

Structural Inorganic Chemistry; by A.F. Wells, 5th edition, Oxford University Press, Oxford, 1984, xxxi + 1382 pages; £75. ISBN 0-19-853370-6.

This volume is the fifth edition of a book which first appeared in 1945. It was highly acclaimed then, and enthusiasm for it has become even more widespread as it has passed through its several editions. The fourth edition appeared in 1975, and the very rapid growth in structural information in recent years as a result of the greater availability and quality of X-ray diffractometers means that there is a substantial amount of new material incorporated into this latest account.

The book presents the results of structural studies in a form intelligible to the wide range of chemists. It was never intended to be a reference work, and occasionally disappoints those coming new to it by not providing a systematic guide to the literature. It was devised primarily to provide teachers of inorganic chemistry with facts and ideas which could be incorporated into their teaching, and in this it succeeded admirably. In addition, several generations of advanced students have found it educative and very stimulating. The availability of the book over the years has made an important contribution to inorganic (and hence organometallic) chemistry.

The account is divided into two parts. The first deals with general topics, including the properties of polyhedra, symmetry, crystal packing, and the nature of bonds. Part 2 deals with structures of specific compounds (or types of compound) over the range of the Periodic Table, from hydrides to derivatives of the lanthanides, and ending with a chapter on alloys. It should, of course, be read systematically from the beginning to the end, but random dips into its pages rarely fail to reveal fascinating facts very clearly presented.

In keeping with the author's aims, there are relatively few references to the original literature, and those which do appear do not include the names of the relevant authors. (This saves a significant amount of space, but it must be a disappointment to research workers whose efforts have at last found recognition in this highly regarded treatise that their names are not explicitly associated with their discoveries.) There are two indexes, one by formula and the other by topics.

There is probably little need to recommend this book, since all those familiar with the earlier editions will wish to have it available to them, but it is, in fact, wholly excellent. The clarity of the writing is enhanced by the high standard of the printing and presentation, and for a book of its size and quality it is, at today's prices, a bargain.

*School of Chemistry and Molecular Sciences,
University of Sussex, Brighton BN1 9QJ (Great Britain)*

COLIN EABORN