

Materials Science

How many questions will these help to answer?

100s of books available online
and in print with the RSC

rsc.li/books

Fundamental questions
Elemental answers

New books

from the Royal Society of Chemistry

With contributions from international authors and editors that cover all of chemistry and related fields, our books programme is relevant globally and provides support to scientists, researchers, students and teachers. We are excited about what we have to share with you this year.

Books to drive progress

In 2020, you can look forward to more titles that cover emerging areas like biomaterials science and inorganic materials, and more additions to our new *Food Chemistry, Function and Analysis* series. The core disciplines are represented by works focusing on significant developments in analytical science, green chemistry, catalysis and detection science.

Continuing our collaboration with IUPAC, we will also be publishing the fourth edition of the *Compendium of Terminology in Analytical Science*, an abridged version of *Quantities, Units and Symbols in Physical Chemistry*, and the *Glossary of Terms Used in Molecular Toxicology*.

Books to enlighten

We are here to help everyone in the chemical sciences to do their best work and drive scientific progress. 2020 textbook topics include *Microfluidics and Lab-on-a-Chip*, *Controlled Drug Analysis* and *Conservation Science*.

In *Good Chemistry*, we provide a textbook that goes beyond experimental procedure, to help practising scientists develop the skills to recognise the ethical and social dimensions of their own work and act appropriately.

Books to inspire

Chemistry is at the centre of everything you can see, smell, touch and taste, so we will be adding to the books that show the chemistry in our lives. *Sticking Together*, *Discovering Cosmetic Science* and *Perfume in the Bible* are just a few examples of books to broaden your chemistry horizons that you can look forward to in 2020.

If you have any queries, contact books@rsc.org  to talk to the team.

For a list of books published prior to 2020, visit [rsc.li/backlist](https://www.rsc.li/backlist)

Happy reading



Serin Dabb Head of books

Royal Society of Chemistry | Thomas Graham House
Science Park | Milton Road | Cambridge | CB4 0WF | UK
Tel +44 (0)1223 420066 | Fax +44 (0)1223 426017
www.rsc.org

Ways to buy

Digital options

The complete eBook collection is over 1,750 titles, and can be broken down as follows:

By year

Build on your existing collection by adding the eBooks published in a specific year.

By subject

These smaller sets focus on eight primary topic areas within the chemical sciences.

Pick and Choose

Select only the titles you need from the complete collection. Visit rsc.li/pickandchoose

All prices correct at the time of printing

Print options

Series sets

Build up your collection of specially curated book series.

Subject sets

Smaller collections sorted by subject area or by theme.

Individual titles

Purchase any book from the collection on its own.

Placing your order

2

Librarians and organisations

To place an order for print books please contact your preferred library supplier or find our worldwide representatives and distributors on page **17**

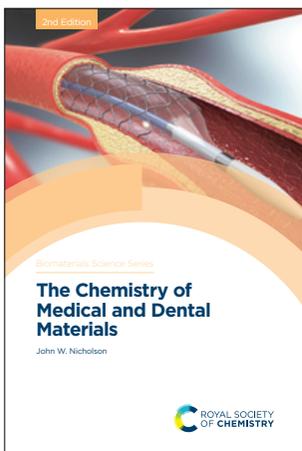
To find out about our eBook options please visit rsc.li/buy-ebooks or contact our sales team by emailing sales@rsc.org

Individuals

Please complete and send back the form on the next page or visit our online bookshop at rsc.li/books

 Part of our eBook collection

 Available as an eBook from selected online booksellers



About the series

ISSN: 2397-1401

Editor-in-chief

Julian Jones Imperial College London, UK

Series editors

Changyou Gao Zhejiang University, China | **Cole**

DeForest University of Washington, USA

Addressing the hottest topics in biomaterials science, these authoritative texts provide in-depth overviews and analysis for graduates, academics and practitioners requiring a deeper understanding of the subject. Emphasising a physical science and engineering approach, titles address physicochemical properties and structure-property relationships to inform function and design. Capturing underpinning principles applied to biomaterials science, as well as emerging technological advances and applications, this series is a high quality resource for those studying and conducting research in biomaterials science and engineering.

Biomaterials for Stem Cell Delivery in Regenerative Medicine

Frank Barry REMEDI, Ireland | **Abbie Binch** REMEDI, Ireland

Focussed on stem cell delivery for different regenerative medicine applications, from cardiac repair to neural tissues, this book will highlight biomaterial selection and use for cell delivery, covering tuneable hydrogels, nanomaterials and biomimetic substrates. Adult, human and induced pluripotent stem cells will be covered, making this a truly comprehensive book for the field.

