

Crystal Data: Monoclinic. *Point Group:* 2/m. As prismatic or tabular crystals to 0.2 mm and as micro-globular crusts.

Physical Properties: *Cleavage:* Distinct on {010}. *Fracture:* n.d. *Tenacity:* Brittle. Hardness = Soft. D(meas.) = n.d. D(calc.) = 1.68

Optical Properties: Transparent to translucent. *Color:* Colorless, white, yellowish, reddish, or pale lilac. *Streak:* n.d. *Luster:* Vitreous.

Optical Class: Biaxial (-). $\alpha = 1.503(3)$ $\beta = 1.712(3)$ $\gamma = 1.74(1)$ $2V(\text{meas.}) = 40(10)^\circ$
 $2V(\text{calc.}) = \text{n.d.}$ *Dispersion:* Medium, $r > v$.

Cell Data: *Space Group:* P2₁/c. $a = 7.34(4)$ $b = 6.326(16)$ $c = 17.59(4)$ $\beta = 90(1)^\circ$ $Z = 4$

X-ray Powder Pattern: Mt. Rasvumchorr, Khibiny complex, Kola Peninsula, Russia. 3.18 (100), 8.82 (84), 3.12 (44), 3.24 (27), 5.63 (24), 4.22 (22), 5.97 (15)

Chemistry:	(1)	(2)
O	37.5	39.19
C	28.4	29.42
N	27.0	27.44
H	[3.8]	3.95
Total	96.7	100.00

(1) Mt. Rasvumchorr, Khibiny complex, Kola Peninsula, Russia; average of 4 electron microprobe analyses supplemented by IR spectroscopy, H calculated from stoichiometry; corresponds to C_{4.99}H₈N_{4.07}O_{4.94}. (2) C₅H₄N₄O₃·2H₂O.

Occurrence: From the crystallization of uric acid in bird excrement in a cold and humid Arctic climate (Kola) or through reaction with hot gases on a burning coal mine slagheap (South Urals).

Association: n.d.

Distribution: From Mt. Rasvumchorr, Khibiny complex and Mts. Alluaiv and Vavdbed, Lovozero complex, Kola Peninsula, Russia. On the dumps of coal shaft #44, Kopeisk, near Chelyabinsk, South Urals, Russia.

Name: For the scientific name for the bird species (*Falco tinnunculus* L.) responsible for the guano essential to the formation of the mineral on a burning slagheap (Kopeisk, South Urals, Russia).

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Science, Moscow, Russia (4695/1).

References: (1) Pekov, I.V., N.V. Chukanov, V.O. Yapaskurt, D.I. Belakovskiy, I.S. Lykova, N.V. Zubkova, E.P. Shcherbakova, S.N. Britvin, and A.D. Chervonniy (2016) Tinnunculite, C₅H₄N₄O₃·2H₂O: finds at Kola Peninsula, redefinition and validation as a mineral species. *Zapiski RMO* (Proceedings of the Russian Mineralogical Society), 145(4), 20-35 (in Russian). (2) (2017) *Amer. Mineral.*, 102, 1967-1968 (abs. ref. 1).