**Science of Synthesis, Volume 28: Compounds with Two Carbon–Heteroatom Bonds: Quinones and Heteroatom Analogues**, edited by A. G. Griesbeck; Georg Thieme Verlag: Stuttgart, **2006**, hardcover, 1006 pp, € 2200, ISBN 3-13-118791-3 (RoW) / US$ 2640, ISBN 1-58890-460-1 (US)

Volume 28, *Quinones and Heteroatom Analogues* comprises part of the highly esteemed reference work *Science of Synthesis, Houben–Weyl Methods of Molecular Transformations* that consists of 48 planned volumes and is already an essential tool for modern retrieval of reliable synthetic information. Volume 28 covers modern synthetic methods to prepare quinones and their heteroatom analogues, and is one of nine volumes comprising Category 4 (Compounds with Two Carbon–Heteroatom Bonds).

The volume has been divided into twelve sections related to classes of quinones (benzo-1,4- and benzo-1,2-quinones, naphtho-1,4- and naphtho-1,2-quinones, anthraquinones, phenanthrene-9,10-diones and positional isomers) and quinone analogues (sulfur, selenium and the large class of quinone imines and diimines, quinone diazides, and quinomethanes). In all cases, the emphasis is on the formation of the quinone functionality. The volume is a comprehensive, balanced and well-structured reference work providing a much-needed up-to-date single volume treatise on quinone chemistry. Practitioners of quinone chemistry will certainly appreciate this valuable compendium, dedicated to the field, that provides a wealth of information. This substantial volume has been assembled by the collaborative efforts of several chemists from academia and industry. Adoption of the Science of Synthesis logical hierarchical system based on the target molecule being synthesized has resulted in a volume that is uniform throughout despite its multi-contributor nature. Thanks to the excellent stewardship of Professor Griesbeck as editor, the volume has been produced impeccably with clear layout and consistency of text, structures and tables.

Each chapter has been organized by the usual systematic approach that is the trademark of the series. The overall style of the volume is clinically crisp and clear, allowing the reader to browse and become more familiar with a new field without being overwhelmed by intricate details that can be followed up by reading the many references cited for each class of compound. Within each category of quinonoid product, initial background information is provided on the history, nomenclature, properties, structure and stability of the compounds. A detailed selection of reliable methods for their preparation is then provided. Pleasingly, the volume has been assembled paying due attention to a useful discussion of the scope and limitations of the reactions described. The inclusion of appropriate experimental procedures together with excellent comprehensive tables of examples of similar reactions provides the reader with ample material for further investigation of the detailed reaction conditions used for a given transformation.

The volume is easy to navigate once the appropriate section of the volume containing information on the relevant target molecule has been identified. Many of the methods used to prepare one class of quinone have also been used to construct other related quinones (for example, benzoquinones and naphthoquinones) and it would have been helpful to have these related methods cross-referenced.

In summary, given the prevalence of quinonoid structures in biologically relevant molecules together with the important application of their redox properties to materials science, this volume is a welcome reference work both for general practitioners of organic synthesis and for specialist scientists working with quinonoid compounds. The volume forms part of the essential *Science of Synthesis, Houben–Weyl Methods of Molecular Transformations* toolkit that is a compulsory addition to all significant science libraries.

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**SYNTHESIS** 2007, No. 18, pp 2924–2924
Advanced online publication: 10.09.2007
Art ID: B11807SS