

Progress in Heterocyclic Chemistry, Volume 16; edited by G. W. Gribble, J. A. Joule; Elsevier: Oxford, 2005, hardcover, 464 pp, € 244, £ 168, US\$ 268, ISBN 0-08-044482-2

Advances in heterocyclic chemistry of 2003 at a glance

Since the scientific publications dealing with heterocyclic chemistry are spread out over many journals, an annual report of the progress in that particular field of chemistry is enormously useful. It provides an excellent survey on the advances that have been made and allows catching up with the most significant developments in heterocyclic chemistry of the year 2003. Therefore, this monograph is designed for professional researchers in academia and industry.

The editors Gribble and Joule organized numerous well-known scientists in their respective fields into writing contributions, and essentially summing up the different aspects of heterocyclic chemistry that appeared in 2003. In order to narrow the vast amount of reports in literature, the book focuses on the synthetic relevance and the potential applications thereof. This 16th volume is systematically organized as the previous editions: The book commences with two concise and comprehensive reviews devoted to significant and cutting-edge topics, followed by 15 contributions dealing with different classes of heterocyclic compounds.

The first survey is dedicated to lamellarins. This particular class of natural products contains a highly substituted pyrrole as core structure. The promising biological properties of these alkaloids inspired several scientific groups to synthetic efforts. The second report focuses on radical addition to pyridines and its benzo derivatives. The transformation is synthetically interesting, even if the yield is moderate and the intramolecular addition often suffers from a lack in control of stereochemistry.

The next two contributions review small ring systems and are composed of the advances made in homogeneous and heterogeneous catalysis. Novel concepts which led to preliminary but stimulating results were also outlined. The following seven contributions are devoted to five-mem-

bered ring systems. The increasing significance of these moieties in materials science cannot be ignored. Consequently, the potential application is underlined by some well-chosen examples. The congener for the six-membered heterocycles includes four contributions. The advances of the synthesis development are mainly driven by the construction of drug molecules. The book concludes with two chapters dealing with seven-membered ring systems and larger heterocycles. Several macrocyclic derivatives, discussed in the last chapter, are already treated in previous parts of the book dealing with the individual moieties.

In relation to the size and content of this book, the seven-page index is too small. Only systematic names for the heterocyclic core structures and some key words are given. The schemes are clearly arranged and the numbering in the individual chapter is systematic. However, some of the schemes are just cut off (e.g. page 32), the bend arrows look odd (e.g. page 38), different style (e.g. page 99), or substituents labeled as R are not explained (e.g. page 55). The number of typos in the written part and the schemes is negligible.

In summary, this monograph provides an excellent overview on the developments of heterocyclic chemistry published in 2003. In addition, both reviews fill in the gaps in literature. For the synthetically oriented chemist dealing with heterocyclic chemistry, it will be a compulsory reading and a significant source of information. Therefore, this valuable monograph will have a definite place in every good library collection.

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