

Professor **G. M. Brown**, Professor of Geology at the University of Durham, Professor **J. W. Christian**, Professor of Physical Metallurgy at the University of Oxford, Dr **A. R. Lang**, Reader in Physics at the University of Bristol, and Professor **R. Mason**, Professor of Chemistry at the University of Sussex, have been elected Fellows of the Royal Society.

Dr **G. F. Claringbull**, Director of the British Museum (Natural History), and Professor **P. B. Hirsch**, Isaac Wolfson Professor of Physical Metallurgy at the University of Oxford, have been knighted.

Dr **Michael Hart** has been seconded to the Central Policy Review Staff but he will continue his duties as a Co-Editor of *Journal of Applied Crystallography* from Bristol.

Professor **Clifford G. Shull**, Professor of Physics at the Massachusetts Institute of Technology, Cambridge, U.S.A., has been elected to the National Academy of Sciences.

Professor **A. R. J. P. Ubbelohde**, Professor of Thermodynamics at Imperial College, London, has been awarded the George Skakel Memorial Award by the American Carbon Society.

Notes and News

Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. The notes (in duplicate) should be sent to the Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 13 White Friars Chester CH1 1NZ, England).

Structure Reports

In addition to the five volumes of *Structure Reports* published in November 1974 (Volumes 30B, 31B, 32B, 33B and 35B, covering the organic literature for 1965–68 and 1970), five more volumes have just been published. These latest volumes cover all the literature for 1963 and the literature for metals and inorganic compounds for 1965, 1966, 1968 and 1970. All the annual volumes, up to and including Volumes 39A and 39B (for 1973), should be published by the end of 1975. This will bring *Structure Reports* up to date and make it even more useful to all crystallographers.

The five volumes just published are:

Volume 28, covering all the literature for 1963 (viii+723 pages). Price: 225 Netherlands guilders.

Volume 30A, covering the literature for metals and inorganic compounds for 1965 (viii+487 pages). Price: 75 Netherlands guilders.

Volume 31A, covering the literature for metals and inorganic compounds for 1966 (viii+278 pages). Price: 75 Netherlands guilders.

Volume 33A, covering the literature for metals and inorganic compounds for 1968 (viii+535 pages). Price: 95 Netherlands guilders.

Volume 35A, covering the literature for metals and inorganic compounds for 1970 (viii+499 pages). Price: 95 Netherlands guilders.

Orders may be placed direct with the publisher (Oosthoek, Scheltema & Holkema, Emmalaan 27, Utrecht, The Netherlands), with Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pa. 15238, U.S.A., or with any bookseller. Details of price reductions for personal subscriptions and for standing orders may be obtained direct from Oosthoek, Scheltema & Holkema or from Polycrystal Book Service.

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (M. M. Woolfson, Physics Department, University of York, Heslington, York YO1 5DD, England). As far as practicable books will be reviewed in a country different from that of publication.

Technische Mineralogie. Band 7. Materialverhalten anisotroper Festkörper. By W. DREYER. Pp. x+395, Figs. 120, Tables 41. Vienna, New York: Springer-Verlag, 1974. Price (Bound) \$894.00, DM125.00, U.S.\$51.30.

The opening chapter – on the present state and aims of research on crystalline textures – indicates the particular contribution which this book makes to the literature. The next two chapters give a very exhaustive mathematical presentation of the analysis, much of which is used in later chapters. The four remaining chapters treat of thermal expansion, thermal conductivity, electrical conductivity and dielectric susceptibility respectively. In each chapter the tensor treatment is first given for single crystals

and then this is followed by the modifications necessary for polycrystalline specimens, such as rocks or rolled metal sheets. The effect of preferred orientation is carefully analysed. There are many examples of the working out of the principal coefficients from the quantities measured on particular kinds of crystals going from triclinic through all the systems down to cubic. There are also many tables of the physical constants relating to these four properties – thermal expansion, conduction (thermal and electrical) and dielectricity.

There are a few errors. On p. 87 a $\frac{1}{3}$ has been omitted in equations 738/740 and a 3 in equation 741. On p. 88 the calculated values of the principal coefficients of expansion are incorrect both in magnitude and direction. On p. 92 the formula 762 introduces confusion because $\tan^2 2\theta = \tan^2 (\pi - 2\theta)$. As a result the value of the expansion coefficient calculated from the formula is incorrect.

The book is beautifully printed and the illustrations are numerous and very clear. The bibliography is extensive. The book can be warmly recommended, both for the detailed working out from practical measurements of second-order tensor properties and also for the mathematical treatment of polycrystalline aggregates.

W. A. WOOSTER

*Brooklyn Crystallographic Laboratory
Bottisham
Cambridge
England*

The chemistry of imperfect crystals. By F. A. KRÖGER. Vol. 1. Pp. xiii+313, Figs. 58, Tables 10. Price £70.00 (about U.S. \$25.50). Vol. 2: pp. 1000. Price £275.00 (about U.S. \$105.75). Vol. 3: pp. xiv+306, Figs. 42, Tables 15. Price £100 (about U.S. \$38.50). Amsterdam: North Holland, 1974.

This is a book primarily for research workers already in, or about to enter, the field of solid-state physics, chemistry or materials science; it is a book for the working specialist, rather than the amateur. It concedes little to a user unfamiliar with crystal structures or who does not already know the context and priorities of the subject.

The first edition was published in