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## Anti-fibrotic Drug Discovery

Jehrod Brenneman KSQ Therapeutics, USA  
Malliga R Iyer National Institutes of Health, MD, USA

### Synopsis

Fibrosis is a condition with globally high unmet medical need, and as such is a highly active area of academic and pharmaceutical research covering multiple treatment targets, organs, tissues and therapeutic approaches. Anti-fibrotic Drug Discovery is a single source reference for the latest drug-discovery approaches to tackle fibrosis in various tissues, comprehensively covering recent success and future perspectives on emerging therapeutic intervention points. This book is ideal for practitioners in fibrosis drug discovery and research as well as clinicians specialising in liver, kidney, heart and lung disease, in which fibrosis plays a key role in pathology.

### Brief Contents

- TGF $\beta$  Signalling in Fibrosis
- Targeting Integrins in Fibroproliferative Disease
- Discovery, Structural Refinement and Therapeutic Potential of Farnesoid X Receptor (FXR) Activators
- Autotaxin Inhibitors in Fibrosis
- Inhibition of LOXL2 and Other Lysyl Oxidase (Like) Enzymes: Intervention at the Core of Fibrotic Pathology
- Galectin-3 Involvement in Fibrotic Diseases
- The Emerging Role of CXCR4 in IPF
- BH3 Mimetic Drugs for Anti-Fibrotic Therapy

Series: **Drug Discovery**

ISSN: **2041-3203**

Publisher: **Royal Society of Chemistry**

ISBN: **9781788015103**

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Publishing date: **23/03/2020**

Target Audience: **College/higher education**

Format: **Hardback**

Edition: **1**

Size: **234 x 156mm**

Pages: **371**

BIC: **MMG, PNN**

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## Bijels

### Bicontinuous Particle-stabilized Emulsions

Paul S Clegg University of Edinburgh, UK

#### Synopsis

Bicontinuous interfacially jammed emulsion gels, now commonly termed 'bijels', are a class of soft materials, in which interpenetrating, continuous domains of two immiscible fluids are maintained in a rigid arrangement by a jammed layer of colloidal particles at their interface. Such gels have unusual material properties that promise exciting applications across diverse fields from energy materials and catalysis, to food science. This is the first book on the subject and provides the reader with a fundamental introduction. Edited by a recognised authority on bijels, the reader will learn about the bijel and its formation. Bringing together current understanding, this book aims to bring the potential application of bijels to diverse materials challenges closer to fruition. This is a must-have resource for anyone working in soft matter and applied fields.

Series: **Soft Matter**

ISSN: **2048-7681**

Publisher: **Royal Society of Chemistry**

ISBN: **9781788015202**

Price: **£179.00 | \$250.00**

Publishing date: **31/03/2020**

Target Audience: **Professional and scholarly**

Format: **Hardback**

Edition: **1**

Size: **234 x 156mm**

Pages: **400**

BIC: **PHFC1, PNNP, TGMF**

#### Brief Contents

- Introduction to bijels
- Post Processing Bijels for Applications
- Bicontinuous Interfacially Jammed Emulsions (Bijels) in Geometrical Confinement
- Polymer blend systems with an added solvent
- Bijel Systems based on the Phase Separation of Biological Macromolecules
- Bijels formed by Solvent Transfer Induced Phase Separation
- On the effect of nanoparticles on the oil-water interfacial tension in the presence of nonionic surfactants
- Efficient processing pathways to create high interface materials

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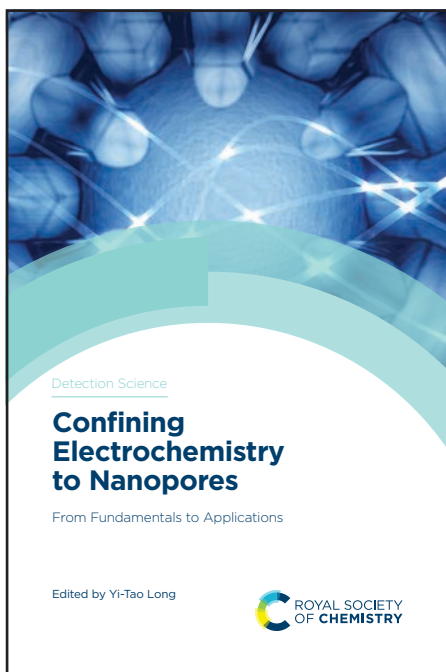
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# Confining Electrochemistry to Nanopores

