

Crystal Data: Hexagonal. *Point Group:* $\bar{3} 2/m$. As granular crystals, to 0.8 mm.

Physical Properties: Hardness = 4.5 VHN = 429–503, 478 average (25 g load).
D(meas.) = 3.10(2) D(calc.) = 3.12

Optical Properties: Semitransparent. *Color:* White to pale gray; colorless in thin section.
Luster: Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.726$ $\epsilon = 1.630$

Cell Data: *Space Group:* $R\bar{3}c$. $a = 8.638(1)$ $c = 11.850(2)$ $Z = 6$

X-ray Powder Pattern: Fuka, Japan.
2.915 (100), 1.895 (75), 2.756 (61), 2.493 (44), 2.044 (21), 2.160 (19), 1.976 (18)

Chemistry:	(1)	(2)
B ₂ O ₃	28.41	29.27
CaO	71.13	70.73
LOI	0.14	
Total	99.68	100.00

(1) Fuka, Japan; corresponds to Ca_{3.05}B_{1.96}O₆. (2) Ca₃B₂O₆.

Occurrence: A rare mineral probably formed by boron-rich fluids reacting between crystalline limestone and gehlenite-spurrite skarns.

Association: Frolovite, nifontovite, olshanskyite, pentahydroborite, sibirskite, calcite.

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

Name: Honors Professor Hiroshi Takeda (1934–), mineralogist, University of Tokyo, Tokyo, Japan.

Type Material: National Science Museum, Tokyo, Japan; National Museum of Natural History, Washington, D.C., USA, 165482.

References: (1) Kusachi, I., C. Henmi, and S. Kobayashi (1995) Takedaite, a new mineral from Fuka, Okayama Prefecture, Japan. *Mineral. Mag.*, 59, 549–552. (2) (1996) *Amer. Mineral.*, 81, 518 (abs. ref. 1).