

Gmelin Handbuch der Anorganischen Chemie, Ergänzungswerk zur 8. Auflage, Vol. 14, *Eisen-Organische Verbindungen, Part A, Ferrocen I*, A. Ślawisch, editor-in-chief, U. Krueker and A. Ślawisch, volume editors, J. Fussel and J. Wagner, volume authors, Springer Verlag, Berlin/Heidelberg/New York, 1974, viii + 395 pages, DM 516,-, \$210.60.

This book continues the new Gmelin series on organometallic compounds and is the first of several devoted to ferrocene and its derivatives. Covered in this volume are ferrocene itself and all monosubstituted ferrocenes, $C_5H_5FeC_5H_4R$, in which R contains C, H and/or halogen. Monoalkyl-, -alkenyl-, -alkynyl-, -aryl- and arylalkyl-ferrocenes are found in this book, together with their substituent-halogenated derivatives. Also treated are the monohaloferrocenes, ferrocenylcarbenes, ferrocenyl-substituted radicals and carbonium ions, as well as ferrocenium salts derived from the neutral compounds with which this volume is concerned. Over half of this book (224 pages) is devoted to ferrocene itself and to ferrocenium salts. Covered are preparative aspects, physical and structural properties, solubilities, electrochemical properties, chemical transformations, catalytic aspects, physiological effects, applications and derived ions, radicals and complexes. The rest of the book is concerned with the monosubstituted derivatives mentioned above. Future volumes will conclude the coverage of monosubstituted ferrocenes and will treat polysubstituted ferrocenes and compounds containing two or more ferrocene units.

As usual, the literature coverage is extremely thorough, with references from the journal and review literature, conference reports, dissertations and the patent literature. A valuable feature is an introductory section devoted to the general and the more specialized review literature. This book is remarkably up-to-date, with complete literature coverage through the middle of 1973, although many more recent references, some as late as early 1974, are given. The text is in German, but English translations of chapter and section titles are provided in the margins, and the table of contents and the preface and introduction which explain the organization of the book also are given in English as well as in German.

One shortcoming must be mentioned: the usual subject and compound indices are absent, so that finding a particular compound will take a bit of searching. Presumably an index for all ferrocenes will be provided in the final ferrocene book, but an index for each separate book would be most useful to the reader.

Anyone dealing with ferrocene and its derivatives in any way will find this book most useful and all organometallic chemists will welcome this newest addition to the Gmelin organometallic series.

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