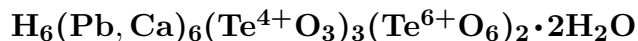


## Oboyerite



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**Crystal Data:** Triclinic. *Point Group:*  $\bar{1}$  or 1. In tiny spherules, composed of fibers to 60  $\mu\text{m}$ .

**Physical Properties:** *Cleavage:* One perfect. Hardness = 1.5 D(meas.) = 6.4(6)  
D(calc.) = 6.66

**Optical Properties:** Semitransparent. *Color:* Milk-white.

*Optical Class:* Biaxial. *Orientation:* Maximum extinction at  $37^\circ$  to elongation.  $\alpha = 2.24$   
 $\beta = \text{n.d.}$   $\gamma = 2.26$  2V(meas.) = n.d.

**Cell Data:** *Space Group:*  $P\bar{1}$  or  $P1$ .  $a = 12.249(8)$   $b = 15.113(6)$   $c = 6.868(3)$   
 $\alpha = 116.45(4)^\circ$   $\beta = 98.58(4)^\circ$   $\gamma = 85.82(4)^\circ$   $Z = 2$

**X-ray Powder Pattern:** Grand Central mine, Arizona, USA.

3.040 (10), 3.180 (7), 2.976 (5), 2.927 (5), 2.862 (5), 1.804 (4b), 9.038 (3)

### Chemistry:

	(1)	(2)
TeO <sub>3</sub>	16.2	15.54
TeO <sub>2</sub>	22.1	21.19
PbO	58.0	59.28
CaO	0.3	
H <sub>2</sub> O	4.2	3.99
Total	100.8	100.00

(1) Grand Central mine, Arizona, USA; by microanalysis, H<sub>2</sub>O by the Penfield method, after deduction of insoluble as quartz and chlorargyrite. (2) H<sub>6</sub>Pb<sub>6</sub>(Te<sup>4+</sup>O<sub>3</sub>)<sub>3</sub>(Te<sup>6+</sup>O<sub>6</sub>)<sub>2</sub>·2H<sub>2</sub>O.

**Occurrence:** A rare mineral found in specimens on a mine dump, an alteration product of rich gold-bearing telluride ore.

**Association:** Jarosite, fairbankite, rodalquilarite, mroseite, cerussite, orthoclase, "opal".

**Distribution:** In the Grand Central mine and the Tombstone Exploration open pit mine, Tombstone, Cochise Co., Arizona, USA.

**Name:** For Oliver Boyer, an original staker of the Grand Central claim.

**Type Material:** Natural History Museum, Paris, France; The Natural History Museum, London, England, 1980,540; National Museum of Natural History, Washington, D.C., USA, 162210.

**References:** (1) Williams, S.A. (1979) Girdite, oboyerite, fairbankite, and winstanleyite, four new tellurium minerals from Tombstone, Arizona. *Mineral. Mag.*, 43, 453–457. (2) (1980) *Amer. Mineral.*, 65, 809 (abs. ref. 1). (3) Roberts, A.C. (1980) A triclinic cell for oboyerite. *Geol. Surv. Canada Paper* 80-113, 295.