

PHYSICAL PROPERTIES: Color dull yellow; streak pale yellow; translucent to opaque;  $H.=3-4$ ;  $D.=4.627$ .

OCCURRENCE: Intimately mixed with curite (see *Am. Min.*, 7, (7), 128, 1922) at Kasolo, Belgian Congo.

DISCUSSION: Evidently a valid new species, but further data on its composition and properties are desirable. E. T. W.

### DOUBTFUL SPECIES

FAMILY: SULFIDES AND RELATED COMPOUNDS. DIVISION:

$R'' : R''' = 3:1$  (?)

#### Unnamed.

O. HACKL: Ein neues Nickel-Arsen-Mineral. (A new nickel-arsenic mineral.) *Verhandlung der Geologischen Staatsanstalt Wien*, 1921, (7-8), 107-108.

CHEMICAL PROPERTIES: *Formula*, approximating  $Ni_3As$ , for which the theory is: Ni 70.1, As 29.9%. The amount of material available was very small, but analysis gave: Ni 67.11, Co 1.29, Fe 0.61, Cu 0.99, Ag 0.02, As 30.64, sum 100.66%.

CRYSTALLOGRAPHIC PROPERTIES: Crystallizes in cubes 5 mm. on a side.

PHYSICAL PROPERTIES: Color grayish white; luster metallic.

OCCURRENCE: Found in the vicinity of Radstadt, Salzburg, by Prof. C. Diener.

DISCUSSION: May well await the finding and investigation of further material before acceptance as a new species. E. T. W.

FAMILY: SILICATES.  $R' + R'' : R''' + R'''' = 1:4$

#### "Oranite"

HAROLD L. ALLING: The mineralogy of the feldspars. *J. Geol.* 29 (3), 237, 1921.

NAME: An abbreviation of *orthoclase-anorthite*, with the mineralogical termination *ite*.

CHEMICAL PROPERTIES: A more or less hypothetical intergrowth of orthoclase (or microcline) and anorthite corresponding to plagioclase, ranging in composition from  $Or_{70}An_{30}$  to  $Or_{20}An_{80}$ . Members with less than 30 An, are to be called "lime orthoclase," with more than 80 Ab, "potash anorthite."

CRYSTALLOGRAPHIC AND PHYSICAL PROPERTIES: Unknown.

OCCURRENCE: Extremely rare in nature, if it exists at all. Alling's tabulations of many hundreds of feldspar analyses show only 2 or 3 which appear to belong here.

DISCUSSION: Whether this should be considered a mineral species or a group is not clear. The name seems unfortunate, as it looks so much like "granite" that it is sure to be set up thus by many compositors. Moreover, if not a species, it should not end in *ite*. E. T. W.

FAMILY: CARBONATES. DIVISION:  $R'' : R'''' : H_2O = 2:1:1$

#### "Paraurichalcite"

F. K. BIEHL: Beiträge zur Kenntnis der Mineralien der Erzlagerstätten von Tsumeb. [Contributions to the knowledge of the ore deposits of Tsumeb.] *Inaug.-Diss. Munster (Westf.)*, 1919, 59 pp.; thru *Min. Abstr.* J, 202-3, 1921.

NAME: From *para* and *aurichalcite*.

CHEMICAL PROPERTIES: The author assigns a variable composition between the limits  $3\text{RCO}_3 \cdot 4\text{R}(\text{OH})_2$ , and  $4\text{RCO}_3 \cdot 5\text{R}(\text{OH})_2$ , with  $\text{R} = \text{Cu}:\text{Zn} = 2:1$  to  $3:2$ . The evidence seems insufficient, however, to justify such complex formulas.

PHYSICAL PROPERTIES: Botryoidal, bead-like or earthy, resembling malachite in appearance, structure, and bluish-green color. Sp. gr. 4.14–4.20, H. 4–5.

OCCURRENCE: Formed at Tsumeb, by the action of zinc-bearing solutions on malachite. Sometimes contains an unaltered core of the latter.

EDW. F. HOLDEN.

“Cuprozincite”

BIEHL: *op. cit.*

NAME: From *cuprum* (copper) and *zincite*.

CHEMICAL PROPERTIES: Formula:  $\text{RCO}_3 \cdot \text{R}(\text{OH})_2$ , with  $\text{R} = \text{Cu}:\text{Zn} = 9:2$ .

OPTICAL PROPERTIES: Identical with malachite, therefore described as monoclinic.

PHYSICAL PROPERTIES: Sp. gr. 4.10, H. 3; otherwise like paraurichalcite.

OCCURRENCE: As with paraurichalcite.

DISCUSSION: These two basic copper-zinc carbonates are imperfectly described; they vary in composition, and are apparently impure. They are best regarded as somewhat altered zinc-bearing malachites. Compare rosasite, *Am. Min.*, 6, 166, 1921.

E. F. H.

FAMILY: PHOSPHATES, ARSENATES, ETC. DIVISION: NEAR

$\text{R}'' : \text{R}'''' : \text{H}_2\text{O} = 2:1:1$

“Parabayldonite”

BIEHL: *op. cit.*

NAME: From *para* and *bayldonite*.

CHEMICAL PROPERTIES: A theoretical molecule,  $\text{R}_3\text{As}_2\text{O}_8 \cdot \text{R}(\text{OH})_2 \cdot \frac{1}{2}\text{H}_2\text{O}$ ,  $\text{R} = \text{Cu}$  and  $\text{Pb}$ ; assumed to be present with bayldonite in a group of Cu-Pb arsenates of variable composition.

PHYSICAL PROPERTIES: These arsenates are greenish cellular masses and pseudomorphous crusts; sp. gr. approx. 5.5.

OCCURRENCE: At Tsumeb, presumably secondary after cerussite.

E. F. H.

“Cuproplumbite”. (Used in a new sense.)

BIEHL: *op. cit.*

NAME: From *cuprum* (copper) and *plumbum* (lead), with the termination *ite*.

CHEMICAL PROPERTIES: Formula:  $2\text{R}_3\text{As}_2\text{O}_8 \cdot 3\text{R}(\text{OH})_2 \cdot \text{XH}_2\text{O}$ , with  $\text{R} = \text{Cu}$  and  $\text{Pb}$ ;  $\text{X} = 0, 1, \text{ or } 2$ .

OTHER PROPERTIES: As with parabayldonite.

OCCURRENCE: Alteration product of mimetite.

DISCUSSION: The name cuproplumbite has previously been used (Dana's System, 6th ed., p. 51), for a copper-lead sulfide. “Parabayldonite” and “cuproplumbite” are variable, and too near bayldonite to be accepted as species.

In the same paper are described: lead oxides; cerussite; smithsonite; malachite; azurite crystals with *a, c, v, m, l, f, p, h, θ, η, σ*; aurichalcite; brochantite [forms *b, m, v, x* and (*new*) (301), (430)]; mimetite (forms *c, m, x*; ) and olivenite (forms *m, e, a*).

E. F. H.