

Book review

Topics in Inorganic and Organometallic Stereochemistry (Series: Topics in Stereochemistry Vol. 12); edited by G. Geoffroy, Wiley-Interscience, New York, 1981, £ 38.10.

This volume forms a part of the general series "Topics in Stereochemistry" (editors N.L. Allinger and E.L. Eliel) and is unusual within the series in that it is devoted to inorganic and organometallic stereochemical subjects rather than those of organic chemistry.

A wide range of topics is covered. After a chapter on the ever-important and often vexing question of stereochemical nomenclature and notation in inorganic chemistry (T.E. Sloan) there follows a discussion of the stereochemical aspects of reactions involving metal-carbon σ bonds. This ranges from the variety of reactions involving the formation of such bonds to the reactions which cleave them, such as insertion, reductive elimination and electrophilic cleavage (T.C. Flood).

Bosnich and Fryzuk give a thorough account of asymmetric synthetic reactions which involve mediation by transition metal complexes. A chapter by Gielen details the stereochemistry of compounds of germanium and tin, especially substitution reactions and rearrangement processes.

A more inorganic stereochemical topic is examined by Feltham and Enemark, who discuss comprehensively the structural studies which have been carried out on nitrosylmetal complexes.

Finally, in a very clearly presented chapter, Johnson and Benfield describe the stereochemistry of transition metal carbonyl cluster complexes and discuss their bonding properties.

The last two chapters particularly illustrate the absolute importance of X-ray structural determinations in defining the stereochemistry of inorganic complex compounds, which may have exceedingly complex structures or show subtle features not easily observed by other means.

This book is well written, edited and produced but because it gives a general coverage of the area will not serve the needs of the specialist. This means of course that the book's relatively high price (£ 38.10) will be a deterrent to both the specialist, who will only find one or two chapters of relevance to his work, and the general reader.