Sibirskite

Crystal Data: Monoclinic. Point Group: 2/m. Rhombic to prismatic crystals, to 1.5 mm, and as irregular grains, in aggregates. Twinning: On {100}, polysynthetic.

Physical Properties: Hardness = n.d. VHN = 298–383, 339 average (25 g load). D(meas.) = 2.58 D(calc.) = 2.59

Optical Class: Biaxial (-). Orientation: OAP ≃ {100}. α = 1.554–1.555 β = 1.638–1.643 γ = 1.652–1.658 2V(meas.) = 43° 2V(calc.) = 42.6°

Cell Data: Space Group: P2₁/a. a = 8.643(6) b = 9.523(2) c = 3.567(3) β = 119.23(3)° Z = 4

X-ray Powder Pattern: Fuka, Japan. 2.955 (100), 2.603 (94), 4.77 (33), 3.329 (32), 2.927 (21), 1.891 (20), 5.92 (16)

Chemistry:

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<tr>
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<th>(1)</th>
<th>(2)</th>
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<tbody>
<tr>
<td>B₂O₃</td>
<td>33.83</td>
<td>34.85</td>
</tr>
<tr>
<td>CaO</td>
<td>56.21</td>
<td>56.13</td>
</tr>
<tr>
<td>H₂O</td>
<td>9.62</td>
<td>9.02</td>
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<tr>
<td>Total</td>
<td>99.66</td>
<td>100.00</td>
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</table>

(1) Fuka, Japan; by electron microprobe, B₂O₃ by wet chemistry, H₂O by LOI; corresponds to Ca₁.₀₀H₁.₀₇B₀.₉₇O₃. (2) CaH(BO₃).

Polymorphism & Series: Dimorphous with parasibirskite.

Occurrence: In veinlets and aggregates in skarns.

Association: Calcite, “chlorite”, pyrite, garnet, vesuvianite, datolite, tourmaline, axinite (Yuliya Svitnovaya deposit, Russia); takedaite, nifontovite, olsianskyite, pentalyhdroborite, frolovite, parasibirskite, uralborite, borcarite, fluorite, calcite (Fuka, Japan).

Distribution: In Russia, from the Yuliya Svitnovaya Pb-Zn deposit, 20 km east-northeast of the Son railway station, Khakassia district, Siberia; at the Novofrolovskoye copper deposit, near Krasnoturinsk, Turinsk district, Northern Ural Mountains; and on the Chersk and Severnyakhsk Ridges, Transbaikal. From Fuka, near Bicchu, Okayama Prefecture, Japan.

Name: For its first-noted occurrence in Siberia.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 64709.