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## Book reviews

*Organometallic Reactions, Vol. 5*; edited by E.I. Becker and M. Tsutsui, Wiley-Interscience, New York, 1975, x + 446 pages, \$39.95, £19.00.

The latest volume of this series contains four chapters, with major input from Russian authors, as in the previous four volumes.

In the first chapter A.G. Lee covers "Reactions of Organothallium Compounds (99 pages, 271 references). The title is somewhat misleading since this chapter is a complete review of organothallium chemistry which deals not only with the stated subject but also with the preparation of organothallium compounds, their structures and their coordination chemistry. Very few references past 1971 are included.

The second chapter by N.S. Vyazankin, G.A. Razuvaev and O.A. Kruglaya is the longest (212 pages, 704 references) and covers the broad area of alkali metal derivatives of the main group elements of Periodic Groups IV, V and VI of type  $R_3M^{IV}$ ,  $R_2M^V$  and  $RM^{VI}$ , respectively. These may be prepared by diverse procedures, have an extensively developed chemistry and have found application in synthetically useful reactions. The literature coverage in this chapter is well balanced and the treatment well organized. Many useful tables of reactions organized according to substrate class are provided. An appendix extends the literature coverage into 1973. The English in this chapter is acceptable but the editors might have been a bit more thorough to remove all errors of grammar and infelicities of style.

The third chapter brings a review by M.E. Vol'pin and I.S. Kolomnikov on the reactions of main group and transition metal organometallic compounds with carbon dioxide. The main emphasis quite rightly is on the new area of the interesting and potentially useful reactions of carbon dioxide with transition metal organic compounds and hydrides. Although the bibliography at the end of this chapter contains 354 references, the chapter itself is rather short (74 pages). This review is well written and leaves one with expectations of important developments to come.

The subject of the last chapter is unsaturated organoaluminum compounds: aromatic, olefinic, acetylenic derivatives, as well as aluminum compounds containing C=N bonds. K.L. Henold and J.P. Oliver present this subject well in 43 pages covering 117 references. However, the subject is a rather narrow one. The emphasis is on the preparation of such compounds and on their structures; very little reaction chemistry is presented. A broader chapter on the reactions of unsaturated boron and aluminum compounds, or on unsaturated magnesium and aluminum compounds, would have aroused much more interest among the readers.

A subject index and tables of contents of the four previous volumes are provided.

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