Pharmaceutical Crystallography
A Guide to Structure and Analysis
Andrew Bond University of Cambridge

The pharmaceutical industry has become acutely aware of the importance of the solid state, but pharmaceutical scientists often lack specific training in topics related to solid-state structure and crystallography. This book provides needed support in this topical area. Taking an intuitive and informal approach to solid-state structure and crystallographic concepts, this book is written for anyone who needs a clear understanding of modern crystallography, with specific reference to small-molecule pharmaceutical solids. The author describes molecular crystals and crystal structures, symmetry, space groups, single-crystal and powder X-ray diffraction techniques and the analysis and interpretation of crystallographic data. Useful technical details are presented where necessary and case studies from the pharmaceutical literature put theory into a practical context.

Hardback | 292 pages | ISBN 9781782629665 | £45.00 | $60.00 | 24/07/2019

Perfume in the Bible
Charles Sell

The stories around the perfumes of the Bible are as abundant as the contemporary fragrances that are available. Identifying the ingredients used in biblical times is difficult when information and meaning is lost in ancient languages. Biblical perfumes might be expected to be made from natural products with the majority of ingredients from flower oils providing heart notes to the fragrances but although flowers are mentioned in the Bible it is never as part of a perfume. The biblical ingredients are base notes; their natural origins are either as defensive substances or as products of decay, which opens up an avenue of speculation as to why this is so! Aimed at a broad audience from chemists and general scientists to historians and those interested in religious studies also lay readers with an interest in exploring chemistry in the world of art and creative professions.


Green Synthetic Processes and Procedures
Roberto Ballini University of Camerino, Italy

There has been great growth in the field of Green Chemistry over the past few years, but now one of the biggest challenges is to embed the green chemistry ideals of safety and sustainability as standard, both in industry and academia. Providing a thorough overview of the current green synthetic toolbox, from biocatalysis to sonochemistry, this book is a useful resource for any chemist wishing to design cleaner and safer processes.

Hardback | 413 pages | ISBN 9781788015127 | £159.00 | $220.00 | 08/07/2019
Recording Science in the Digital Era
From Paper to Electronic Notebooks and Other Digital Tools
Cerys Willoughby University of Southampton, UK

Electronic lab notebooks (ELNs) are tools that allow experimental protocols and data to be captured digitally; they are analogous to the more traditional paper and pen. In theory, they make it easier to capture, store and share experimental data. However, adoption has been slow in the academic sector. This book provides a description of how and why scientists record data, an overview of the current ELN technology available and the benefits and pitfalls of using them for those interested in implementing digital data solutions within their research groups or departments.

Hardback | 280 pages | ISBN 9781788014205 | £70.00 | $95.00 | 22/07/2019

Powder Flow
Theory, Characterisation and Application
Ali Hassanpour University of Leeds, UK
Colin Hare University of Surrey, UK
Massih Pasha The Chemours Company, USA

Powder flow has attracted increased attention in recent years as novel formulated and functional products are being developed in powder forms, particularly in pharmaceutical and high value additive manufacturing industries. This book meets a need for a truly integrated modern treatment of dry powder flow, covering theory, robust characterisation techniques, modelling tools and applications.

Hardback | 222 pages | ISBN 9781788012249 | £123.00 | $170.00 | 16/07/2019

The Micronucleus Assay in Toxicology
Siegfried Knasmüller Medical University of Vienna, Austria
Michael Fenec Genome Health Foundation and HUMN Project Coordinating Group, Australia

The micronucleus assay is one of the most widely used method in genetic toxicology and human biomonitoring. This book covers the detection of selected important genotoxic carcinogens, such as heavy metals, pesticides and radionuclides, using micronucleus assays and details the methods currently used for the analyses of different types of cells in studies. It will explains the molecular mechanisms of micronucleus formation, and provides advice on analysis of data. This will be a useful resource for postgraduate students and researchers in toxicology, oncology, chemical and environmental safety, DNA damage, nutrition, genetics, nutrigenomics, nutrigenetics and mutation research.

Hardback | 400 pages | ISBN 9781788011341 | £179.00 | $250.00 | 26/07/2019

All information is subject to change without notice
Cytotoxic Payloads for Antibody–Drug Conjugates
David E Thurston King’s College London, UK
Paul J M Jackson Femtogenix Ltd, UK

The antibody–drug conjugates (ADCs) field is one of the fastest growing areas of drug discovery and represents a large body of research. ADCs deliver a cytotoxic payload, a key component of the overall ADC design, specifically to cancer cells by attaching it to an antibody targeted to antigens on the cell surface. This book discusses the range of payloads used to date along with their advantages and disadvantages, and describes novel payloads at the research stage that may be used clinically in the near future.