

undergraduate degrees. That analytical chemistry is both useful and important needs to be seen more clearly in the academic environment, and it is perhaps environmental concerns that will make this most apparent. In this area we shall undoubtedly see more demand for analytical chemistry courses, from "consumers", both the undergraduate and graduate consumers of courses, and the industrial consumers of graduates. The latter group at least are in a position to put pressure on academic departments, but hopefully, may feel themselves equally well placed to provide incentives and resources.

Despite a camera-ready text this book is well produced and there are extensive references. The index is adequate rather than generous; indeed it occupies fewer pages than the contents list. This is not a book for browsing; it is very definitely a reference text, packed densely with information. It should be available to every practising chemist.

*School of Chemistry and Molecular Sciences,
University of Sussex, Falmer, Brighton (Great Britain)*

Penny A. Chaloner

Gmelin Handbook of Inorganic Chemistry, 8th edition, *Sn — Organotin compounds, Part 14*, Springer-Verlag, Berlin, etc., 1987. xiv + 248 pages. DM 1119. ISBN 3-540-93551-7.

This volume (written by H. Schumann and I. Schumann) is the latest in the excellent current Gmelin series on organotin compounds that began in 1975. It continues the survey of mononuclear organotin compounds containing tin-oxygen bonds, and is concerned with compounds having two methyl, ethyl, or propyl ligands on a tin atom whose other ligands are bonded through oxygen. The main species considered are thus of the type $R_2Sn(OR')_2$ and $R_2Sn(OOCR')_2$, where $R = Me, Et, \text{ or } Pr$, and R' can be one of a wide range of hydrocarbyl or substituted-hydrocarbyl groups; the two oxygen atoms can also be part of a chelated ligand, as in $Me_2SnOCH_2CH_2O$, and bis(β -diketonates) are also covered. However, the oxygen atoms can also be bonded to B, Si, N, P, As, O, S, Se, or a transition metal, as in $Me_2Sn(OBO)_2$, $Me_2Sn(OSiMe_2)_2$, $Me_2Sn(ONO_2)_2$, $Me_2Sn(O(PO)Ph_2)_2$, $Me_2Sn(OAs(O)Me_2)_2$, $Me_2Sn(OOBu-t)_2$, $Me_2Sn(OSO_2F)_2$, and $Me_2Sn(OCrO_3)_2$ (in which each tin atom is linked to four oxygens in a polymeric six-coordinate structure). For most entries the details of the methods of preparation, physical properties, and reactions are summarized efficiently in tables.

The literature is surveyed up to the end of 1985. Some 24 pages of the book are devoted, very usefully, to a list of reviews of the chemistry and applications of organotin compounds and of relevant patents that have appeared since 1982. There are clear empirical formula and ligand formula indexes.

The accounts and the overall quality of production are up to the high standards we expect from Gmelin, and care has been taken with the English. The whole series on organotin compounds is recommended without reservation.

*School of Chemistry and Molecular Sciences,
University of Sussex, Brighton BN1 9QJ (Great Britain)*

Colin Eaborn