Hardback | 500 pages | 9781788012447 | 2020 | £179.00 | \$250.00



9 781788 012447 >

Biomimetic Protein Based Elastomers

Emerging Materials for the Future

Namita Roy Choudhury University of Adelaide, Australia | **Julie C Liu** Purdue University, USA | **Naba K Dutta** University of Adelaide, Australia

Elastomeric proteins are ubiquitous in nature and exhibit an exceptionally broad range of material properties which are necessary for many biological functions including normal cardiac development and function, elasticity in human arterial walls as well as jumping and flying mechanisms of arthropods. Edited by active researchers in the field, the book provides a timely overview of the materials, along with synthesis techniques, responsive behaviour and health applications.

Hardback | 500 pages | 9781788010788 | 2020 | £179.00 | \$250.00



9 781788 010788 >

Decellularized Extracellular Matrix



Characterization, Fabrication and Applications

Tetsuji Yamaoka National Cerebral and Cardiovascular Center Research Institute (NCVC), Japan | **Takashi Hoshiba** Tokyo Metropolitan Industrial Technology Research Institute, Japan

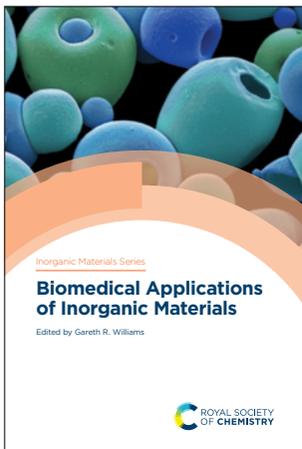
Takashi Hoshiba and Tetsuji Yamaoka have brought together, for the first time, leading contributors to provide a fundamental guide to the decellularized extracellular matrix. Focussing on the sources of dECM, preparation, characterization and applications of dECM in regenerative medicine and biological systems, this is a must-have resource for those working in regenerative medicine and tissue engineering.

Hardback | 325 pages | 9781788014670 | 2020 | £159.00 | \$220.00

ISBN 978-1-78801-467-0



9 781788 014670 >



About the series

ISSN: 2472-3819

Series editors

Duncan W Bruce University of York, UK | **Dermot O'Hare** University of Oxford, UK |

Richard I Walton University of Warwick, UK

This new series will provide authoritative coverage of topical and emerging research areas in inorganic materials chemistry and its related disciplines in physics, biology and materials science. The series will cover the three key areas of materials class, function and methodology, with each volume themed around a specific type of material, characterisation method, preparation technique or application. The books are written at a level accessible to advanced undergraduates, postgraduates and researchers wishing to learn about the subject.

Biomedical Applications of Inorganic Materials

Gareth R Williams University College London, UK

This book provides a contemporary research-led overview of the applications of inorganic materials in biomedicine. It begins with a short introduction summarising fundamental concepts, then discusses key areas in which inorganic materials have been applied. A clear focus is maintained on the fate of the applied materials in vivo, clinical considerations, and the path to translation from lab to clinic. With contributions from leading researchers, Biomedical Applications of Inorganic Materials provides a comprehensive introduction for advanced undergraduates, postgraduates and researchers.

Hardback | 350 pages | 9781788016063 | 2021 | £99.99 | \$140.00



Inorganic Thermoelectric Materials

From Fundamental Concepts to Materials Design

Anthony Powell University of Reading, UK

Thermoelectric devices convert a heat flux directly into electrical power, offering the capacity to improve system efficiency by recovery of a portion of waste heat for conversion into electrical energy. Implementation of this technology requires new materials that offer better performance and stability and contain readily available and inexpensive elements. Inorganic Thermoelectric Materials reviews the important new families of advanced materials which have emerged and taken the field beyond the long-standing focus on traditional thermoelectric materials. With contributions from global experts, this title will be of interest to advanced undergraduates, postgraduates and researchers.

Hardback | 350 pages | 9781788017596 | 2021 | £99.99 | \$140.00



The Chemistry of Inorganic Biomaterials

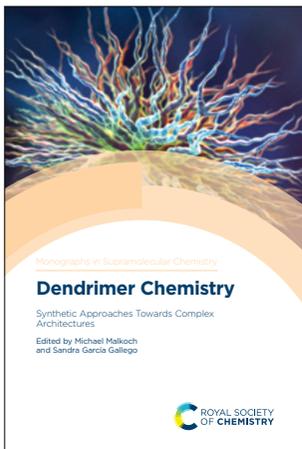


Christopher Spicer University of York, UK

Biomaterials offer the potential to restore and supplement the function of tissues and organs following injury or disease. The use of inorganic materials in the clinic to date has been widespread, in the form of metallic joint replacements and ceramic implants. The Chemistry of Inorganic Biomaterials overviews the underlying chemistry behind the most common and cutting-edge inorganic materials in current use, or approaching use, in vivo. Written in an accessible style, this book will be of interest to advanced undergraduates, postgraduates and researchers in biomaterials, inorganic materials and materials chemistry.

