

*Known Crystal Structures* by G.N. Ramachandran and *The Use of Anomalous Scattering in Crystal Structure Analysis* by S. Ramaseshan are very interesting and written with exceptional clarity. In *Group Theory and Crystal Properties*, S. Bhagavantnam gives a unified approach to the general problem of symmetry and physical properties of crystals. The three chapters, *Diffuse X-ray Reflections from Crystals* by W.A. Wooster, *Diffuse Disorder Scattering by Crystals* by H. Jagodzinski and *Imperfections in Crystals and their Effect on X-ray Diffraction by Crystals* by L.V. Azaroff, deal with the many types of lattice defects and disorder and the use of these phenomena in deducing crystal properties. The chapter on *Aberrations and Line Broadening in X-ray Powder Diffractometry* by A.J.C. Wilson is an analysis of the geometrical and physical aberrations present in powder diffractometry and the attempts to deal with these aberrations in determining lattice parameters and interpreting diffraction broadening. The title of the remaining chapter *Elementary Theory of Neutron Scattering by Crystals* by I. Waller is perhaps misleading; it is inevitably extremely condensed and the nature of the subject is such that this

leads to rather heavy reading. The list of references and the end of each chapter adds greatly to the overall value.

Those attending the school will derive great benefit from the book as they undoubtedly did from the courses themselves. However, I cannot help thinking that other workers who are well enough acquainted with the subject matter of this book to read it with profit would probably turn to more comprehensive works on any topic they were interested in. Another point that might affect a decision to buy the book is that several of the topics covered have been published in books based on the International Symposium on Protein Structure and Crystallography which preceded the Winter School. For these reasons I think the book is hardly worth the price asked.

E. J. GABE

*The Institute for Cancer Research*  
7701 Burholme Avenue  
Fox Chase  
Philadelphia  
Pennsylvania 19111  
U.S.A.

### 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. Mention here does not necessarily preclude a full review at a later date.*

**Special ceramics 1964.** Edited by P. POPPER. Pp. xii + 341, with many figures. London and New York: Academic Press, for the British Ceramic Research Association, 1965. Price £4.10s.

The corresponding 1962 volume has been noted in *Acta Cryst.*, 17, 75 (1964). Like its predecessor, the present volume contains papers given at a symposium at Stoke-on-Trent, the main topics being Preparation of non-oxides, Pyrolytics, Inorganic polymers, Oxides, Properties, Fabrication techniques, and Applications. X-ray methods are often mentioned in connexion with identification and analysis, and there is a full determination of the structure of lithium phosphamide, LiPN<sub>2</sub>. Interest in this and other materials regarded as inorganic polymers is perhaps the main development since the earlier symposium.

**Physics and chemistry of the earth. Volume 6.** Edited by L. H. AHRENS, FRANK PRESS, S. K. RUNCORN and H. C. UREY. Pp. vi + 510. Oxford: Pergamon Press, 1965. Price £7.

This volume in the series contains seven papers: Recent Evidence Concerning the Structure and Composition of the Earth's Mantle, by D. L. Anderson; The Application of Trace Element Data to Problems in Petrology, by S. R. Taylor; Factors in the Distribution of the Trace Elements During the Crystallisation of Magmas, by L. V. Tauson; Seismic Surface Waves: Some Observations and Recent Developments, by R. L. Kovach; Sea Floor Relief and Mantle Convection, by H. W. Menard; Present Status of Oceanic Heat-Flow Measurements, by R. P. von Herzen and M. G. Langseth; and Experimental Tectonics, by V. V.

Belousov and M. V. Czovskii. Most of the contributions are of geophysical rather than crystallographic interest, but those of Taylor (Australia) and Tauson (U.S.S.R.) contain a good deal of information about isostructural replacement.

The book is very well produced, with numerous figures, detailed bibliographies, author and subject indexes. It will undoubtedly be of great value to workers in the fields covered. The subject index could with advantage have been enlarged and made more systematic; for example, none of the entries under 'trace elements' relate to Taylor's article. The only misprint noted was Pauline for Pauling.

**Handbook of microwave ferrite materials.** Edited by W. H. VON AULOCK. Pp. xxiv + 518. New York: Academic Press, 1965. Price 96s.

After a brief introduction (48 pages), this book contains two long sections (nearly 200 pages each) on ferrites with the garnet structure and ferrites with the spinel structure, and closes with a shorter section (about 70 pages) devoted to hexagonal ferrites. In each case the crystal structure is described in some detail, and then the physical properties (saturation magnetization, Curie temperature, lattice parameter, *g* factor, and sometimes others) are given in an arrangement based on chemical composition. Data are normally in the form of graphs, but there are also some tables. The period covered is from 1950 to 1963 inclusive.

The book, which is reproduced from unjustified typescript, is an expansion and revision of a technical report originally prepared for the United States Air Force. It is curious (and irritating) that there should be no indexes in a relatively expensive reference work.