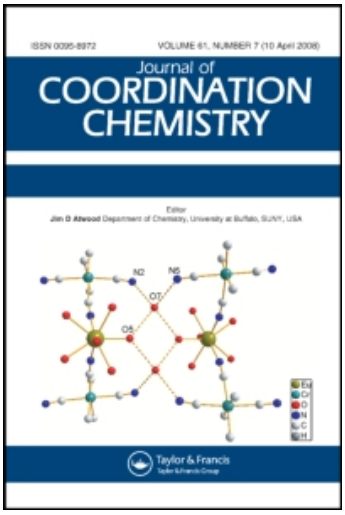

Journal of Coordination Chemistry
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t713455674

A Review of: "INORGANIC CHEMISTRY OF THE TRANSITION ELEMENTS, Vol. 3, SPECIALIST PERIODICAL REPORTS, The Chemical Society, Burlington House, London, 1974. Price: $37.50, 512 pages."

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To cite this Article Bernal, Ivan(1976) 'A Review of: "INORGANIC CHEMISTRY OF THE TRANSITION ELEMENTS, Vol. 3, SPECIALIST PERIODICAL REPORTS, The Chemical Society, Burlington House, London, 1974. Price: $37.50, 512 pages."', Journal of Coordination Chemistry, 5: 2, 113 — 114
To link to this Article: DOI: 10.1080/00958977608075931
URL: http://dx.doi.org/10.1080/00958977608075931

J. Coord. Chem.
1976, Vol. 5, pp. 113–114

Book Reviews

Publishers are invited to submit, via the editors, books for review in this journal. Any newly published book dealing with a subject relevant to the field of coordination chemistry will be welcome; this includes clear ancillary experimental or theoretical relationships, e.g. from chemistry, biochemistry, biophysics, etc. All books received will be acknowledged in print.

INORGANIC CHEMISTRY OF THE TRANSITION ELEMENTS, Vol. 3, SPECIALIST PERIODICAL REPORTS, The Chemical Society, Burlington House, London, 1974. Price: $37.50, 512 pages.

The enormous increase in the rate of accumulation of knowledge witnessed in the past few years now makes any attempt at comprehensive coverage of chemistry within the compass of a single annual volume, such as *The Chemical Society Annual Reports*, unattainable both in terms of reasonable size and cost.

It was with this in mind that in 1967 the Society launched the *Specialist Periodical Reports* series. The aim of the series is to provide systematic and comprehensive review coverage of the progress in the major areas of chemical research.

The current volume, edited by B. F. G. Johnson, reports on the progress of inorganic chemistry of the transition elements during the period between October 1972 and September 1973. The volume is divided into four chapters: (1) The Early Transition Elements by C. D. Garner (2) Elements of the Transition Period by R. Davis (3) The Noble Metals by L. A. P. Kane-Maguire and (4) Scandium, Yttrium, the Lanthanides, and the Actinides by J. A. McCleverty. The chapter by Garner comprises 180 pages and contains 1087 references. It ends by giving a series of reviews which were not included in the references within the text. The textual material is crisp, orderly and without excessive commentary or editorializing; however, excellent correlations are given when useful or necessary. The use of tables to correlate information is also excellent. Dr. Garner gives extensive details of the preparation and properties of mixed oxide systems of Ti, Zr, Hf, V, Nb, Ta, Cr, Mo and W in the form of compact tables which are accompanied by references not included in the count of 1087 references mentioned above since they are identified by letters within the tables. Finally, the use of tables is not limited to oxides but is extended, when needed, to other types such as coordination compounds. As is the case with all the reports in this volume, there is an orderly presentation of compounds by type (i.e., cyclopentadienides, carbonyls, halides, pseudo-halides, etc. . . .) This technique has saved the editors and publishers the need for a subject index which the volume lacks. However, I do not find that particularly objectionable since it has forced me to look more carefully into the text. Much to my delight, I found myself reading a lot of interesting information about which I was completely ignorant. I hope the people in decision-making positions do not change this aspect of the series.

Chapter 2 is another jewel. Its use of tables and tabular material is not as extensive as in Chapter 1 but there is an useful table of "Formation and Stability Constants" at the end of the chapter, which ends with a list of reviews omitted in Volume 2 and with a list of other papers and relevant material. I had the opportunity of checking a number of papers written during the period covered against the contents of this chapter. I not only found all of them but the description of the material in the papers in question was excellent. Some of it is now paraphrased in one or two of my chapters.

The contents of Chapters 3 and 4 are certainly comparable in quality and clarity of presentation. By virtue of current interests, I must admit that I did not read these two chapters as thoroughly as the other two except for the material on Ir, Rh, Eu and Gd in which I am actively carrying out research.

It is customary at this stage for reviewers to state whether they would invest their money in the product under review given the state of the economy and the price of the item. I not only think this volume is worth the $37.50 but I would not do the

work involved for what I suspect the editor and authors get in monetary reward for their efforts. This is a labor of love and Professors Johnson, Garner, Davis, Kane-Maguire and McCleverty deserve congratulations and thanks for a lucid and thorough presentation of the subject they addressed themselves to.

IVAN BERNAL