Parasibirskite $CaH(BO_3)$

Crystal Data: Monoclinic. *Point Group:* $2/m$. Crystals are tabular, in subparallel aggregates, to 40 μu.

Physical Properties: *Cleavage:* Perfect on {100}. Hardness = n.d. VHN = 109–155, 121 average (25 g load). D(meas.) = 2.50(1) D(calc.) = 2.54

Optical Properties: Semitransparent. *Color:* White; colorless in thin section.
Luster: "Weak", pearly.
Optical Class: Biaxial (+). $\alpha = 1.556(2)$ $\beta = 1.593(2)$ $\gamma = 1.663(2)$ 2V(meas.) = n.d. 2V(calc.) = 74.8°

Cell Data: *Space Group:* $P2_1/m$. $a = 6.722(4)$ $b = 5.437(2)$ $c = 3.555(2)$ $\beta = 93.00(5)°$ Z = 1

X-ray Powder Pattern: Fuka, Japan.
2.237 (100), 6.73 (70), 2.975 (60), 3.354 (30), 2.855(20), 1.776 (20), 4.23 (10)

Chemistry:

	(1)	(2)
B_2O_3	34.10	34.85
CaO	56.06	56.13
H_2O	9.97	9.02
Total	100.13	100.00

(1) Fuka, Japan; CaO by electron microprobe, B_2O_3 by ICP, H_2O by loss on ignition and TGA; corresponding to $Ca_{0.99}H_{1.10}B_{0.97}O_3$. (2) $CaH(BO_3)$.

Polymorphism & Series: Dimorphous with sibirskite.

Occurrence: A late-stage hydrothermal alteration of takedaite in a borate-rich vein cutting limestone and gehlenite-spurrite skarn.

Association: Takedaite, frolovite, olshanskyite, sibirskite, pentahydroborite, calcite.

Distribution: From Fuka, near Bicchu, Okayama Prefecture, Japan

Name: As a polymorph of *sibirskite*.

Type Material: National Science Museum, Tokyo, Japan.

References: (1) Kusachi, I., Y. Takechi, C. Henmi, and S. Kobayashi (1998) Parasibirskite, a new mineral from Fuka, Okayama Prefecture, Japan. Mineral. Mag., 62, 521–525. (2) (1999) Amer. Mineral., 84, 686 (abs. ref. 1).