

Crystal Data: Monoclinic. *Point Group:* 2/m. As sprays of divergent tabular crystals to 100 μm flattened on {100}.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. *Hardness:* = n.d. D(meas.) = n.d. D(calc.) = 2.406

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* n.d. *Optical Class:* Two optical axes. β = 1.45 Low birefringence. Nonpleochroic.

Cell Data: *Space Group:* P2₁/c. a = 8.655 b = 9.652 c = 9.147 β = 108.76°

X-ray Powder Pattern: Tolbachik fissure eruption, Kamchatka Peninsula, Russia. 3.768 (100), 3.949 (87), 2.732 (70), 4.010 (53), 2.764 (49), 2.891 (42), 3.022 (22)

Chemistry:	(1)
Na ₂ O	33.82
SO ₃	63.06
CuO	1.75
Total	98.63

(1) Tolbachik fissure eruption, Kamchatka Peninsula, Russia; average electron microprobe analysis; corresponds to (Na_{2.793}Cu_{0.056})Σ=2.849HS_{2.016}O₈.

Occurrence: A sublimate at an active volcanic fumarole (Kamchatka); secondary in the post-mining oxidation zone of asphaltum-rich sandstone beds laced with uraninite and sulfides in a damp underground environment (Utah).

Association: Copiapite, ferrinatrite, metavoltine, römerite, seaborgite, gypsum (Utah).

Distribution: From a fumarole on the Naboko outburst, Tolbachik fissure eruption, Kamchatka Peninsula, Russia [TL]. At the Blue Lizard mine, Red Canyon, San Juan County, Utah, USA.

Name: After the Institute of Volcanology and Seismology, Far East Branch, Russian Academy of Sciences.

Type Material: Mineralogical Museum, St. Petersburg State University, Russia (1/19608).

References: (1) Filatov, S.K., G.A. Karpov, A.P. Shablinskii, S.V. Krivovichev, L.P. Vergasova, and A.V. Antonov (2016) Ivsite, Na₃H(SO₄)₂, a new mineral from volcanic exhalations of fumaroles of the Fissure Tolbachik Eruption of the 50th anniversary of the Institute of Volcanology and Seismology, Far East Branch, Russian Academy of Sciences. *Doklady Earth Sciences* 468, 632-635. (2) Kampf, A.R., T.A. Olds, J. Plášil, J. Marty, S.N. Perry, L. Corcoran, and P.C. Burns (2021) Seaborgite, LiNa₆K₂(UO₂)(SO₄)₅(SO₃OH)(H₂O), the first uranyl mineral containing lithium Amer. Mineral., 106, 105-111 [ivsite locality].