

their properties, to point and space symmetry and to generalized symmetry.

In the third chapter the author discusses the problems of the crystal polyhedron and crystal-lattice geometry.

The fourth chapter is devoted to the basis of diffraction theory, to scattering phenomena in the case of mono-crystalline materials and to the experimental methods for structure analysis. In the same chapter the author describes electron and neutron diffraction techniques and their role in structure research. A small section of this chapter is devoted to the Mössbauer method and the nuclear particle channelling technique. Transmission electron microscopy and scanning electron microscopy are the subject of the last section of this chapter. The role of three-dimensional reconstruction is discussed with particular attention.

According to the author the book is addressed to scientific workers of many disciplines – such as crystallography, physics, chemistry, mineralogy and material engineering. This first volume will be a very good guide-book for the above-mentioned groups of readers interested in choosing methods for solving various crystallographic problems and those from other natural-science disciplines. This book will be good for the popularization of classical methods of structure investigation, including methods developed in recent years. However, in this volume the reader cannot find any description of such modern methods as EXAFS or defect identification by simulation techniques. A supplement of this volume could have given a more extended bibliography including the very interesting work published in the last few years. Perhaps, such a list of bibliography will be included in the next volume. Well-chosen illustrations are among the most visible advantages of this book.

To sum up, this book will be not only an encyclopaedic source of knowledge but it will also show new trends of development in modern crystallography.

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Books Received

The following books have been received by the Editor. Brief and generally uncritical notices are given of works of marginal crystallographic interest; occasionally a book of fundamental interest is included under this heading because of difficulty in finding a suitable reviewer without great delay.

The solid–liquid interface. By D. P. WOODRUFF. Pp. viii + 182. Cambridge Univ. Press, 1980. Price (paperback) £4.50. This is the paperback version of the hardback which was published in 1973.

Textures of liquid crystals. By D. DEMUS and L. RICHTER. Pp. 228. Weinheim: Verlag Chemie, 1978. Price DM 185.00. A review of this book, by J. E. Lydon, has been published in the September issue of *Acta Crystallographica*, Section B, pages 2193–2194.

Advances in structure research by diffraction methods. Vol. 7. Unconventional electron microscopy for molecular structure determination. Edited by W. HOPPE and R. MASON. Pp. 225. Braunschweig/Wiesbaden: Friedr. Vieweg & Sohn, 1979. Price DM 84.00. A review of this book, by B. K. Vainshtein, has been published in the October issue of *Acta Crystallographica*, Section B, page 2509.

Engineering physical metallurgy and heat treatment. By YU. LAKHTIN, translated from Russian by N. WEINSTEIN. Pp. 424. Moscow: MIR, 1980. Price £5.95. A review of this book, by J. Nutting, has been published in the October issue of *Acta Crystallographica*, Section B, pages 2509–2510.