

**Crystal Data:** Orthorhombic. *Point Group:* 222. Crystals pseudo-octahedral, {011} and {110}, or sphenoidal, to 7 mm; faces show striae and etch pits; subhedral, as rounded crystal aggregates and crusts. *Twinning:* Probably polysynthetically twinned, observed optically.

**Physical Properties:** *Fracture:* Conchoidal. Hardness = ~4 D(meas.) = 1.92(1)  
D(calc.) = [1.93]

**Optical Properties:** Translucent to opaque, rarely transparent. *Color:* Colorless or white, rarely pale pink to pale gray; may show anomalous blue and brown interference colors in transmitted light. *Luster:* Vitreous; greasy to dull.

*Optical Class:* Biaxial (-). *Orientation:* [ $X = b$ ;  $Y = a$ ;  $Z = c$ ] (by analogy to isotypic synthetic  $\epsilon$ -Zn(OH)<sub>2</sub>). *Dispersion:*  $r < v$ , strong.  $\alpha = 1.533(3)$   $\beta = 1.544(3)$   $\gamma = 1.548(3)$   
 $2V(\text{meas.}) = 82^\circ$

**Cell Data:** *Space Group:*  $P2_12_12_1$ .  $a = 4.62(2)$   $b = 7.05(2)$   $c = 4.55(3)$   $Z = 4$

**X-ray Powder Pattern:** Rode Ranch pegmatite, Texas, USA.  
2.39 (vs+), 3.88 (vs), 3.83 (vs), 2.95 (m), 2.79 (m), 1.99 (m), 1.96 (m)

**Chemistry:** Emission spectroscopy shows Be as the only major element.

**Polymorphism & Series:** Polymorphous with clinobehoite.

**Occurrence:** In granite pegmatite as a near-surface alteration product of gadolinite (Rode Ranch pegmatite, Texas, USA); in altered volcanic tuff (Honeycomb Hills, Utah, USA); in pegmatite veins and miarolitic cavities in nepheline syenite (Mont Saint-Hilaire, Canada).

**Association:** Gadolinite, bastnäsite, tengerite, quartz, albite, microcline, montmorillonite, fluorite, calcite (Rode Ranch pegmatite, Texas, USA).

**Distribution:** In the USA, from the Rode Ranch pegmatite, Llano Co., and the Clear Creek pegmatite, Burnet Co., Texas, and in the Honeycomb Hills, Juab Co., Utah. In Canada, at Mont Saint-Hilaire, Quebec. In the Saga larvikite quarry, Tvedalen, near Larvik, Norway.

**Name:** For beryllium, Be, and hydroxyl, OH, in its composition.

**Type Material:** n.d.

**References:** (1) Ehlmann, A.J. and R.S. Mitchell (1970) Behoite, beta-Be(OH)<sub>2</sub>, from the Rode Ranch pegmatite, Llano County, Texas. *Amer. Mineral.*, 55, 1–9. (2) Horváth, L. and R.A. Gault (1990) The mineralogy of Mont Saint-Hilaire, Quebec. *Mineral. Record*, 21, 284–359, esp. 299.