

Three-Dimensional Frameworks and Amorphous Networks, particularly including zeolites and gels.

Worthy of particular mention is the review article by Rouxel on low-dimensional solids, a series of particularly useful articles on zeolites, including a review by Thomas Bein, Three-dimensional periodic packaging, by Stucky and co-workers, Topotactic kinetics in zeolite, Nanoreaction chambers by Ozin and co-workers and Self-assembling electron transport chains in zeolites by Mallouk and co-workers.

The book ends with a series of articles dealing specifically with the more recent studies of sol-gel glasses and their application to new materials.

The book is produced as camera-ready copy and, for the most part, this works well. It is recommended for purchase by anyone with interests in new developments in material science.

The Editor's Desk

Coordination and Transport Properties of Macrocyclic Compounds in Solution, by B.G. Cox and H. Schneider, Vol. 76, in the series Studies in Physical and Theoretical Chemistry, Elsevier, Amsterdam, 1992, 418 pp., US \$164.00, Dfl.320.00. ISBN 0-444-88613-3.

This volume presents a series of chapters dealing with macrocyclic ligands and the binding thereof to cations. The book emphasizes fundamental aspects of the complexation reactions, being devoted in large part to the thermodynamic and kinetic properties of simple complexation and of ion transport and extraction. The work is complemented by discussion of the structural conformational properties of the ligands and complexes and strategies used to assemble large macrocyclic compounds.

Chapters include, thermodynamics, kinetics and mechanisms, solvent extraction, carrier-mediated ion transport across membranes, structural and synthetic studies. This volume is a truly remarkable book which covers the topic areas mentioned above in considerable detail. Extensive tables of data provide qualitative information about, for example, stability constants and entropies of complexation, transfer energies of various species from reference solvents to mixed or non-aqueous solvents, ion pair association constants, influence of cation size on complexation kinetics, rates of formation and dissociation of complexes, distribution efficiency between different solvents, rate constants for metal ion transport across interfaces, to name but a few, all with extensive discussion.

There is no doubt that this book is a major contribution to the field and

should certainly be in the personal library of anyone interested in macrocyclic chemistry.

The Editor's Desk

Perspectives on Bioinorganic Chemistry, Vol. 1, A Research Annual edited by R.W. Hay, J.R. Dilworth and K.B. Nolan, JAI Press Ltd., London, UK, 1991, pp. 284, £54.00. ISBN 1-55938-184-1.

The Foreword to this volume indicates that the series is to provide authoritative reviews in the rapidly expanding area of bioinorganic chemistry. State-of-the-art review articles covering the whole field will be published. In particular, the editors hope to publish a number of interdisciplinary articles covering the many different aspects of the subject from medicinal chemistry to biophysics.

This volume contains seven chapters, specifically: Complex formation between metal ions and peptides, by Petit, Gregor and Kozlowski; Metal-ion catalyzed ester and amide hydrolysis, by Fife; Blue copper proteins, by Chapman; Voltammetry of metal centres and proteins, by Armstrong; Gold drugs used in the treatment of rheumatoid arthritis, by Smith and Reglinski; Ion chelating agent in medicine, application of bidentate hydroxypyridine-4-ones, by Hider and Hall; and New nitrogenases, by Eady. As befits a review volume, each chapter is very heavily referenced, in most chapters largely with detailed bibliography for the last 10 years. Nevertheless, some of the chapters are relatively short and are either more an update of general knowledge in the system since publication of the last general review or deal with a more narrow aspect of the topic. This is especially true of the copper protein and nitrogenase contributions. While this is presumably what the editors require in publishing "state-of-the-art" articles, it may leave some readers searching for more detailed information. The other chapters on somewhat narrower subjects appear more detailed.

Overall, the book certainly makes a useful contribution to the bioinorganic library.

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