

**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . As incrustations of polycrystalline aggregates, with crystals, less than 100  $\mu\text{m}$ , platy on {100}.

**Physical Properties:** Hardness = n.d.  $D(\text{meas.}) = 5.0$  (synthetic).  $D(\text{calc.}) = 4.96$

**Optical Properties:** Opaque, transparent only on thin edges. *Color:* Black; reddish brown in transmitted light; very light gray in reflected light. *Streak:* Reddish brown. *Luster:* Metallic. *Optical Class:* Biaxial. *Pleochroism:* Slight; bluish white. *Absorption:* Very weak. *Anisotropism:* Weak.

$R_1$ – $R_2$ : n.d.

**Cell Data:** *Space Group:*  $P2_1/n$ .  $a = 15.654(15)$   $b = 6.054(4)$   $c = 8.385(11)$   
 $\beta = 102.29(12)^\circ$   $Z = 4$

**X-ray Powder Pattern:** Izalco volcano, El Salvador.  
7.92 (10), 2.095 (8), 4.797 (7), 2.687 (7), 2.603 (7), 1.956 (7), 2.536 (6)

Chemistry:	(1)	(2)
V <sub>2</sub> O <sub>5</sub>	30.3	31.38
CrO <sub>3</sub>	1.0	
CuO	68.1	68.62
Total	99.4	100.00

(1) Izalco volcano, El Salvador; by electron microprobe, average of 20 analyses of 10 crystals, total V as V<sub>2</sub>O<sub>5</sub>, Cr as Cr<sub>2</sub>O<sub>3</sub>; corresponding to Cu<sub>4.98</sub>(V<sub>1.94</sub>Cr<sub>0.06</sub>) $_{\Sigma=2.00}$ O<sub>10</sub>. (2) Cu<sub>5</sub>V<sub>2</sub>O<sub>10</sub>.

**Occurrence:** A very rare mineral, deposited in vanadium-bearing sublimates in fumaroles on a basaltic volcanic cone.

**Association:** Shcherbinaite, ziesite, fingerite, bannermanite, chalcocyanite, chalcantinite.

**Distribution:** On Izalco volcano, El Salvador.

**Name:** To honor Dr. Richard Edwin Stoiber (1911–2001), Emeritus Professor of Geology, Dartmouth College, Hanover, New Hampshire, USA, who has studied Central American volcanoes and their mineralogy.

**Type Material:** Department of Earth Sciences, Dartmouth College, Hanover, New Hampshire; National Museum of Natural History, Washington, D.C., USA, 144942.

**References:** (1) Birnie, R.W. and J.M. Hughes (1979) Stoiberite, Cu<sub>5</sub>V<sub>2</sub>O<sub>10</sub>, a new copper vanadate from Izalco volcano, El Salvador, Central America. *Amer. Mineral.*, 64, 941–944.  
(2) Shannon, R.D. and C. Calvo (1973) Crystal structure of Cu<sub>5</sub>V<sub>2</sub>O<sub>10</sub>. *Acta Cryst.*, 29, 1338–1345.