

transition metals; (e) Kr, Xe, Rn; and (ii) methods of forming fluorides of Group IB and IIB metals and of transition and inner transition metals in high oxidation states. The (well-qualified) contributors are: N. Bartlett; T.B. Brill; T.M. Brown, J.A. Canich, J.H. Clark, D.A. Edwards, G.L. Gard; B.D. James, E.M. Page and D.A. Rice.

The treatment of the subject follows closely that now familiar from the earlier volumes in the series. The author, formulae, and subject index occupy 193 pages; in the copy supplied for review the subject index ends about halfway through the letter T, but the loss is not a severe one.

This volume will be much consulted by practising inorganic and organometallic chemists.

School of Chemistry & Molecular Sciences
University of Sussex, Brighton BN1 9QJ (UK)

Colin Eaborn

Gmelin Handbook of Inorganic and Organometallic Chemistry. 8th Ed. Sn. Organotin Compounds. Part 19. Organotin-nitrogen Compounds (concluded), Organotin-Phosphorus, -Arsenic, -Antimony, and -Bismuth Compounds, Springer-Verlag, Berlin, 1991, xiv + 316 pages. DM. 1650. ISBN 3-540-93632-7 and 0-387-9362-7

These carefully compiled volumes in the Gmelin series on organotin compounds become increasingly useful as their number increases and with it the chance of finding the compound or type of compound in which one is interested. The appearance of this volume is especially notable because it completes the coverage of organotin-nitrogen compounds.

The survey of organotin-nitrogen compounds is concluded with accounts of (i) triorganotin nitrogen derivatives, containing R_3Sn groups with R either an alkyl group larger than butyl or an aryl group, and related $R_2R'Sn$ and $RR'R''Sn$ species; (ii) diorganotin-nitrogen compounds such as $R_2Sn(NR')_2$, $R_2Sn(NR'_2)(NR''_2)$, $RR''Sn(NR'_2)_2$, $R_2Sn(NR'R'')_2$, and $RR'Sn(NRR')_2$, and (the five-coordinate) $MeN \cdots N \cdots NMeSnMe_2I$; and (iii) the corresponding monoorganotin compounds. Attention is then switched to organotin derivatives containing Sn-P bonds, the survey taking up 69 pages, and finally to those containing Sn-As, Sn-Sb, and Sn-Bi bonds, which take up a total of only 19 pages.

The literature has been searched systematically up to the end of 1988 for the nitrogen compounds and the end of 1989 for the others, but there are some more recent references. Where biological effects have been examined care is taken to mention that fact. As usual in the series a list is given of relevant text books and reviews that have appeared in recent years, including those dealing with toxicological texts and biological and other uses of organotin compounds.

The authors of this valuable set of volumes, H. Schumann and I. Schumann, deserve the gratitude of all those active in organotin chemistry.

School of Chemistry & Molecular Sciences
University of Sussex, Brighton BN1 9QJ (UK)

Colin Eaborn