

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

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Kristallgeometrie: Packungen und Symmetrie in Stereodarstellungen. By G. HARSCH & R. SCHMIDT. Pp. 120, 52 stereodiagrams. Frankfurt am Main: Verlag Moritz Diesterweg, 1982. Price DM 38.00.

This unusual book provides a compact and convenient (pocket-sized) set of very well chosen illustrations, with a brief but informative text. It is intended to accompany the study of fuller textbooks, but is in itself adequate for rapid reference or revision.

The diagrams, which occupy alternate pages, are in two colours, for stereoscopic viewing using the red and green filters provided. They are of admirable clarity and quality, combining the skills of the two authors as graphic artist and as lecturer. They are in many ways a useful substitute for three-dimensional models.

The text pages give, in brief and concentrated form, a clear explanation of the geometrical and structural aspects of the accompanying drawing.

The book is in two parts. The first covers all the standard structural types, and includes close-packing, cubic and hexagonal AX and AX_2 lattices, perovskite, spinel, and several simple molecular structures; a total of 25 diagrams.

The second part illustrates the elements of molecular and space-group symmetry, alone and in combination. Bravais lattices are shown, and space-group diagrams (with the symbols explained and the symmetry elements and the site point groups clearly indicated) for five of the crystal systems, excluding monoclinic and triclinic.

Though it is clear and thorough, it must be observed that this is accurately called a 'work-book'. The text is concise but somewhat condensed, and most students will require to work through the more complex examples very carefully, with help from a tutor or from a fuller text at times.

With that reservation, the book can be recommended as an addition to the range of teaching materials available for teaching basic crystal chemistry, and will be particularly useful when self-directing study is emphasized. Its translation from German to English would greatly widen its usefulness.

P. G. OWSTON

*School of Chemistry
The Polytechnic of North London
London N7 8DB
England*

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Инструментальные методы рентгеноструктурного анализа. Л. А. Асланов. (**Instrumental methods of X-ray analysis.** By L. A. ASLANOV). Pp. 288. University of Moscow Press, 1983. Price 1r 20k.

There are, at present, a great number of textbooks on the market devoted to X-ray crystallography, but very few on

the techniques that are in common use today. Professor Aslanov has gone a long way towards correcting the imbalance. This is certainly a book both for students and for research workers. It is divided into three main sections: production of X-rays, photographic techniques and diffraction.

In the first section, many details are given about X-ray tubes, collimators, focusing *etc.*, the kind of information that, as I well know, can be difficult to find in the literature, especially in a single account. It is refreshing also to see that the book is reasonably up-to-date since it discusses the production of X-rays by synchrotron sources (though only Soviet machines are described here). Furthermore, considerable discussion is provided on detectors, including solid-state and television detectors.

The section on photographic methods describes the usual Laue, Weissenberg, precession methods, and so on. But here again more detail is given than one usually finds in books. It is useful, too, to see a discussion on microdensitometry, a much neglected subject.

In the final section a very full explanation, complete with mathematical formulation, is given about all types of diffractometer geometries. This will perhaps be the most useful section of all to the working crystallographer, as this information is very difficult to get hold of elsewhere.

This book makes a valuable contribution to the literature, although, since it is in Russian, it can only have a limited international appeal. It would be a pity if it were not translated into English. There are 176 diagrams, all of them clearly and simply drawn, and the book is generally well written.

A. M. GLAZER

*Clarendon Laboratory
Parks Road
Oxford OX1 3PU
England*

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Einfuehrung in die Kristallographie. By W. KLEBER. 15th ed. Foreword and edited by H.-J. BAUTSCH, J. BOHM & I. KLEBER. 384 pp., 370 Figs., 40 Tables, 2 Appendices. Berlin: VEB Verlag Technik, 1983. Price DM 29.

The 'Kleber' is still one of the classic and very useful textbooks on introductory crystallography. After going through many editions within a period of almost 30 years, this latest (15th) edition has been thoroughly revised again, up-dated, and supplemented with recent literature references (up to 1981). An English translation of the 10th edition of 'Kleber', by W. A. and M. A. Wooster, in 1971, has been reviewed in *Acta Cryst.* (1972). A28, 221. Since that time some major changes have been made, especially in the chapters on crystal chemistry and crystal physics. Various old terms like *UP*- and *M*-resonance structures