

Book Reviews

Inorganic Chemistry Concepts, Vol. 6. Inorganic Stereochemistry, by D.L. Kepert. Editors C.K. Jørgensen, M.F. Lappert, S.J. Lippard, J.L. Margrave, K. Niedenzu, H. Noth, R.W. Parry and H. Yamatera. Springer Verlag, Berlin, 1982, 206 Figs., 45 Tables, 227 pp., Cloth DM 154.00.

The stereochemistry of coordination complexes has been a critically important underlying theme of coordination chemistry since its inception in the work of Werner. David Kepert has long been known as a major contributor to our understanding of the variations in coordination number and stereochemistry from one complex to another, especially with regard to coordination numbers greater than 6. This book is based on a series of such contributions in *Progress in Inorganic Chemistry*. However, the earlier articles are integrated and brought up to date in a monograph which is sure to be of inestimable value to all who puzzle over stereochemistry. The validity of the repulsion approach in understanding stereochemistry is discussed in very considerable depth and its advantages and limitations exposed. Chapters trace through the various classical polyhedra and their chemical analogs, and proceed through a discussion of all coordination numbers from 4 through 12 (but excluding 11!). The chapters are broken down into presentation of unidentate, bidentate, chelate and mixed systems, and all theoretical possibilities explored. Considerable emphasis is placed on potential energy surface diagrams for predicting viable stereochemistries, and many examples are presented through citation of over 1100 references. All-in-all a very valuable contribution to the literature of Coordination Chemistry.

The Editor's Desk

Structure and Bonding, Vol. 39. Electrons and Transitions. Editors J.D. Dunitz, J.B. Goodenough, P. Hemmerich, J.A. Ibers, C.K. Jørgensen, J.B. Neilands, D. Reinen and R.J.P. Williams. Springer Verlag, Berlin, 1980, 32 Figs., 16 Tables, 120 pp., Cloth DM 64.00.

As the title suggests, this volume is devoted to a series of chapters dealing with aspects of the electronic structure of molecules and surfaces.

Clack and Warren (Cardiff) discuss the "Metal-Ligand Bonding in 3d