Hardback | 350 pages | 9781788017534 | 2021 | £99.99 | \$140.00





About the series

ISSN: 1368-8642

Series editors

Jonathan Steed Durham University, UK | **Philip**

Gale The University of Sydney, Australia

Supramolecular chemistry concerns the structure and function of molecular assemblies formed through weak interactions. These complexes have found diverse applications in materials chemistry, nanoscience, catalysis, food sciences, and medicine, and this has led to a rapid expansion in supramolecular chemistry research. With contributions from high profile international scientists working within the field, each book in the series covers a key concept for graduate level students and above interested in supramolecular chemistry and its diverse applications. The books are ideal for reference and as state-of-the-art guides, and they aim to enable further developments of new applications through an understanding of the fundamentals and a comprehensive overview of the latest research.

Coordination Polymers



Design, Analysis and Application: 2nd Edition

Stuart R Batten Monash University, Australia | **Suzanne M Neville** University of New South Wales, Australia | **David R Turner** Monash University, Australia

The second edition of Coordination Polymers will reflect cutting-edge advances in this fast-paced field. The aim is to provide a flavour of each aspect of coordination polymers whilst introducing the important concepts and developments using carefully selected examples. Written in the style of a tutorial review, the book is suitable for both senior specialists and new postgraduate students taking their first steps in the field. It also provides an authoritative and detailed reference source.

Hardback | 450 pages | 9781788010825 | 2021 | £179.00 | \$250.00



Dendrimer Chemistry



Synthetic Approaches Towards Complex Architectures

Michael Malkoch KTH Royal Institute of Technology, Sweden | **Sandra García Gallego** University of Alcalá, Spain

The dendrimer field continues to grow due to the unique structure of dendrimers that lends itself to useful properties and applications, such as in drug delivery. This book covers the latest advances in the synthesis of dendrimers and other complex dendritic architectures. It provides an overview of the most established building blocks for each family of dendritic material, and highlights the synthetic and structural trends and new applications. This will be a handy reference for postgraduate students and researchers in organic chemistry, polymer chemistry, (nano) materials science and macromolecular chemistry.

Hardback | 350 pages | 9781788011327 | 2020 | £169.00 | \$235.00



Reactivity in Confined Spaces



Gareth Lloyd Lincoln University, UK | **Ross S Forgan** Glasgow University, UK

The chemistry that occurs within confined spaces is a product of the collective forces that go beyond singular factors. Chapters in this book combine the classical host:guest chemistry with catalysis, reactivity and modern supramolecular chemistry. With contributions from key authors in the field, Reactivity in Confined Spaces will be of interest to graduate students and researchers working in supramolecular chemistry, homogeneous catalysis, organic chemistry, materials science and polymer chemistry.

Hardback | 450 pages | 9781788017763 | 2021 | £179.00 | \$250.00



Structure and Dynamics in Solid-state Inclusion Compounds



Leonard J Barbour Stellenbosch University, South Africa | **Luigi R Nassimbeni** University of Cape Town, South Africa

Recent advances in structural methods and in situ techniques have greatly facilitated the elucidation of crystal and molecular structures. Concurrent advances have also occurred in the development of complementary techniques. This book describes the methods used to elucidate structure–property relationships of solid-state inclusion compounds. In particular, it focuses strongly on structural chemistry and the physical methods used to determine bulk properties. Written by world leaders in the field, this title will appeal to students and researchers working in solid-state organic chemistry, crystal engineering and supramolecular chemistry.

Hardback | 270 pages | 9781788014106 | 2021 | £159.00 | \$220.00



Supramolecular Chemistry in Biomedical Imaging



Stephen Faulkner University of Oxford, UK | **Thorfinnur Gunnlaugsson** Trinity College Dublin, Ireland | **Gearóid Ó Máille** Trinity College Dublin, Ireland

There have been great advances in biomedical imaging techniques in recent years, with supramolecular interactions playing a key role. This book clarifies the current understanding of the techniques used in imaging and the molecular and supramolecular systems used. It caters for academics coming to the field from mainstream supramolecular chemistry and graduate students interested in supramolecular chemistry, imaging agents and imaging techniques for biomedical applications.

