

We are informed through "Science" (July 21, 1922, p. 68) of a new and important occurrence of magnesite in southern Nevada, a few miles above the town of St. Thomas. The deposit occurs in Clark County, in the valley of Muddy River, which is one of the tributaries of the Virgin River.

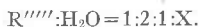
The material is porcelain-white, fine grained and massive, is remarkably free from foreign material, and has the general appearance and conchoidal fracture that are so characteristic of magnesite. It is not as hard as the more typical specimens as it crumbles rapidly on exposure to the weather. Because of this tendency the material has been known for some time as kaolin.

The deposit is included between tilted beds of conglomerate and sand-stone below and shale above. It is estimated that the beds aggregate two hundred feet in thickness and have an extent of one mile at least.

The first meeting of the newly formed Association of Maine Geologists was held on August 11th in Auburn and Lewiston. The local committee arranged a program that included all points of geological interest in the vicinity. These included Mt. Apatite, the source of much of the feldspar, many of the Maine gems and a large variety of minerals; also the Lewiston Falls and a number of other localities.

## NEW MINERALS: NEW SPECIES

FAMILY: PHOSPHATES, ETC. DIVISION: PROBABLY R'' : R''''':



### Dewindtite

ALFRED SCHOEP: Sur la dewindtite, nouveau minéral radioactif. (On dewindtite, a new radioactive mineral.) *Compt. rend.*, 174(9), 623-625, 1922.

NAME: In memory of Dr. Jean *Dewindi*, a Belgian geologist.

CHEMICAL PROPERTIES: *Formula*, probably  $PbO:2UO_3:P_2O_5:3H_2O$  or  $Pb(UO_2)_2[3H_2O](PO_4)_2$ , a lead-phosphorus low water member of the uranite group. [Author gives a more complicated formula, but it is hardly justified by the analysis, which was made on impure material.] Theory, PbO 22.5,  $UO_3$  57.7,  $P_2O_5$  14.3,  $H_2O$  5.5%. Analysis on material washed out of the torbernite which it impregnates, but not separable from more or less whitish talcose gangue gave: PbO 21.74,  $UO_3$  55.50,  $P_2O_5$  10.01,  $H_2O$  5.82,  $Al_2O_3$ , 2.06, CaO 1.32, MgO 2.75, insol. 0.40, sum 99.60%. Readily soluble in acids. In closed tube gives  $H_2O$ . Before blow-pipe gives reactions for Pb only with difficulty. More radioactive than kasolite.

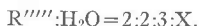
CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES: System evidently tetragonal. Under the microscope it is seen to be made up of minute square plates, which are isotropic, but show double refraction when tilted on edge. Refractive indices greater than 1.74.

PHYSICAL PROPERTIES: Color canary yellow. Structure pulverulent to compact. Sp. gr. 4.08.

OCCURRENCE: As an impregnation in specimens of torbernite from Kasolo, Katanga, Belgian Congo.

DISCUSSION: In spite of the incomplete data, it seems evident that this mineral is a new member of the uranite group,  $R''(UO_2)_2[XH_2O](RO_4)_2$ . E. T. W.

FAMILY: PHOSPHATES, ARSENATES, ETC. DIVISION: R''':R'''':

**Melanovanadite**

W. LINDGREN, L. F. HAMILTON, AND C. PALACHE: Melanovanadite, a new mineral from Mina Ragra, Pasco, Peru. *Proc. Nat. Acad. Sci.*, 7, (8) 249-251, 1921; *Am. J. Sci.* [5] 3, 195-203, 1922.

NAME: "In allusion to its being practically the only vanadium mineral of a deep black color"; from the Greek *melanos*, black, and *vanadite* "an obsolete form of vanadinite."

CHEMICAL PROPERTIES: *Formula*, approximately  $2CaO:2V_2O_4:3V_2O_5:XH_2O$ , or  $Ca_2(VO)_4(V_2O_4)_3+XH_2O$ . Analysis gave  $V_2O_5$  52.61,  $V_2O_4$  33.34, CaO 9.89, MgO 0.27,  $Al_2O_3+Fe_2O_3$  1.89,  $SiO_2$  1.66, sum 99.66%. Determinations of total water in a sample kept for several months in a warm dry room gave only 0.42%, which is less than the error of weighing a heavy calcium chloride tube, so the mineral was at first supposed to be anhydrous. Schaller reported, however, in the same material a considerable amount of water, and reanalysis gave:  $V_2O_5$  49.38,  $V_2O_4$  33.48, CaO 10.65,  $Fe_2O_3+Al_2O_3$  1.39,  $H_2O+5.90$ , sum 100.80%. The water content evidently varies with the humidity of the atmosphere and its rôle is uncertain. Before the blowpipe the mineral fuses easily to a brown liquid, giving bead tests for V but no Ca flame. It dissolves readily in dilute acids and is decomposed by KOH.

CRYSTALLOGRAPHIC PROPERTIES: Monoclinic.  $a:b:c=0.4737:1:0.5815$ ;  $\beta=88^\circ 37' \frac{1}{2}$ .  $p_0=1.227$ ,  $q_0=0.581$ . Forms, (010), (230), (530) or (210), ( $\bar{1}01$ ), (012), (032), (111), and ( $\bar{1}21$ ). Habit, prismatic and striated; reflections poor and measurements only approximate.

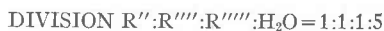
OPTICAL PROPERTIES: Under the microscope translucent and brown only in thinnest prisms. Refractive index  $a$  a little less than 1.74, but the others can not be measured, altho the double refraction is strong. Maximum extinction  $15^\circ$ . The extreme absorption prevents determination of further data.

