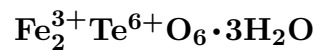


## Cuzticitic



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**Crystal Data:** Hexagonal. *Point Group:* n.d. Minute scales, aggregated in warty to stalactitic crusts.

**Physical Properties:** Hardness = 3, on compact material.  $D(\text{meas.}) = 3.9$   
 $D(\text{calc.}) = 4.01$

**Optical Properties:** Semitransparent. *Color:* Yellow to brown; dark yellow in thin section.  
*Optical Class:* Uniaxial (-).  $\omega = 2.06$   $\epsilon = 2.05$

**Cell Data:** *Space Group:* n.d.  $a = 5.045$   $c = 14.63$   $Z = 2$

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

3.256 (10), 2.518 (7), 4.871 (4), 2.239 (3), 1.564 (3), 1.457 (3), 1.994 (2)

**Chemistry:**

|                                | (1)   | (2)    |
|--------------------------------|-------|--------|
| TeO <sub>3</sub>               | 45.1  | 45.10  |
| TeO <sub>2</sub>               | trace |        |
| Fe <sub>2</sub> O <sub>3</sub> | 41.1  | 41.02  |
| Mn <sub>2</sub> O <sub>3</sub> | ~0.4  |        |
| PbO                            | 0.0   |        |
| H <sub>2</sub> O               | 13.6  | 13.88  |
| Total                          | 100.2 | 100.00 |

(1) Moctezuma mine, Mexico; average of three analyses, total Mn as Mn<sup>3+</sup>, H<sub>2</sub>O by the Penfield method on a separate sample. (2) Fe<sub>2</sub>TeO<sub>6</sub>•3H<sub>2</sub>O.

**Occurrence:** Very rare in oxidized ore in a matrix of intensely silicified and brecciated rhyolite vitrophyre cemented by drusy quartz and carrying pyrite and tellurides.

**Association:** Eztlite, emmonsite, schmitterite, kuranakhite, pyrite.

**Distribution:** From the Moctezuma (Bambolla) mine, 12 km south of Moctezuma, Sonora, Mexico.

**Name:** From the Nahuatl language for *something yellow*, in allusion to the color.

**Type Material:** The Natural History Museum, London, England, 1984,467.

**References:** (1) Williams, S.A. (1982) Cuzticitic and eztlite, two new tellurium minerals from Moctezuma, Mexico. *Mineral. Mag.*, 46, 257–259. (2) (1983) *Amer. Mineral.*, 68, 471 (abs. ref. 1).