Organic Synthesis on Solid Phase: Support, Linkers and Reactions; by F. Z. Dörwald; Wiley: Chichester, 2002; Hardback, € 130, pp 494; ISBN 3-527-30603-x.

In the past decade, a resurgence in the applications of solid phase (SP) synthesis has led to a dramatic growth in new methodologies, materials and a greater understanding of the techniques of SP synthesis. This explosion in knowledge has been accompanied by a large number of excellent review articles and books in this area. In view of the plethora of information available to beginners in this field it is sometimes difficult to extract essential information and principles. In this regard the present text by Florencio Dörwald very nicely distils the relevant information to novices as well as to experts seeking rapid information on the frontiers of progress in this field. As a semi-practicing researcher in solid phase organic synthesis (SPOS), I found this text to be excellent: rich in illustrative examples, carefully and well presented, succinct, while allowing readers who are interested in particular areas to explore much more with the in-depth, concise bibliography.

Chapter 1 provides a general overview to the techniques of solid phase synthesis including the methods for analyzing the success or failures of reactions on the solid phase. This chapter nicely summarizes the progress to date. As the author writes in the main opening paragraph, '*solid phase organic synthesis seduces by its simplicity*'. How true! and potential researchers in the field are treated to an honest, rapid appraisal of strategies and techniques of SPOS. This includes an awareness of the difficulties inherent in monitoring some SP reactions. Chapter 2 describes the different supports commonly used for SPOS. More importantly the scope and limitations of each type of supports are described and this will enable researchers to make reasonable judgments on the supports of choice for the transformations to be carried out on solid phase. As crosslinked polystyrene is a commonly used support, information on the swelling behaviour of this type of support in different solvents as well as its chemical stability is also provided.

For practicing researchers in SPOS, Chapters 3-16 are the 'working' chapters. These chapters summarize the diverse reactions that have been carried out on solid phase: their

success and failures as denoted by yields, the versatility of particular types of transformations (i.e. combinatorial chemistry prospects) and conditions for affecting cleavage from supports and so on. Chapter 3 describes the different linkers utilized to attach particular classes of compounds e.g. carboxylic acids, amides, alcohols. The chapter is clearly organized such that under the headings of linkers for particular classes of compounds, there are subheadings on typical types of linkers used, classified according to the methods of cleavage (e.g. acidic, basic, nucleophilic, photochemical). The cleavage conditions, products and yields of reactions for different resins are tabulated, along with the appropriate references. This is a useful reservoir of information and enables quick assessments at a glance. In contrast, Chapters 4-16 are organized according to the classes of compounds to be synthesized. This nicely complements the organization of information presented in Chapter 3. Collectively Chapters 4-16 cover the synthesis of organometallic compounds, hydrocarbons, alkyl and aryl halides, alcohols and ethers, sulfur and organoselenium compounds, nitrogen and phosphorus compounds, aldehydes and ketones, carboxylic and carbonic acid derivatives, heterocycles and oligomeric compounds (peptides, oligonucleotides, oligosaccharides and miscellaneous oligomers). A really nice feature of this book is the inclusion of some typical experimental procedures for SPOS. This is especially useful for beginners in SPS.

In summary, this book is a valuable resource for researchers in the field. The coverage is exhaustive and the references are up-to-date. In view of the continuing interest in this field, it is inevitable that new literature will emerge but this will not detract from the significance of the current text. This is a truly delightful text:- it is beautifully presented, with much thought invested into the organization and the structure of the book. This text will serve as a handy guide to SPOS for many years to come.

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