





## Books

We are the world's leading chemistry community – a not-for-profit organisation with over 170 years of history. Our books publishing programme allows us to support scientists, researchers and students with high quality, internationally respected chemical science titles that span the breadth of our subject. Our collection is made up of over 1,500 books – and it's growing.

### Highlights:

- The new **RSC Cambridge Series** (page 17) is a suite of reference books on cutting-edge research at the interface of chemistry and biology.
- We're adding more volumes to established series. **RSC Green Chemistry** (page 27) and **RSC Database** (page 22) reach 50 titles this year, and **Industrial Technology** (page 5) will reach 30.
- Our **New Directions in NMR Spectroscopy** (page 13) is diversifying to encompass the uses of this technique in medical applications, while **Materials Science and Catalysis** (page 9) is

## C

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eBook available 

Textbooks are appropriate for undergraduate and postgraduate students, as course reference and/or as accompanying course material

Prices and publication dates subject to change.



C . . . S . . . P . . . a & P . . . a S .

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## A S

ISSN:2041-9716

S . . E .

Massimo Trotta Istituto per i Processi Chimico Fisici-CNR, Italy

Initiated by the European Society for Photobiology this Series provides comprehensive overviews on specific areas of photoscience, giving in-depth coverage of the very different fields related to light effects. It embraces both well-established and emerging fields and allows investigators, physicians, industrialists and postgraduate students to obtain an updated account in specific areas and a ready access to the recent literature. Importantly, books in this Series provide a critical evaluation of the directions that the field is taking.



I . E . a S . a T

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## A S

ISSN: 1350-7583

S . E .

R M Harrison University of Birmingham, UK | R E Hester University of York, UK

Written by world experts in their specialised fields, this Series tackles important environmental topics. It also focuses on broader issues, notably economic, legal and political considerations. Authors are drawn from industry, the public service and academic organisations. The books are invaluable for scientists and engineers in industry and public service, consultancy and academic institutions. They are also essential reading for students taking specialised courses in environmental chemistry, and provide supplementary reference material for general science courses.



I . T .

## A S

ISSN:1757-7179

**E . . -C . /**  
Diana Anderson University of Bradford, UK

**S . . E .**  
Tim Marrs Edentox Associates, UK | Mike Waters Consultant, Integrated Laboratory Systems (ILS) Inc., USA

**E . . a A .**  
Alok Dhawan Ahmedabad University, India

The field of toxicological research is continually expanding and diversifying, driven by the need to understand the human and ecological risks of exposure to chemicals and other toxicants. This Series is devoted to coverage of modern toxicology and assessment of risk. Written by expert scientists from academia, government and industry, each book will serve as a guide to investigations in toxicology, biomedicine, biochemistry, forensics and environmental and pollution sciences.



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I . T .

**Na****Experimental and Computational Perspectives**

Alok Dhawan Ahmedabad University, India | Diana Anderson University of Bradford, UK | Rishi Shanker Ahmedabad University, India and Michigan State University, USA

This book addresses the gaps relating to health and safety issues of this field and aims to bring together fragmented knowledge on nanosafety. The publication covers diverse topics including environmental impacts, safety guidelines and ethical issues surrounding the use of nanoparticles. The book presents a unique compilation of experimental and computational perspectives and is targeted for postgraduates, academics, and practicing industrialists. It also serves as an excellent foundation for students and researchers new to nanotechnology.

Hardback | 500 pages | 9781782621584 | 2016 | £179.00 | \$300.00



O . a . S . a . R . S . a . . . Pa . . . D . a

Rodrigo Franco University of Nebraska-Lincoln, USA | Jonathan Doorn University of Iowa, USA | Jean-Christophe Rochet Purdue University, USA

Parkinson's disease is the second most common neurodegenerative disorder affecting millions of people worldwide. In order to find neuroprotective strategies, the mechanisms of the disease need to be understood, and there have been links made between oxidative damage and Parkinson's disease. This book provides a thorough review of the latest research developments regarding the mechanisms by which oxidative stress and redox signalling mediate Parkinson's disease. It is designed to cover basic knowledge regarding oxidative stress and redox signalling, Parkinson's disease, and neurodegeneration, while also exploring in detail the latest advancement in the research field. Topics covered will include dopamine metabolism, metal homeostasis and DNA-damage. The text will also discuss the current advance in the identification of potential biomarkers for diagnosis and disease progression and the future of antioxidant based therapeutics. Written by recognised experts in the field this book will be a great source of information for postgraduate students and academics, clinicians, toxicologists and risk assessment groups.

