

Crystal Data: Monoclinic. *Point Group:* 2/m. As equant grains to 0.05 mm; as massive aggregates or crusts to 2 mm.

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = n.d. D(meas.) = n.d. D(calc.) = 3.74

Optical Properties: Transparent. *Color:* White to colorless; sometimes displays light grayish, yellowish, greenish, or bluish tints. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.642(2)$ $\beta = 1.652(2)$ $\gamma = 1.675(2)$ $2V(\text{calc.}) = 67.6^\circ$ *Pleochroism:* None.

Cell Data: *Space Group:* $P2_1/n$. $a = 4.8076(2)$ $b = 8.4785(3)$ $c = 6.7648(3)$ $\beta = 93.041(3)^\circ$ $Z = 2$

X-ray Powder Pattern: Great Tolbachik Fissure Eruption, Kamchatka, Russia. 4.177 (100), 3.630 (72), 2.648 (69), 2.428 (63), 4.231 (31), 2.681 (29), 2.561 (29)

Chemistry:	(1)	(2)
MgO	3.25	5.23
MnO	b.d.l.	b.d.l.
CuO	33.64	23.77
ZnO	11.26	16.69
Fe ₂ O ₃	b.d.l.	b.d.l.
SO ₃	51.71	52.59
Total	99.86	99.81

(1) Saranchinaitovaya fumarole, Naboko scoria cone, Kamchatka, Russia; average of 10 electron microprobe analyses; corresponds to $\text{Cu}_{1.00}(\text{Zn}_{0.43}\text{Cu}_{0.31}\text{Mg}_{0.25})_{\Sigma=0.99}\text{S}_{2.00}\text{O}_8$. (2) Arsenatnaya fumarole, Second scoria cone, Great Tolbachik Fissure Eruption, Kamchatka, Russia; average of 6 electron microprobe analyses.

Occurrence: As sublimates around a volcanic fumarole.

Association: Anhydrite, itelmenite, saranchinaite, chalcocyanite, euchlorine, thénardite, apthitalite, hematite (Saranchinaitovaya fumarole); dolerophanite, tenorite, euchlorine, fedotovite, chalcocyanite, langbeinite, apthitalite, anhydrite, hematite, dravertite (Arsenatnaya fumarole).

Distribution: From the Saranchinaitovaya fumarole, Naboko scoria cone, Fissure Tolbachik Eruption (2012-2013) and the Arsenatnaya fumarole, Second scoria cone, Great Tolbachik Fissure Eruption (1975-1976), Kamchatka, Russia.

Name: Honors Hermann Arthur Jahn, co-author of the Jahn-Teller effect, so pronounced in the structure of hermannjahnite.

Type Material: Mineralogical Museum, St. Petersburg State University, St. Petersburg, Russia (19659).

References: (1) Siidra, O.I., E.V. Nazarchuk, A.A. Agakhanov, E.A. Lukina, A.N. Zaitsev, R. Turner, S.K. Filatov, I.V. Pekov, G.A. Karpov, and V.O. Yapaskurt (2018) Hermannjahnite, CuZn(SO₄)₂, a new mineral with chalcocyanite derivative structure from the Naboko scoria cone of the 2012-2013 fissure eruption at Tolbachik volcano, Kamchatka, Russia. *Mineral. and Petrol.*, 112(1), 123-134. (2) (2018) *Amer. Mineral.*, 103, 332-333 (abs. ref. 1).