NEW MINERAL NAMES

Chinoite

C. W. Beck and D. B. Givens, Chinoite, a new mineral. *Am. Mineral.*, **38**, 191–196 (1953).

Discussion: It is pointed out by C. Guillemin, *Bull. soc. franc. mineral., crist.*, **76**, 367–369 (1953), that chinoite has certain properties that are nearly identical with those of libethenite and suggests that further study is needed. Following is a comparison of the data on the two minerals.

	Chinoite	*Libethenite*
Composition	$Cu_5(PO_4)_2(OH)_4$ (*a*)	$Cu_4(PO_4)_2(OH)_2$ (*a*)
Color	Dark emerald-green	Olive-green
Crystal System	Orthorhombic, *Pnn*	Orthorhombic, *Pnn*
Axial ratio, goniometric	0.8967:1.0:0.7046 (*b*)	0.9606:1:0.7024
Structure a_0	7.47 Å	8.08 kx
cell b_0	8.31 Å	8.43 kx
c_0	5.83 Å	5.90 kx
Cleavage	{110} perfect	{100} and {010} very indistinct
Fracture	Irregular	Conchoidal to uneven
Hardness	5–6	4
Sp. gr.	5.22 (*c*)	3.97
Optically	Positive	Negative
2 V	Near 90°	Near 90°
Indices, α	1.698	1.701–1.704
β	1.745	1.743–1.747
γ	1.793	1.787–1.790
Orientation	$X=c$	$X=b$
X-ray powder data	Essentially identical (*d*)	

(*a*) Chinoite, analysis by M. E. Carlisle on 240 mg. P_2O_5 24.33. CuO 69.09, H_2O 6.57%. Libethenite, analysis by Bergemann (1890) from Libethen, P_2O_5 26.46, CuO 66.29, As_2O_5 2.30, H_2O 4.04%.

(*b*) From measurements on 3 forms. For {110}, phi=48°07′ (corresponding form on libethenite 46°09′); for {011}, rho=35°10′ (corresponding form on libethenite 35°05′).

(*c*) Guillemin points out that the data of Beck and Givens ("The crystal used in the specific gravity determination weighed 6.26 mg. in air, 3.17 mg. in CCl_4, from which a specific gravity of 5.22 was indicated, a close check with the theoretical value, 5.24″) actually yield a specific gravity of 3.24.

(*d*) The *x*-ray powder data cited by Guillemin (source not stated) agree with those of the *A.S.T.M.* file.

Michael Fleischer

Osumilite

Akiho Miyashiro, Osumilite, a new mineral, and cordierite in volcanic rocks. *Proc. Japan Acad.*, **29**, 321–323 (1953).

This is a preliminary account; details are to be published in the *American Mineralogist.* The mineral occurs in biotite-bearing hypersthene-plagioliparite (rhyodacite) in Sakkabira, Tarumizu-mati, Kagosima Prefecture, southern Kyûsyû, Japan. It was originally thought to be cordierite, but is a distinct mineral. The composition is (K,Na,Ca) $(Mg,Fe'')_2$

$(Al,Fe'',Fe''')_3(Si,Al)_{12}O_{30} \cdot H_2O$. It is hexagonal (dihexagonal-dipyramidal) with a_0 10.17, c_0 14.34 Å. The space group is $C6/mcc$ (D^2_{6h}). Structurally the mineral is composed of hexagonal double rings $(Si,Al)_{12}O_{30}$. It is optically positive, nearly or completely uniaxial, with α or ω 1.545–1.547, γ or ϵ 1.549–1.551; birefringence 0.004; 2 V over Z usually 0–70°; pleochroic in thin section with *O* light blue, *E* colorless. Several "cordierites" described in the literature from volcanic rocks may be osumilite. The name is for the Ôsumi Province.

M. F.

NEW DATA, REDEFINITION OF MINERALS

Cannizzarite

A. R. GRAHAM, R. M. THOMPSON, AND L. G. BERRY. *Am. Mineral.*, **38,** 536–544 (1953).

Benjaminite

E. W. NUFFIELD. *Am. Mineral.*, **38,** 550–552 (1953).

Renierite

JOSEPH MURDOCH. *Am. Mineral.*, **38,** 794–801 (1953).

Stevensite

G. T. FAUST AND K. J. MURATA. *Am. Mineral.*, **38,** 973–987 (1953).

Thorogummite

CLIFFORD FRONDEL. *Am. Mineral*, **38,** 1007–1018 (1953).

Mosesite

GEORGE SWITZER, K. J. MURATA, J. J. FAHEY, AND W. F. FOSHAG. *Am. Mineral.*, **38,** 1225–1234 (1953).

Billietite

J. W. FRONDEL AND FRANK CUTTITTA. *Am. Mineral.*, **38,** 1019–1024 (1953).

Becquerelite

J. W. FRONDEL AND FRANK CUTTITTA. *Am. Mineral.*, **38,** 1019–1024 (1953).

Niggliite

PAUL RAMDOHR. Neue Erzmineralien (abstract). *Fortschr. Mineral.*, **28,** 69–70 (1949) (Published 1950).

It is stated that niggliite, supposedly $PtTe_3$, actually has the composition PtSn.

M. F.

Allargentum

PAUL RAMDOHR, Neue Erzmineralien (abstract). *Fortschr. Mineral.*, **28,** 69–70 (1949) (Published 1950).

Name given to the hexagonal phase known in the synthetic system Ag-Sb, Ag containing 8 to 15% Sb. Found associated with dyscrasite and cubic antimonian silver from Cobalt, Ontario.

M. F.

Eskebornite

PAUL RAMDOHR, Neue Erzmineralien (abstract). *Fortschr. Mineral.*, **28,** 69–70 (1949) (Published 1950).

Name given to a mineral, perhaps FeSe or (Fe,Cu)Se, from Tilkerode, Harz Mountains. Very similar to pyrrhotite in physical properties, but much softer. Magnetism highly variable according to orientation. Optically hexagonal or pseudo-hexagonal, but the x-ray pattern is cubic, similar to that of sulvanite.

M. F.

Y. TAKEUCHI, The crystal structure of magnesium pyroborate. *Acta Cryst.*, **5**, 574–581 (1952).

Material from the Suan mine, North Korea, gave B_2O_3 40.08, MgO 46.63, CaO 5.06, SiO_2 0.60, $(Al,Fe)_2O_3$ 0.63, H_2O^+ 0.90, H_2O^- 0.23, CO_2 5.06; sum 99.19% (given as 99.46%); analysts N. Saito and N. Kokubu. This corresponds, after deducting $CaCO_3$ and other impurities, to $Mg_2B_2O_5$. Weissenberg and rotation photographs show it to be monoclinic, the unit cell has $a=12.10\pm.05$, $b=3.12\pm.02$, $c=9.36\pm.05$ Å, beta $104°20'\pm30'$, containing $Mg_3B_8O_{20}$. The space group is $C^5_{2h}-P^2_1/a$. X-ray powder data are given. The occurrence will be described in a later publication.

M. F.