PHYSICAL PROPERTIES: Color black. Luster, almost submetallic. Streak, very dark reddish brown. Hardness 2.5. Specific gravity 3.477. Form, acicular crystals, generally under 0.5 mm. thick. Cleavage (010) perfect.

OCCURRENCE: Collected by W. S. Hutchinson from No. 1 tunnel in the lower part of the patronite deposit at Mina Ragra. Occurs on altered shale containing patronite or other vanadium compounds. Probably formed by the action of  $CaCO_3$  on solutions of vanadyl sulfate arising from oxidation of the sulfides. Mineralogical data given indicate that more work on patronite and associated minerals should be done. Alters into orange pascoite.

DISCUSSION. Although this undoubtedly represents a new species, it is to be regretted that the chemical and optical data are not entirely satisfactory; however, more material will probably be found and thus permit further study. As mine air is usually moist, the *original* mineral no doubt contains considerable water.

E. T. W.

**Sincosite**

W. T. SCHALLER: Sincosite, a new mineral (Preliminary note). *J. Wash. Acad. Sci.*, 12(8), 195, 1922.

NAME: From the locality, *Sincos*, Peru.

CHEMICAL PROPERTIES: *Formula*,  $\text{CaO} \cdot \text{V}_2\text{O}_4 \cdot \text{P}_2\text{O}_5 \cdot 5\text{H}_2\text{O}$  or  $\text{Ca}(\text{VO})_2 \cdot 5\text{H}_2\text{O}$  ( $\text{PO}_4$ )<sub>2</sub>. Theory, CaO 12.3, V<sub>2</sub>O<sub>4</sub> 36.6, P<sub>2</sub>O<sub>5</sub> 31.3, H<sub>2</sub>O 19.8%. Analysis, CaO 12.1, V<sub>2</sub>O<sub>4</sub> 36.3, P<sub>2</sub>O<sub>5</sub> 31.7, H<sub>2</sub>O 19.9, insol. 0.3, sum 100.3%.

CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES: Tetragonal, in rectangular plates; uniaxial, negative; or in part biaxial.

PHYSICAL PROPERTIES: Color green.

OCCURRENCE: In a black carbonaceous shale.

DISCUSSION: Seems to belong in the uranite group, the (VO) taking the place of the (UO<sub>2</sub>) in the commoner members. Full description is to be published elsewhere.

E. T. W.

## ABSTRACTS—MINERALOGY

PREHNITE FROM ADAMS SOUND, ADMIRALTY INLET, BAFFIN ISLAND, FRANKLIN. R. A. A. JOHNSTON. *Canada Geol. Surv., Victoria Memorial Museum, Bull.* 1.

An analysis of a pale green prehnite with index of refraction >1.60 and birefringence >0.20, gave: SiO<sub>2</sub> 44.35; Al<sub>2</sub>O<sub>3</sub> 19.44; Fe<sub>2</sub>O<sub>3</sub> 6.58; CaO 25.50; H<sub>2</sub>O 4.00. However, a small amount of admixed quartz (4.38%) adhered to specimen. Owing to the high content of iron the term *ferroprehnite* was suggested. W. F. H.

THE LIMITS OF MIX-CRYSTAL FORMATION IN THE MINERALS OF THE EPIDOTE GROUP. W. EITEL. *Neues Jahrb. Min. Geol., Beil.-Bd.* 42, 173-222, 1918; *ibid.*, 223-71; thru *Min. Abst.* 1, 246, 1921.

A large number of analyses of zoisite and epidote; piedmontite and orthite were plotted in four and six dimensions, respectively, and the limits of miscibility discussed. E. F. H.

THE ORIGIN OF THE METEORITIC IRONS OF PALLAS AND CANYON DIABLO. STANISLAS MEUNIER. *Bull. soc. géol. France*, [4] 18, 202-213, 1918; through *Rev. Géol.*, 1 (10), 382-383, 1920.

The features of certain iron meteorites indicate that they have not been formed by fusion, but that their metal has been deposited in veins, perhaps by the action of hydrogen on volatile iron and nickel chlorides. E. T. W.

ASBESTOS IN THE UNION OF SOUTH AFRICA. A. L. HALL. *Mem. Geol. Survey Union S. Africa*, 12, 152 pp., 1918.

In addition to the portion of this paper already abstracted in connection with the report of the supposed new mineral "amosite" (*Am. Min.* 5 (1), 16, 1920), full descriptions are given of the occurrence of the well-known crocidolite, of chrysotile and of tremolite asbestos. Analyses of "amosite" are included. E. T. W.

THE SCAPOLITES. NILS SUNDIUS. *Bull. Geol. Inst. Univ. Upsala*, 16, 91-106, 1918; through *Neues Jahrb. Min. Geol.*, 1919, I, Ref. 140-142.

A continuation of previous work, abstracted in *Am. Min.*, 5 (1), 21, 1920. Carbonate marialite is written  $\text{NaHCO}_3 \cdot 3\text{NaAlSi}_3\text{O}_8$  and sulfate marialite as  $\text{NaHSO}_4 \cdot 3\text{NaAlSi}_3\text{O}_8$ . Analyses of several occurrences are recalculated into their mineral compositions, considerable amounts of carbonate and sulfate-bearing molecules being present. The carbonate-scapolites are not markedly different optically from the sulfate-scapolites ( $\omega = 1.58-1.59$ ,  $\epsilon = 1.55-1.56$ ). E. T. W.