

**Crystal Data:** Tetragonal. *Point Group:* 422. Rarely in prismatic crystals, to 3 mm; commonly fine-grained massive.

**Physical Properties:** Hardness = 1 D(meas.) = 5.60 D(calc.) = 6.017

**Optical Properties:** Semitransparent. *Color:* Grayish white. *Luster:* Resinous to waxy. *Optical Class:* Uniaxial.  $\omega = > 2.05$   $\epsilon = > 2.05$

**Cell Data:** *Space Group:*  $P4_12_1$  or  $P4_32_12$  (synthetic).  $a = 4.810(1)$   $c = 7.613(2)$   $Z = 4$

**X-ray Powder Pattern:** Moctezuma mine, Mexico.

2.988 (100), 3.404 (86), 1.873 (55), 1.661 (22), 2.407 (20), 3.107 (13), 4.068 (12)

**Chemistry:**

	(1)	(2)	(3)
Te	78.0	78.5	79.95
O			20.05
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Total			100.00

(1–2) Moctezuma mine, Mexico. (3) TeO<sub>2</sub>.

**Polymorphism & Series:** Dimorphous with tellurite.

**Mineral Group:** Rutile group.

**Occurrence:** As thin seams in tellurium from a hydrothermal Au–Te deposit (Moctezuma mine, Mexico).

**Association:** Tellurite, tellurium (Moctezuma mine, Mexico); krennerite, tellurium, rodalquilarite, emmonsite, anglesite (Tombstone, Arizona, USA).

**Distribution:** Type material was stated to be from Cananea, but undoubtedly originated from the nearby Moctezuma (Bambolla) mine, 12 km south of Moctezuma, Sonora, Mexico. In the USA, from the Joe Shaft, Tombstone, and in the Campbell mine, Bisbee, Cochise Co., Arizona; at the Klondyke mine, Saguache Co., and the Last Chance mine, Boulder Co., Colorado; in the Silver King mine, Ward district, White Pine Co., Nevada. From the Kawazu mine, three km north of Shimoda, Shizuoka Prefecture, Japan. At Salmchâteau, near Ottré, Belgium.

**Name:** From the Greek for *near*, and for its relation to *tellurite*.

**Type Material:** Royal Ontario Museum, Toronto, Canada, M25007; National Museum of Natural History, Washington, D.C., USA, C5995, R8861.

**References:** (1) Switzer, G. and H.E. Swanson (1960) Paratellurite, a new mineral from Mexico. *Amer. Mineral.*, 45, 1272–1274. (2) Kondratyuk, I.P., L.A. Muradyan, Y.V. Pisarevskii, and V.I. Simonov (1987) Precision X-ray structural investigation of acousto-optical single crystals of  $\alpha$ -TeO<sub>2</sub>. *Kristallografiya (Sov. Phys. Crystal.)*, 32, 609–617 (in Russian).