

Crystal Data: Monoclinic. *Point Group:* 2. Crystals, to 0.1 mm, form druses, spherulites, irregularly shaped grains, or microcrystalline masses.

Physical Properties: *Cleavage:* None. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = n.d. D(meas.) = n.d. D(calc.) = 2.937 Water-soluble and sensitive to air humidity. Transforms to kröhnkite on exposure to air at 87% relative humidity and 25 °C.

Optical Properties: Transparent to translucent. *Color:* Very light-blue or nearly white to sky-blue; light gray in transmitted light. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.517(2)$ $\beta = 1.531(2)$ $\gamma = 1.559(2)$ $2V(\text{meas.}) = \text{n.d.}$ $2V(\text{calc.}) = 71.6^\circ$

Cell Data: Space Group: *P2*₁. $a = 9.0109(5)$ $b = 15.6355(8)$ $c = 10.1507(5)$ $\beta = 107.079(2)^\circ$ $Z = 8$

X-ray Powder Pattern: Tolbachik volcano, Kamchatka, Russia. 3.765 (100), 2.712 (98), 2.535 (65), 7.828 (60), 6.091 (50), 7.671 (47), 4.634 (46)

Chemistry:	(1)	(2)
Na ₂ O	18.38	20.55
K ₂ O	2.23	
CaO	0.16	
CuO	24.72	26.37
ZnO	0.78	
SO ₃	52.79	53.08
Total	99.05	100.00

(1) Tolbachik volcano, Kamchatka, Russia; average of 10 electron microprobe analyses; corresponds to (Na_{1.81}K_{0.14}Ca_{0.01}) $\Sigma=1.96$ (Cu_{0.95}Zn_{0.03}) $\Sigma=0.98$ S_{2.01}O₈. (2) Na₂Cu(SO₄)₂.

Occurrence: A sublimate from volcanic gases with temperature ~600 °C at a fumarole.

Association: Euchlorine, anhydrite, itelmenite, hermannjahnite, chalcocyanite, thénardite, apthitalite, hematite.

Distribution: From the Saranchinaitovaya fumarole, Naboko Scoria cone, Tolbachik volcano, Kamchatka, Far-Eastern Region, Russia.

Name: Honors Professor Galina M. *Saranchina* (1911-2004), St. Petersburg State University, Russia, for her distinguished teaching and scientific achievements in metamorphic petrology.

Type Material: Mineralogical Museum, St. Petersburg State University, St. Petersburg, Russia (19639).

References: (1) Siidra, O.I., E.A. Lukina, E.V. Nazarchuk, W. Depmeier, R.S. Bubnova, A.A. Agakhanov, E.Yu. Avdontseva, S.K. Filatov, and V.M. Kovrugin (2018) Saranchinaite, Na₂Cu(SO₄)₂, a new exhalative mineral from Tolbachik volcano, Kamchatka, Russia, and a product of the reversible dehydration of kröhnkite, Na₂Cu(SO₄)₂(H₂O)₂. *Mineral. Mag.*, 82(2), 257-274. (2) (2019) *Amer. Mineral.*, 104(4), 627-628 (abs. ref 1).