Organic Synthesis Based on Name Reactions, Edited by A. Hassner, C. Stumer; Second Edition, Elsevier: Oxford, **2002**, 4444 pp, paperback, € 45; ISBN 0-08-043259-x

It is the dream of every synthetic chemist that a reaction is associated with her or his own name. Of course, there is no objective measure to evaluate whether a chemist or the reaction deserves the honor - or not - to belong to this Olympus of chemistry. Thus, there will presumably never be a list of name reactions with which every chemist agrees.

Nevertheless, in 'Organic Syntheses Based on Name Reactions', the authors come close to the goal of a complete collection of important organic name reactions. From A (Abramov Phosphonylation) to Z (Zinner Hydroxylamine Synthesis), from the year of discovery 1828 (Malaprade–Lemieux–Johnson, olefin and diol cleavage) to 2000 (Nicolaou oxidations with *o*-iodoxybenzoic acid), a total of 545 name reactions and reagents are presented. About 40 names of the first edition have been omitted, mainly old and too specialized reactions.

Each book page usually covers one or two entries. The name reaction is characterized in one sentence, followed by typical examples in a scheme. This approach nicely demonstrates the scope of the reaction. Several mostly chronologically ordered references – including the original work – help the reader to easily obtain more information from the literature. However, the names of the coauthors of the more than 3300 references are omitted.

One to three experimental procedures are given for the majority of the reactions. This is perhaps the most important feature of the book, since it enables the reader to evaluate typical reaction conditions, workup procedures, and yields. Comparable lists of organic name reactions in the internet lack such information. A names index, a functional groups transformation index, a reagents index, and a reactions index help to navigate through the book and to rapidly find valuable information. However, the reader should be cautious to rely on the alphabetical order of the name reactions, since not all entries are presented exactly at their correct alphabetical place. The authors obviously tried to avoid page breaks.

Although the concept of the book is excellent, the graphical quality is mediocre. The formatting and style of the schemes changes from reaction to reaction. The formulas switch between different sizes and the font types in the schemes are inhomogeneous. Non-centered benzene cycles, three 6π-electron cycles for the 14π-electron system phenanthrene, omitted C (Celsius) for temperature data and strange bond angles (e.g. 90° at sp-hybridized atoms) reflect the potential of the book to increase the quality of its figures. The number of misprints and trivial as well as serious mistakes is too high to be listed completely in this review. For example, the anion of Corey's pyridinium chlorochromate should be $ClCrO_3^-$ instead of '$ClCrO_4^+$' (page 71). Missing double bonds (page 123) and a missing nitrogen in the Schrock-carbene complex for olefin metathesis (page 141) are further examples of erroneous schemes. Furthermore, the W. A. Herrmann (two r) group discovered the olefin metathesis activity of $MeReO_3$ - and not the 'Hermann' group (page 141). Schemes with a copy-paste error show identical starting compound and product (pages 68 and 157), a decisive chloride substituent is missing (page 49), a methyl group disappears in a product (page 378), and hexavalent phosphorus and pentavalent carbon can be found (pages 233 and 378). Additionally, the authors had bad luck with one of the few mechanistic proposals cited in the book. The old enol mechanism of the Hajos–Parrish–Eder–Sauer–Wiechert reaction has very recently been proven wrong: The List group has put forward an enamine mechanism for this reaction (*J. Am. Chem. Soc.* **2003**, *125*, 16 and 2475).

In summary, the book would have significantly benefited from more efforts in the design of the schemes and from a more thorough correction process prior publication. Nevertheless, it is a helpful and convenient work of reference as well as a source of inspiration for teaching and research.

Bernd F. Straub, Ludwig-Maximilians-University Munich, Germany

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