Hardback | 300 pages | 9781782622970 | 2020 | £159.00 | \$220.00



Supramolecular Protein Chemistry



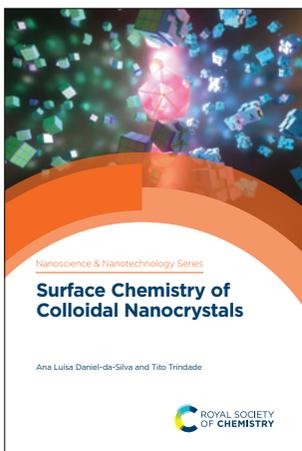
Assembly, Architecture and Application

Peter B Crowley NUI Galway, Ireland

Building on decades of “host-guest” research, recent years have seen a surge of activity in water-soluble supramolecular receptors for protein recognition and assembly. This book addresses the exciting interface of supramolecular chemistry and protein science. Chapters cover supramolecular approaches to protein recognition, assembly and regulation. Principles outlined will highlight the opportunities that are readily accessible to collaborating chemists and biochemists. Supramolecular Protein Chemistry will be of particular interest to graduate students and researchers working in supramolecular chemistry, protein science, self-assembly, biomaterials, biomedicine and biotechnology.

Hardback | 450 pages | 9781788017541 | 2020 | £179.00 | \$250.00





About the series

ISSN: 1757-7136

Editor-in-chief

Nguyễn T K Thanh University College London, UK

Series editors

Gabriel Caruntu Central Michigan University, USA

| **Shinya Maenosono** Japan Advanced Institute

of Science and Technology, Japan | **Neerish**

Revaprasadu University of Zululand, South Africa

The possible uses of nanotechnology span many fields from health, environment to energy; as a result there is a wealth of scientific nanoscience research taking place all over the world. When there is so much information available on the topic, it can be difficult to get a complete overview of the latest developments. The Nanoscience and Nanotechnology Series provides a comprehensive resource of books covering key topics such as the synthesis, characterisation, performance and properties of nanostructured materials and technologies and their applications. With contributions from leading experts in nanoscale research, the books are suitable for graduate student level and above in chemistry, physics, biology, materials science, engineering and medicine wanting to know more about nanoscience.

Bionanodesign

Old Forms for New Functions

Maxim Ryadnov National Physical Laboratory, UK

Bionanodesign has been fully revised and updated to bring together contemporary approaches for designing nanostructures that employ naturally derived self-assembling motifs as synthetic platforms. The overall aim is to compile the existing understanding of rules that govern biomolecular self-assembly into a practical guide to molecular nanotechnology. Written by a world recognised expert, this book provides an authoritative guide to those working in design and development of nanomaterial research in industry and academia, from postgraduate researchers upwards.

Hardback | 250 pages | 9781782628163 | 2020 | £159.00 | \$220.00



9 781782 628163 >

Concepts and Design of Materials Nanoarchitectonics

Omar Azzaroni Universidad Nacional de La Plata, Argentina | **Katsuhiko Ariga** National Institute for Materials Science, Japan

The concept of Nanoarchitectonics was introduced to describe the correct manipulation of nanoscale materials in the creation of nano-devices and applications. Chapters cover introductory features underlying the field and present a unifying overview of the theoretical aspects and emerging applications that are changing the capability to understand and design advanced functional materials. Edited by pioneers of the field, this book will be of interest to researchers working in nanoscience, materials science, supramolecular chemistry, physical chemistry and organic chemistry, as well as graduate students in these fields.

Hardback | 450 pages | 9781788018029 | 2021 | £179.00 | \$250.00



9 781788 018029 >

Nanotubes and Nanowires



3rd Edition

C N Ram Rao Jawaharlal Nehru Centre for Advanced Science Research, India | **A Govindaraj** Jawaharlal Nehru Centre for Advanced Scientific Research, India | **Leela Srinivas Panchakarla** Indian Institute of Technology Bombay, India

Nanotubes demonstrate a range of fascinating properties, many of which relate directly to potential applications. Nanowires have been made from a vast array of inorganic materials and provide great scope for further research into their properties and possible applications. Chapters in this book provide a comprehensive and up-to-date survey of the research area, including synthesis, characterisation, properties and applications. This new edition of Nanotubes and Nanowires is ideal both for graduates needing an introduction to the field, as well as for professionals and researchers in academia and industry.

