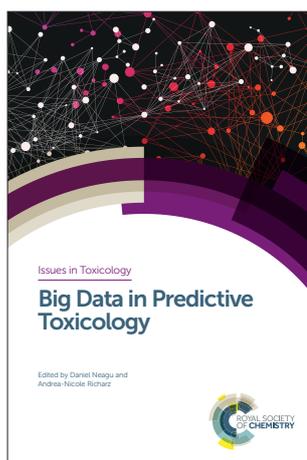


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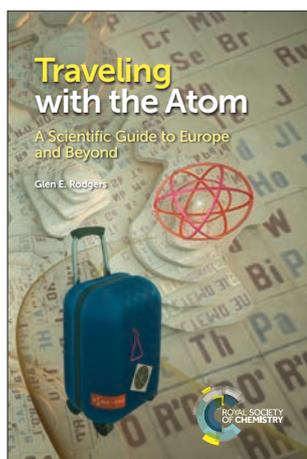
## Big Data in Predictive Toxicology

Daniel Neagu, University of Bradford, UK

Andrea-Nicole Richarz, European Commission - Joint Research Centre, Italy

The rate and volume of toxicological data generation is continually growing due to novel techniques and software. The amplified pace and capacity of data generation has repercussions for organising and analysing data output. This book discusses these challenges as well as the nature, storage, analysis and interpretation of toxicological big data. It details how these data are applied in toxicity prediction, modelling and risk assessment. This title is relevant for researchers and postgraduates in the fields of computational methods, applied and physical chemistry, cheminformatics, biological sciences, predictive toxicology, and safety and hazard assessment.

Hardback | 394 pages | ISBN 9781782622987 | £179.00 | \$250.00 | 10/12/2019



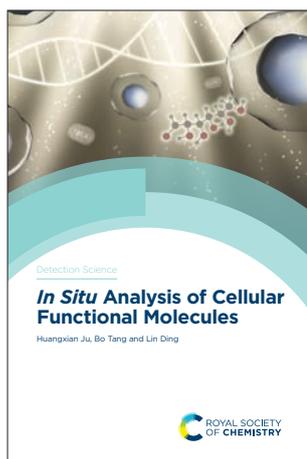
## Traveling with the Atom

### A Scientific Guide to Europe and Beyond

Glen E Rodgers, Allegheny College, PA

The atomic concept is perhaps one of the most significant and enduring ideas in the history of humankind and to truly appreciate the labour that the great minds of the age expended upon atomic theory one can scarcely do better than trace their footsteps throughout Europe and across the globe. From Parisian museums to the legendary Cavendish laboratory - via Christchurch, Montreal and Pennsylvania - *Traveling with the Atom* sketches the development of the atomic concept through the places and people central to the advances in our understanding of the particles forming our entire physical universe. An ideal travelling companion or fireside read, this book will intrigue and amuse anyone with an interest in the history of science.

Paperback | 551 pages | ISBN 9781788015288 | £29.99 | \$41.99 | 03/12/2019



## In Situ Analysis of Cellular Functional Molecules

Huangxian Ju, Nanjing University, China

Bo Tang, Shandong Normal University, China

Lin Ding, Nanjing University, China

In situ analysis of cellular functional molecules has attracted considerable interest as it can provide spatially or temporally resolved information of these essential molecules on/within living cells through non-invasive methods. This book introduces the tailor-made design of detection probes as well as schemes from a top-down perspective according to the unique characteristics of cellular functional molecules. Written by leaders in the field, it will provide a comprehensive overview to those working on different aspects of cellular analysis and cell biology.

Hardback | 254 pages | ISBN 9781788017220 | £159.00 | \$220.00 | 29/01/2020

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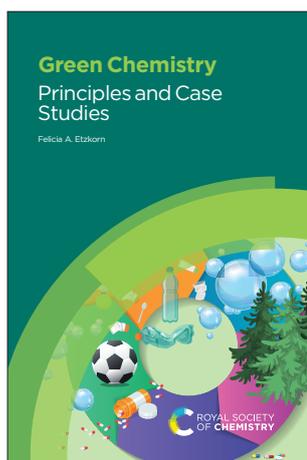
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## Green Chemistry

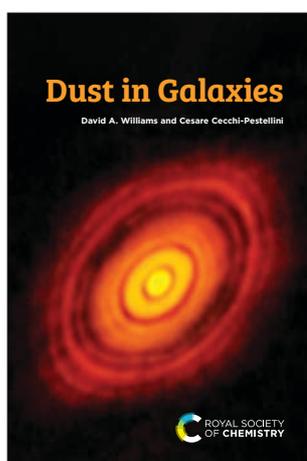
### Principles and Case Studies

Felicia A Etzkorn, Virginia Tech, USA

Targeted at advanced undergraduate students and first-year graduate students with a background in General and Organic Chemistry this textbook illustrates the principles of Green Chemistry with real-world case studies.

