Book review

"Gmelin Handbook of Inorganic Chemistry", 8th Edition, New Supplement Series, Volume 49, "Organoiron Compounds. Part A, Ferrocene 2", 1977, iv + 303 pages, DM 687, $ 316.10; Volume 50, "Organoiron Compounds, Part A, Ferrocene 3", 1978, ii + 180 pages, DM 441, $202.90; J. Füssel, volume author, A. Slawisch, volume editor, Gmelin Institut für Anorganische Chemie der Max Planck Gesellschaft zur Förderung der Wissenschaften, Springer-Verlag, Berlin/Heidelberg/New York.

A complete coverage of ferrocene and its many derivatives is an ambitious undertaking indeed and takes the Gmelin Institute of Inorganic Chemistry over the inorganic/organic boundary to a greater extent than do its other volumes on organometallic compounds. This decision to include all organic derivatives of ferrocene will be welcomed by organic and inorganic chemists alike.

These two additions to the Gmelin ferrocene series* bring detailed coverage of mononuclear, monosubstituted ferrocenes with oxygen-containing substituents. "Ferrocene 2" deals with alcohols and phenols, esters of type Fc-A-O_2CR**, aldehydes and ketones of type Fc-C(O)R. "Ferrocene 3" completes the coverage of oxygen-containing ferrocene compounds with further ketones and ketenes, ferrocene-containing carboxylic acids and their esters and other derivatives and oxygen-heterocyclic derivatives of ferrocene. These volumes are well organized and the table of contents are sufficiently detailed for the purposes of those readers who are looking for a specific class of compounds. It is unfortunate, however, that no compound or formula index is provided for these two volumes and that we

*"Ferrocene 1" appeared in 1974; for a review see J. Organometal. Chem., 80 (1974) C19. "Ferrocene 6" was published in 1977; for a review see J. Organometal. Chem., 142 (1977) C42.

** Fc = (η^5-C_5H_5)Fe(η^5-C_5H_4-)

must wait for the last volume on mononuclear, monosubstituted ferrocene compounds for such indexes. Otherwise, one can have only praise for these volumes. They have been prepared with the usual Gmelin thoroughness and they are up-to-date, with literature coverage through 1976, but with some 1977 references included. All that is known about a particular compound (preparation, physical, spectroscopic and electrochemical properties, chemical reactions) is provided in text or in tables. Liberal use is made of formulas.

"Ferrocene 2" opens with a useful listing of reviews of the more recent (1974 on) general ferrocene area and of more specific ferrocene topics as a supplement to the bibliography of reviews in "Ferrocene 1". Useful also for those interested in organofunctional ferrocenes is the coverage of the abundant Russian literature in this area and of the patent literature.

Both volumes are written in German. As usual, English translations of the preface, table of contents and chapter and section headings are provided.

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