Hardback | 600 pages | 9781788017824 | 2020 | £179.00 | \$250.00



9 781788 017824 >

Surface Chemistry of Colloidal Nanocrystals



Ana Luísa Daniel-da-Silva University of Aveiro, Portugal | **Tito Trindade** University of Aveiro, Portugal

The chemistry of nanomaterials has developed considerably in the past two decades. This book provides insights on the chemistry of inorganic nanoparticles of colloidal nature, with fundamentals on the topic for a broad audience as well as information on the chemical modification of surfaces of several different nanocrystal systems. Written by prestigious scientists, it will be a useful resource for students and researchers working in surface science, nanoscience and materials science as well as those interested in the applications of the nanomaterials.

Hardback | 250 pages | 9781788014014 | 2020 | £149.00 | \$205.00



9 781788 014014 >

Titanate and Titania Nanotubes



2nd Edition

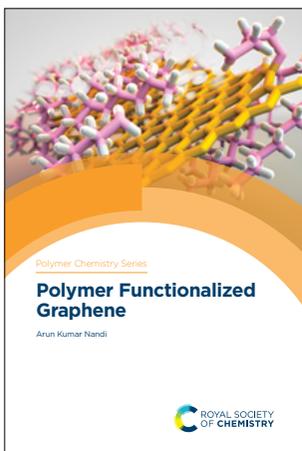
Dmitry Bavykin University of Southampton, UK | **Frank Walsh** University of Southampton, UK

While titanium oxides are less popular than carbon nanostructures, they have the marked advantages of low cost and facile synthesis routes that use conventional laboratory and scalable technology methods. The second edition of Titanate and Titania Nanotubes consolidates knowledge regarding the synthesis, properties and application of nanostructured titanates. Hydrothermal, wet chemical, sol-gel, electrophoretic and anodic synthesis methods are considered along with single metal oxide, mixed metal oxide, multilayer, gradient and composite layers. Written by leaders in the field, this title will be of interest to students and researchers who experimentally study nanomaterials.

Hardback | 220 pages | 9781788017374 | 2020 | £149.00 | \$205.00



9 781788 017374 >



About the series

ISSN: 2044-0790

Editor-in-chief

Ben Zhong Tang The Hong Kong University of Science and Technology, Hong Kong

Series editors

Alaa Abd-El-Aziz University of Prince Edward Island, Canada | **Jianhua Dong** National Natural Science Foundation of China, China | **Jeremiah A Johnson** Massachusetts Institute of Technology, USA | **Toshio Masuda** Shanghai University, China | **Christoph Weder** University of Fribourg, Switzerland

Polymer chemistry is a vast research area and with so many papers published on the topic, it's hard to know where to start and what papers to read. With contributions from leading experts across the world, each book in the series covers key themes in polymer chemistry research for graduate students and researchers. The perfect introduction to key topics giving the reader the knowledge to continue their work.

Amphiphilic Polymer Co-networks



Synthesis, Properties, Modelling and Applications

Costas S Patrickios University of Cyprus, Cyprus

The improved mechanical properties of amphiphilic polymer co-networks (APCNs) are attracting increasing attention from further basic research on the system and also new biomedical and catalysis applications. This new book focuses on the new developments in the field covering the key areas of synthesis, properties, applications and modelling. Edited by a leading name in the field, the book will appeal to graduate students and researchers interested in hydrogels, polymer networks, polymer chemistry, block copolymers, self-assembly and nanomaterials.

Hardback | 400 pages | 9781788013703 | 2020 | £169.00 | \$235.00



ISBN 978-1-78801-370-3

Polymer Functionalized Graphene



Arun Kumar Nandi Indian Association for the Cultivation of Science, India

There is an immense variety of research on polymer functionalized graphene (PFG). Applications of these graphene polymer hybrids include in chemical and biological sensing, photovoltaic devices, supercapacitors and batteries, dielectric materials and drug/gene delivery vehicles. This book will shed light on the synthesis, properties and applications of these new materials, covering two methods (covalent and noncovalent) for producing polymer functionalized graphene. Graduate students and researchers in polymer chemistry and nanoscience will find this book valuable reading.

