

Practical Synthetic Organic Chemistry, Reactions, Principles, and Techniques

Practical Synthetic Organic Chemistry, Reactions, Principles, and Techniques. Edited by Stéphane Caron. John Wiley & Sons: Hoboken, NJ. 2011. 856 pages. Price £60.50/€72.60/\$99.95. ISBN 978-0-470-03733-1.

This book comprises 20 chapters on Aliphatic Nucleophilic Substitution, Addition to Carbon-Heteroatom Multiple Bonds, Addition to Carbon-Carbon Multiple Bonds, Nucleophilic Aromatic Substitution, Electrophilic Aromatic Substitution, Selected Metal-Mediated Cross-Coupling Reactions, Rearrangements, Eliminations, Reductions, Oxidations, Selected Free Radical Reactions, Synthesis of “Nucleophilic” Organometallic Reagents, Synthesis of Common Aromatic Heterocycles, Access to Chirality, Synthetic Route Development of Selected Contemporary Pharmaceutical Drugs, Green Chemistry, Naming Carbocycles and Heterocycles, pK_a , General Solvent Properties, and Practical Chemistry Concepts: Tips for the Practicing Chemist or Things They Do not Teach You in School.

The aim of the book is to provide the reader with a collection of proven methodologies for carrying out a wide variety organic transformations, to save time and short cut sifting through the myriad of methods that a Scifinder or Reaxys search would provide. As a result many of the references come from this journal, *Organic Process Research & Development*, which of course provides methods which have been proven on scale. So this book should help the reader to find the first few conditions to attempt for a given transformation.

The book certainly achieves its aims and is a welcome addition to the number of volumes available to the practising organic chemist. The only criticism is that the references given are not quite as up to date as they might be although this does vary from chapter to chapter. Many chapters do not contain references later than 2006, although one or two, such as the chapter on Cross-Coupling, does contain examples up to 2008. This almost certainly reflects the amount of time it takes to pull together a multiauthor volume such as this, and it is to be hoped that this will be rectified when the second edition comes out.

The book is extremely good value, partly because it is not available in hardback and whilst this may please budget-holders initially, it also is another good reason for looking forward to a second edition. Most copies of the book are likely to be very well used and the quality of the binding is likely to be thoroughly tested. Overall, apart from one or two very minor complaints, this book is highly recommended, in fact it should be a must for all practising synthetic organic chemists.

Will Watson

Scientific Update

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