Hardback | 500 pages | 9781782621881 | 2016 | £179.00 | \$300.00



R . a . T . . . E . a . U .

Tim Marrs Edentox Associates, UK | Kevin Woodward TSGE Consulting Limited, UK

Consumer and environmental protection depends on the careful regulation of all classes of chemicals. Toxicology is the key science used to evaluate safety and so underpins regulatory decisions on chemicals. This book is the first to cover regulatory toxicology in Europe and addresses the need for a wider understanding of the principles of regulatory toxicology and their application. It will be an essential reference to regulatory authorities, industry, and toxicologists working across the European Union and for those based in other countries trying to understand and comply with European Union regulations. The editors are regulatory toxicologists with wide experiences in UK government departments with first-hand experience of chemical regulation. Each chapter will cover the history of regulation in Europe, current regulation in Europe, the role of European agencies and institutions and the use of toxicology data for important classes of chemicals, including human and veterinary medicinal products, animal feed and food additives, biocides, pesticides and nanomaterials.

Hardback | 500 pages | 9781782620662 | 2016 | £179.00 | \$300.00



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I . T .

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T C A a T

2nd Edition

Diana Anderson University of Bradford, UK | Alok Dhawan Ahmedabad University, India

Simple, sensitive, rapid and visual, the Comet Assay allows quantitative and qualitative assessment of DNA damage in single cells. This updated and revised edition of The Comet Assay in Toxicology will provide the latest information on this modern toxicological method. The book will cover in detail different protocols, statistical analyses and applications being used worldwide. New chapters will provide information on the most contemporary approaches and applications, including in silico approaches, meta-analysis of data and the application of the Comet Assay in nanotoxicology. The book is aimed at students as well as scientists in the area of molecular epidemiology and genetic toxicology.

Hardback | 550 pages | 9781782622871 | 2016 | £179.00 | \$300.00



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T . . . P . . . Ca . . . . .

Mike Waters Consultant, Integrated Laboratory Systems (ILS) Inc., USA | Russell Thomas US Environmental Protection Agency, USA

This book describes toxicogenomics method c 3.9v7 /Tw.01 T 3.9v7 /Tw7n A9.9v Pr42v7 /Twis moea oatectioy ant

M a S a a C

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A S

ISSN:

## S a a C a S ra

David Amabilino University of Nottingham, UK

The book covers the methods of preparing and studying self-assembled structures at surfaces and interfaces, including small clusters, monolayers and thin films, and how supramolecular chemistry can influence structure and function on surfaces eg porous surface systems, modifiers of interface energy and sensor-based systems. This is the first book to give a multidisciplinary view of the supramolecular aspects of interfaces providing the reader with an objective summary of all the deposition methods and their characterisation. Written by a leading expert in the field, it will appeal to students and researchers in supramolecular chemistry, nanoscience, polymer chemistry and physics, surface science and materials science.

Hardback | 400 pages | 9781849739528 | 2016 | £179.00 | \$300.00



N D

Ma S

A S

ISSN:2045-7545

E...-C...  
Simon J Gaskell Queen Mary University of London, UK

S...E...  
Ron M A Heeren Maastricht University, The Netherlands | Robert C Murphy University of Colorado Denver, USA | Mitsutoshi Setou Hamamatsu University, Japan

Examining instrument and method development and new applications of mass spectrometry, this Series is an important resource for graduate students, researchers and analytical chemists interested in the respective instrumentation and techniques. The books present the key facts and concepts in a concise and readable manner to keep readers up-to-date with the latest information and to promote the practice of mass spectrometry techniques.

