

Crystal Data: Monoclinic. *Point Group:* 2/*m*. Elongated crystals, to 3 mm, in radial aggregates. *Twinning:* Observed.

Physical Properties: *Cleavage:* Perfect along elongation. Hardness = < 4 D(meas.) = 2.54 D(calc.) = 2.56

Optical Properties: Transparent. *Color:* Colorless. *Luster:* Vitreous.

Optical Class: Biaxial (-). *Orientation:* Parallel extinction. $\alpha = 1.584\text{--}1.585$ $\beta = 1.613\text{--}1.614$ $\gamma = 1.613\text{--}1.614$ 2V(meas.) = 24°–28°

Cell Data: *Space Group:* C2/*c*. $a = 10.026(2)$ $b = 9.558(3)$ $c = 4.440(1)$ $\beta = 91.31(2)^\circ$ Z = 4

X-ray Powder Pattern: Novofrolovskoye deposit, Russia.

3.48 (10), 2.222 (8), 3.72 (7), 2.61 (7), 1.881 (7), 6.87 (6), 3.04 (6)

Chemistry:

	(1)	(2)	(3)
SiO ₂	2.18	0.55	
B ₂ O ₃	37.36	40.55	43.05
Al ₂ O ₃	0.57		
Fe ₂ O ₃	1.63		
MnO		0.06	
MgO	0.92	2.25	
CaO	36.14	38.19	34.67
H ₂ O	20.86	18.06	22.28
Total	99.66	99.66	100.00

(1) Novofrolovskoye deposit, Russia; corresponds to (Ca_{1.07}Mg_{0.09})_{Σ=1.16}B_{1.84}O_{2.30}(OH)_{3.16}.

(2) Solongo deposit, Russia; corresponds to (Ca_{1.07}Mg_{0.04})_{Σ=1.11}B_{1.89}O_{1.84}(OH)_{4.11}.

(3) CaB₂O₂(OH)₄.

Polymorphism & Series: Dimorphous with uralborite.

Occurrence: In boron-rich copper-bearing skarn (Novofrolovskoye deposit, Russia); in iron-bearing skarn (Solongo deposit, Russia).

Association: uralborite, andradite–grossular, calciborite, sibirskite, magnetite (Novofrolovskoye deposit, Russia); frolovite (Solongo deposit, Russia).

Distribution: In Russia, from the Novofrolovskoye copper deposit, Turinsk district, near Krasnoturinsk, Northern Ural Mountains, and in the Solongo boron deposit, Buryatia.

Name: For the 50th anniversary of the All-Union Scientific Research Institute of Mineral Resources [an acronym for Vses. Nauch.-Issled. Inst. Mineral. Syr'ya], Moscow, Russia.

Type Material: Vernadsky Geological Museum, Moscow, Russia.

References: (1) Shaskin, D.P., M.A. Simonov, N.I. Chernova, S.V. Malinko, Y.I. Stolyarova, and N.V. Belov (1968) A new natural borate – vimsite. Doklady Acad. Nauk SSSR, 182, 1402–1405 (in Russian). (2) Shaskin, D.P., M.A. Simonov, and N.V. Belov (1968) Crystal structure of the new natural borate mineral vimsite, Ca[B₂O₂(OH)₄]. Doklady Acad. Nauk SSSR, 182, 821–824 (in Russian). (3) (1969) Amer. Mineral., 54, 1219–1220 (abs. refs. 1–2). (4) Malinko, S.V. and N.N. Kuznetsova (1970) A new find of vimsite. Doklady Acad. Nauk SSSR, 195, 1419–1422 (in Russian). (5) Simonov, M.A., Y.K. Yegorov-Tismenko, and N.V. Belov (1976) Refined crystal structure of vimsite CaB₂O₂(OH)₄. Kristallografiya (Sov. Phys. Crystal.), 21, 592–594 (in Russian).

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