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Book Reviews

Gmelin Handbook of Inorganic Chemistry.
8th Edition – New Supplement Series; Volume 35: **Organotin Compounds** – Part 4: **Organotin Hydrides.** Springer-Verlag, Berlin/Heidelberg/New York, 1976; 134 pages; price: DM 311.

The organotin chemistry reigns as one of the most important branches within the organometallic chemistry. The decisive reason for this development has been the wide range of potential application of these compounds in industry, technology, and agriculture. The present fourth volume contains the mononuclear organotin hydrides. It contains only such compounds in which four-binding tin is bound to carbon-bonded hydrocarbon moieties and one, two, or three hydrogen atoms as ligands. In the greater part of the volume triorganotin hydrides are dealt with. Formations and reactions of those triorganotin hydrides are thus arranged and described in detailed tabular lists and frequently supplementary structural illustrations of the pregnant text are given – in the reviewer's opinion exemplary and most favourably. A chapter about diorganotin dihydrides is following, which again leaves nothing to be desired with regard to the clearness of arrangement, also because oft the series of structural illustrations. Finally the organotin trihydrides are presented in a short chapter. A molecular formula index of the described organotin compounds concludes the present volume.

Literature closing date: complete up to the end of 1974.

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Gmelin Handbook of Inorganic Chemistry.
8th Edition – New Supplement Series; Volume 34 **Boron Compounds** – Part 9: **Boron–Halogen Compounds**, Part 1. Springer-Verlag, Berlin/Heidelberg/New York, 1976; 332 pages; price DM 667.

The present volume deals with boron–halogen compounds (part 1). Chapter 1 contains the partially halogenated derivatives of BH_3 including their precursors and ether adducts. In the second chapter the partially halogenated diboranes (6) are presented. (Oxy)haloboranes are discussed in English in chapter 3. A general introduction to the chemistry of (organyl)haloboranes is compiled in chapter 4, which also includes a comparative evaluation of the physicochemical data of the species. Individual (organyl)dihaloboranes are discussed in chapter 5, and (diorganyl)haloboranes are presented in chapter 6. Numerous structural illustrations and tabular listings provide a clear and distinct arrangement of the volume. The text is pregnant and mediates an excellent survey of the described boron compounds.

Literature closing date: end of 1974. In selected instances more recent data have been considered.

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Gmelin Handbook of Inorganic Chemistry.
8th Edition – New Supplement Series; Volume 33: **Boron Compounds – Part 8: Tetrahydroborate Ion and Derivatives.** Springer-Verlag, Berlin/Heidelberg/New York, 1976; 220 pages; price: DM 457.

The treatment of boron compounds within the framework of the New Supplement Series of Gmelin Handbook aims at a complete documentation of the chemistry of boron and its compounds. The present volume deals with the tetrahydroborate ion as to its synthesis and physical and chemical properties. Also, a listing of the known metal tetrahydroborates has been compiled. Besides $[BH_4]^-$ groups of compounds are taken up, which are formally derived by replacement of H in $[BH_4]^-$ by halogen, hydroxy- and organyloxy- or amino groups. Also, analogous species containing B–C bonds, borate derivatives of inorganic oxoacides and boranocarboxylates are included.

The present volume is arranged in the following manner:
1. The tetrahydroborate ion and derivatives with a complete description of ammonium tetrahydroborate and metal tetrahydroborates. 2. (Halo)hydroborate ions. 3. (Oxy)hydroborate and related ions. 4. (Hydro)organylborate ions. 5. (Oxy)haloborate ions and some related species. 6. (Halo)organylborate ions. 7. Borates containing organic oxoacid ligands (perchloratoborates, sulfatoborates and nitratoborates). 8. Borates containing organic oxo-ligands bonded to boron. 9. (Oxy)organylborate and related species. 10. Tetraorganylborate ions. 11. Boranocarboxylate ions.

This clear arrangement presents with its numerous tabular listings and structural illustrations an exceedingly comprehensive and valuable reference book, most suitable for quick and also well-founded information.

The chapters 2, 3, 4, 5, 6, 9, 10, 11, and 12 are written in English.

Literature closing date: up to the end of 1974. In selected instances more recent data have been considered.

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