ISBN 978-1-78262-428-3



9 781782 624288



**A S**

ISSN:2044-253X

**E**  
William Price University of Western Sydney, Australia

**S E**  
Bruce Balcom The University of New Brunswick, Canada | Istvan Furo KTH Royal Institute of  
Technology, Sweden | Maili Liu Chinese Academy of Sciences, China |

## D, H, C, S, NMR

### Fluid Transport in Porous Solids and Heterogeneous Materials

Rustem Valiullin Leipzig University, Germany

With the increasing role of porous solids in conventional and newly emerging technologies, there is an urgent need for a deeper understanding of fluid behaviour confined to pore spaces of these materials especially with regard to their transport properties. From its early years, NMR has been recognized as a powerful experimental technique enabling direct access to this information. In the last two decades, the methodological development of different NMR techniques to assess dynamic properties of adsorbed ensembles has been progressed. This book will report on these recent advances. Aimed at being both academically and industrially relevant, this reference will be for specialists working in the related research areas and for advanced graduate and postgraduate studies.

Hardback | 600 pages | 9781782621904 | 2017 | £179.00 | \$300.00





## N D NMR

### N - a NMR D M

Xin Zhou Wuhan Institute of Physics and Mathematics (WIPM), China

NMR and MRI have been applied to various disciplines, but the sensitivity of NMR is intrinsically lower comparing to other analytical or imaging methods. This has caused many non-conventional developments looking at improving NMR sensitivity, such as SQUID (Superconducting QUantum Interference Device), atomic magnetometer, MRFM (Magnetic Resonance Force Microscopy) and remote detection. The NMR detection threshold has been largely boosted by these methods, resulting in the emergence of novel applications. This book will describe the recent advances in non-conventional NMR detection methods and their applications, and also summarise the challenges facing the next generation of users. Aimed at both academia and industry, readers should buy this publication to broaden their knowledge beyond conventional NMR.

Hardback | 480 pages | 9781849739061 | 2016 | £179.00 | \$300.00 

### NMR G a G

Koichi Kato National Institutes of Natural Sciences, Japan | Thomas Peters University of Luebeck, Germany

Focusing on solution and solid-state NMR of carbohydrates, glycoproteins, glyco-technologies, biomass and related topics which will have significant impact on the development of therapeutic agents eg vaccines, this volume is timely and useful not only for NMR specialists but also for a broader scientific community. The precise analysis of glycosylation patterns in humans can be used in therapies of utmost importance. However, the complexity and heterogeneity of dynamic glycan structures often discouraged researchers from actively challenging and addressing this important issue. Written by leading experts in the field, this book is an important contribution to the literature in this area for a wide spectrum of readers.

Hardback | 300 pages | 9781782623106 | 2017 | £159.00 | \$260.00 



### NMR- a M a

Hector C Keun Imperial College London, UK

In this rapidly growing field, a comprehensive book describing the state of the art in the application of NMR spectroscopy to metabolomics will easily find a home. Directed at the metabolomics community, this book will be unique in providing background knowledge, resources, instrumental platforms and software. It will introduce relevant theory to the researcher as well as serve as a practical guide detailing key experiments and data handling procedures. Information available on common sample types will be described together with reference to the latest web-based resources available. Application-specific considerations will be discussed for a wide range of research topics.

Hardback | 352 pages | 9781849736435 | 2016 | £169.00 | \$275.00 



### P a a NMR / O a Ga E a

Lizhi Xiao China University of Petroleum, Beijing, China

Describing comprehensively the development and applications of NMR to oil and gas exploration, this book will bring the literature up to date as it has developed very quickly in the last two decades. Outlining new methodologies, it will provide a thorough and comprehensive document enabling a better understanding of the basics of NMR physics, petrophysics, downhole tools and raw data. This book is designed to meet the needs of the community and encourage applications in low field NMR. The author has more than 30 years' experience in this hot and important topic.

Hardback | 600 pages | 9781849739160 | 2016 | £179.00 | \$300.00 

## AS

ISSN: 1757-6725

Editorial Board

Chris Hardacre Queen's University Belfast, UK

Section Editors

Jose Rodriguez Brookhaven National Laboratory, USA | Bert Klein Gebbink Utrecht University, The Netherlands.

