

Organic Azides: Syntheses and Applications. By Stefan Bräse (Karlsruhe Institute of Technology, Germany) and Klaus Banert (Chemnitz University of Technology, Germany). John Wiley & Sons, Ltd.: Chichester. 2010. xxviii + 508 pp. \$200. ISBN 978-0-470-51998-1.

This book is timely and important—the first devoted entirely to azides to appear in 26 years. The work comprises 16 chapters by experts in their areas and is divided into four parts: (1) Synthesis and Safety, (2) Reactions, (3) Material Sciences, and (4) Application in Bioorganic Chemistry. The authors selectively review the literature of the past 40 years, for the most part, with the main emphasis on the remarkable developments of the last twenty. References are cited through 2008. Two forewords make excellent reading: Huisgen takes us through major developments in the understanding of azide reactivity from Griess (1864) to the present day, and Folkin and Sharpless highlight the importance of click chemistry in organic transformations.

In Part 1, the chapter devoted to safety contains important information on handling azides, which is hard to find elsewhere. The reviews on the synthesis of azides, including a specific chapter on olefin hydroazidation, are well covered from the laboratory scale to industrial production.

Part 2 on the reactions of azides commences with consideration of vinyl, allenyl, and ethynyl azides by Banert, covering

the latest approaches against a background of older methods. Two chapters highlight azide cycloadditions with an overview on click chemistry by Bräse and colleagues and a review of the fast-developing area of dipolar cycloadditions in peptide chemistry, respectively. Other chapters on synthesis cover approaches to small rings from azides, radical chemistry, the Schmidt reaction, which is extensively reviewed, and organoazides and transition metals. A major chapter is entitled, “Photochemistry of Azides: the Azide/Nitrene Interface” by Platz and co-worker, which should be of general interest to all those working on photolysis of azides. What is missing in this part of the book is a chapter on the thermolysis of azides.

The section on materials science contains two specialist chapters concerning high-energy materials and the synthesis of other rotaxanes and catenanes. Finally the work is rounded out by two bioorganic chapters: the aza-Wittig reaction in natural product synthesis and azides in carbohydrate chemistry.

The editors are to be congratulated for attracting so many experts to produce an excellent work in a timely fashion that should find a place in all laboratories, both academic and industrial, where azide chemistry is being carried out.

Alan Katritzky and Eric Scriven, *University of Florida*

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