

Organic Syntheses Based on Name Reactions

Organic chemists are in the

habit of attaching a name (usually

the name of the discoverer or those

of the discoverers) to specific reactions

or reagents. These "name reactions" help to convey information about specific transformations without the necessity to explain the finer details. The rapid expansion of the scientific literature has seen the number of name reactions grow enormously. Consequently, in the third edition of the book Organic Syntheses Based on Name Reactions A. Hassner and his coauthor I. Namboothiri have included as many as 750 named transformations. Despite the sheer number of transformations, which makes the book the most extensive of its kind. the authors have managed to limit the book to a compact size. A unique feature is the inclusion of a typical experimental procedure for every reaction, which is consistent with the subtitle "A practical guide ...".

After forewords by D. Seebach and S. Danishefsky, the book starts with a brief but useful overview of the many reactions and reagents that it covers, by grouping related transformations together. This section is very helpful, as also are the many cross-references throughout the main text. In the following main part of the book, every name reaction or reagent is treated according to a general scheme: each entry starts with the name of the transformation and a general classification. This is followed by a short description (one to four sentences) and a reaction scheme. In most cases the scheme contains not only the starting materials and products, but also important intermediates and/or a brief mechanistic description. Below the scheme, a typical reaction procedure is described for every entry. The procedures are usually short but adequate. Finally, every entry ends with a list of literature references (usually 10-15), starting with the seminal publications and including reviews,

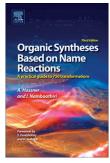
asymmetric variants (if appropriate), and applications of the reaction from the very recent literature (up to 2011). The main section of the book is followed by a very useful index consisting of separate sections for names, reagents, reactions, and functional group transformations. Most importantly, this extensive index makes the vast amount of information in this book easily accessible.

Today, even 750 transformations are no longer enough to cover all known name reactions and reagents. Consequently, the authors had to make choices, and in general their selection is convincing and includes not only important general transformations but also many name reactions from more specialized fields such as heterocyclic or nucleoside chemistry. In this new edition, the authors have even used the opportunity to include many important reactions from the last decade, covering fields such as asymmetric organocatalysis. Not all of these "new" name reactions are fully established vet, and therefore the coverage of these new transformations cannot be complete.

The question remains: who should be interested in this book? A student of organic chemistry will probably get the most extensive list of name reactions that is available, including some of the latest developments in a number of areas. This makes the book useful as a guide to modern organic synthesis and as a source for exercises, although some students might want more in-depth information, especially on reaction mechanisms, than is given by this book. Clearly, the combination of a powerful index section, the experimental procedures, and the affordable price ensures a place for this book on the laboratory shelf of the practicing synthetic chemist as a quick and inspiring guide to modern organic chemistry.

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Organic Syntheses Based on Name Reactions

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