Catalysis is a major area of scientific research covering numerous fields of chemistry, and

## AS

ISSN:2055-1975

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Nick J Westwood University of St Andrews, UK

Editorial Board  
Chris Dupont

## A S

ISSN: 1757-7055

S E

Roger Smith Loughborough University of Technology, UK

Covering all techniques and applications in topics such as supercritical fluid chromatography, affinity chromatography, counter-current chromatography, this informative Series is a collection of bench-top guides for the practising researcher. Each book provides an up-to-date review of a specific topic in chromatography, including details on established and developing techniques. Featuring all necessary practical information that researchers need, the books explain central facts and concepts clearly and simply, making them accessible to non-specialists.



## A . . S .

ISSN:2052-3068

E . . -C . .  
Michael Thompson University of Toronto, Canada

S . . E . .  
Subrayal Reddy University of Surrey, UK | Damien Arrigan Curtin University, Australia

Providing a comprehensive look at the state of the art in detection technologies and materials used in the development of diagnostics for clinical, medicinal, and environmental applications, the books in this Series are a valuable reference for graduate students and professional researchers across academia and industry. Emphasising the detection of chemicals and biochemical species in a quantitative fashion, the Series will also interest advisors, consultants and government agency staff, who will benefit from the detailed nature of these titles.



## Early Detection of Biomarkers

Nicholas R Hoyle Roche Diagnostics, Germany | Richard Morgan University of Bradford, UK

Presenting the current knowledge on biomarkers for the early (i.e. sub-clinical) detection of disease and the methodologies used for detecting these biomarkers which are often present at very low concentrations in bodily fluids, this book makes an important contribution to the literature. Topics covered include biomarkers for the early detection of cancer, diabetes, and cardiac disease, as well as the emerging technologies and adaptation of existing technologies that make early detection possible, including mass spectrometry and metabolomic techniques. Although there have been many reviews and book chapters on the subject of biomarkers, none have focused purely on the early detection of disease in a way that combines our current knowledge of biomarkers with the key advances in technology required for their discovery and detection. This integrated approach will provide a key reference work for researchers, clinicians and students.

Hardback | 500 pages | 9781849736138 | 2017 | £179.00 | \$300.00



From flagships like Chemical Science to brand new launches set to soar to the top of their field, explore high quality content spanning a wide range of specialist subjects.



**A Series**

ISSN:2041-3203

**Editors-in-Chief**

David Thurston King's College London, UK

**Series Editors**

David Fox Vulpine Science and Learning, UK | Ana Martinez Centro de Investigaciones Biologicas-CSIC, Spain | David Rotella Montclair State University, USA

**Series Advisor**

Sarah Skerratt Pfizer, UK

The RSC Drug Discovery Series covers all aspects of drug discovery and medicinal chemistry and contains over forty books published since 2010. Providing comprehensive coverage of this important and far-reaching area, the books encourage learning in a range of different topics and provide valuable reference for scientists working outside their own areas of expertise. Books feature case studies to bring different aspects of the drug discovery process alive and they detail the fundamental science necessary for understanding through to the most up-to-date discoveries and cutting-edge technology. Chapters are written and edited by experienced researchers from both industry and academia. This Series will be of particular interest to postgraduate students and medicinal chemists and biochemists working in academia or industry.





RSC D D

## M a , , E , , a D D ,

## Clinically Used Enzyme Inhibitors

John F Honek, Zhengding Su University of Waterloo, Canada

The book surveys enzyme targets that have successfully been used to develop clinically-utilised drugs and describes in detail how these drugs inhibit particular enzymes. It also presents the underlying principles that medicinal chemists can use to design other inhibitors for new targets, keeping in mind the mechanism of the enzyme. It is a systematic survey of the six classes of enzyme giving a fresh perspective on this area of medicinal chemistry and will appeal to medicinal chemists, pharmacy students, and postgraduate students.

Hardback | 250 pages | 9781849730150 | 2016 | £149.00 | \$245.00



## S a -M T a , , Fa I , , O

Khondaker Miraz Rahman King's College London, UK | David Thurston King's College London, UK

This title highlights recent progress in the development of small-molecule inhibitors of oncogenic transcription factors. It also presents the evidence that this important protein class can be modulated in a number of ways to develop novel classes of therapeutic agents for anticancer treatments. This title is a unique reference book for postgraduates, academic researchers and practitioners working in the fields of biochemistry, biotechnology, cell and molecular biology and bio-inorganic chemistry.

