

Crystal Data: Orthorhombic. *Point Group:* $mm2$. As equant anhedral crystals, to 150 μm , typically intergrown with other fumarolic copper vanadates.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = 3.95\text{--}3.97$ (synthetic). $D(\text{calc.}) = 4.051$

Optical Properties: Opaque. *Color:* Black; white in reflected light, with red-brown internal reflections. *Streak:* Red-brown. *Luster:* Metallic.

Optical Class: Biaxial. $n = [2.05]$ (rule of Gladstone and Dale). *Anisotropism:* Moderate; gray to creamy gray-brown. *Birefractance:* Weak to moderate; in shades of cream-white.

$R_1\text{--}R_2$: (481) 14.6–15.3, (547) 15.4–16.6, (591) 14.8–16.7, (644) 14.5–15.7

Cell Data: *Space Group:* $Fdd2$. $a = 20.676(6)$ $b = 8.392(3)$ $c = 6.446(2)$ $Z = 8$

X-ray Powder Pattern: Synthetic $\alpha\text{-Cu}_2\text{V}_2\text{O}_7$. (ICDD 26-566).

3.260 (100), 3.080 (100), 3.220 (80), 2.483 (80), 2.102 (70), 2.096 (70), 1.712 (70)

Chemistry:

| | (1) | (2) |
|------------------------|-------|--------|
| V_2O_5 | 53.28 | 53.34 |
| CuO | 46.49 | 46.66 |
| Total | 99.77 | 100.00 |

(1) Izalco volcano, El Salvador; by electron microprobe. (2) $\text{Cu}_2\text{V}_2\text{O}_7$.

Polymorphism & Series: Dimorphous with ziesite.

Occurrence: A very rare sublimate, probably formed between 100–200 °C, from the outer sulfate zone of a fumarole in the crater of a basaltic composite volcano.

Association: Fingerite, stoiberite, mcbirneyite, ziesite.

Distribution: From the summit crater of Izalco volcano, El Salvador.

Name: To honor Dr. F. Donald Bloss (1920–), American mineralogist, Virginia Polytechnic Institute, Blacksburg, Virginia, USA.

Type Material: National Museum of Natural History, Washington, D.C., USA, 164270.

References: (1) Robinson, P.D., J.M. Hughes, and M.L. Malinconico (1987) Blossite, $\alpha\text{-Cu}_2^{2+}\text{V}_2^{5+}\text{O}_7$, a new fumarolic sublimate from Izalco volcano, El Salvador. *Amer. Mineral.*, 72, 397–400. (2) Calvo, C. and R. Faggiani (1975) α cupric divanadate. *Acta Cryst.*, 31, 603–605.