

*Inorganic Chemistry of the Transition Elements, Vol. 3*; A Chemical Society Specialist Periodical Report, B.F.G. Johnson, Senior Reporter, The Chemical Society, London, 1974, xvi + 512 pages, £15.00.

The Specialist Periodical Reports series has, as its aims "to provide systematic and comprehensive review coverage of the progress in the major areas of chemical research", providing "critical in-depth accounts of the progress in their areas by acknowledged authorities, which usually appear less than twelve months after the period of literature coverage".

As exemplified by the above volume, most of these aims have been achieved. The coverage is indeed relatively current, being a review of the literature published between October 1972 and September 1973. The coverage is certainly systematic and comprehensive, providing a huge number of references. Chapter 1 (C.D. Garner, reporter; 1087 references) contains an account of the chemistry of the early transition metals, excluding scandium, yttrium and the lanthanides. The chemistry of the elements of the first transition series from manganese to copper is discussed in Chapter 2 (R. Davis, reporter; 942 references). Chapter 3 (L.A.P. Kane-Maguire, reporter; 398 references) deals with the noble metals (Ru, Os, Rh, Ir, Pd, Pt, Ag and Au) and Chapter 4 (J.A. McCleverty, reporter; 285 references) with the lanthanides (including Sc, Y and La) and actinides. In addition, a large number of references are appended as footnotes to the 13 tables in Chapter 1 and, to a much lesser extent, the 14 tables in Chapter 3. Lists of pertinent reviews which appeared during the period of coverage are appended to Chapters 1, 2 and 3. Extensive lists of new sources of data pertaining to various physical properties of compounds including X-ray structural data and stability constants, are provided in the tables found in Chapters 1, 3, and 4 (8 tables). By way of contrast, Chapter 2 (2 tables) is virtually totally narrative in style, although a long list of references to newly acquired formation and stability constants is appended. Easy acquisition of information is facilitated by the detailed, almost page-by-page table of contents provided for each chapter, as well as an author index covering the entire volume.

However, on reading the text, it would appear that the "critical" nature of the reviews has essentially been restricted to the choice of the references cited. Each chapter reads like a long series of mini-abstracts, which is precisely what they are. Over-riding contexts or conceptual themes are conspicuous by their absence. This is not meant to be a serious criticism, for the nature of the task, i.e., the need for completeness, tends to preclude editorializing. Indeed, the reporters are to be commended for their herculean efforts in assembling a large body of information in an eminently useful manner.

The price of the volume may also appear to be herculean, at first glance. However, on a cost/reference basis, it is not all that unreasonable.

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