Paperback | 423 pages | ISBN 9781788017985 | £70.00 | \$95.00 | 03/12/2019

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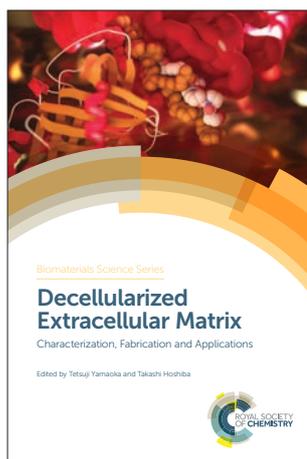
## Dust in Galaxies

David A Williams, University College London, UK  
Cesare Cecchi-Pestellini, Osservatorio Astronomico di Palermo, Italy

Without interstellar dust, the Universe as we see it today would not exist. Yet this vital ingredient was first considered merely an irritating fog that prevented a clear view of stars and nebulae in the Milky Way and other galaxies. We now know that interstellar dust has essential roles in physics and chemistry, in the formation of stars and planetary systems, in the creation of the building blocks related to the origin of life, and in the movement of those molecules to new planets. This is the story the authors tell in this book. Appealing to a general audience, it is the first attempt to discuss interstellar dust at an accessible level with any chemical presentations kept to a minimum.

Paperback | 233 pages | ISBN 9781788015059 | £24.99 | \$35.00 | 12/12/2019

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## 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 | 352 pages | ISBN 9781788014670 | £159.00 | \$220.00 | 11/12/2019

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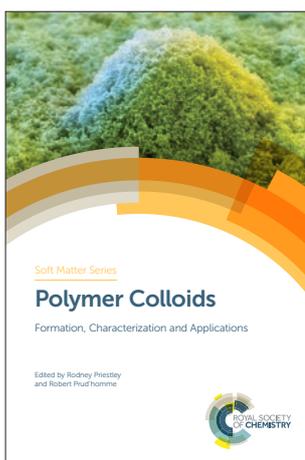
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## Polymer Colloids

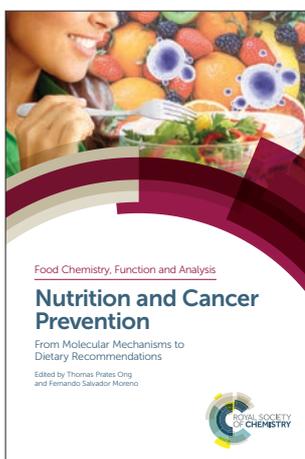
### Formation, Characterization and Applications

Rodney Priestley, Princeton University, USA

Robert Prud'homme, Princeton University, USA

Based on a specialised course by the editors, this book provides the reader with an invaluable single source of reference on polymer colloids. The first section describes formation, explaining basic properties of emulsions and dispersion polymerization, microfluidic approaches to produce polymer-based colloids and formation via directed self-assembly. The next section details characterisation methodologies from microscopy and small angle scattering, to surface science and simulations. Finally, the book finishes with chapters devoted to applications, including pickering emulsions, active matter, and molecular engineering for materials development.

Hardback | 424 pages | ISBN 9781788014175 | £169.00 | \$235.00 | 04/12/2019



## Nutrition and Cancer Prevention

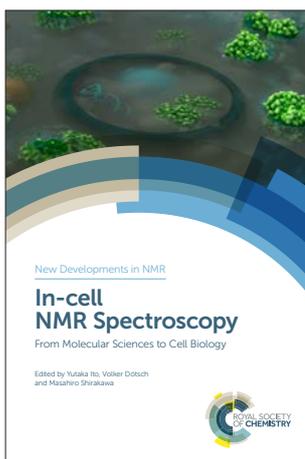
### From Molecular Mechanisms to Dietary Recommendations

Thomas Prates Ong, University of São Paulo, Brazil

Fernando Salvador Moreno, University of São Paulo, Brazil

Cancer is a major global public health problem. Among different environmental and lifestyle factors contributing to cancer risk, diet is a key one. Written by an influential, international team of experts, this book presents and discusses current topics on nutrition and cancer prevention. It covers both nutritional influences on different cancers plus specific chapters on the commonly occurring cancers. Nutritional genomics-based studies show that some dietary components modulate carcinogenesis through complex cellular and molecular mechanisms. A better understanding of these different mechanisms is needed to establish more efficient dietary recommendations for cancer prevention. This book will provide such an understanding, serving as an important book for all those working in nutritional health, food science and cancer research.