## From Fundamentals to Applications

Yi-Tao Long Nanjing University, China

### Synopsis

Aimed at developing the concept of the electrochemical confined space in analysing single molecules, this book serves as a stepping stone to many exciting discoveries in nanopore-based analysis of biological processes and chemical reactions in confined space. There has been no newly published books on nanopore technology that provide a general overview of the research on nanopore-based sensing but the field of nanopore sensors is growing rapidly. The book provides a good source of nanopore studies for researchers interested in and working in the general areas of electrochemistry and nanobiotechnology, especially on nanopore sensors.

### Brief Contents

- Fundamentals of Nanopore Electrochemistry
- Electrochemical Confined Space for Individual Mass Transport of Molecules
- Confining Optical Enhancement Inside a Nanopore
- Electrochemical Confined Space for Enhanced Electric Field: Glass Nanopipette
- Summary and Outlook

Series: **Detection Science**

ISSN: **2052-3068**

Publisher: **Royal Society of Chemistry**

ISBN: **9781788012713**

Price: **£159.00 | \$220.00**

Publishing date: **28/02/2020**

Target Audience: **Professional and scholarly**

Format: **Hardback**

Edition: **1**

Size: **234 x 156mm**

Pages: **305**

BIC: **PNF, PNRH, TBN**

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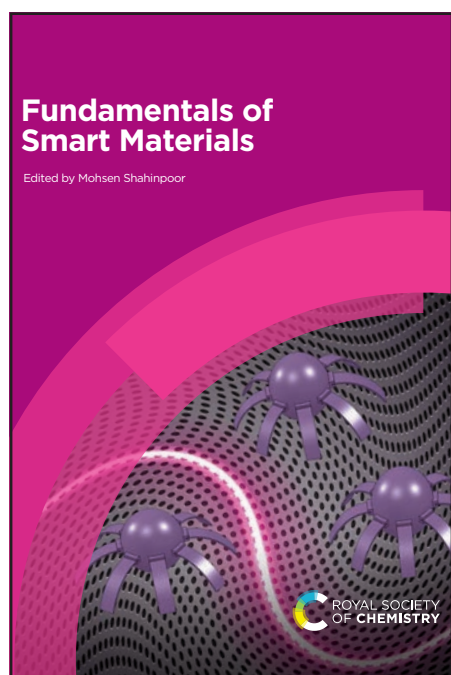
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## Fundamentals of Smart Materials

Mohsen Shahinpoor University of Maine, USA

### Synopsis

This textbook covers the fundamentals of different functional material systems aimed at advanced undergraduate and postgraduate students. Each chapter includes an introduction to the material, its applications and uses with example problems, fabrication and manufacturing techniques, conclusions, homework problems and a bibliography. Edited by a leading researcher in smart materials, topics include piezoelectric materials, magnetostrictive materials, shape memory alloys, mechanochromic materials, chemomechanical polymers and self-healing materials.

### Brief Contents

- Piezoelectric Materials; Piezoresistive Materials
- Electrostrictive Materials
- Magnetostrictive Materials
- Giant Magnetostrictive Materials (GMM)
- Giant Magneto Resistive (GMR) Materials
- Magnetic Gels
- Electrorheological Fluids (ERFs)
- Magnetorheological Fluids (MRFs)
- Dielectric Elastomers (DEs)
- Shape Memory Alloys (SMAs)

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Pages: 300  
BIC: PNNP, PNRC, TGM, TJFD

