

While this work can be recommended highly to the student of determinative mineralogy, there is one direction in which a word of caution is necessary, and that is in connection with mineral formulas. In the first place, it seems to the reviewer confusing and undesirable to give some formulas in condensed and some in expanded form; for instance, on page 63, emplectite is given as CuBiS_2 , chiviatite as $\text{Pb}_2\text{Bi}_2\text{S}_{11}$, aikinite as $3(\text{Pb}, \text{Cu})\text{S}\cdot\text{Bi}_2\text{S}_3$ and boulangerite as $3\text{PbS}\cdot\text{Sb}_2\text{S}_3$. Both of these methods of statement have some points in their favor, but the expanded form makes the relationships between minerals so much more obvious that the reviewer would favor it as the one to be followed uniformly. Emplectite would then appear as $\text{Cu}_2\text{S}\cdot\text{Bi}_2\text{S}_3$, and chiviatite as $2\text{PbS}\cdot 3\text{Bi}_2\text{S}_3$, whereupon it can be readily seen that the first is a meta and the second an acidic compound, those already given in expanded form being ortho compounds.

There is, in addition, a far more serious defect than mere lack of uniformity, namely, a considerable degree of inaccuracy in the statement of formulas. In discussing Murdoch's book, the reviewer took occasion to point out that several formulas were wrongly stated, having been copied from Dana's *System* or other sources without critical consideration; and in the present book not only are the same errors repeated but a number of additional ones perpetrated. While in one sense this is not a serious matter, since the object of the work is primarily to determine minerals, not to establish their formulas, yet the reviewer feels that attention should be called to some of the most noteworthy errors, so that anyone who so desires can make corrections in the text. (See table, page 153.)

If teachers using the book will caution their students concerning the above points, it should prove a valuable aid to the study of mineralogy. E. T. W.

PROCEEDINGS OF SOCIETIES PHILADELPHIA MINERALOGICAL SOCIETY.

Wagner Free Institute of Science, June 10, 1920

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Dr. Burgin, in the chair. Fourteen members and one visitor were present.

Messrs. Frankenfield and Biernbaum gave an account of a trip to the French Creek mines and Robeson, on May 29-31, with Messrs. Hagey and Gordon.

Mr. Gordon described the chromite deposits of the State line serpentines in southern Lancaster County. Details were given of the associated minerals, and the possible origin of the deposits.

SAMUEL G. GORDON, *Secretary.*

NOTES AND NEWS

Mr. Albert B. Peck, Treasurer of the Mineralogical Society of America, leaves the Bureau of Standards the end of this month to become Assistant Professor of Mineralogy in the University of Michigan, Ann Arbor. Correspondence concerning dues of the society, subscriptions, etc., should be directed to his new address.

Dr. Waldemar T. Schaller has returned to his former position in the U. S. Geological Survey, Washington D. C.