

As always from this publisher, the volume is very well produced with clear typeface and figures. The author index for volumes 1–10 of the series is included, but there is no subject index. Those working in this field will find this a stimulating volume. Moreover, inorganic and organometallic chemists will also find much of interest, and may well realise that there are aspects of their own work which could have applications in a clinical context.

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Transition Metal Complexes as Drugs and Chemotherapeutic Agents; by Nicholas Farrell, *Catalysis by Metal Complexes*, Vol. 11, Kluwer Academic Publishers, Dordrecht, 1989, xii + 291 pages, Dfl. 180.00, \$89.00, £59.00. ISBN 90-277-2828-3.

This book presents an overview of the uses of transition metal complexes in medicine. Main group complexes are excluded from the discussion, but the author notes that there is much information on these systems in the volume entitled *Organometallic Compounds and Living Organisms*, by J.S. Thayer.

After a brief introduction, the first chapter deals with the interaction of metal complexes with DNA. The biological background and the techniques used for the study of these systems are well introduced, and both the direct binding and the intercalation of metal complexes are discussed. The next four chapters are devoted to consideration of platinum anti-tumour drugs, with the range of complexes tested, structure–activity relationships, interaction with DNA, and the platinum blues occupying most of the discussion. This is a good clear account, and an excellent introduction to the subject. Chapter 6 reviews the anti-tumour effects of complexes of other metals, notably the others of the platinum group, copper, silver and gold, and some transition metal cyclopentadienyl complexes.

Chapter 7 moves on to consider metal-mediated antibiotic action, with a particular focus on the naturally occurring compound bleomycin. Chapter 8 is entitled “Metals, Metal Complexes and Radiation”, and most of the discussion centres on the use of metal complexes as radiosensitisers for tumour radiotherapy.

The use of metal complexes as antibacterial agents is discussed in Chapter 9; most of the work discussed uses silver or mercury compounds, but rhodium and platinum complexes are also becoming important. Antiviral and antiparasitic effects are considered in Chapter 10, with mention of many notable successes against trypanosomes. Amongst the earliest modern large-scale clinical uses of metal complexes were the uses of gold drugs in treatment of arthritis. The role of the gold, discussed in Chapter 11, is probably in interfering with the natural thiol/sulphide balance. A final chapter presents a few isolated examples of medical applications which did not fit in readily elsewhere.

There is a useful list of names and abbreviations, and one of terms and definitions, and these are particularly helpful to the chemist struggling with clinical terminology. Appendices give the structure of the main DNA and RNA bases, and discuss the mouse tumour models which are often used as preliminary screens for potential anti-tumour agents. There is a clear and useful index, and chapter references seem to run well into 1987.

Overall this book seems to me to achieve its aim of giving an overview of the field, at a level which will be suitable for the novice in the area, but will also provide the more experienced worker with useful information. Given the quality of the volume the price is reasonable, and I can strongly recommended that libraries should buy it.

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Gmelin Handbook of Inorganic Chemistry, 8th edition, W. Supplement Volume A6b: Reactions with Metals, Springer-Verlag, Berlin, 1987, DM 1496.00. ISBN 3-540-93562-2.

This volume of the eight edition of the Gmelin epic continues the discussion of the reactions of elemental tungsten begun in Volume A7. However, these are not reactions with organic species, but with most of the other metals, excluding only a few, such as the alkali metals and alkaline earths. The discussion is mainly in terms of physical chemistry, with inclusion of topics such as phase diagrams, surface reactions, diffusion and corrosion. This volume is in the same tradition of high standards of presentation and accessibility of information as its predecessors, although organometallic chemists may not find it of particular value.

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