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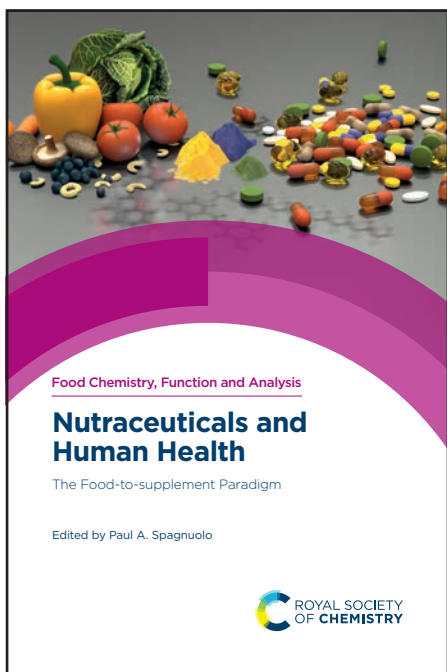
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# Nutraceuticals and Human Health

## The Food-to-supplement Paradigm

Paul A Spagnuolo University of Guelph, Canada

### Synopsis

Nutraceuticals is a broad umbrella term used to describe any product derived from food sources with extra health benefits in addition to the basic nutritional value found in foods. This book is a comprehensive look at two themes in the area: technical considerations and biological considerations. It is the first book to examine comprehensively the entire process of nutraceutical development from food to supplement creation and all the important considerations in between. This serves as an excellent and up-to-date reference for food scientists, food chemists, researchers in human nutrition.

### Brief Contents

- Nutraceuticals
- Regulation of Nutraceuticals in Canada and the United States
- Effects of Growing Conditions on Plant Medicinal Bioactives
- Extraction Technologies for Plant Derived Nutraceuticals and Natural Health Products
- Analytical Approaches for Characterization of Bioactives in Plant-based Natural Health &
- Food Products
- Encapsulation of Nutraceuticals
- Coffee and Solid Tumors

Series: Food Chemistry, Function and Analysis

ISSN: 2398-0656

Publisher: Royal Society of Chemistry

ISBN: 9781788014168

Price: £149.00 | \$205.00

Publishing date: 26/03/2020

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Format: Hardback

Edition: 1

Size: 234 x 156mm

Pages: 256

BIC: MBNH3, PNF, PSB

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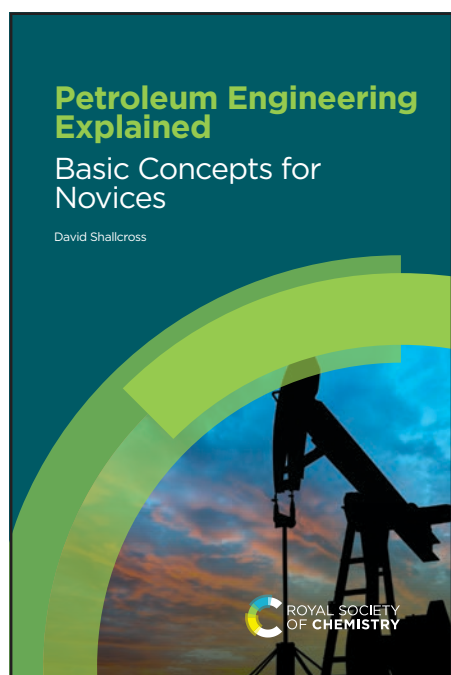
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# Petroleum Engineering Explained

## Basic Concepts for Novices

David Shallcross University of Melbourne, Australia

### Synopsis

Featuring the same non-mathematical, informal style of Chemical Engineering Explained: Basic Concepts for Novices by D. Shallcross, this book will introduce basic petroleum engineering concepts to chemists and engineers, exemplified with pertinent real-life case studies. It is intended to be used as the main textbook on specialised courses introducing petroleum engineering to non-petroleum engineers working in the petroleum, oil and gas, and chemical process industries. It can also be used as a supplementary text for mainstream introductory petroleum engineering courses and more traditional chemical engineering courses.

