Synthetic Methods in Drug Discovery
Volume 1
Editor: David C Blakemore, Paul M Doyle and Yvette M Fobian

Synthetic Methods in Drug Discovery Volume 1 focusses on the hugely important area of transition metal mediated methods used in industry. Current methods of importance such as the Suzuki-Miyaura coupling, Buchwald-Hartwig couplings and CH activation are discussed. In addition, exciting emerging areas such as decarboxylative coupling, and the uses of iron and nickel in coupling reactions are also covered. This book provides both academic and industrial perspectives on some key reactions giving the reader an excellent overview of the techniques used in modern synthesis. Reaction types are conveniently framed in the context of their value to industry and the challenges and limitations of methodologies are discussed with relevant illustrative examples.

Hardback | 455 pages | ISBN 9781849738033 | 01/08/2016 | £179.00 | $300.00

Synthetic Methods in Drug Discovery
Complete Set
Editor: David Blakemore, Yvette Fobian and Paul Doyle

The number of available synthetic methods can be overwhelming. In order to create novel motifs and templates which confer new and potentially valuable drug-like properties, it is important to know which synthetic methodologies will give the best results. This two-volume set of books provides both academic and industrial perspectives on key reactions giving the reader an excellent overview of the techniques used in modern synthesis. Reaction types are conveniently framed in the context of their value to industry and the challenges and limitations of methodologies are discussed with relevant illustrative examples. Moreover, key opportunities in expanding chemical space are presented, including the increasingly important syntheses that introduce three-dimensional molecular shape.

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Synthetic Methods in Drug Discovery
Volume 2

Building on key reactions presented in Volume 1, Synthetic Methods in Drug Discovery Volume 2 covers a range of important reaction types including organometallic chemistry, fluorination approaches and asymmetric methods as well as new and exciting areas such as Csp2-Csp couplings, catalytic amide bond forming reactions, hydrogen borrowing chemistry and methods to access novel motifs and monomers. This book provides both academic and industrial perspectives on key reactions giving the reader an excellent overview of the techniques used in modern synthesis. Reaction types are conveniently framed in the context of their value to industry and the challenges and limitations of methodologies are discussed with relevant illustrative examples.

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Near-infrared Nanomaterials
Preparation, Bioimaging and Therapy Applications
Editor: Fan Zhang

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 | 428 pages | ISBN 9781782623199 | 10/08/2016 | £179.00 | $300.00

Green Chemistry
An Introductory Text
Author: Mike Lancaster

Updated throughout, the third edition of this fascinating textbook is suitable for undergraduate and postgraduate courses covering green chemistry. It features expanded sections on legislation, measurement and renewable resources, bringing readers the latest developments in this quickly-growing area. Case studies now include more recent examples of real-world applications from industry to demonstrate how the techniques of green chemistry work in practice.


Unconventional Thin Film Photovoltaics
Editor: Enrico Da Como, Filippo De Angelis, Henry Snaith and Alison Walker

Focusing on solar cells based on 'soft' materials, this book provides a balanced overview of both the experimental and theoretical aspects of organic materials and mixed halide perovskites. Emphasis is placed on understanding the fundamental physics of the devices. The book also discusses modelling over many length scales, from nano to macro. The first book to cover perovskites, this is an important reference for industrialists and researchers working in energy technologies and materials.

Hardback | 485 pages | ISBN 9781782622932 | 08/08/2016 | £169.00 | $275.00