Hardback | 250 pages | 9781782621454 | 2016 | £149.00 | \$245.00



## S , M , D D ,

David C Blakemore P zer, UK | Paul M Doyle Peakdale Molecular Ltd, UK | Yvette M Fobian P zer, USA

There are an overwhelming number of synthetic methods that can be used to create novel chemical motifs and templates with potentially valuable drug-like properties. This book will highlight key methods that have real impact in drug discovery and facilitate delivery of drug molecules. Uniquely, it will provide both academic and industrial perspectives on these key reactions giving the reader an excellent overview of the techniques used in modern synthesis. Reaction types will be conveniently framed in the context of their value to industry and the challenges and limitations of methodologies will be discussed with relevant illustrative examples. Moreover, the book will discuss key opportunities in expanding chemical space, including the important area of introducing three dimensional shape to the traditional flat molecules. Edited and authored by leading scientists from both academia and industry, this book will be a valuable reference for all chemists involved in drug discovery as well as postgraduate students in medicinal chemistry.

Hardback | 350 pages | 9781849738033 | 2016 | £169.00 | \$275.00



## AS

ISSN:2044-0774

Editorial Board  
Laurie Peter University of Bath, UK

Series Editors  
Heinz Frei Lawrence Berkeley National Laboratory, USA | Roberto Rinaldi Max Planck  
Institut für Kohlenforschung, Germany | Tim Zhao The Hong Kong University of Science and  
Technology, Hong Kong

Energy lies at the heart of modern society, and it is critical that we make informed choices of the methods by which we convert and manage energy. This Series provides an up-to-date and critical perspectives on the various options that are available. Chemistry has a central role to play in the planning and development of sustainable energy scenarios, and the wide range of topics covered in the Series reflects the wealth of chemical ideas and concepts that have the potential to make an important impact in mankind's search for a sustainable energy future. Books in this Series form important references for chemical and material scientists, chemical and process engineers, energy researchers, bio-scientists and environmental scientists from across academia, industry and Government.



RSC E a E S P a a A a J S L

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ISBN 978-1-78262-293-2



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**A S**

ISSN: 1757-7098

**S E**

Peter Belton University of East Anglia, UK | Roger Wood

This Series provides practical guidance and advice to food analysts in the laboratory. Each monograph in the Series includes sufficient theory and practical detail to enable a new graduate or non-specialist to obtain an understanding of the fundamentals concerned. The books are a comprehensive set of day-to-day guides for the laboratory worker, providing the current state of the art on food analysis techniques. Each book averages about 200 pages and contains real examples of food analysis, concentrating on how to overcome problems arising during sample preparation, data collection and analysis. The Series includes books that address the particular problem of one analyte, and those that describe the applications of particular analytical techniques.



**A Series**

ISSN: 1757-7039

**Editorial Board**  
James H Clark University of York, UK**Series Editors**  
George Kraus Iowa State University, USA | Andrzej Stankiewicz Delft Technical University,  
The Netherlands | Peter Seidl Universidade Federal do Rio de Janeiro, Brazil

Green chemistry is one of the most important and rapidly growing fields in modern chemistry, and is widely recognised as being important across the chemical sciences, and throughout industry, education and research. The RSC Green Chemistry Series provides high-level research books at the cutting-edge of green chemistry. The books are invaluable to industrialists, researchers and academics worldwide and anyone interested in the practical means that are being used to reduce the environmental impact of chemical processes and products.







## A S

ISSN:2045-547X

**E . . . -C . . .**  
C David Garner University of Nottingham, UK

**S . . E . .**  
Anthony Wedd University of Melbourne, Australia | Hongzhe Sun University of Hong Kong, Hong Kong

**E . . a A . .**  
Alison Butler University of California Santa Barbara, USA | Stefano Ciurli University of Bologna, Italy

The RSC Metallobiology Series is a collection of professional reference books covering all aspects of the roles of metals in biological systems. The scope includes metalloenzymes, metalloproteins, storage and transport of metal ions, bio-organometallic chemistry and interaction of metal ions with biomolecules. Books in this Series provide authoritative perspectives from international experts and will be of interest to both academics and those working in industry in a wide range of disciplines, including medicinal chemistry, pharmaceutical science, biochemistry, metallomics and inorganic biochemistry.