Hardback | 350 pages | 9781788018791 | 2021 | £169.00 | \$235.00



ISBN 978-1-78801-879-1

Redox Polymers for Energy and Nanomedicine

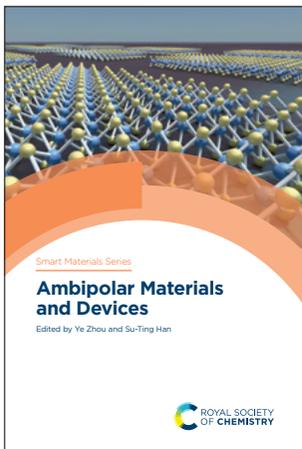


David Mecerreyes University of the Basque Country, Spain | **Nerea Casado** University of the Basque Country, Spain

Polymers with redox properties are electroactive macromolecules containing localized sites or groups that can be oxidized and reduced. *Redox Polymers for Energy and Nanomedicine* highlights trends in the chemistry, characterization and application of polymers with redox properties. Chapters cover batteries, supercapacitors, solar cells, biofuel cells, thermoelectric cells, drug delivery, biosensors, actuators and smart surfaces. The book will be of interest to graduate students and researchers working in polymer science, electrochemistry, energy research and nanomedicine.

Hardback | 350 pages | 9781788018715 | 2021 | £169.00 | \$235.00





About the series

ISSN: 2046-0066

Series editors

Hans-Jörg Schneider Universität des Saarlandes, Germany | **Mohsen Shahinpoor** University of Maine, USA

The progress of new functional materials plays a vital role in solving many of today's global challenges, from energy and sustainability to medicine and healthcare. With a wealth of information available it's hard to find a resource providing a complete overview of the different types of smart materials available. Each book in the series covers the fundamentals and applications of different material system from renowned international experts. Stay in the know with the Smart Materials Series - the intelligent way to find your materials solution.

Ambipolar Materials and Devices



Ye Zhou Shenzhen University, China | **Su-Ting Han** The University of Michigan, USA

Ambipolar materials represent a class of materials where positive and negative charge carriers can both transport concurrently. This book highlights recent development of ambipolar materials involving materials design, fundamental principles, interface modifications, device structures, ambipolar characteristics and promising applications. It will appeal to graduate students and researchers who want to understand the design, materials characteristics, device operation principles, specialized device application and mechanisms of the latest ambipolar materials.

Hardback | 350 pages | 9781788018685 | 2021 | £169.00 | \$235.00



Chemistry of Spintronics



From Fundamentals to Applications

Erin Chernick University of Tübingen, Germany

Chemistry of Spintronics gives the reader an in depth look at the field, providing targeted information on how the property of the electron spin can influence chemical phenomena and processes. The book covers how the nature of the electron spin can influence chemical properties, and in turn, enable clever material design. With contributions from global specialists, this title will be of interest to those working in materials science, spintronics, organic chemistry, physical chemistry, computational chemistry and organometallic chemistry.

Hardback | 400 pages | 9781788017169 | 2021 | £179.00 | \$250.00





About the series

ISSN: 2048-7681

Series editors

Hans-Jürgen Butt Max Planck Institute for Polymer Research, Germany | **Ian W Hamley** University of Reading, UK | **Howard A Stone** Princeton University, USA | **Amy Shen** Okinawa Institute of Science and Technology, Japan | **Karen Edler** University of Bath, UK

With contributions from experts in the field, the books in this series provide an essential overview of the latest developments in soft matter research. Each title covers a specific aspect of soft matter, from the fundamental concepts of soft matter systems to the diverse applications across different disciplines. The books are suitable for advanced undergraduate students, postgraduate students and professional researchers working in soft matter science and related fields.

Bijels

Bicontinuous Particle-stabilized Emulsions

Paul S Clegg University of Edinburgh, UK

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.

Hardback | 400 pages | 9781788015202 | 2020 | £179.00 | \$250.00



Drying of Complex Fluid Drops

Fundamentals and Applications

David Brutin Aix-Marseille University, France | **Khelil Sefiane** University of Edinburgh, UK

Addressing the fundamental underpinnings of wetting, spreading and drying, this book then takes the reader through key applications grouped into themes including, colloidal droplets (used in printing), surfactants (agriculture and pesticides), and biological (e.g. bloodstain analysis for forensics). With a section on modelling and simulation to balance experiment with computational tools, this book will appeal to anyone working in complex fluids across classical fluid mechanics, soft matter, and chemical, biological and mechanical engineering.

Hardback | 275 pages | 9781788017909 | 2021 | £149.00 | \$205.00



Peptide-based Biomaterials



Mustafa O. Guler The University of Chicago, USA

Research into the field of peptide materials is booming, as these versatile building blocks are used to design a host of functional biomaterials via chemical modifications. It is a field that is attracting research interest from across soft matter science, molecular engineering and biomaterials science. This book covers the fundamental concepts of self-assembly, design and synthesis before moving on to focussed chapters describing important peptide based materials and their biomedical applications. Each of these chapters is written by a leader in their respective field and will be the definitive guide to the field.

