

## Book Reviews

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**Gmelin Handbook of Inorganic Chemistry, 8th Edn., Volume 25, Part 4. "Perfluorohalogenoorgano Compounds of the Main Group Elements".** Pp. 213. Springer-Verlag, Berlin, 1975. Price: U.S. \$ 193.20.

All volumes of Gmelin are renowned for their accuracy, clarity and comprehensive coverage of the subject material and the present volume is no exception. Perfluoro-alkyl and -aryl compounds of (i) the alkali metals; (ii) Be, Mg, Ca; (iii) B, Al, Ga, In, Tl and (iv) Si, Ge, Sn, Pb are treated in this volume. For each group of elements preparative methods are first described, followed by physical properties and then chemical reactions.

At first sight this might seem a strange classification but in fact it seems to hold together well. For example perfluoroalkylmagnesium halides  $C_nF_{2n+1}MgX$  ( $X = Cl, Br, I$ ) are described and compounds such as  $CF_2ICF_2MgBr$  also feature because of the preparative method employed.

Although the text is in German, English speaking readers will have little difficulty since the Table of Contents is given in English and each page of the text has marginal information in English. The final 20 pages are devoted to a formula index. Extensive tabulation of data makes for easy reference and the nomenclature follows IUPAC guide lines.

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**Gmelin Handbook of Inorganic Chemistry, 8th Edn., Volume 27, Part 6. "Boron Compounds: Carboranes".** Pp. 150. Springer-Verlag, Berlin, 1975. Price: U.S. \$ 139.

The ever increasing interest in boron chemistry is partly the result of the wide range of structures encountered and this volume has appeared at a particularly opportune time. The discussion of carborane chemistry began with volume 15 of this edition and a final volume is planned which will be devoted to dicarba-closo-dodecaboranes.

The present volume is divided into five chapters, each with its excellent series of sub-headings, that are such a feature of all volumes of Gmelin. The electronic structure of closo-carboranes (in English) covers all aspects from M.O. calculations to spectroscopic properties. Chapter 2 deals with carboranes containing skeletal hetero-atoms and includes some of the most remarkable structures in boron chemistry ranging from group II metals such as Be through to Si, Ge and compounds of P, As and Sb. Chapter 3 treats transition metal complexes of various carborane anions. In chapter 4 carborane polymers are discussed (in English); these are all derived from closo carboranes and include vinyl- and silicone-type polymers. The latter are elastomers stable up to 300°C and likely to find extensive applications. The final chapter tabulates the NMR spectra of heterocarboranes.

The book is beautifully produced with clear structural formulae, so essential in this field of chemistry.

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### Erratum to Volume 16

#### X-Ray Structure of the Trinuclear Metal Cluster $Pt_3[P(C_6H_{11})_3]_4(CO)_3$

A. ALBINATI, G. CARTURAN and A. MUSCO  
*Inorg. Chim. Acta*, (1976) L3

Line 18 of the L. H. S. column should read:

Moreover,  $^{31}P$  NMR measurements at variable temperature of  $Pd[P(C_6H_{11})_3]_2$  in presence of free