Journal of Organometallic Chemistry 483 (1994) C6-C8



Book reviews

Gmelin Handbook of Inorganic and Organometallic Chemistry, 8th Edition, Ni, Organonickel Compounds, Supplement Volume 1, Springer, Berlin and Heidelberg, 1993, pp. 381 + xi, DM 2160. ISBN 3-540-93681-5.

This volume is a supplement to the 8th edition volumes on organonickel compounds, the last of which was published in 1974. Consequently, this and the presumed subsequent volumes (at least one more is planned) will cover about 20 years of new chemistry. The current volume covers the literature completely to 1990, and in part to mid-1993. As is usual in the Gmelin system, the treatment commences with mononuclear compounds containing carbon ligands bonded to the metal by one carbon atom only, and the present volume deals essentially with compounds containing only one such ligand.

It is difficult to "review" archival volumes such as this in any conventional sense. Suffice it to say, this continues the Gmelin tradition of comprehensive compound-by-compound coverage of classes of compounds, delineated systematically in the classical Gmelin fashion. The presentation is immaculate, and the access to information is relatively easy, though since this volume does not complete the treatment of all the compounds designated by the classes specified, the empirical formula index will appear in Supplement Volume 2.

This is clearly a problem for those requiring only this volume, and prepared to spend the relatively large amount of money on it. It should not matter to libraries, which should be investing in the whole series. As I have stated when reviewing previous volumes, the cost of this volume is high, but compared with the real cost of obtaining the information contained in it, including the price of labour and database access, then it really is not excessive.

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Gmelin Handbook of Inorganic and Organometallic Chemistry, 8th Edition, Os, Organoosmium Compounds,

A2, Springer, Berlin and Heidelberg, 1993, pp. 410 + xi, DM~ ISBN 3-540-93679-3

This volume continues the treatment of mononuclear organoosmium compounds from volume A1, which was published in 1992. The current volume covers the literature comprehensively at least to the end of 1992, and discusses compounds with one-carbon ligands, specifically dicarbonyls, tricarbonyls, and tetracarbonyls, compounds with isocyanides, and compounds with carbenes and carbynes. The volume also contains an empirical formula index and a ligand formula index.

This is another example of the rigorous and comprehensive Gmelin treatment of organometallic chemistry. The standard is remarkably high, and rarely shows that most of the authors are writing in a language which is not their mother tongue. Even then, this causes no problems. The description of the carbene and carbyne complexes as "very actual" may puzzle some English speakers, but this is a minor blemish. The volume lists 90 such mononuclear compounds; very actual, indeed.

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Gmelin Handbook of Inorganic and Organometallic Chemistry, 8th Edition, Os, Organoosmium Compounds, B6, Springer, Berlin and Heidelberg, 1993, pp. 248 + xiv, DM-ISBN 3-540-93671-8

This volume is apparently part of the B series of osmium volumes, devoted to polynuclear osmium compounds. Paradoxically, though numbered B6 it is the first of the B series to appear. Its immediate companion volume, B5, which is still in preparation, will contain the empirical formula and ligand formula indices, both invaluable for finding one's way through the assembled data.

The contents of this volume cover trinuclear compounds with bridging one-carbon ligands other than