*The Chemistry of Germanium*; by F. Glockling, Academic Press, London, 1969, 8+234 pages, 75/–, $11.00.

This is the first book to cover all aspects of the inorganic and organic chemistry of germanium. Professor Glockling has worked in this field for some years, and the attention which he gives to the various topics reflects his own interests.

The book begins with a useful analysis of the bonding properties of germanium, and of the vibrational, NMR, and mass spectra of the compounds which it forms. The inorganic chemistry (though not semi-conductor properties) of germanium is then discussed (30 pages), and the remainder of the book (130 pages) is devoted to organogermanium chemistry. Tetraorganogermanes, organogermanium hydrides, amides and phosphides, oxides and sulphides, and halides and pseudohalides, are discussed in turn, and the final chapter (50 pages) deals with the rapidly expanding field of the organic derivatives which contain a germanium–metal bond.

Tables of compounds are not included, but these are available in Dub's index. The literature is covered up to early 1968, and the claim appears to have met that all significant advances which have been reported in recent years have been included. Professor Glockling has performed a valuable service to all chemists who are carrying out research in the chemistry of germanium.

A. G. Davies

*Transition Metal Chemistry*; *A series of advances, Volume* 5; ed. by R. L. Carlin, Marcel Dekker Inc., New York and London, 1969, xii +306 pages, £7.10s ($15.75).

This volume contains three reviews and in the tradition of the series they are concerned mainly with spectral and structural properties of complex compounds. "The Spectra of Chromium(III) Complexes" by L. S. Forster (University of Arizona) provides a detailed account of the electronic spectra and transitions in this one important $d^3$ species, in 45 pages and quoting 158 references. "Copper Complexes" by W. E. Hatfield and R. Whyman (University of North Carolina) is a comprehensive review (133 pages; 756 references) of developments published during 1962 to mid 1967, with some later pertinent references. Structural aspects are emphasised including a table of X-ray structural data. It contains much interesting material concerning mainly copper(II) chemistry but also that of copper(I) and even copper(0). "Metal–Metal Exchange Interaction" by G. F. Kokoszka (National Bureau of Standards, Washington) and G. Gordon (University of Iowa) (97 pages, 260 references) presents mainly EPR data, and reviews the nature of exchange interactions between paramagnetic metal ions in crystals and polynuclear complex compounds. The volume has good author (22 pages) and subject ($4\frac{1}{2}$ pages) indices.

J. Chatt