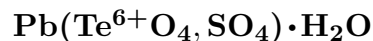


## Schieffelinite



©2001-2005 Mineral Data Publishing, version 1

**Crystal Data:** Orthorhombic. *Point Group:*  $2/m\ 2/m\ 2/m$ . Crystals are very rare, flattened on {010}, modified by {001}, {320}, {133}; typically platy or scaly, to 1 mm, in random aggregates.

**Physical Properties:** *Cleavage:* On {010}, easy. Hardness = 2 D(meas.) = 4.98(12)  
D(calc.) = 5.15

**Optical Properties:** Transparent to translucent. *Color:* Colorless, milky white.  
*Luster:* Adamantine.

*Optical Class:* Biaxial (-). *Orientation:*  $X = b$ ;  $Y = c$ ;  $Z = a$ . *Dispersion:*  $r < v$ , weak.  
 $\alpha = 1.897$   $\beta = 1.940$   $\gamma = 1.942$   $2V(\text{meas.}) = 24^\circ$

**Cell Data:** *Space Group:*  $Cmcm$ .  $a = 9.67$   $b = 19.56$   $c = 10.47$   $Z = 16$

**X-ray Powder Pattern:** Joe shaft, Tombstone, Arizona, USA.  
9.778 (10), 3.426 (6), 3.250 (6b), 3.560 (5b), 3.338 (5), 3.033 (5), 2.934 (5)

<b>Chemistry:</b>	(1)
	SO <sub>3</sub> 6.8
	TeO <sub>3</sub> 28.6
	PbO 58.2
	<u>H<sub>2</sub>O 4.7</u>
	Total 98.3

(1) Joe shaft, Tombstone, Arizona, USA; average of two analyses, H<sub>2</sub>O by the Penfield method; corresponds to  $\text{Pb}_{1.05}(\text{Te}_{0.66}\text{S}_{0.34})_{\Sigma=1.00}\text{O}_4 \cdot 1.06\text{H}_2\text{O}$ .

**Occurrence:** In the oxidized zone of tellurium-bearing hydrothermal precious metal deposits.

**Association:** Rodalquilarite, girdite, bromargyrite, gold, pyrite, empressite, goethite, quartz.

**Distribution:** On the dumps of the Joe shaft and at the Grand Central mine, Tombstone, Cochise Co., Arizona, USA.

**Name:** To honor Edward Schieffelin (1847–1897), a discoverer of the mines at Tombstone, Arizona, USA.

**Type Material:** Natural History Museum, Paris, France; The Natural History Museum, London, England, 1980,539; University of Arizona Mineral Museum, Tucson, Arizona; National Museum of Natural History, Washington, D.C., USA, R18474.

**References:** (1) Williams, S.A. (1980) Schieffelinite, a new lead tellurate-sulphate from Tombstone, Arizona. *Mineral. Mag.*, 43, 771–773. (2) (1981) *Amer. Mineral.*, 66, 219 (abs. ref. 1).