Strontioborite $Sr[B_8O_{11}(OH)_4]$

Crystal Data: Monoclinic. *Point Group*: 2. Micalike crystals, to 2 mm.

Physical Properties: *Tenacity*: Very brittle. *Fracture*: n.d. Hardness = n.d.
D(meas.) = 2.40 D(calc.) = 2.38

Optical Properties: Semitransparent. *Color*: Colorless.
Optical Class: Biaxial (+) or (-). α = 1.470(2) β = 1.510(2) γ = 1.579(2) 2V(meas.) = ~85°
2V(calc.) = 78° *Orientation*: Positive or negative elongation, inclined extinction.

Cell Data: *Space Group: P*2_1. a = 7.6192(3) b = 8.1867(2) c = 9.9164(3) β = 108.357(4)° Z = 2

X-Ray Diffraction Pattern: Chelkar salt dome, near Chelkar (Shalkar) lake, Kazakhstan.
7.22 (100), 4.090 (64), 5.409 (61), 3.300 (48), 2.043 (37), 2.121 (30), 3.082 (28)

Chemistry:

	(1)	(2)
B_2O_3	57.85	66.60
MgO	5.75	
CaO	4.15	
SrO	21.66	24.78
H_2O	11.52	8.62
Total	100.93	100.00

(1) Chelkar salt dome, Kazakhstan. (2) $SrB_8O_{11}(OH)_4$.

Occurrence: In the insoluble residue from a salt dome.

Association: Ginorite, boracite, halurgite, kieserite, anhydrite, preobrazhenskite, boracite, aksaite, metaborite (Chelkar salt dome, Kazakhstan).

Distribution: From the Chelkar salt dome, near Lake Chelkar (Shalkar), Ak-saĭ Valley, Uralsk district, and in the Inder borate deposit, Kazakhstan.

Distribution: In cores of boreholes drilled at the Chelkar salt dome, Kazakhstan.

Name: For STRONTIum and BORate in the essential composition.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (69851 and ST-7069).

References: (1) Lobanova, V.V. (1960) A new borate - strontioborite. Doklady Acad. Nauk SSSR, 135, 173-175 (in Russian). (2) (1961) Amer. Mineral., 46, 768 (abs. ref. 1).
(3) Brovkin, A.A., N.V. Zayakina, and V.S. Brovkina (1976) Crystal structure of strontioborite $Sr[B_8O_{11}(OH)_4]$. Kristallografiya (Sov. Phys. Crystal.), 20, 911-916 (in Russian).
(4) Miyawaki, R., F. Hatert, M. Pasero, and S.J. Mills (2020) IMA Commission on New Minerals, Nomenclature and Classification (CNMNC) Newsletter 60. Mineral. Mag., 84, 624-625.