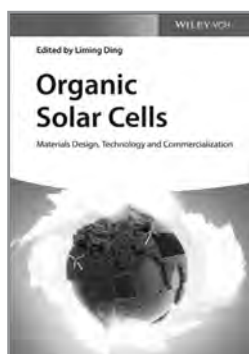
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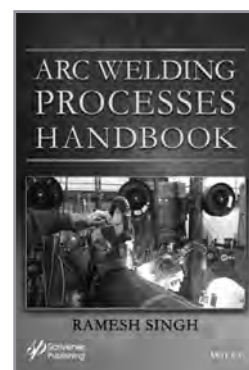
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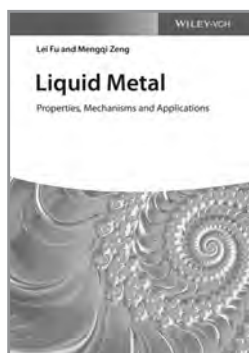
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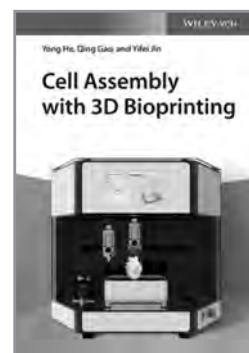
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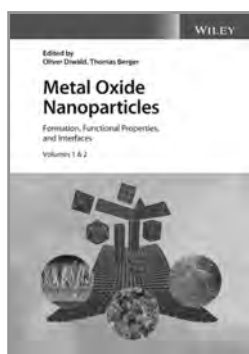
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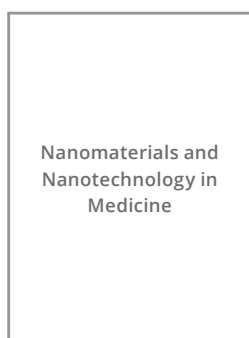
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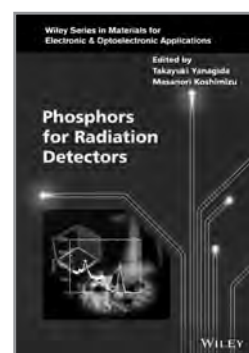
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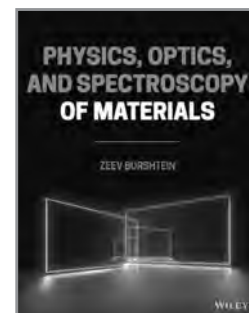
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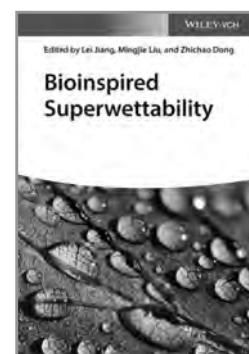
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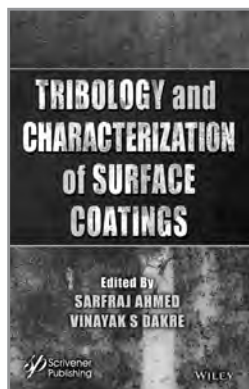


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