### Brief Contents

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ISSN: xxxxxxxx

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ISBN: 9781788016681

Price: £80.00 | \$110.00

Publishing date: 21/04/2020

Target Audience: College/higher education

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Edition: 1

Size: 234 x 156mm

Pages: 450

BIC: PDG, TDCB, THFP

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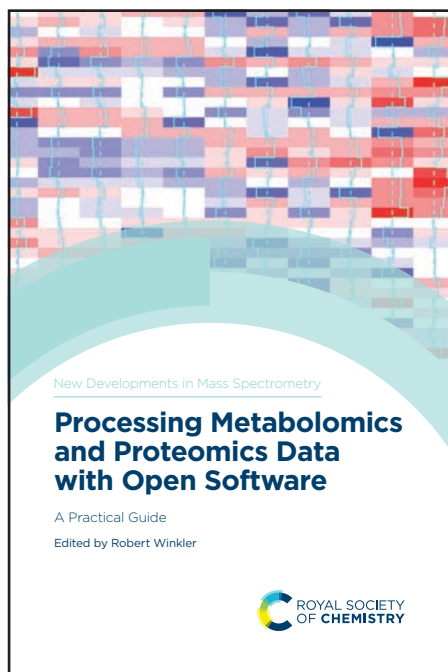
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# Processing Metabolomics and Proteomics Data with Open Software

## A Practical Guide

Robert Winkler CINVESTAV Unidad Irapuato, Mexico

### Synopsis

Metabolomics and proteomics allow deep insights into the chemistry and physiological processes of biological systems. These omics methods rely heavily on mass spectrometry, however, building valid models from raw mass spectrometry data is challenging, and the field of data analysis and integration is evolving rapidly. This book will enable researchers, practitioners and students from different backgrounds to analyze metabolomics and proteomics mass spectrometry data. The book contains tutorials, code examples and datasets that facilitate the training and the development of the reader's own programs and workflows.

Series: **New Developments in Mass Spectrometry**

ISSN: **2045-7545**

Publisher: **Royal Society of Chemistry**

ISBN: **9781788017213**

Price: **£179.00 | \$250.00**

Publishing date: **27/03/2020**

Target Audience: **Professional and scholarly**

Format: **Hardback**

Edition: **1**

Size: **234 x 156mm**

Pages: **400**

BIC: **PNFS, PNR**

### Brief Contents

- Section A – General Part: Introduction
- MS Data Operations and Workflows
- Metabolomics
- Proteomics
- Statistics, Data Mining and Modelling
- Section B - Open MS Programs, Toolkits and Workflow Platforms:  
Resources of Mass Spectrometry Software
- OpenMS/KNIME
- MZmine
- Metabolomic Data Analysis with XCMS/R and XCMS Online

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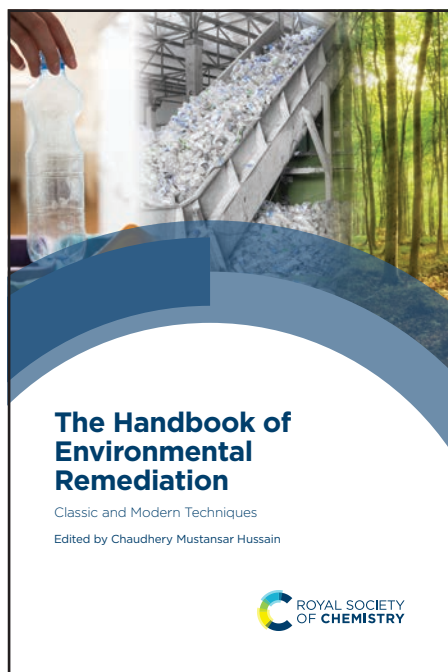
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## The Handbook of Environmental Remediation

### Classic and Modern Techniques

Chaudhery Mustansar Hussain New Jersey Institute of Technology, USA

#### Synopsis

Environmental remediation technologies to control or prevent pollution from hazardous waste material is a growing research area in academia and industry, and is a matter of utmost concern to public health, to improve ecology and to facilitate the redevelopment of a contaminated site. Recently, in situ and ex situ remediation technologies have been developed to rectify the contaminated sites, utilizing various tools and devices through physical, chemical, biological, electrical, and thermal processes to restrain, remove, extract, and immobilize mechanisms to minimize the contamination effects. This handbook brings altogether classical and

