

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As equant to elongate grains, to 0.2 mm.

Physical Properties: *Cleavage:* None. *Fracture:* Conchoidal. *Tenacity:* Brittle.
Hardness = 7-7.5 D(meas.) = n.d. D(calc.) = 4.624 VHN = 1200-1470 (30 g load).

Optical Properties: Opaque. *Color:* Black; weak cream white in reflected light. *Streak:* Black.
Luster: Resinous. *Birefractance:* Weak to moderate. *Anisotropism:* Weak.
Optical Class: n.d.

R₁-R₂: (440) 16.92-17.40, (460) 16.68-17.20, (540) 16.80-17.49, (580) 16.93-17.60, (640) 17.15-17.78, (700) 17.44-18.10

Cell Data: *Space Group:* $P\bar{1}$. $a = 7.521(1)$ $b = 7.643(1)$ $c = 9.572(1)$ $\alpha = 110.20^\circ$
 $\beta = 103.34(1)^\circ$ $\gamma = 98.28(1)^\circ$ $Z = 1$

X-ray Powder Pattern: Slyudyanka Complex, southern Baikal region, Russia.
2.85 (100), 1.582 (100), 1.433 (100), 3.10 (80), 2.63 (80), 2.13 (80), 1.781 (80)

Chemistry:	(1)	(2)
BaO	11.42	11.34
MgO	0.08	
Fe ₂ O ₃	1.48	
Cr ₂ O ₃	12.29	
Nb ₂ O ₅	0.26	
Al ₂ O ₃	1.81	
SiO ₂	6.16	8.88
VO ₂	8.20	
V ₂ O ₃	26.27	44.33
TiO ₂	31.76	35.45
Total	99.73	100.00

(1) Slyudyanka Complex, southern Baikal region, Russia; average of 237 electron microprobe analyses, VO₂:V₂O₃ calculated, absence of OH confirmed by Raman spectroscopy, corresponding to $(V^{3+}_{4.77}V^{4+}_{0.75}Cr_{2.20}Fe_{0.25}Nb_{0.03})_{\Sigma=8.00}(Ti_{5.41}V^{4+}_{0.59})_{\Sigma=6.00}[Ba_{1.01}Mg_{0.02}(Si_{1.40}Al_{0.48}O_{0.94})]O_{28}$.

(2) $V_8Ti_6[Ba(Si_2O)]O_{28}$.

Mineral Group: Derbylite group.

Occurrence: An accessory mineral, frequently intergrown with schreyerite in quartz bands, in a Cr-V-rich quartz-diopside metamorphic rock.

Association: Cr-V-bearing diopside and tremolite, calcite, schreyerite, berdesinskiite, V-bearing titanite, ankangite, chromite-coulsonite series spinels, Fe-bearing members of the eskolaite-karelianite series, uraninite, chernykhite-roscoelite series micas, Cr-bearing goldmanite, dravite-vanadiumdravite tourmalines, albite, barite, zircon, unnamed U-Ti-V-Cr oxide phases.

Distribution: Slyudyanka Complex, southern Baikal region, Russia.

Name: For its major cations (Ba, Ti, Si, V).

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow.

References: (1) Reznitsky, L.Z., E.V. Sklyarova, T. Armbruster, E.V. Galuskin, Z.F. Ushchapovskaya, Yu.S. Polekhovskiy, N.S. Karmanov, A.A. Kashaev, and I.G. Barash (2008) Batisivite, $V_8Ti_6[Ba(Si_2O)]O_{28}$, a new mineral species from the derbylite group. *Geol. Ore Deposits*, 50, 565–573 (original Russian text: *Zapiski Rossiiskogo Mineral. Obsch.*, 2007, 5, 55–67). (2) Armbruster, T., M. Kadiyski, L.Z. Reznitsky, E.V. Sklyarov, and E.V. Galuskin (2008) Batisivite, the first silicate related to the derbylite-hemloite group. *Eur. J. Mineral.*, 20, 975–981. (3) (2009) *Amer. Mineral.*, 94, 1077 (abs. ref. 1). (4) (2009) *Amer. Mineral.*, 94, 650 (abs. ref. 2).