

Journal of Organometallic Chemistry, 353 (1988) C17
Elsevier Sequoia S.A., Lausanne - Printed in The Netherlands

Book review

Handbook on Toxicity of Inorganic Compounds, edited by H.G. Seiler and H. Sigel with A. Sigel, Marcel Dekker, Inc., 1988, xxiv + 1069 pages, ISBN 0-8247-7727-1.

There can be no doubt that the toxicology of chemical compounds, both organic and inorganic, is becoming an increasingly important area, not only for specialists or those concerned with environmental pollution, but for all those involved in either academic or industrial chemistry. The development of the modern chemical industry has led to increasing concentrations of metals and other inorganic compounds in the environment, often to levels which both should, and do, cause concern. The tightening of Health and Safety regulations requires all those who practice chemistry to be more aware of the toxicological hazards of the materials which they are handling, so that adequate precautions may be taken during an experiment, and waste may be disposed of safely.

The first four chapters of this volume are introductory, dealing with the scope of the handbook, the bioinorganic chemistry of toxicity, general aspects of toxicology, and recommendations for specimen collection for analysis. The subsequent 70 chapters, written by a wide range of experts in this field, deal successively with the elements of the Periodic Table. The noble gases, the lanthanides, and the trans-uranics are covered in three summary chapters. All the chapters follow a standard format, which makes the accessing of the material quick and easy. The topics covered in each chapter include an outline of the general chemistry of the element, a discussion of its modern technological uses, physiology, detoxification, levels of tolerance, ecotoxicity, and analytical chemistry. Concluding chapters deal with radiotoxicity and provide some summary tables. All the chapters are well referenced, most including references into 1985.

This is an extremely well produced book and I found few typographic errors. There is an author index and an excellent general index. It will prove an indispensable source book for chemists, biochemists, engineers, and the medical profession, as well as those working in environmental science. Surprisingly, perhaps, its style is such as to make it also a fairly readable book. I strongly recommend libraries to buy it, and I suspect that it will become the standard source in this area.

*School of Chemistry of Molecular Sciences,
University of Sussex, Falmer, Brighton (Great Britain)*

Penny A. Chaloner