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Book reviews

Gmelin Handbook of Inorganic Chemistry, 8th Edition, *Sn — Organotin Compounds, Part 9: Triorganotin-Sulfur Compounds*, by H. Schumann and I. Schumann, Springer-Verlag, Berlin, 1982, xii + 276 pages, DM 727.

The first eight volumes on organotin compounds in this series appeared between 1975 and 1981, all within this eighth edition; Parts 1—3 dealt with mononuclear tetraorgano compounds, Part 4 with mononuclear organotin hydrides, and Parts 5—8 with mononuclear organotin halides and pseudo-halides. Parts 9 and 10 (the latter not yet published) are devoted to the mononuclear organotin sulphides, selenides and tellurides, with Part 9, the subject of this review, covering triorganotin—sulphur compounds. For each compound the methods of preparation are outlined and physical and chemical properties indicated; in some cases quite extensive spectroscopic data are presented, and occasionally detailed X-ray structural information. The coverage of the literature extends to the end of 1980.

The information is truly comprehensive, and a glance at this volume will show how inaccurate is the title of the (excellent) nine-volume treatise on "Comprehensive Organometallic Chemistry" which appeared recently. Because they are so comprehensive and so well produced, and are reference works only, with the restricted sales that implies, the Gmelin volumes are inevitably very expensive on a price per page basis. But those in institutions engaged in research in relevant areas should ask themselves whether one year's salary of a research assistant would not be more fruitfully spent on the large number of volumes of Gmelin which could be purchased with that salary.

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COLIN EABORN

Topics in Current Chemistry. Vol. 104, Organotin Compounds; edited by F.L. Boschke; Springer-Verlag, Berlin, 1982, vii + 137 pages, DM 76.

This volume contains reviews of: (a) Structure and reactivity of monomeric, molecular tin(II) compounds (55 pages, 183 references) by M. Veith and O. Recktenwald; (b) Chirality, static and dynamic stereochemistry of organotin compounds (49 pages, 93 references) by M. Gielen; (c) Coordination effects in formation and cross-linking reactions of organotin macromolecules (30 pages, 111 references) by Z.M.O. Rzaev. The accounts reflect the fact that the authors are very active contributors to the fields they survey, all three being authoritative and admirably up-to-date. The chapter by M. Gielen is exceptionally timely, work in the last few years, very largely by the author,

having led to a very rapid recent advance in knowledge. The chapter by Rzaev is especially valuable because of the inclusion of so much material from sources in the U.S.S.R.

The volume is a worthy addition to a very good series.

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Gmelin handbook of inorganic chemistry, 8th Edition, Sc, Y, La-Lu rare earth elements, Part C4b. Data on individual chlorides, G. Czack, I. Flachs-bart, H. Hein, E. Koch, I. Kreuzbichler, P. Kuhn, H. Lehl, and U. Vetter, volume authors, H. Bergmann, chief editor, system number 39, Gmelin Institut für Anorganische Chemie der Max-Planck-Gesellschaft zur Förderung der Wissenschaften and Springer-Verlag, Berlin/Heidelberg/New York, 1982, x + 324 pages, DM 876.

This volume, together with its companion, C4a (*J. Organomet. Chem.*, 235 (1982) C25), is concerned with Sc, Y, and the rare earth chlorides and appropriate metal chloride systems. Whereas Volume C4a was devoted largely to comparative data, the volume under review treats individual chlorides and chloride systems.

Sections on separate chlorides are arranged according to the Periodic Table and deal mainly with the preparation, properties, and chemical reactions of the various metal chlorides starting with the lowest oxidation states. There is much emphasis on phase diagrams and solutions. Molecules and ions in the gas phase, or as matrix-isolated species, were discussed in Volume C4a.

Both the present volume and its companion C4a, are published in English and have all the merits normally found in books belonging to the Gmelin series. The literature is covered to mid-1981.

There is scarcely any organometallic chemistry to be found; this, no doubt, will feature in later volumes. However, the anhydrous metal(III) chlorides are key starting materials in the rapidly developing field of organolanthanide chemistry and hence the volumes will be of interest to some readers of this Journal.

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