

It will, however, take years to complete the Gmelin organotin project, and one wishes that the Schumanns could devote full time to this task so that all of the planned volumes will be available as quickly as possible.

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MTP International Review of Science. Inorganic Chemistry, Series Two. Vol. 9. Reaction Mechanisms in Inorganic Chemistry, M.L. Tobe, editor, Butterworths (London) and University Park Press (Baltimore), 1974, 380 pages, \$37.50, £13.00.

This book is one of the volumes of the second series of volumes in *MTP International Review of Science*, on inorganic chemistry. The first series also has a volume edited by Tobe on mechanisms of inorganic reactions. For readers of the first volume, the present book in format and style of writing is much the same. In content it updates the literature review of the previous volume, with references mostly for the years 1971 and 1972. A total of 2118 references are given, and this in itself is justification for such a recurring book intended to keep the reader informed of "recent" publications in a particular area of research.

In the preface, Tobe points out that he was unable to find an author willing to write a chapter on substitution reactions of the main group elements and that this leaves an unfortunate gap in the coverage which he hopes will be remedied in the next series. Closely related to this appears to be the lack of coverage of substitution reactions of labile metal complexes, and this too should be kept in mind as authors are selected to prepare the next series. In spite of some such shortcomings, the volume does present a good literature survey of most of the topics on mechanisms of inorganic reactions. The chapter titles and authors are as follows: (1) Reaction Mechanisms of the Light Elements (Li, Be, B), J.C. Lockhart; (2) Reaction Mechanisms at Nitrogen, M.N. Hughes; (3) Substitution Reactions of 4-Coordinated Planar Complexes, J.S. Coe; (4) Mechanisms of Octahedral Substitution, T.P. Dasgupta; (5) Simple Substitution Reactions in Complexes of Transition Metals in their Low Oxidation States, D.A. Brown; (6) Metal Complex and Related Photochemistry, C.H. Langford and N.A.P. Kane-Maguire; (7) The Rates and Mechanisms of Oxidation-Reduction Reactions Involving Metal Ion Complexes, R.G. Linck; (8) Intramolecular Stereochemical Change in Transition Metal Complexes, J.P. Jesson; (9) Reactions Relevant to Homogeneous Catalysis by Transition Metals, A.J. Deeming; (10) Bio-inorganic Mechanisms, M.N. Hughes.

Chapters 9 and 10 were not part of the first volume. These two chapters are a welcome addition, because there is considerable current research activity in these two areas of inorganic mechanisms. The discussion of homogeneous catalysis is largely devoted to oxidative addition reactions and to insertion reactions, but mention is also made of electrophilic and nucleo-

philic attacks on coordinated ligands. The chapter on bio-inorganic mechanisms is restricted to metallobiological systems where the role of the metal predominates, and model systems are mostly not included. The systems included appear to cover the waterfront from vitamin B₁₂, to iron haeme and non-haeme proteins, to copper proteins, to nitrogen fixation, etc.

This volume, like others in the series, is useful. However, it is too bad that references only go through 1972. This means that the book is already somewhat out of date, and a constant effort should be made to decrease the publication time for such volumes.

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