Book Review

Lectures in Bioinorganic Chemistry

Edited by M. Nicolini and L. Sindellari, published by Cortina International, Verona and Raven Press, New York, 1991, 166 pp., US$150.

This book consists of a collection of summaries of special lectures given during 1989 by an international team of lecturers at the University of Padua, Italy. As a consequence, the style in the different chapters and the relative depth of the topics treated varies. Also the topics cover only a part of bioinorganic chemistry. The choice of the speakers was made by the local organizers and not all speakers could contribute a chapter.

The book is dedicated to Professor Dr Fred Basolo on the occasion of his 70th birthday (1990) and contains a technical preface by Professor Dr Steven Lippard and an organizational preface by Professor Dr Aldo Turco (Director of Ph.D. Chemistry courses in Padua).

The book is divided into 3 sections, namely 'Metals in Medicine' (6 chapters) 'Metals and Enzymes' (3 chapters) and 'Methodologies' (1 short chapter on NMR tomography and *in vivo* spectroscopy).

The book will not only be of use for the students who followed the lecture courses and future generations of Padua students, but, as many of the chapters are excellent reviews for the state-of-the-art in certain subfields, other researchers and students will find the book useful, either by having a personal copy, or by asking their Departmental library to obtain a copy.

Since the contributions of the authors were based on lectures, and because certain topics were apparently popular for several of the lecturers, such topics may appear at a number of places in the book. For instance, the basic principles of cisplatin as an antitumor drug are dealt with in: (i) the preface of S. J. Lippard; (ii) the chapter of P. J. Sadler (review of inorganic drugs); (iii) the chapters on Ru antitumor compounds by G. Mestroni and E. Alessio and metallocene antitumor compounds by P. Köpf-Maier (introductions only); (iv) the chapter on antiviral complexes by R. C. Taylor and S. G. Ward (many pages; this chapter also duplicates some of the metallocene compounds); (v) the chapter on amino analogs of cisplatin by Cherchi *et al.* In fact the only chapter in this section dealing with non-Pt compounds is the chapter by Mazzi *et al.* on the history of Tc as a radiopharmaceutical.

In the enzyme section the chapter of Scarpa and Rigo deals with superoxide dismutase and its detection by using its reaction with SOD, followed by detection with NMR. The chapter of Bertini and Viezzoli subsequently deals with the structure and the mechanism of SOD (superoxide dismutase) from bovine, which contains Cu and Zn. Again NMR plays a very important role. The last chapter in this section written by Salvato and Beltramini deals with the possible role of the asymmetry of the dinuclear site in hemocyanin.

The book is extremely well organized with clear printing and very clear figures (all structural formulae redrawn in one style!). Nomenclature is not completely consistent throughout the chapters. Reference to the arabic group numbers of the periodic table (1–18) is correctly done (like in this journal); some chapters use C^{2+} (correct), but others use old-fashioned Cu^{++}; molecular weight is usually expressed in Dalton (Da), but the chapter about hemocyanin uses the out-dated symbol D. Also the ligand abbreviations are not uniform throughout the chapters; since all abbreviations are properly explained in each chapter, this is not a serious problem.

A subject index is lacking in this book, but perhaps is not so much required for a selection of lectures.

In summary, a book with a summary of 10 very interesting lectures, all worthwhile reading in which the first review chapter on Inorganic Drugs by Sadler is particularly attractive.

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