

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. Crystals prismatic, elongated || [100], to 4 cm, or equant, with prominent {140} and a multiplicity of other forms; may have several sets of striations, bent or twisted. In aggregates, vermiform, tubular, or spherical; powdery, massive.

Physical Properties: *Cleavage:* {001}, perfect. *Tenacity:* Sectile; flexible but not elastic, brittle if bent on [001]. Hardness = 2.5 D(meas.) = 11.23 D(calc.) = 11.22

Optical Properties: Opaque, transparent on thin edges. *Color:* Deep red, brownish red to brown; red-orange to pale yellow in transmitted light. *Streak:* Yellow-brown. *Luster:* Vitreous to adamantine.

Optical Class: Biaxial (+). *Pleochroism:* In thick sections, deep red-orange to yellowish brown. *Orientation:* $X = a$ or b ; $Y = b$ or a ; $Z = c$. $\alpha = 2.37(2)$ $\beta = 2.5$ $\gamma = 2.65(2)$ $2V(\text{meas.}) = \text{Large}$.

Cell Data: *Space Group:* $Pnma$ (synthetic). $a = 6.608$ $b = 5.518$ $c = 3.519$ $Z = 4$

X-ray Powder Pattern: Synthetic.

2.972 (100), 2.836 (70), 2.4090 (55), 2.762 (52), 1.8159 (38), 1.4956 (20), 1.4435 (12)

Chemistry:

	(1)	(2)	(3)
Hg	92.87	92.74	92.61
O	7.13	7.49	7.39
Total	100.00	100.23	100.00

(1) Terlingua, Texas, USA; O by loss on heating. (2) Do.; O by volumetric analysis. (3) HgO.

Occurrence: In hydrothermal mercury deposits.

Association: Mercury, cinnabar, metacinnabar, calomel, eglestonite, terlinguaite, mosesite, kleinite, edgarbaileyite, gypsum, calcite, dolomite.

Distribution: In the USA, large crystals from Terlingua, Brewster Co., Texas; in California, in the Challenge deposit, near Emerald Lake, southwest of Redwood City, San Mateo Co., in the Socrates and Esperanza mines, Sonoma Co., the Kings and White mines, Parkfield district, Kings Co., the Red Elephant mine, near Lower Lake, Lake Co., and the Alpine and Clear Creek mines, New Idria district, San Benito Co.; and from the McDermitt mine, Opalite district, Humboldt Co., Nevada. Large crystals from Huahuaxtla, Guerrero, and at El Doktor, Queretaro, Mexico. From Khaydarkan, Fergana Valley, Alai Range, Kyrgyzstan.

Name: Honors Montroyd Sharp, an owner of the mercury deposit at Terlingua, Texas, USA.

Type Material: Harvard University, Cambridge, Massachusetts, 82936; National Museum of Natural History, Washington, D.C., USA, 86637, 86638, 87483.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 511–514. (2) Roth, W.L. (1956) The structure of mercuric oxide. *Acta Cryst.*, 9, 277–280. (3) Aurivillius, K. (1956) The structure of mercury(II) oxide. *Acta Cryst.*, 9, 685–686. (4) McMurdie, H.F., M.C. Morris, E.H. Evans, B. Paretzkin, W. Wong-Ng, Y. Zhang, and C.R. Hubbard (1986) Standard X-ray diffraction powder patterns from the JCPDS Research Associateship. *Powder Diffraction*, 1(4), 334–345, esp. 341.