Hardback | 425 pages | 9781788017299 | 2021 | £179.00 | \$250.00



Soft Matter for Biomedical Applications



Helena Azevedo Queen Mary University of London, UK | **João Mano** University of Aveiro, Portugal | **João Borges** University of Aveiro, Portugal

Recent advances in chemistry and nanoscience are enabling the fabrication of sophisticated soft biomaterials, which are finding applications ranging from sensors and drug delivery, to soft robotics as tools for precise surgeries. It represents an area of intense research across chemistry, materials science, physics and engineering. This book is the first to concentrate on the basics of soft matter systems, biological soft matter properties across natural, synthetic soft matter and hybrid systems, and applications to biomedicine and biomedical engineering.

Hardback | 500 pages | 9781788017572 | 2021 | £179.00 | \$250.00



Soft Matter in Plants



From Biophysics to Biomimetics

Kaare Jensen Technical University of Denmark, Denmark | **Yoël Forterre** CNRS Aix-Marseille Université, France

Plants offer some of the most elegant applications of soft matter principles in Nature. Understanding the interplay between chemistry, physics, biology, and fluid mechanics is critical to forecast plant behaviour, which is necessary for agriculture and environmental science. The understanding also lends itself to the discovery of new biomimetic applications. Starting with fundamental concepts, this book then dives into research topics, such as drought and disease, providing the reader with a concise, expert introduction to the field.

Hardback | 275 pages | 9781788017244 | 2021 | £159.00 | \$220.00



Nanoscience



Volume 6

P John Thomas Bangor University, UK | **Neerish Revaprasadu** University of Zululand, South Africa

The field of nanoscience continues to grow and, with such a vast landscape of material, careful distillation of the most important discoveries will help researchers find the key information they require. Nanoscience provides a critical and comprehensive assessment of the most recent research and opinion from across the globe. Anyone practising in any nano-allied field, or wishing to enter the nano-world will benefit from this resource, presenting the current thought and applications of nanoscience.

Hardback | 250 pages | 9781788016933 | 2020 | £314.95 | \$440.00



Organometallic Chemistry



Volume 43

Nathan J Patmore University of Huddersfield, UK | **Paul I P Elliott** University of Huddersfield, UK

With the increase in volume, velocity and variety of information, researchers can find it difficult to keep up to date with the literature in their field. This interdisciplinary field has the potential to provide answers to problems and challenges faced in catalysis, synthetic organic chemistry and the development of therapeutic agents and new materials. Providing an invaluable volume, this volume contains analysed, evaluated and distilled information on the latest in organometallic chemistry research.

Hardback | 250 pages | 9781788016919 | 2020 | £314.95 | \$440.00



China, Taiwan & Hong Kong

Wayne Tian | Royal Society of Chemistry

5th Floor, South Block, Tower C,
Raycom InfoTech Park,
2 Kexueyuan South Road,
Haidian District,
Beijing 100190, China
Tel 00 86 1391 091 3625
Email tianw@rsc.org

Eastern Europe

Radek Janousek | Publishers' Representative

Vratenska 384/18 | Praha 9 – 19600 | Czech Republic
Mobile +420 602 294 014 | Fax +48 22 6714819
Email radek@radekjanousek.com
Website www.radekjanousek.com

India

Sara Books Pvt Ltd,

302 A , Vardaan House,
7/28, Ansari Road, Daryaganj,
New Delhi - 110002.
India.
Email ravindrasaxena@sarabooksindia.com

Middle East, North Africa & South East Europe

Bill Kennedy | Claire de Gruchy | Publishers' Representatives

Avicenna Partnership Ltd
PO Box 501 | Witney | Oxfordshire | OX28 9JL | United Kingdom

Bill Kennedy: Egypt, Lebanon, UAE, Bahrain, Oman, Qatar,
Iraq, Libya, Saudi Arabia, Sudan, Yemen & Kuwait
Tel +44 (0) 7802 244457
Email AvicennaBK@gmail.com

Claire de Gruchy: Greece, Cyprus, Malta, Turkey, Morocco,
Tunisia, Algeria, Jordan, Palestine & Israel
Tel +44 (0) 7771 887843
Email avicenna-cdeg@outlook.com

Pakistan

Tahir Lodhi | Publishers' Representative

14-G Canalberg H.S. | Multan Road
Lahore 53700 | Pakistan
Tel +042 35292168
Mobile +0300 8419436
Fax +042 35882651
Email tahirlodhi@gmail.com

