Journal of Organometallic Chemistry, 241 (1983) C34
Elsevier Sequoia S.A., Lausanne — Printed in The Netherlands

Book review

Gmelin Handbook of Inorganic Chemistry, 8th edition, *Fe. Organoiron Compounds, Part B7: Mononuclear Compounds 7.* A. Slawisch, editor, Gmelin Institut für Anorganische Chemie der Max-Planck-Gesellschaft zur Förderung der Wissenschaften and Springer-Verlag, Berlin/Heidelberg/New York 1981, 258 pages, DM 713.

Series B of the Gmelin Handbooks devoted to Organoiron Compounds relates to the mononuclear compounds except ferrocene derivatives. The earlier volumes (B1–B5) dealt with organic ligands bound through 1—3 carbon atoms. The present volume, written in English, is one of several devoted to four-carbon ligands. Butadiene and other acyclic 4-carbon ligands were treated in vol B6. Cyclobutadiene and five-membered rings bound through four carbons are now covered and further volumes dealing with other types of 4-carbon ligands and with larger rings, and of course also 5- and 6-carbon ligands are still to follow.

Thus nearly two thirds of volume B7 is devoted to cyclobutadienetricarbonyliron, its reactions and ring-substituted derivatives. Most compounds in this section are listed in tables, followed where appropriate by further details of preparation and properties in the running text. The later sections of the volume deal with more varied types of tricarbonyliron complexes, starting with the 5-membered heterocycles containing one boron, silicon, germanium, nitrogen, phosphorus, arsenic or sulphur atom and continuing to the (substituted) cyclopentadiene and cyclopentadienone ligands.

A rare example of errors is the misprinted formula of santonin on p. 165: it is correctly given two pages later. Duplication of the formulae of two complexes derived from this terpene on p. 166 and p. 167 seemed unnecessary waste of space, and it is surprising to read on p. 57 that 'Compound No. 3 provides an example for [sic!] the chemical application of topology and group theory' — a totally meaningless statement.

These few, perhaps carping, criticisms however merely underline the fact that the usual high standards of presentation and accuracy are well maintained.

The volume concludes with formula and ligand indexes covering both volumes B6 and B7.

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