

Book Review

Metal–Ligand Multiple Bonds. W. A. Nugent and J. M. Mayer, Wiley Interscience, New York, 1988, xi + 334 pp., £33.15.

As the authors note in the preface of the book, the discussion of the present state of knowledge of the various types of multiply bonded ligands is mainly directed to graduate students or chemists who have not been previously involved in this field of chemistry. Nevertheless, the established researcher will find this book invaluable both for the many new tabulations of data and as a source of ideas for research direction.

The authors present a comprehensive and clear overview of the chemistry of transition metal complexes containing oxo, nitrido, imido, alkyldiene and

alkyldiyne ligands. The seven chapters of the book cover the following topics: (1) Ligand types and overview; (2) Electronic structure; (3) Reactions resulting in the formation of multiply bonded ligands; (4) Vibrational and NMR spectroscopy of multiply bonded ligands; (5) Structural studies; (6) Reactions of multiply bonded ligands; (7) Role of metal–ligand multiple bonds in catalysis. The subject of Fischer carbenes is not covered. However, for this latter topic several recent monographs and books are available.

The references (up to 1988) are all cited at the end of each topical section. The book also has a general index.

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