Singapore, Indonesia, Philippines, Thailand, Vietnam, Cambodia, Laos, Malaysia & Brunei

Ian Pringle | Publishers' Representative

APD Singapore Pte Ltd
52 Genting Lane #06-05 | Ruby Land Complex Block 1
Singapore 349560
Tel +65 6749 3551
Fax +65 6749 3552
Email ian@apdsing.com

South Korea

Ms Sunny Cheong

Wise Book Solutions
#1607 Daewoo Freshia
143 Dongil-Ro (Sungsoo-Dong2Ga)
Sungdong-Ku | Seoul | 04799 | Korea
Tel +82 2 499 4301 | Fax +82 2 499 4301
Email sunnycheong88@naver.com

South Africa, Botswana, Lesotho and Namibia

Juta and Company Ltd
1st Floor | Sunclare Building
21 Dreyer Street, Claremont, 7708 | South Africa
PO Box 14373
Lansdowne 7779, Cape Town | South Africa
www.juta.co.za
Tel +27 (21) 659 2300
Fax +27 (21) 659 2360
Email msymington@juta.co.za
Email orders@juta.co.za

US & Canada

Bob Meehan | Princeton Selling Group, Inc.
175 Strafford Avenue
Wayne, PA, 19087
Tel (610) 975-4595 | Fax (610) 975-4593
Email psg@firstclassweb.com
Website www.princeton-sellinggroup.com

Anywhere else in the world

Sales Support
Tel +44(0)1223 432485
Email booksales@rsc.org

Books sales enquiries

For sales enquiries, translation requests and inspection copy information, please contact your regional representative.

Sales Support

Tel +44 (0) 1223 432485

Fax +44 (0) 1223 426017

Email booksales@rsc.org

Ordering information

Postage

Postage charges are applicable - there is a postage and handling charge of £3.50 per item ordered up to a maximum postage charge of £14.00 for UK purchases. For non-UK residents postage is calculated on weight based on destination.

All trade partners should provide details of a UK based freight forwarder.

Credit cards

Customers may purchase Royal Society of Chemistry publications using credit card facilities for purchases up to £8,000.

Royal Society of Chemistry members

Non-member prices quoted. Royal Society of Chemistry members are entitled to 35% discount on most of our publications. Details are available from our website or contact the Royal Society of Chemistry.

For more information please contact

Royal Society of Chemistry | Thomas Graham House
Science Park | Milton Road | Cambridge
CB4 0WF | UK

Tel +44 (0)1223 420066

Fax +44 (0)1223 420247

Email books@rsc.org

Website www.rsc.org

Ordering enquiries

Customers in USA and Canada should order from our distributor:

Ingram Publisher Services
Customer Service, Box 631 | 14 Ingram Blvd
La Vergne, TN 37086 | USA

ipage.ingramcontent.com

Tel +1 (866) 400 5351

Fax +1 (800) 838 1149

Email ips@ingramcontent.com

The customer service hours of operation are
Monday - Friday, 8.00 am. - 5.00 pm. CST

ACCESS (automated stock check and ordering line)
+1 (800) 961 8031

Royal Society of Chemistry assigned Toll Free
number
+1 (888) 790 0428

All other customers should send their orders to:

Marston Book Services Ltd
160 Eastern Avenue | Milton Park | Abingdon
Oxfordshire | OX14 4SB | UK

Trade

Tel +44 (0) 1235 465576

Fax +44 (0) 1235 465555

Email orders.trade@marston.co.uk

Email enquiries.trade@marston.co.uk

Direct/Individual sales

Tel +44 (0) 1235 465577

Fax +44 (0) 1235 465556

Email orders.direct@marston.co.uk

Email enquiries.direct@marston.co.uk

Website www.marston.co.uk



Thomas Graham House
Science Park, Milton Road
Cambridge CB4 0WF, UK
T +44 (0)1223 420066

Burlington House
Piccadilly, London
W1J 0BA, UK
T +44 (0)20 7437 8656

International offices

Beijing, China
Shanghai, China
Berlin, Germany
Bangalore, India
Tokyo, Japan
Philadelphia, USA
Washington, USA

www.rsc.org

Registered charity number: 207890
© Royal Society of Chemistry 2019

 @RoyalSocietyofChemistry

 @RoySocChem

 @roysocchem

 @wwwRSCorg

 [linkedin.com/company/roysocchem](https://www.linkedin.com/company/roysocchem)