Aug. 2-4, 1972. Edited by L. S. BIRKS, C. S. BARRETT, J. B. NEWKIRK and C. O. RUUD Pp.xxi+410, Figs. 230, Tables 39. New York: Plenum Press, 1973. Price $29.00.

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Crystal data determinative tables. 3rd edition. By J. D. H. DONNAY and HELEN M. ONDIK. Vol. I. **Organic Compounds,** pp.ix+898 Vol. II. **Inorganic Compounds,** pp.ix+1744. Published jointly by U.S. Dept. of Commerce, National Bureau of Standards and Joint Committee on Powder Diffraction Standards, U.S.A., 1972, 1973. Price Vol. 1: $30.00, Vol. II: $50.00.

This work is sponsored by the Office of Standard Reference Data of the National Bureau of Standards and compiled under the auspices of the American Crystallographic Association.

This edition comprises two volumes and is a thoroughly revised and updated work, containing over 24000 entries. Some 7500 carbon-containing crystalline compounds are given in Vol. I. They are listed, within each crystal system, according to increasing values of a determinative number: *a/b* ratio in trimetric systems, *c/a* ratio in dimetric systems, cubic cell edge *a* in the isometric system. Conventional rules ensure the uniqueness of crystal setting.

For each crystalline species the following properties are listed on the first line: axial ratio(s) and interaxial angles not fixed by symmetry, cell dimensions, space group or diffraction aspect, number of formula units per cell, crystal structure (whether determined), measured density, X-ray calculated density. Then come: name of the compound, synonym(s), chemical formula, literature reference, transformation matrix (when the original data had to be recast to conventional cell and setting). Additional information includes some or all of the following: crystal-structure type (if any), goniometric axial ratio(s), crystal habit, cleavages, twinning, colour, optical properties, indices of refraction, optical orientation (except in the anorthic system), melting point, transition point.

Nearly all the data were obtained from original sources. 'Limits of error' on numerical values are quoted from the reference. The data have been tested for self-consistency by means of com-

puter programs. Any erratum found either in the reference or in an abstracting journal (*e.g. Structure Reports*) is specifically mentioned: erroneous values are thus identified. Editorial critical remarks point out possible errors in the literature.

Formula and name indexes enable one to learn if crystallographic information is available on any given compound, thereby providing a starting point for bibliographic searches.

Amorphous magnetism. Proceedings of the International Symposium on Amorphous Magnetism, Aug. 17-18 1972, Detroit, Michigan, U.S.A. Edited by H. O. HOOPER and A. M. DE GRAAF. Pp.xiii + 443, Figs. 126, Tables 21. New York: Plenum Press, 1973, Price $30.50.

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