

### Book review

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*Basic organometallic chemistry*; by I. Haiduc and J.J. Zuckerman. W. de Gruyter, Berlin/New York, 1985. Paperback edition, xvi + 376 pages, DM 79, US\$ 29.90. Hardcover, xvi + 486 pages, DM 169, US\$ 64.90. ISBN 3-11-007184-3, ISBN 0-89925-006-8

This book is a completely updated and re-edited translation of Haiduc's "Chimia Compusilor Metalorganici" which was published in Romanian in 1974. It is a basic text, intended for the newcomer to the field. It emphasises the synthesis, structures, and reactions of organometallic compounds but pays less attention to reaction mechanisms, to the use of organometallic compounds as stoichiometric or catalytic reagents in organic synthesis, and to industrial or biological applications.

The initial four chapters deal with the classification of organometallic compounds, the different types of bonding which occur, and the special laboratory techniques for handling air-sensitive compounds, and the general literature of the subject. References to the primary literature are not given, but the Professor's Edition, in hard cover includes an appendix 113 pages of bibliography which lists books, monographs, and reviews, in chronological order, classified according to the chapter and section headings.

Compounds of the Main Group metals are described Group by Group in about 175 pages, and compounds of the transition metals, classified now according to the ligands, are covered in about 150 pages. Boron, silicon, and arsenic are included, but not phosphorus.

The treatment is clear, balanced, and up to date. The layout and printing are excellent, and one attractive feature is the inclusion of reaction schemes for key compounds such as  $R_3Ga$  or  $Fe(\eta^5-C_5H_5)(\eta^5-C_5H_4Li)$ .

The field of organometallic chemistry is so wide that any undergraduate lecture course must make a selection of anything but the most basic material. No text book of reasonable size and price can cover all those reasonable selections, and it is inevitably difficult to recommend a text for any particular course. In many places, I found myself regretting the authors' decision to exclude reaction mechanism (for example, nucleophilic substitution at silicon), or organic synthesis (for example, from  $(\eta^4-C_4H_4)Fe(CO)_3$ ), but by doing so, they have produced a book of reasonable size and price. For me, it conveyed something of the excitement of the subject, and I think it is the best text which is available for providing the background material for an undergraduate course, or for a research student who is new to the subject.