

product compared with those present in the starting material.

The book opens with a chapter devoted to the vocabulary of stereochemistry. There then follows a description of the classification of the stereoselective reactions. Thus, type I reactions are those in which no new chiral centre is created but inversion or retention of configuration takes place at an existing centre. Type II reactions involve the diastereoselective formation of a product containing at least two chiral centres from the reaction of one or more prochiral double bonds. These include cycloaddition and other electrocyclic processes. Within this section there is a useful chapter on diastereoselectivity in the aldol and related reactions. The major part of the book is devoted to the group of reactions brought together as type III. These reactions involve the stereoselective formation of one or more additional chiral centres in the starting material or the reagents. Substrate control in type III reactions is further subdivided into reactions involving asymmetric induction, those mediated by stereo-electronic effects and those mediated by ring formation. Reagent and catalytic control and enzyme-catalysed reactions are treated separately.

This book is written as a textbook rather than as a reference book. It is well-explained with useful diagrams, flow charts and literature references. There is a full index. Although it is quite lengthy, it can be recommended to students involved in research in stereoselective and asymmetric synthesis as a useful introduction to the subject.

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Gmelin Handbook of Inorganic and Organometallic Chemistry, Eighth Edition, Organoirron Compounds, Ferrocene, Part A11, Springer, Berlin and Heidelberg, 1995, pp. 210 + xii, DM 1300, ISBN 3-540-93709-9

This volume, that covers the literature up to at least 1993 with some material from 1994, deals with tetra- to deca-substituted mononuclear ferrocenes. It contains all that a preparative chemist would wish to know about such compounds, and a great deal more. Those who are familiar with the Gmelin format will need no reminder of the value and the ease of use of these compendia, as well as the minimal drawback of the encyclopaedic approach to literature presentation. The price works out at about 6.2 DM per page, which is about the average for the recent Gmelin volumes and is good value for money for such basic archival material.

The presentation is of the usual kind, replete with structural diagrams, details of preparations, and tables of spectroscopic data. A formula index makes compounds easy to find. Whether such compendia are easier to use than the more modern electronic methods of literature searching would be a matter for debate. For myself, I still prefer a book to a keyboard and a printer, which almost always require subsequent recourse to the original literature. These volumes are sufficiently comprehensive not to require a further search. Gmelin on-line may eventually bridge the gap between the book and the electronic format.

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