

Crystal Data: Orthorhombic. *Point Group:* *mm*2. As radial aggregates of platy to prismatic crystals elongated on [001], to 20 mm. Typically flattened on {100} or less commonly on {010}.

Observed forms are {100}, {010}, {201}, and { $\bar{2}$ 01}, with less common {610}, {101}, and { $\bar{1}$ 01}. Twinning on a microscopic scale noted.

Physical Properties: *Cleavage:* Perfect on {100} and less perfect on {001} and {101}.
Fracture: n.d. *Tenacity:* Brittle. *Hardness* = 6.5 *D*(meas.) = 3.97(7) *D*(calc.) = 4.01

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous.
Optical Class: Biaxial (-). $\alpha = 1.695(5)$ $\beta = 1.702(5)$ $\gamma = 1.708(8)$ *2V*(calc.) = 85(5)^o
Orientation: *X* = *b*, *Y* = *c*.

Cell Data: Space Group: *Pmn*2₁. *a* = 11.650(10) *b* = 4.922(4) *c* = 4.674(4) *Z* = 2

X-ray Powder Pattern: Mount Yukspor, Khibiny massif, Kola Peninsula, Russia.
2.458 (100), 2.929 (58), 3.388 (56), 2.336 (31), 2.986 (28), 3.042 (26), 2.077 (23)

Chemistry:	(1)
BaO	47.66
SiO ₂	36.38
BeO	14.90
Total	98.94

(1) Mount Yukspor, Khibiny massif, Kola Peninsula, Russia; average of 4 electron microprobe analyses, Be by AA, corresponding to Ba_{1.03}Be_{1.97}Si_{2.00}O_{7.00}.

Polymorphism & Series: Dimorphous with barylite.

Occurrence: In pegmatite veins in an alkaline igneous complex.

Association: Natrolite, aegirine, microcline, catapleiite, fluorapatite, titanite, fluorite, galenite, sphalerite, strontianite, annite, astrophyllite, lorenzenite, labuntsovite-Mn, kuzmenkoite-Mn, cerite-(Ce), edingtonite, ilmenite, calcite.

Distribution: Mount Yukspor, southern Khibiny alkaline massif, Kola Peninsula, Russia.

Name: Reflects the relationship to *barylite* and non-orthogonal appearance of its crystals which were originally incorrectly determined to be monoclinic.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Science, Moscow, Russia; 2819/1.

References: (1) Chukhanov, N.V., I.V. Pekov, R.K. Rastsvetaeva, G.V. Chilov, and A.E. Zadov (2003) Clinobarylite, BaBe₂Si₂O₇, a new mineral from the Khibiny massif, Kola Peninsula. *Zap. Vseross. Mineral. Obshch.*, 132(1), 29-37 (in Russian, English abs.). (2) (2004) *Amer. Mineral.*, 89, 249 (abs. ref. 1). (3) Krivovichev, S.V., V.N. Yakovenchuk, T. Armbruster, Yu. Mikhailova, and Ya.A. Pakhomovsky (2004) Clinobarylite, BaBe₂Si₂O₇: structure refinement, and revision of symmetry and physical properties. *Neues Jahrb. Mineral. Monatsh.*, 2004, 373-384. (4) (2005) *Amer. Mineral.*, 90, 522 (abs. ref. 1). (5) Di Domizio, A.J., R.T. Downs, and Hexiong Yang (2012) Redetermination of clinobarylite, BaBe₂Si₂O₇. *Acta Crystallogr Sect E Struct Rep Online*. 2012 October 1, 68(10), i78–i79.