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*Gmelin Handbook of Inorganic Chemistry, 8th Edition, Ge—Organogermanium Compounds, Part 3*, Springer-Verlag, Berlin, 1990, xv + 518 pages, DM2266.00. ISBN 3-540-93595-9 and 0-387-93595-9.

This third instalment in the comprehensive survey of organogermanium compounds (written by F. Glockling with contributions from J. Satgé and U. Krüerke) mainly continues the coverage of compounds containing four organic groups attached to germanium through carbon. Thus the first 233 pages are concerned with compounds of the types  $\text{GeR}_3\text{R}'$ ,  $\text{GeR}_2\text{R}'_2$ ,  $\text{GeR}_2\text{R}'\text{R}''$ , and  $\text{GeRR}'\text{R}''\text{R}'''$ , where R is an alkyl or aryl group and R' etc. an alkyl, substituted alkyl, alkenyl, alkynyl, aryl or heterocyclic group. The next 115 pages deal with compounds in which the germanium is attached to four carbon atoms within a cyclic system (including spiro compounds). Subsequent, fairly brief, sections are concerned with carbon-centred radicals and radical ions derived from  $\text{GeR}_4$  compounds, and with compounds containing low coordinate germanium centres, namely germenes, germanium-centred radicals  $\text{GeR}_3\cdot$ , germylenes  $\text{GeR}_2$  and  $\text{GeRR}'$ , germanocenes, and certain ionic compounds (e.g.  $\text{K}[\text{Ge}(\text{CF}_3)_3]$  and  $[\text{Ge}(\text{C}_5\text{Me}_5)][\text{BF}_4]$ ). Almost all the information is presented, clearly and efficiently, in tables. There is the usual empirical formula index, which in this case extends to 130 pages, and from which it can be estimated that about 1650 species are covered in the volume. There is also a very useful ligand-formula index, which allows location of all the compounds containing a particular ligand. The literature has been searched completely up to the end of 1987, and there are some references up to mid-1989.

This is an outstanding volume even in the always excellent Gmelin series, and anyone active in the field of organogermanium chemistry who does not have it readily available will be at a considerable disadvantage.

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*Inorganic Reactions and Methods, Vol. 3. The Formation of Bonds to Halogens (Part 1)*; edited by A.P. Hagen, VCH, New York, 1989, xxxii + 710 pages, £110.00, DM385. ISBN 0-89573-253-X.

It is stated rather ambitiously in this volume that the series of which it forms a part, initiated by the late Professor J.J. Zuckerman, "describes all of inorganic chemistry". The issue under review outlines the methods of forming bonds between halogens and the elements of Groups VIB (16), VB (15), and IVB (14). (The chapter on VIB elements is wrongly titled in the main text and contents list as dealing with bonds to Group VB elements.) Since the various sections are contributed by a