

The Chemistry of Peroxides, Volume 2, Parts 1 & 2; edited by Z. Rappoport; Wiley: Chichester, **2006**, hardcover, two-volume set, 1518 pp, £ 595 / € 892.50, ISBN 978-0-470-86274-2

Comprehensive books about peroxides in the traditional Patai series

Saul Patai founded the comprehensive series of books about the chemistry of functional groups. These books belong to the standard inventory of scientific libraries. After Patai's death in 1998, Zvi Rappoport proceeded as sole editor of the series. The second edition (volume 2) dealing with the chemistry of peroxides recently appeared in two parts. The corresponding previous edition by Patai dates back to 1983.

Zvi Rappoport organized numerous well-known scientists in their respective fields into writing contributions, covering the literature mostly up to the end of 2004. The arrangement of the 17 individual chapters of the book reflects the clear outlining concept into four major sections. After an introductory part, which deals with general and theoretical aspects of peroxides, some chapters are devoted to the characterization and characteristics of this particular functional group. The reader is made familiar with all state-of-the-art analytical features of peroxides. The third major section of the book consists of four chapters which treat both the synthesis of peroxides and their synthetic use. These 710 pages offer an excellent survey for chemists who do preparative work. In particular, the contribution of Berkessel and Vogl on the use of hydrogen peroxide, for example in epoxidation reactions, is a treasure trove for all scientists in this area. The selection of synthetic methodologies and presented examples focuses

on practical aspects, resulting in an excellent synthetic guide. Another major section of the book contains eight individual chapters on special peroxide topics: decomposition, heteroatom derivatives, biological systems, dioxiranes, dioxetanes, chemiluminescence, and antimalarial as well as antitumor-active peroxides.

The individual chapters are well made and are balanced in their content. Only minor sections are treated twice. The appendix with safety labels and safety data sheets at the end of the first part is at an extremely low resolution and therefore is almost illegible. The repetition a few pages later as colored tables does not improve the situation.

The book contains more than 150 pages of indices, including both an author index and a detailed subject index. Therefore, the reader will find the desired topic quickly and without any problems. The added cross-references therein are also very useful. In general, the schemes are clearly arranged and the numbering is systematic for the individual chapters. The number of typos in the written part and the schemes is on a tolerable level, and chemical mistakes are very rare and demonstrate the careful editorial work. The monograph cannot, of course, cover all areas; consequently, the editor regrets the absence of contributions dealing with polyoxides or the structures of organometallic peroxides. However, with more than 4500 references and many citations leading to existing reviews and further reading, this high-quality book is an indispensable reference book that should find its place in every good scientific library. Most chapters are of textbook style and give the interested chemist the opportunity for quick access to comprehensive information on specific subjects.

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