NEW MINERALS: DOUBTFUL SPECIES

CLASS: OXIDES AND HYDROXIDES. DIVISION: $R''' : O : (OH) = 1:1:1$.

"Kayserite"

KARL WALTHER: Die Bildung des Schmirgels, betrachtet an einem Vorkommen von Korundfels in Uruguay. (The formation of emery, considered in an occurrence of corundum rock in Uruguay.) *Z. Deutsch. Geol. Ges.*, A, **73**, (4), 292-338, 1921; this mineral, p. 316.

NAME: In honor of Professor Emanuel *Kayser*.

CHEMICAL PROPERTIES: *Formula*, AlO (OH). Theory (taking the at. wt. of Al as 27.0) Al_2O_3 85.0, H_2O 15.0%. Analysis gave: SiO_2 3.13, Al_2O_3 81.24, Fe_2O_3 1.01, MgO 0.34, H_2O 105°— 0.05, H_2O 105°+14.70, sum 100.47%.

CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES: To be regarded as monoclinic because extinction is inclined, up to 46°, on some cross sections of crystals, but parallel to the edges on others. Refractive index α somewhat above 1.68, γ below 1.74, double refraction about 0.055. Axial angle large; $v > \rho$. It is therefore a dimorphous form of the compound, the orthorhombic form of which is known as diaspore.

PHYSICAL PROPERTIES: Crystalline, with micaceous cleavage; brittle; hardness 5-6.

OCCURRENCE: A secondary formation on corundum crystals from Cerro Redondo, Minas, Uruguay.

DISCUSSION: While the evidence of the distinctness of this material is fairly good, somewhat better optical data and if possible some crystallographic measurements should be obtained before its status can be regarded as firmly established.

E. T. W.

CLASS: SULFATES. DIVISION: $R''' : SO_3 : H_2O = 2 : 1 : 3$.

"Borgstroemite"

M. SAXÉN: The geology of the Otravaara ore field. *Medd. Geol. Fören. Helsingfors*, **1919-1920**, 17-21; thru *Min. Abstr.*, **2**, 10. (Original not seen.)

NAME: After the Finnish mineralogist L. H. *Borgström*.

CHEMICAL PROPERTIES: *Formula*, $Fe_2O_3.SO_3.3H_2O$.

PHYSICAL PROPERTIES: Color yellow; structure earthy.

OCCURRENCE: Formed by surface weathering of pyrite and pyrrhotite in Eno parish.

DISCUSSION: More data necessary before the distinctness of this mineral can be regarded as established. E. T. W.

CLASS: PHOSPHATES, ETC. DIVISION: (UNDETERMINED)

"Rauvite"

FRANK L. HESS: Uranium-bearing asphaltite sediments of Utah. *Eng. Mining J.-Press*, **114**, 272-276, 1922; this mineral, p. 274.

CHEMICAL PROPERTIES: A new calcium uranium vanadate.

OCCURRENCE: At Temple Mountain, Utah.

DISCUSSION: Inclusion of this in classified lists of minerals will have to await publication of descriptive data. E. T. W.

CLASS: SILICATES. DIVISION: (CLAYS).

"Magnalite"

S. RICHARZ: Die Basalte der Oberpfalz (The basalts of the Oberpfalz). *Z. Deutsch. Geol. Ges.*, A, **72**, 31-36, 1920; *Z. Krist.*, **57**, 587, 1923.

NAME: From the composition, *magn*esium-*al*uminium and *lith*os, stone.

CHEMICAL PROPERTIES: *Composition*, SiO_2 42.17, Al_2O_3 17.48, FeO 1.49, CaO 3.38, MgO 10.71, K_2O 0.76, Na_2O 1.38, H_2O 14.01, H_2O+ 5.95, CO_2 2.64, sum 99.97%.

PHYSICAL PROPERTIES: Color dull green to nearly white; soft with greasy feel; d = 2.34. Under the microscope nearly amorphous with some radiating fibers.

OCCURRENCE: In cavities in basalt from the Oberpfalz.

DISCUSSION: Homogeneity not demonstrated, and seems obviously a mixture, unworthy of a name. E. T. W.

REDEFINITION OF SPECIES

CLASS: SILICATES. DIVISION: (UNDETERMINED).

"Fluosiderite"

A. SCACCHI, 1881; redefined by F. ZAMBONINI: The pipernoid tuffs of Campania and their minerals. *Mem. serv. descr. carta geol. Ital.*, **7**, pt. 2, 105-115, 1919; thru *Z. Krist.*, **57**, 219, 1922; (original not seen).

CHEMICAL PROPERTIES: Qualitative tests show Ca, Mg, some Al, a little Fe and Mn, and Si; H_2O may be present. The name is thus rather inappropriate.

CRYSTALLOGRAPHIC PROPERTIES: Orthorhombic; $a:b:c = 0.3479:1:0.3203$. Forms: *b* (010), *m* (110), *g* (130), *l* (350), -(1.10.0), *d* (021), *o* (111), *t* (112), *p* (132), *q* (152), and *r* (172). Combinations and habit variable; other orientations are suggested.

PHYSICAL AND OPTICAL PROPERTIES: Pleochroism, $\perp c$ brown red, $\parallel c$ brighter.

OCCURRENCE: Found in the tuffs of the Campania.

DISCUSSION: More data needed to establish and classify this mineral satisfactorily. E. T. W.

ABSTRACTS: CRYSTALLOGRAPHY

THE CRYSTAL STRUCTURE OF SODIUM NITRATE. R. W. G. WYCKOFF. *Phys. Rev.*, **16**, 149-57, 1920.

From Laue photographs it was found that $NaNO_3$ has a body-centered unit rhombohedron containing two molecules. The arrangement of the atoms in the crystal as a whole resembles that of the NaCl crystals, with NO_3 in the place of Cl. E. F. H.

CRYSTAL ANALYSIS OF METALLIC OXIDES. W. P. DAVEY AND E. C. HOFFMAN. *Phys. Rev.*, **15**, 333, 1920.

CaO, MgO, CdO, and NiO are cubic with the NaCl structure. Al_2O_3 has a structure similar to that of calcite. E. F. H.