**Clinometaborite**

\[ \beta\text{-HBO}_2 \]

**Crystal Data:** Monoclinic. *Point Group*: \(2/m\). As prismatic crystals comprised of fibrous individuals and most likely pseudomorphic, in aggregates to 2 mm.


**Optical Properties:** Translucent. *Color*: Colorless (chalky white after exposure to open air and it’s transformation into orthoboric acid). *Streak*: n.d. *Luster*: Vitreous. *Optical Class*: Biaxial (−). \( \alpha = 1.434 \quad \beta = 1.570 \quad \gamma = 1.588 \) (for synthetic material)

**Cell Data:** *Space Group*: \(P2_1/a\). \( a = 7.127(2) \quad b = 8.842(3) \quad c = 6.773(2) \quad \beta = 93.21(1)^\circ \)

**X-ray Powder Pattern:** La Fossa crater, Vulcano Island, Aeolian archipelago, Sicily, Italy. 3.078 (100), 4.193 (20), 6.773 (15), 2.550 (10), 3.224 (8), 2.702 (8), 2.518 (7)

**Chemistry:**
(1) La Fossa crater, Vulcano Island, Aeolian archipelago, Sicily, Italy; electron microprobe analyses did not detect any elements of atomic number greater than 11, \( \text{BO}_2^- \) confirmed by IR spectroscopy. Species identify based on XRD pattern and crystal structure refinement.

**Occurrence:** Found as a sublimate in an active fumarole (~250 °C) in a volcanic crater.

**Association:** Metaborite, sassolite, adranosite.

**Distribution:** La Fossa crater, Vulcano Island, Aeolian archipelago, Sicily, Italy.

**Name:** Named for its monoclinic symmetry and compositional identity with meteorite.

**Type Material:** Reference Collection, Department of Inorganic Structural and Stereochemistry, University of Milan, Italy (2010−03).