

## Cobaltomenite



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**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . Crystals exhibit {001}, {100}, {010}, and less prominent {101}, to 1 mm; typically as spherical aggregates or crusts.

**Physical Properties:** *Fracture:* Conchoidal. Hardness = 2.5 D(meas.) = 3.42  
D(calc.) = 3.422 (synthetic).

**Optical Properties:** Transparent to translucent. *Color:* Rose-red, peach-blossom-pink to brownish pink, pale brown to yellowish brown with increasing nickel content. *Luster:* Vitreous. *Optical Class:* Biaxial (-) (synthetic). *Pleochroism:* X = pale pink; Y = pink; Z = red. *Orientation:*  $Z \wedge c = 13^\circ$ . *Dispersion:*  $r < v$ . *Absorption:*  $Z > Y > X$ .  $\alpha = 1.681$   $\beta = 1.728$   $\gamma = 1.769$   $2V(\text{meas.}) = 83^\circ$

**Cell Data:** *Space Group:*  $P2_1/n$  (synthetic).  $a = 6.496(1)$   $b = 8.809(2)$   $c = 7.619(2)$   
 $\beta = 98.87(1)^\circ$   $Z = 4$

**X-ray Powder Pattern:** Synthetic; close to ahlfeldite.  
5.70 (100), 3.46 (70), 3.017 (55), 3.80 (50), 2.738 (45), 2.378 (40), 1.734 (35)

**Chemistry:** (1) Composition established by concurrence of properties with those of synthetic material.

**Polymorphism & Series:** Forms a series with ahlfeldite.

**Occurrence:** A secondary mineral in the oxidation zone of hydrothermal selenium-sulfide-bearing vein deposits.

**Association:** Chalcomenite, molybdomenite (Cerro de Cacheuta, Argentina); chalcomenite, clinochalcomenite, lepidocrocite, gypsum (El Dragón mine, Bolivia).

**Distribution:** From Cerro de Cacheuta, Mendoza Province, Argentina. At the El Dragón mine, 30 km southwest of Cerro Rico de Potosí, Potosí, and in the Pacajake mine, Hiaco, 30 km east-northeast of Colquechaca, Potosí, Bolivia. From the Musonoi and Kambove West mines, Shaba Province, Congo (Zaire). In the USA, at the A.E.C. No. 8 mine, Temple Mountain, Emery Co., and at the Parco mine group, Thompson district, Grand Co., Utah.

**Name:** For the content of *cobalt* and the Greek for *moon*.

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