BOOK REVIEWS

REPORT OF THE COMMITTEE ON THE MEASUREMENT OF GEOLOGIC TIME, 1949–1950. JOHN P. MARBLE, *Chairman*. Division of Geology and Geography. National Research Council. 118 pp. Paper bound. $1.00.

The 1950 Report of the Committee on the Measurement of Geologic Time contains the summary report of the Committee by John P. Marble and seven supplementary reports: Progress reports by P. M. Hurley and by L. H. Ahrens; The Pb-U ratios of two Saskatchewan pitchblendes by H. V. Ellsworth; a review of the work in geophysics at the University of Toronto by J. P. Marble (on p. 41 the Iron Hill area is stated as being in Montana, instead of Colorado); recent analyses of radioactive minerals from Brazil by Willer Florêncio and Djalma Guimarães, collated and commented upon by J. P. Marble; the annotated bibliography of articles relating to geologic time compiled by J. P. Marble; and a translation by A. H. Marble of "Age in Years of the Formation of the Elements" by J. M. López de Azcona.

As usual, the bibliography is relatively complete, and the annotations are critical and useful. Many references have been culled from obscure journals that ordinarily do not reach the attention of mineralogists and geologists. The summary report is a worthwhile and newsy rundschau of research activity in all methods and branches of age determination.

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DIE METALLISCHEN ROHSTOFFE, VOL. 9, BLEI UND ZINK, by G. BERG, F. FRIEDENSBURG, AND H. SOMMERLATTE. Edited by F. Friedensburg. Ferdinand Enke Verlag, Stuttgart, Germany. 1950, 468 pp., 58 figures, 287 tables. DM 73.50.

This is the ninth volume in the encyclopedic series begun by Paul Krusch on "Metallic raw materials, their depositional relationships and their economic significance." Already the work embraces 2031 pages and so far has only treated V, U, Ra, Au, Cu, Mn, Ni, Co, Sb, As, Pb, Zn, Mo, Th and Ce. Volumes on Pt, Hg, Bi, Cr, Ti, Ta, Cb, Sn, and W are announced as planned, so expectations for future production are high indeed. These compendia bid fair to outstrip even the herculean efforts of such gleaners as Hintze and Doelter in mineralogy and Goldschmidt in crystallography, compilers who have long symbolized the ultimate in that peculiar Germanic propensity for the collection and classification of huge accumulations of facts. We can only hope that the future use of these volumes will justify the obviously gargantuan efforts that have been poured into a construction that locally, at least, succumbs to mere non-critical ponderosity. The reader may well be tempted, after wading through a mass of ancient production figures and staggering about in a maze of detailed descriptions of deposits, to scurry on to the back cover without pause. Furthermore, when he notes the frightening price tag attached to this work (approximately $18), he might in exasperation wonder if the authors were, perhaps, paid by the word. This is a volume that belongs in the library and will probably tend to remain there.

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METEORITIC DUST, by J. D. BUDDHUE, University of New Mexico Publications in Meteorites No. 2. University of New Mexico Press, Albuquerque, N. Mex. 102 pp. 1950. $1.50.

According to the author each year the earth receives 35–70 million kilograms of meteoritic dust from space. This material represents, by his theories, particles of the solar dust cloud, meteors and meteorites. It is collected for study from rain water by means of magnets, on sticky slides and glycerine-surfaced plates and from snow and hail (cryoconite). The dust thus obtained consists of spherical particles, cindery fragments and angular grains,

as well as "various kinds of terrestrial contaminants." Apparently the confusion of meteoric dust with meteoritic dust may progress beyond mere nomenclature. The spherical bodies are largely glass, both light and dark colored. A few consist of magnetite. The presence of Ni is doubtful but native Fe seems to form part of the metallic pieces. The particles range from 0.005 to 0.2 mm. in diameter.

After a discussion of the previous studies in this field and an account of collecting methods the author gives detailed physical and chemical descriptions of the captured powder and speculates on its origin, attempting to correlate heavy dust collections with meteoritic showers. Certainly for petrographers and mineralogists interested in meteorites this sabulose little volume provides a worthwhile summary of a relatively neglected phase of extraterrestrial investigation.

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AN INDEX OF MINERAL SPECIES AND VARIETIES ARRANGED CHEMICALLY by Max H. Hey. The British Museum, Cromwell Road, London, S. W. 7, England. 609 pp. £1.10s. 1950.

An unusually useful and usable compilation of mineral names has been completed by M. H. Hey, Principal Scientific Officer in the Department of Mineralogy of the British Museum. The work, which was begun in 1942 as a card catalogue and involved three years of preparation, provides two lists of mineral names. The first index is arranged by chemical groups, for example: Elements and Alloys; Carbides, Nitrides, Silicates, and Phosphides; Sulphides, Selenides, Tellurides, Arsenides, Antimonides, and Bismuthides; Oxysulphides; etc. In most of these sections the next subdivision is based on the metal ion contained. Cross references preclude the necessity for more than one main entry in cases of minerals that contain more than one important metallic constituent. Each mineral name entry is given a series of three numbers, e.g., 3.8.6 Alabandite, denotes that Alabandite is classified first under Sulphides-(group) 3, then under Sulphides of Cr, Mo, W, Re, and Mn, (Subdivision) 3.8, and is entry 6. Recognized terminological usage is followed for isomorphous series inasmuch as end-member names are given for some series and intermediate species names for others. Well defined or recognized species names are printed in bold face in order to contrast with the presentation of varieties which are in italics and doubtful and imperfectly described minerals which are in ordinary type. After each listing the formula of the mineral is given or, if the formula is not definitely established, the general composition is discussed briefly. Next follow abbreviated references to the literature to establish the formula and the individuality.

The second list is arranged alphabetically, with species and chemically distinct varieties again appearing in bold face for emphasis. In this list there follow, after each listing, an identity reference and a short statement that consists either of the number under which the mineral is described in list number one, or the synonymic or varietal relations.

It is unfortunate that the compiler has seen fit to reject the Schaller System of adjectival modifiers which is rapidly obtaining general adoption by mineralogists in all parts of the world as a satisfactory scheme for freeing mineralogical nomenclature of its present unwieldy and largely meaningless agglomeration of varietal names. It is only by applying the system of adjectival modifiers that mineralogists can remain consonant with a modern conception of minerals as constituting chemical series.

As a mineralogical dictionary the book fulfills the requirements of completeness, conciseness and convenience. Its essentiality depends upon the extent to which it may become surrogatory for the indexes of more expensive and expanded mineralogical compendia that not only define the species but give other data as well.

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