## A S

ISSN: 1757-7136

**E . . . -C . . .**  
Paul O'Brien University of Manchester, UK

**S . . . E . . .**  
Xiaogang Liu National University of Singapore, Singapore | Ralph Nuzzo University of Illinois at Urbana-Champaign, USA | Joao Rocha University of Aveiro, Portugal | Sir Harry Kroto Florida State University, USA

The possible uses of nanotechnology span many fields from energy to health; 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 a topic, it can be difficult to get a complete overview of the latest developments. The RSC Nanoscience and Nanotechnology Series provides a comprehensive resource of books covering key topics in nanoscience including the 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, materials science, engineering, biology and physics wanting to know more about nanoscience.



RSC Na &amp; Na

Na F

2nd Edition

Qasim Chaudhry DEFRA Central Science Laboratory, UK | Laurence Castle DEFRA Central Science Laboratory, UK | Richard Watkins DEFRA, UK

Nanotechnologies in Food provides an overview of the products and applications of nanotechnologies in agri-food and related sectors. Following on from the success of the first edition, this new edition has been revised and updated to bring the reader fully up to date on the emerging technological, societal, and policy and regulatory aspects in relation to nanotechnologies in food. This book provides a source of much needed and up-to-date information on the products and applications of nanotechnology for the food sector - for scientists, regulators, and consumers alike.

Hardback | 325 pages | 9781782621713 | 2016 | £159.00 | \$260.00



Na - a Na a a

Preparation, Bioimaging and Therapy Applications

Fan Zhang Fudan University, China

There is great interest in near-infrared (NIR) nanomaterials for bioimaging and therapy applications due to their advantages of deeper penetration depth, low detection threshold concentration and better targeted performance over traditional imaging probes. Following an introduction, the first part of the book will look at different nanomaterial systems that can be used for NIR applications (Organic dye, lanthanide, carbon, quantum dots (QDs) and noble metal based nanomaterials) and the second part of the book will look at different biomedical applications (photodynamic therapy, photothermal therapy, drug delivery). Edited by a leading expert, this is the first book to give a holistic, up-to-date account of NIR nanomaterials for biomedical applications.

Hardback | 400 pages | 9781782623199 | 2016 | £179.00 | \$300.00



## A S

ISSN:2044-0790

E - C

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

S E

Alaa Abd-El-Aziz University of Prince Edward Island, Canada | Stephen Craig Duke University, USA | Jianhua Dong National Natural Science Foundation of China, China | 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 level students and above. The perfect introduction to key topics giving the reader the knowledge to continue their work.



## Polymers in Personal Care

Xian Jun Loh Institute of Materials Research & Engineering, Singapore

Materials play a key role in the development of new personal care products. The book will look at the polymers used in personal care products (hair care, skin care, nail care) including those used for surfactants, rheological modifiers, antibacterial polymers, encapsulating agents (including concepts of delivery, barrier properties). The book will be suitable for graduate level students and academics working with industry to develop polymers for personal care products as well as those in industry producing such products.

ISBN 9781107022956 | 2016 | £17.99 | 300 pages | 18.2745 cm x 25.4 cm | 595 g

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# A Series

ISSN:2046-0066

## Series Editors

Hans-Jorg 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 RSC Smart Materials Series - the intelligent way to find your materials solution.



# Fundamentals of Smart Materials

Qun Wang Iowa State University, USA

This book focuses on the fundamental principles and recent advances in the materials science developed for tissue engineering purposes. Smart materials for tissue engineering are produced by modifying the physicochemical and biological properties of the scaffolds with response to external stimuli to enhance the tissue regeneration. This book comprehensively documents the recent advancements in smart materials for tissue engineering and will appeal to those working materials science and materials engineering, in academia and industry.

