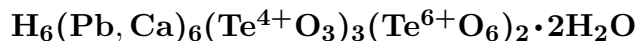


Oboyerite



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

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° 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 ₃	16.2	15.54
TeO ₂	22.1	21.19
PbO	58.0	59.28
CaO	0.3	
H ₂ O	4.2	3.99
Total	100.8	100.00

(1) Grand Central mine, Arizona, USA; by microanalysis, H₂O by the Penfield method, after deduction of insoluble as quartz and chlorargyrite. (2) H₆Pb₆(Te⁴⁺O₃)₃(Te⁶⁺O₆)₂•2H₂O.

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.