

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As prisms to 2 mm and commonly rhombic or pseudo-hexagonal in cross section. *Twinning:* On {100}.

**Physical Properties:** *Cleavage:* Fair prismatic cleavage. *Tenacity:* Brittle. *Fracture:* n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = 3.07

**Optical Properties:** Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+).  $\alpha = 1.629(1)$   $\beta = 1.640(1)$   $\gamma = 1.654(1)$   $2V(\text{meas.}) = 81.8(6)^\circ$  *Dispersion:*  $r > v$ , extremely weak. Positive elongation.

**Cell Data:** *Space Group:* C2/m.  $a = 14.767(1)$   $b = 5.574(1)$   $c = 15.079(1)$   $\beta = 91.96(1)^\circ$   $Z = 2$

**X-Ray Diffraction Pattern:** Larsemann Hills, Prydz Bay, east Antarctica. 5.19 (100), 5.41 (70), 4.31 (70), 4.95 (60), 3.378 (60), 2.162 (40), 3.59 (30)

Chemistry:	(1)	(2)
SiO <sub>2</sub>	10.05	12.67
Al <sub>2</sub> O <sub>3</sub>	71.23	69.15
FeO	0.48	1.10
MgO		0.23
BeO	0.004	0.094
B <sub>2</sub> O <sub>3</sub>	19.63	18.11
Total	101.39	101.35

(1) Larsemann Hills, Prydz Bay, east Antarctica; average electron microprobe analysis supplemented by SIMS; corresponds to Fe<sub>0.08</sub>Al<sub>15.98</sub>B<sub>6.09</sub>Si<sub>1.91</sub>O<sub>37</sub>. (2) Almgjotheii, Rogaland Intrusive Complex, southwestern Norway; average electron microprobe analysis supplemented by SIMS, may include sillimanite; corresponds to Mg<sub>0.07</sub>Fe<sub>0.18</sub>Al<sub>15.66</sub>Be<sub>0.04</sub>B<sub>5.565</sub>Si<sub>2.435</sub>O<sub>37</sub>.

**Polymorphism & Series:** Solid solution with sillimanite (or Al<sub>8</sub>B<sub>2</sub>Si<sub>2</sub>O<sub>19</sub>) and werdingite.

**Occurrence:** A high-temperature phase in pegmatites cutting granulite-facies metapelitic rocks.

**Association:** Quartz, potassium feldspar, schorl/dravite (Larsemann Hills); potassium feldspar, plagioclase(An<sub>22</sub>), werdingite, dumortierite, grandidierite (Almgjotheii); quartz, potassium feldspar, dumortierite, andalusite, ± sillimanite (Almgjotheii).

**Distribution:** At Larsemann Hills, Prydz Bay, east Antarctica (TL) and at Almgjotheii, Rogaland Intrusive Complex, southwestern Norway.

**Name:** From the composition, *boron*, *aluminum*, and *silicon*.

**Type Material:** National Museum of Natural History, Washington, D.C., USA (171403 & 171404).

**References:** (1) Grew, E.S., J.J. McGee, M.G. Yates, D.R. Peacor, R.C. Rouse, J.P.P. Huijsmans, C.K. Shearer, M. Weidenbeck, D.E. Thost, and S. Su (1998) Boralsilite (Al<sub>16</sub>B<sub>6</sub>Si<sub>2</sub>O<sub>37</sub>): a new mineral related to sillimanite from pegmatites in granulite-facies rocks. *Amer. Mineral.*, 83, 638-651. (2) Peacor, D.R., R.C. Rouse, and E.S. Grew (1999) Crystal structure of boralsilite and its relation to a family of borooaluminosilicates, sillimanite, and andalusite. *Amer. Mineral.*, 84, 1152-1161.