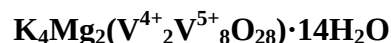


Bluestreakite

Crystal Data: Monoclinic. *Point Group:* 2/m. As tablets or blades, to 0.3 mm, flattened on {101 $\bar{1}$ }, elongated along [010] and exhibiting {101}, {101 $\bar{1}$ }, and {120}; typically as granular coatings.

Physical Properties: *Cleavage:* None. *Fracture:* Irregular. *Tenacity:* Brittle. Hardness = ~ 2 D(meas.) = n.d. D(calc.) = 2.350 Very slowly soluble in H₂O.

Optical Properties: Transparent. *Color:* Very dark greenish blue. *Streak:* Light blue. *Luster:* Subadamantine.

Optical Class: Biaxial (-). $\alpha = 1.750(5)$ $\beta = 1.800(5)$ $\gamma(\text{calc.}) = 1.829$ $2V(\text{meas.}) = 73(3)^\circ$
Orientation: Z = b. *Pleochroism:* Weak, dark greenish blue. *Absorption:* X < Y $\approx$ Z.

Cell Data: *Space Group:* P2₁/n. $a = 12.2383(7)$ $b = 10.3834(4)$ $c = 14.1945(6)$
 $\beta = 103.008(2)^\circ$ Z = 2

X-ray Powder Pattern: Blue Streak mine, Bull Canyon, Montrose County, Colorado, USA. 8.27 (100), 10.34 (57), 1.981 (22), 7.90 (21), 2.266 (16), 2.781 (15), 1.735 (15)

Chemistry:	(1)	(2)
Na ₂ O	0.34	
K ₂ O	11.45	13.32
MgO	5.64	5.70
VO ₂	[8.38]	11.73
V ₂ O ₅	[56.42]	51.43
H ₂ O	[18.20]	17.83
Total	100.43	100.00

(1) Blue Streak mine, Bull Canyon, Montrose County, Colorado, USA; average of 42 electron microprobe analyses, VO₂ and V₂O₅ apportioned and H₂O determined from structure analysis; corresponding to (K_{3.37}Na_{0.15}) $\Sigma=3.52$ Mg_{1.94}(V⁴⁺_{1.40}V⁵⁺_{8.60})O₂₈·14H₂O.
 (2) K₄Mg₂(V⁴⁺₂V⁵⁺₈O₂₈)·14H₂O.

Occurrence: A secondary mineral in the oxidation zone of roll-front U-V deposit in corvusite-montroseite-bearing sandstone.

Association: Gypsum, huemulite, hummerite, metamunirite, munirite.

Distribution: From the Blue Streak mine, Bull Canyon, Montrose County, Colorado, USA.

Name: For the mine that produced the first specimens.

Type Material: The Natural History Museum of Los Angeles County, Los Angeles, California, USA (64174, 64175).

References: (1) Kampf, A.R., J.M. Hughes, J. Marty, B.P. Nash, Yu-S. Chen, and I.M. Steele (2014) Bluestreakite, K₄Mg₂(V⁴⁺₂V⁵⁺₈O₂₈)·14H₂O, a new mixed-valence decavanadate mineral from the Blue Streak Mine, Montrose County, Colorado: crystal structure and descriptive mineralogy. Can. Mineral., 52(6), 1007-1018. (2) (2016) Amer. Mineral., 101, 1489-1490 (abs. ref. 1).