

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As fine-grained aggregates in rims around and replacing altaite.

**Physical Properties:** Hardness = n.d. VHN = 30-42, 38 average (10 g load). D(meas.) = 7.2 D(calc.) = 7.16

**Optical Properties:** Semitransparent. *Color:* Grayish yellow, gray, or pale brown; colorless in transmitted light; gray or brownish gray in reflected light. *Streak:* Yellowish gray.  
*Optical Class:* Biaxial (+).  $\alpha = 2.19$   $\beta = 2.23$   $\gamma = 2.35$   $2V(\text{meas.}) = \sim 50^\circ$  *Anisotropism:* Distinct.

**Cell Data:** *Space Group:* C2/c.  $a = 26.442(5)$   $b = 4.6010(9)$   $c = 17.890(4)$   $\beta = 107.01(3)^\circ$

**X-ray Powder Pattern:** Zhana-Tyube deposit, Kazakhstan.  
3.17 (100), 3.099 (35), 3.21 (32), 2.980 (29), 2.857 (25), 2.725 (18), 2.102 (12)

Chemistry:	(1)	(2)
SO <sub>3</sub>	0.1	
TeO <sub>2</sub>	42.0	41.69
SeO <sub>2</sub>	0.1	
Bi <sub>2</sub> O <sub>3</sub>	0.6	
Sb <sub>2</sub> O <sub>3</sub>	0.1	
<u>PbO</u>	<u>58.4</u>	<u>58.31</u>
Total	101.3	100.00

(1) Zhana-Tyube deposit, Kazakhstan; by electron microprobe, average of three analyses; original elemental analysis here converted to oxides; corresponds to (Pb<sub>1.01</sub>Bi<sub>0.01</sub>)<sub>Σ=1.02</sub>Te<sub>1.01</sub>O<sub>2.96</sub>. (2) PbTeO<sub>3</sub>.

**Occurrence:** A secondary mineral, formed by alteration of altaite near the base of the oxidation zone of a tellurium-rich mineral deposit.

**Association:** Altaite.

**Distribution:** From the Zhana-Tyube Au-Te deposit, northern Kazakhstan.

**Name:** For lead, plumbum, and tellurium in the composition.

**Type Material:** A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 81598.

**References:** (1) Spiridonov, E.M. and O.I. Tananeyva (1982) Plumbotellurite,  $\alpha$ -PbTeO<sub>3</sub>, a new mineral. Doklady Acad. Nauk SSSR, 262, 1231-1235 (in Russian). (2) (1982) Amer. Mineral., 67, 1075 (abs. ref. 1). (3) Missen, O.P., M.S. Rumsey, A.R. Kampf, S.J. Mills, M.E. Back, and J. Spratt (2019) The discreditation of oboyerite and a note on the crystal structure of plumbotellurite. Mineral. Mag., 83, 791-797.