#### Brief Contents

- Innovation in Environmental Remediation Methods
- Hazardous Wastes – Types and Sources
- Thermal Treatment
- Soil Vapor Extraction: &nbsp;
- Fundamentals, Theory (Permeability and Gas/NAPL mass transfer Coefficient) and Applications
- Electrokinetic remediation
- Permeable Reactive Barriers (PRB) for environmental site remediation
- Thermal Desorption & amp
- Incineration

Publisher: Royal Society of Chemistry

ISBN: 9781788013802

Price: £125.00 | \$175.00

Publishing date: 31/03/2020

Target Audience: Professional and scholarly

Format: Hardback

Edition: 1

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Pages: 524

BIC: RNH, RNP, TD, TQK

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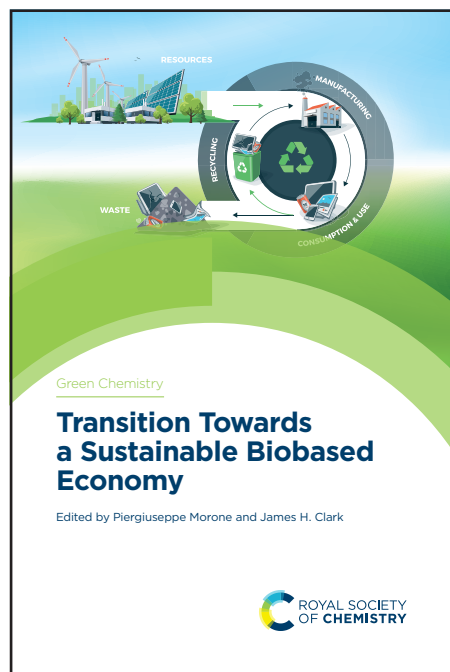
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# Transition Towards a Sustainable Biobased Economy

**Piergiuseppe Morone** Unitelma Sapienza University of Rome, Italy

**James H Clark** University of York, UK

## Synopsis

This book promotes the development of sustainability schemes (including standards, labels and certifications) for the assessment of biobased products, which are fundamental to the establishment of a cutting-edge sustainable bioeconomy. Chemical-related, globally relevant case studies are used throughout the book. An important resource for researchers, industrial professionals and policy makers involved in the bioeconomy.

## Brief Contents

- Upstream environmental assessment
- Downstream environmental assessment
- Techno-economic assessment
- Market assessment
- Social assessment
- Indirect land use change associated to biobased products
- Conclusion

Series: **Green Chemistry Series**

ISSN: **1757-7039**

Publisher: **Royal Society of Chemistry**

ISBN: **9781788015912**

Price: **£149.00 | \$205.00**

Publishing date: **20/03/2020**

Target Audience: **Professional and scholarly**

Format: **Hardback**

Edition: **1**

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Pages: **300**

BIC: **RNU, TD**

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## Transportation Biofuels

### Pathways for Production

**Alwin Hoogendoorn** The Centre of Expertise Biobased Economy, The Netherlands

**Han van Kasteren** Eindhoven University of Technology and the Centre of Expertise Biobased Economy, The Netherlands

#### Synopsis

Ten years on from the publication of the first edition of this book and fossil fuels still dominate the transport industry. However, there have been a number of advances in the production of biofuels for transportation use. This new edition provides updates on the previously discussed pathways for biofuels, including new experimental results and pilot plant studies, making it a useful read for researchers and industrialists working in biofuel development as well as postgraduate students studying fuel alternatives.

#### Brief Contents

- Biological conversion of syngas into ethanol
- Biological conversion of syngas into methane
- Enzymatic biodiesel
- Electro fuels, Future directions
- Concluding remarks

Series: **Green Chemistry Series**  
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Pages: **250**  
BIC: **TCB, TDC**

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