

**Crystal Data:** Orthorhombic. *Point Group:*  $2/m\ 2/m\ 2/m$ . As euhedral crystals, to 1 mm, blocky to tabular, may be distorted, showing {001}, {010}, {100}, and {012}.

**Physical Properties:** Hardness = Very soft.  $D(\text{meas.}) = 9.5$   $D(\text{calc.}) = 9.25$

**Optical Properties:** Opaque, transparent in thin fragments. *Color:* Black to dark brown.  
*Streak:* Reddish brown.

*Optical Class:* Biaxial; very strong birefringence. *Pleochroism:* Strong; red to black.  $n = > 2.0$   
 $2V(\text{meas.}) = \text{n.d.}$

**Cell Data:** *Space Group:* *Ibam.*  $a = 11.619(3)$   $b = 6.105(2)$   $c = 11.710(3)$   $Z = 4$

**X-ray Powder Pattern:** Terlingua, Texas, USA.

2.837 (100), 2.695 (80), 3.94 (60), 2.919 (50), 3.256 (35), 2.169 (20), 1.791 (15)

**Chemistry:**

	(1)
HgO	94.5
Cl	6.3
Br	0.2
$-\text{O} = (\text{Cl}, \text{Br})_2$	[1.4]
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Total	[99.6]

(1) Terlingua, Texas, USA; by neutron activation, corresponding to Hg<sub>5.00</sub>O<sub>4.00</sub>Cl<sub>2.04</sub>Br<sub>0.03</sub>.

**Occurrence:** A secondary mineral in a hydrothermal mercury deposit.

**Association:** Montroydite, terlinguaite.

**Distribution:** From Terlingua, Brewster Co., Texas, USA.

**Name:** To honor William Wallace Pinch (1940– ), American mineral collector of Rochester, New York, USA, who first noted the species.

**Type Material:** Canadian Museum of Nature, Ottawa; Royal Ontario Museum, Toronto, Canada, M33258; Harvard University, Cambridge, Massachusetts, 119858; National Museum of Natural History, Washington, D.C., USA, 128440, 132391, 160256.

**References:** (1) Sturman, B.D. and J.A. Mandarino (1974) Pinchite, a new mercury oxychloride from Terlingua, Texas. *Can. Mineral.*, 12, 417–418. (2) (1976) *Amer. Mineral.*, 61, 340 (abs. ref. 1). (3) Hawthorne, F.C., M. Cooper, and P.K. Sen Gupta (1994) The crystal structure of pinchite, Hg<sub>5</sub>Cl<sub>2</sub>O<sub>4</sub>. *Amer. Mineral.*, 79, 1199–1203.