

review in this area, and I cannot recommend this chapter strongly enough — alone, it would justify the high cost of the volume. After an excellent overview of the area, the preparation, properties and reactions of unsupported metals and alloys are considered, followed by a similar account of the supported catalysts (including their applications to the petroleum industry, as automobile emission catalysts, as Fischer–Tropsch catalysts, in the control of toxic emissions, and to catalytic combustion). The final section of this chapter describes catalysis by the platinum group metal compounds, specifically considering hydrides, borides, carbides, graphite intercalates, carboxylates, cyanides, phthalocyanins, silicides, silicates, phosphides, oxides, chalcogenides and halides, and concluding with a discussion of homogeneous catalysis (hydroformylation, carbonylation, hydrogenation, hydrosilylation, and alkene oligomerization and telomerization).

The final chapter (P. Köpf-Maier and H. Köpf; 21 pages) reviews the medical use of cytostatic platinum compounds. Whilst obviously focusing upon *cis*-diamminedichloroplatinum(II), “cisplatin”, and discussing its antitumour effects, clinical trials, organ distribution, pharmacokinetics, side effects and toxicity, this fascinating account also discusses “second generation” drugs, and examines the cytostatic complexes of the other platinum group metals.

Overall, ignoring the disappointing opening chapter, this is a splendid book which should be in all chemical, industrial and medical libraries. It is expensive, but can you afford not to have access to it?

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*Stereochemistry of Organometallic and Inorganic Compounds*; edited by I. Bernal, Elsevier, Amsterdam, 1986, xii + 451 pages, D Fl 275.00, US\$ 101.75, ISBN 0-444-42605-1

This book is intended to be the first of a new series. It has been prepared in camera ready copy, which is easily legible, although a different type of print has been used in every chapter. One of the disadvantages of this method of manuscript preparation is that the authors have no opportunity to correct errors in proofs and, certainly, typographical errors have been noticed, for example in some of the references to Chapter 1. The connection between the various chapters is at the best tenuous, and it is unlikely that the average reader of this Journal will find all the chapters of interest. Some of these, notably numbers 3 and 4, have only a somewhat peripheral connection with the topic of “stereochemistry”, despite their titles.

The five chapters are the following: Chapter 1, “Stereochemistry of 1,3-Diene Complexes and the Steric Course of their Reactions”, by A. Nakamura, K. Tatsumi, and H. Yasuda (49 pages, 76 refs.); Chapter 2, “Stereochemistry of the Phosphates of Divalent Metals”, by A.G. Nord (94 pages, 260 refs.); Chapter 3, “Transition Metal Complexes with Carbon Disulfide; Correlations between Stereochemistry and Reactivity”, by C. Bianchini, C. Mealli, A. Meli, and M. Sabat (107 pages, 170 refs.); Chapter 4, “Stereochemistry of the Bailar Inversion and Related Metal Ion

Substitution Reactions”, by W.G. Jackson (103 pages, 204 refs.); and Chapter 5, “Stereochemistry of Acetylenes Coordinated to Cobalt”, by G. Pályi, G. Váradi, and L. Markó (53 pages, 216 refs.).

Chapter 3 appears to this reviewer to be the most useful and scholarly. Chapter 2 has no organometallic content. Chapter 4 has but to only a small extent; the Bailar inversion, referred to is the term used as the inorganic equivalent of Walden inversion in carbon chemistry.

There is a rather longer (38 pages) Subject Index, prepared by the editor on a chapter-by-chapter basis, which is really a detailed list of contents plus a formula index.

It is not clear to the reviewer that this new series will have a flavour distinct from others such as “Progress in Stereochemistry” or “Structure and Bonding”.

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*Organometallic Intramolecular-coordination Compounds*; by I. Omae (Journal of Organometallic Chemistry Library, 18), Elsevier, Amsterdam, 1986, ix + 402 pages, Dfl 250.00, US \$ 92.50, ISBN 0-444-42584-5.

The title of this book at first glance may appear to be a little obscure. The topic under review is that of complexes containing hybrid ligands in which there is at least one metal carbon bond, but there is also chelation involving a further connectivity to the metal, which may be through an atom other than carbon, such as nitrogen, phosphorus, arsenic, antimony, oxygen, or sulphur.

Undoubtedly, this topic covers a very distinct area of organometallic chemistry and, as such, the review is likely to be of value. There are more than 1500 references, with a cut-off date in 1984. The emphasis is on synthesis. The manuscript has been prepared as camera-ready copy but, nevertheless, is neatly presented. There are a few clerical mistakes, some of which might possibly have been spotted at a proof stage had a different method of book preparation been employed.

One of the principal functions of this volume is as a basis for classification. The emphasis is on ligands, rather than metals. Despite its title, the principal concern of the author is to describe complexes of transition metals. Main group elements are rarely featured.

In some ways the present volume is a culmination of a process of reviewing, which the same author has steadily been carrying out during recent years. Hence, most of the topics have appeared in articles in either *Angew. Chem., Int. Ed. Engl.*, or *Coord. Chem. Rev.* during the last 4–6 years.

All in all, the present volume is a useful addition to this series.

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