ABSTRACTS OF MINERALOGICAL LITERATURE

RECENT ADVANCES IN SCIENCE; MINERALOGY AND CRYSTALLOGRAPHY. ALEXANDER SCOTT, University, Glasgow. Science Progress, 45, 36-41, July, 1917.


A fibrous lead-gray mineral was analyzed and proved to be an impure antimoniferous arsenic (As, Sb). E. T. W.


The composition of the mineral was found to be 1.66 PbS.Sb_2S_3; it is thus near plagionite. E. T. W.


A crystallographic description of a specimen in the mineralogical museum, at Parma. E. T. W.


A crystallographic description and analysis are given. E. T. W.


Analysis shows this thulite to be a variety of zoisite. E. T. W.


The changes in angles with temperature are different for these two minerals, showing their distinctness. E. T. W.


A crystallographic description. E. T. W.


A crystallographic description. E. T. W.


Small spheres were cut from an untouched crystal, and etched with HF + H_2SO_4 and at higher temperatures with fused NaPO_3. After heating with the latter to 700°, the etch-figures were studied. They must correspond to α-quartz, since ordinary quartz goes over into that form at 575°, and their arrangement proves that α-quartz is hexagonal-trapezohedral in symmetry. E. T. W.

The occurrence of goethite and of colloidal iron hydroxide from which it has been derived in plates of mica from India is described. E. T. W.

SOME NOTES ON JAPANESE MINERALS. S. ICHIKAWA. Am. J. Sci. [4], 44 (7), 68-68, 1917.

Comprises notes on: Natural etching of garnet crystals; elongated gypsum crystals; dendrites of manganese oxide. S. G. G.


An analysis of ilsemannite from near Ouray, Utah, is presented, and the mineral is shown to be a sulfate and not an oxide as heretofore supposed. The formula $\text{MoO}_4\text{SO}_4\cdot5\text{H}_2\text{O}$ is suggested. It may have originated by the oxidation of molybdenite, or of the colloidal form of this, jordisite, or the alteration of other molybdenite-bearing minerals. S. G. G.


The nomenclature of the native elements is discussed and a revised classification of them proposed. A table is given showing the classification, with reasons for the names adopted, synonyms, and references to the literature when the minerals are not noted in Dana's System. Reprints obtainable from author on request. S. G. G.


THE ORIGIN OF FLINT. A discussion.

E. RAY LANKESTER, Nature, 99 (2484), 283-284, 1917,—briefly reviews some of the previous work on the origin of the black flint nodules occurring abundantly in stratified layers in the Upper-Chalk of England. L. points out the occurrence of continuous sheets of black tabular flint occurring as fissure-fillings that traverse the stratified layers of chalk, and flint nodules at a sharp angle, which may be seen to advantage at a chalk escarpment—at Rottingdean, near Brighton. Such an occurrence indicates the deposition of the flint after the fissuring of the chalk, and, therefore, almost certainly, after its elevation, and probably due to atmospheric fresh-water. He, further, believes it improbable that the nodules originated differently from the tabular masses. A further fact of importance is that the color of the flint is presumably due to carbon. Arsenic was found in the flints; this may be due to its original presence in minute quantities in sponges. Some of the problems of the physical properties of flints are noted.

R. M. CAVEN, ibid. (2485), 306, 1917, asks if ferrosilicic oxide may not be the coloring agent of the flint instead of carbon.

BENJAMIN MOORE, ibid. (2486), 324, 1917, suggests the following theory: The flints are often fantastically shaped, sometimes like gnarled roots, but there is usually one spot which looks like the gutter of a mould. "This suggests that the silica might have trickled thru an opening in the chalk held
up in colloidal solution by carbonic acid, and then the carbonic acid combining
with the calcium carbonate of the chalk, forming soluble calcium bicarbonate,
thus at the same time enlarging the cavity and producing the conditions for
the deposit of the silica, which is no longer held up by the carbonic acid, and is
precipitated by the colloidal calcium bicarbonate now gone into solution." It
This view is supported by the tabular flints referred to by Lankester. An
attempt was made to imitate this procedure experimentally, which is described.

GROSVILLE A. J. COLE, ibid. (2486), 324, 1917, points out that microscopic
examination of thin sections shows that the vast majority of flints are the
result of chemical replacements of the limestones in which they occur, excluding
fissure fillings.

S. C. BRADFORD, ibid. (2486), 324, 1917, remarks that the structure of flints,
referred to as consisting of minute crystals of silica imbedded in colloid silica,
may indicate the formation of such flints from the gradual crystallization of silie acid gels [in other words, that flint is a meta-colloid. Editor].

CECIL CARUS-WILSON, ibid. (2487), 345, 1917, asks why the color of flints,
if it be due to carbon, does not extend to the white cortex. As Judd pointed
out, the black color is an optical effect, the black silica becoming white on
powdering.

J. J. ALLEN, ibid. (2487), 345, 1917, believes Dr. Caven's suggestion that
the color is due to ferrosilicic oxide is supported by the fact that flints
which have been in contact with gas-lime become stained deep blue, which
has been shown by analysis to be due to ferroferric oxide. S. G. G.

STUDIES ON THE ORIGIN OF MISSOURI CHERTS AND ZINC
ORES. G. H. COX, R. S. DEAN, AND V. H. GOTTSCALKE. Bull. School

Includes a discussion of coloids, with special reference to the silica occurring
as chert and jasperoid in the Joplin region. The dark color of some jasperoid,
usually ascribed to organic matter, is shown to be due to colloidal PbS or CuS.
The sulfide minerals of this deposit are believed to have been transported as
coloids. The varying colors of the sphalerites found in this region are suggested
to be due to pyrite and its alteration products, mostly in submicroscopic
inclusions.

E. T. W.

THE CRYSTAL FORM OF SPENCERITE. T. L. WALKER, Royal
Ontario Museum of Geology, Toronto. J. Wash. Acad. Sci., 7 (14),
456-468, 1917.

Small druses of crystals were obtained from cavities sealed by calamine
from the type locality, the H. B. Mine, near Salmo, B. C. Monoclinic: a : b : c = 1.0125 : 1 : 1.0643; \( \beta = 63° 13' \). The following forms were
measured: 120, 230, 110, 520, 101, 100, 001, 014, 002, 304, 101, 201, 023, 021,
121, 346, 111, 121, 221, and 241. All the crystals are twinned. S. G. G.

THE COLOR OF AMETHYST, ROSE AND BLUE VARIETIES
OF QUARTZ. THOMAS L. WATSON AND R. E. BEARD, University of Virginia.

The work of previous writers is discussed and the results of analyses, micro-
scopic examination and heating tests by the authors are given. These are
thought to confirm the authors' view that a very small amount of Mn present
causes the color of the amethyst, and that the color of rose quartz can not be
due to an inorganic substance. It is thought improbable that the colors are
due to the foreign inclusions visible under the microscope in the case of
amethyst and rose quartz. The senior author believes, however, that the color
of the blue quartz of Virginia and elsewhere is due to the behavior of
light on the minute rutile inclusions and not to a state of strain, as has been
suggested. S. G. G.