

BOOK REVIEWS

DREYER (W.) *Materialverhalten anistropen Festkörper* (Applied Mineralogy, vol. 7). Wien and New York (Springer-Verlag), 295 pp., 121 figs., 1974. Price s.894 (DM 125.00; \$51.30).

This book will be valuable to those mineralogists who are concerned with the thermal expansion, conduction (thermal and electrical), and dielectric properties of minerals. A distinctive feature of the book is its emphasis on the properties of polycrystalline aggregates both natural and artificial.

The first part of the book gives the comprehensive mathematical treatment which applies to single-crystals and to random arrangements of crystal grains in a composite block. Then the physical properties mentioned above are discussed starting with triclinic crystals and going through the systems of symmetry up to the cubic system. Examples are given of the measurements made and the derivation from these measurements of the principal coefficients of thermal expansion, etc., and the orientation relative to the external faces of the principal axes. The tables of the physical constants are comprehensive and are classified by the crystal system in every case. There is an extensive bibliography.

A few errors have been noted. On page 87 ' $\sqrt{3}$ ' has been omitted in equations 738/740 and '3' has been omitted in equation 741. On page 88 the data given do not lead to the values derived for the magnitudes of the principal coefficients nor to the directions of the principal axes. On page 92 the formula given does not lead to the calculated value of the coefficient of expansion (771).

Praise must be given to the printer and draughtsman for the clear type and excellent drawings. The book will be valuable to all those who have occasion to study second-order tensor properties in single-crystals or in rocks consisting mainly of one mineral.

W. A. WOOSTER

HEY (M. H.) and EMBREY (P. G.). *A second appendix to the second edition of an index of mineral species and varieties arranged chemically*. London (British Mus. [Natur. Hist.]), xii+168 pp., 1974. Price £5.50.

The first appendix [M.A. 16-605] to the second edition of this Index [M.A. 11-117] incorporated data in the literature up to the end of 1962; this second appendix includes material up to the end of 1972; the style is compatible with the earlier work. In addition to addenda to the chemical index and to the alphabetical index of accepted mineral names and synonyms, unnamed minerals are arranged by locality of origin and an alphabetical list of authors of unnamed minerals (1889-1972) is also given.

R. A. H.

PIES (W.) and WEISS (A.). *Crystal structure data of inorganic compounds*. Part bI. *Key elements O, S, Se, Te. Substance numbers bI... bI817* (Landolt-Börnstein: