

Journal of Organometallic Chemistry, 391 (1990) C17
Elsevier Sequoia S.A., Lausanne – Printed in The Netherlands

Book review

Chemistry of Tin; edited by P.G. Harrison, Blackie, Glasgow and London (in U.S.A., Chapman and Hall, New York), 1989, xi + 461 pages, £75.00. ISBN 0-216-924960 (in U.S.A.: 0-412-01751-2).

This multi-author volume differs from earlier books on tin chemistry in dealing with both inorganic and organometallic compounds. Its scope is best indicated by listing the chapter headings: Tin—the element (8 pages), by P.G. Harrison; Compounds of tin: general trends (52 pages), by P.G. Harrison; Investigating tin compounds using spectroscopy (58 pages), by P.G. Harrison; The inorganic chemistry of tin (27 pages), by J.D. Donaldson and S.M. Grimes; Formation and cleavage of the tin–carbon bond (42 pages), by J.L. Wardell; Organometallic compounds of tetravalent tin (34 pages), by K.C. Molloy; Organometallic compounds of bivalent tin (24 pages), by P.D. Lickiss; Tin-metal bonded compounds (49 pages), by F. Glockling; Radical chemistry of tin (21 pages), by A.G. Davies; The uses of organotin compounds in organic synthesis (44 pages), by J.L. Wardell; Biological chemistry of tin (38 pages), by M.J. Selwyn; Tin(IV) oxide: surface chemistry, catalysis and gas sensing (24 pages), by P.G. Harrison; Industrial uses of tin chemicals (34 pages), by C.J. Evans.

The various chapters are of good quality, and in general as informative as they could be given the limitations on the space allowed. (Organometallic compounds of tetravalent tin cannot be more than outlined in 34 pages.) Overall the book provides a good general background and deals well with selected aspects of the subject. It should be especially valuable to those coming new to tin and organotin chemistry, but there is also much useful information in it for specialists in the field. The editor is to be congratulated on the initial concept and his choice of topics and authors.

The book is well produced, though somewhat let down by the index, which has the appearance of a computer-derived list. (Who, in a book of this type, is likely to look up information specifically under entries such as: absolute recoil-free fraction values; biological membranes; concentration-dependent n.m.r. (as distinct from “n.m.r., concentration dependence”); cyclization; group theory; multiple bond formation; ring closure reactions; and thin absorber?) It deserves a place in all libraries for undergraduate and postgraduate students of chemistry and in organizations concerned with tin and organotin chemistry or with organometallic compounds in general.

*School of Chemistry and Molecular Sciences,
University of Sussex, Brighton BN1 9QJ (U.K.)*

Colin Eaborn