Hardback | 600 pages | 9781782624646 | 2017 | £179.00 | \$300.00



RSC Smart Materials

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## Smart Materials for Environmental Applications

Peng Wang King Abdullah University of Science and Technology, Saudi Arabia

This book is dedicated to the innovative and emerging applications of intelligent materials in solving environmental issues. It provides an introduction to smart materials and their design for environmental applications and focuses on the recent development of their applications. Topics covered include: omniphobic slippery coatings; responsive and catalytic block copolymer membrane for water treatment; smart surfaces for controllable oil-water separation; and bio-inspired surfaces with patterned wettability for water harvesting.

Hardback | 350 pages | 9781782621089 | 2016 | £159.00 | \$260.00



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RSC S / Ma S

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A S

ISSN:2048-7681

S E

Hans-Jürgen Butt Max Planck Institute for Polymer Research, Germany |

RSC T a a C a a C S

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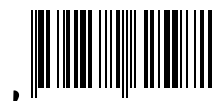
## A S

ISSN:2041-3181

E . - -C . /  
Jonathan Hirst University of Nottingham, UK

Covering all aspects of theoretical and computational chemistry, based on both classical mechanics and on quantum theory, this Series comprises up-to-date and comprehensive references for postgraduate students and practising computational and theoretical chemists. The books cover current theoretical methods and techniques, including "dos" and "don'ts"; and where standard techniques are not applicable and why. Each book gives an in-depth treatment of a specific aspect of theory or applications of theoretical chemistry.





## AS

ISSN:0260-6291

The Special Publications Series is a collection of books produced from the proceedings of international symposia. Editors bring together contributions from authorities in the field and the books provide snapshots of the latest developments of that field.

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## Gums and Stabilisers for the Food Industry 18

Hydrocolloid Functionality for Affordable and Sustainable Global Food Solutions

Peter A Williams Glyndwr University, UK | Glyn Phillips Phillips Hydrocolloids Research Ltd, UK

Describing the latest research advances in the science and technology of hydrocolloids which are used in food and related systems, this book captures the presentations of leading scientists from the Gums and Stabilisers for the Food Industry Conference: Hydrocolloid Functionality for Affordable and Sustainable Global Food Solutions held in June 2015. Topics covered include sustainable and secure foods, healthy food products, innovative manufacture and formulation design as well as active packaging and edible films. Providing a fresh glance on food quality, it is a useful information source for researchers and other professionals in industry and academia and a reference for students of food science.

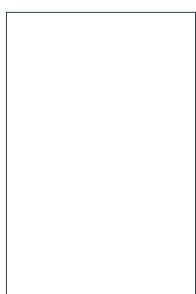
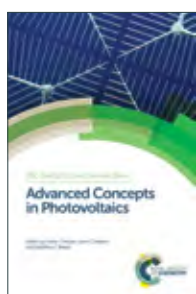
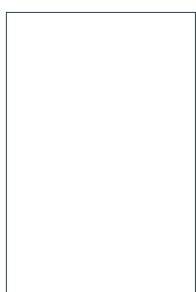
Hardback | 350 pages | 9781782623274 | 2016 | £125.00 | \$200.00



ISBN 978-1-78262-327-4



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## R . . . . a

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F . . . . a . . . . /



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Murray Robertson Visual Elements, UK

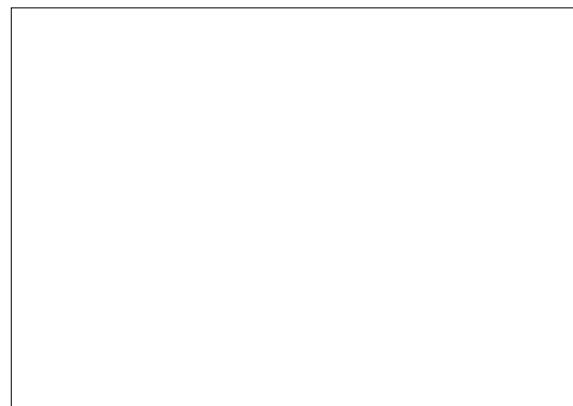
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**V a E J a**

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