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COORDINATION CHEMISTRY REVIEWS

Book Reviews

Biocoordination chemistry: coordination equilibria in biologically active systems, edited by K. Burger (Ellis Horwood Series in Inorganic Chemistry, edited by J. Burgess) Ellis Horwood, New York, 1990, 349 pp. ISBN 0-13-179912-6.

This book is essential reading for anyone in the field of bio-inorganic chemistry. This volume brings together, through a series of edited chapters, an astonishing amount of useful quantitative data on bio-inorganic systems.

Following an introduction (Ch. 1), chapter II (by the editor) discusses the acid–base properties of amino acids and peptide proton binding sites. The necessary theory is presented in some considerable depth. Chapter III (Tamás Kiss) presents a wealth of data on the metal complexes of amino acids (stability constants, bonding modes, mixed ligand formation constants, etc.). Chapter IV (Imre Sóvágó) presents similar data for peptide metal complexes. Chapter V (Junzo Hirose and Yoshinori Kidani) shifts emphasis to thermodynamic and kinetic aspects of metalloenzymes and metalloproteins. This contribution reviews a great deal of data on carboxypeptidase, carbonic anhydrase, superoxide dismutase, transferrin, etc. Chapter VI (the editor and László Nagy) gives binding, stability, structural etc. data on metal complexes of the carbohydrates and sugar-type ligands. In Chapter VII (Harri Lönnberg), it is the turn of the metal complexes of nucleic acid bases, nucleosides and nucleoside monophosphates for presentation mostly of stability constants. Stability–basicity correlations and interligand interactions are also considered.

Inorganic polymers, by J.E. Mark, H.R. Allcock and R. West (Prentice Hall Advanced Reference Series, edited by J.E. Marck) Prentice Hall, Englewood Cliffs, NJ, 1992, 272 pp. ISBN 0-13-465881-7.

Introductory chapters define the nature of an inorganic polymer and provide extensive data on how such systems may be characterized (molecular weight determination, distributions, chain statistics, crystallinity, solubility and mechanical properties, etc.). Successive chapters then deal with specific