Hardback | 434 pages | ISBN 9781788013413 | £179.00 | \$250.00 | 03/12/2019



## In-cell NMR Spectroscopy

### From Molecular Sciences to Cell Biology

Yutaka Ito, Tokyo Metropolitan University, Japan

Volker Dötsch, Goethe University, Germany

Masahiro Shirakawa, Kyoto University, Japan

In-cell NMR spectroscopy is a relatively new field. Despite its short history, recent in-cell NMR-related publications in major journals indicate that this method is receiving significant general attention. No informative books specifically focused on in-cell NMR have been published yet.

This book provides detailed descriptions covering the background of in-cell NMR, methods for in-cell biological techniques and NMR spectroscopy, as well as applications, and future perspectives. Researchers in biochemistry, biophysics, molecular biology, cell biology, structural biology as well as NMR analysts interested in biological applications will all find this book valuable reading.

Hardback | 305 pages | ISBN 9781788012171 | £159.00 | \$220.00 | 13/12/2019

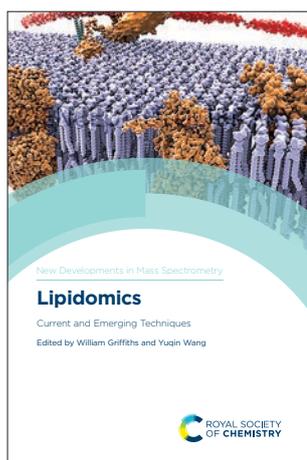
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 ROYAL SOCIETY  
OF CHEMISTRY

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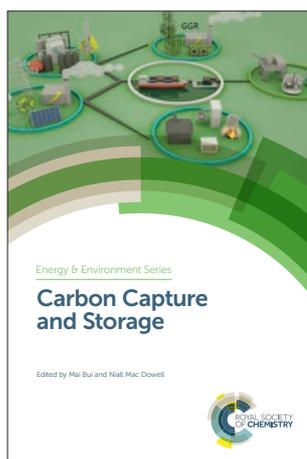
## Lipidomics

### Current and Emerging Techniques

William Griffiths, Swansea University, UK  
Yuqin Wang, Swansea University, UK

Lipidomics is one of the newest 'omics' techniques with growing importance in bioscience. This book discusses interesting standard and non-standard techniques relevant to the measurement and analysis of lipids by mass spectrometry. It provides a guide to the possibilities of the techniques and introduces the reader to exciting newer methods which allow isomer differentiation, improve sensitivity, allow spatial location and go beyond annotation of simply matching a mass to a database entry. For the first time in a book, the emerging methods and advantages and disadvantages of new technologies for lipid structure characterization are highlighted.

Hardback | 288 pages | ISBN 9781788011600 | £169.00 | \$235.00 | 23/01/2020

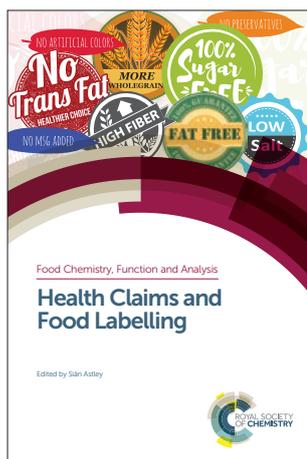


## Carbon Capture and Storage

Mai Bui Imperial, College London, UK  
Niall Mac Dowell, Imperial College London, UK

This book will provide the latest global perspective on the role and value of carbon capture and storage (CCS) in delivering temperature targets and reducing the impact of global warming. As well as providing a comprehensive, up-to-date overview of the major sources of carbon dioxide emission and negative emissions technologies, the book also discusses technical, economic and political issues associated with CCS along with strategies to enable commercialisation.

Hardback | 576 pages | ISBN 9781788011457 | £179.00 | \$250.00 | 03/12/2019



## Health Claims and Food Labelling

Sian Astley, EuroFIR AISBL, BE

Increasing numbers of foods carry nutrition and/or health claims on their packaging. These need to be regulated in order to protect consumers from false claims, and to promote foods with proven health benefits. This title explores the use of nutrition and health claims around the world, the impact of legislation on consumers especially understanding of the terminology used, and likely developments in the future. It is a valuable reference for those in the food industry, as well as in the regulatory environment.

Hardback | 204 pages | ISBN 9781788010733 | £149.00 | \$205.00 | 06/12/2019

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