

Crystal Data: Tetragonal, pseudocubic. *Point Group:* $4mm$. As pseudocubic crystals, to 30 μm , bounded by $\{111\}$ and $\{100\}$; also anhedral.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = \text{n.d.}$ $D(\text{calc.}) = 2.437$

Optical Properties: Transparent. *Color:* Colorless.

Optical Class: Uniaxial (-). $n = \sim 1.6$ $\omega = 1.612(2)$ (synthetic) $\epsilon = 1.554(2)$

Cell Data: *Space Group:* $I4_1cd$. $a = 9.470(4)$ $c = 10.279(5)$ $Z = 8$

X-ray Powder Pattern: Tanco pegmatite, Canada.

4.07 (100), 2.662 (60), 3.495 (50), 2.587 (40), 2.045 (40), 3.908 (20), 2.240 (20)

Chemistry: Analyses by electron microprobe indicate all elements are atomic weight < 11; identification is by inference of other properties to synthetic Li₂B₄O₇.

Occurrence: Abundant in fluid inclusions in spodumene crystallized from a late-stage hydrothermal fluid in a granite pegmatite.

Association: Albite, cookeite, quartz, pollucite–analcime, microlite, all as daughter species in fluid inclusions.

Distribution: From the Tanco pegmatite, Bernic Lake, Manitoba, Canada.

Name: From the Greek meaning *divine mix*, in allusion to its likely pronounced fluxing effects.

Type Material: American Museum of Natural History, New York, New York, 98089; National Museum of Natural History, Washington, D.C., USA, 164236.

References: (1) London, D., M.E. Zolensky, and E. Roedder (1987) Diomignite: natural Li₂B₄O₇ from the Tanco pegmatite, Bernic Lake, Manitoba. *Can. Mineral.*, 25, 173–180. (2) (1988) *Amer. Mineral.*, 73, 928 (abs. ref. 1). (3) Krogh-Moe, J. (1962) The crystal structure of lithium diborate, Li₂O.2B₂O₃. *Acta Cryst.*, 15, 190–193.