

BOOK REVIEWS

BERRY (L. G.) and THOMPSON (R. M.). *X-ray powder data for ore minerals: The Peacock Atlas*. Geological Society of America Memoir 85, 1962. vi+281 pp., 27 plates. Price: \$8.25.

Those familiar with the ASTM cards of X-ray powder data and various other compilations of powder data for minerals may question the need for this book. Apart from the convenience of having assembled in one orderly volume authenticated data for nearly three hundred opaque minerals, the overwhelming justification is in the atlas of powder photographs of every mineral listed. Not only are these excellently reproduced but they are all on the common scale of 1 mm to 1 degree θ .

The minerals are arranged with few exceptions in Dana's classification and with the following indexes: Alphabetical of mineral species, Chemical, Strongest powder lines, Locality of specimens used for measurement. Most of the films and specimen spindles used are preserved for reference in North America.

For each mineral pattern there are given the name and structural chemical formula, crystal system and space group, lattice dimensions, and number of formula units in the unit cell. Notes and references to the source of the cell-dimensions and a brief statement of the structure where known are also provided. Mineralogists will appreciate the inclusion of the sources of the material giving the standard pattern and of other materials yielding identical patterns. In most cases the following information is given for each powder line: intensity (I) by visual estimate against a standard film; measured value of θ ; measured value of d ; and the indices and spacings of planes calculated from cell-dimensions.

A comparison of a large proportion of the patterns with reference films in the Department of Mineralogy, British Museum, has failed to reveal significant discrepancies and the book is singularly free from typographical errors. It is a very careful work of measurement and compilation and is of much greater value than data collected from a variety of sources. The book stems from an idea of the late M. A. Peacock as long ago as 1941.

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