

Crystal Data: Monoclinic; typically metamict. *Point Group:* n.d. Crystals prismatic, to 0.2 mm in cross section.

Physical Properties: Hardness = [5.5–6.5] [by analogy to fergusonite-(Y)]. D(meas.) = 5.65 D(calc.) = [5.63]

Optical Properties: Semitransparent. *Color:* Light yellow.
Optical Class: [Isotropic when metamict.] *n* = n.d.

Cell Data: *Space Group:* n.d. *a* = 5.12 *b* = 10.89 *c* = 5.20 β = 88°10' *Z* = [4]

X-ray Powder Pattern: n.d.

Chemistry: (1) “Central Asia”; X-ray spectrographic analysis showed major Y, Nb, U; Fe ~2.5%; Ta, Th ~1%; Ca, Zr ~0.5%; Ti ~0.2%; Pb ~0.1%.

Polymorphism & Series: Dimorphous with fergusonite-(Y).

Occurrence: In microcline-bearing granite stocks.

Association: Microcline, quartz.

Distribution: From an undisclosed locality [Bayan Obo Fe–Nb–RE deposit, 130 km north of Baotou, Inner Mongolia, China] in “Central Asia”.

Name: In allusion to its dimorphous relation to *fergusonite*-(Y).

Type Material: n.d.

References: (1) Gorshevskaya, S.A., G.A. Sidorenko, and I.E. Smorchkov (1961) A new modification of fergusonite: β -fergusonite [fergusonite-beta-(Y)]. *Geol. Mestorozhdenii Redkikh Elementov*, 9, 28–29 (in Russian). (2) (1961) *Amer. Mineral.*, 46, 1516–1517 (abs. ref. 1). (3) Weitzel, H. and H. Schröcke (1980) Kristallstrukturverfeinerungen von Euxenit, $Y(Nb_{0.5}Ti_{0.5})_2O_6$, und M-Fergusonit, $YNbO_4$. *Zeits. Krist.*, 152, 69–82 (in German with English abs.). (4) Trunov, V.K., V.A. Efremov, Y.A. Velikopodnyi, and I.M. Averina (1981) The structure of $YNbO_4$ crystals at room temperature. *Kristallografiya (Sov. Phys. Crystal.)*, 26, 67–71 (in Russian). (5) Kinzhibalo, L.N., V.K. Trunov, A.A. Evdokimov, and V.G. Krongauz (1982) Refinement of the crystal structure of fergusonite. *Kristallografiya (Sov. Phys. Crystal.)*, 27, 43–48 (in Russian). (6) Peishan Zhang and Pejie Tao (1987) Characteristics of the fergusonite- and aeschynite-group minerals in China. *Zhongguo Xitu Xuebao*, 5(1), 1–7 (in Chinese). (7) (1987) *Chem. Abs.*, 107, 241 (abs. ref. 6).