

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As subhedral to anhedral grains to 200  $\mu\text{m}$ , or as lath-shaped, thin plates, to 100  $\mu\text{m}$ , intergrown with other phases.

**Physical Properties:** *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* Irregular. Hardness = 2-2.5 VHN = 37-50 42 average (20 g load). D(meas.) = n.d. D(calc.) = 8.26

**Optical Properties:** Opaque. *Color:* Black, cream to light grey in reflected light. *Streak:* Black. *Luster:* Metallic. *Bireflectance:* Slight. *Pleochroism:* Slight, from grayish cream to cream. *Anisotropism:* Weak, khaki to pale blue.

*Optical Class:* n.d.

R<sub>1</sub>-R<sub>2</sub>: (400) 46.7-46.9, (420) 46.9-47.1, (440) 47.1-47.4, (460) 47.3-47.9, (470) 47.3-48.1, (480) 47.4-48.4, (500) 47.4-48.7, (520) 47.4-48.9, (540) 47.4-49.0, (546) 47.4-49.0, (560) 47.3-49.0, (580) 47.2-49.0, (589) 47.1-49.0, (600) 47.0-48.9, (620) 46.9-48.8, (640) 46.7-48.6, (650) 46.6-48.5, (660) 46.5-48.4, (680) 46.4-48.2, (700) 46.3-48.0

**Cell Data:** *Space Group:* P2<sub>1</sub>/c. *a* = 6.853(1) *b* = 7.635(1) *c* = 7.264(1)  $\beta$  = 97.68(1) $^\circ$  *Z* = 4

**X-ray Powder Pattern:** El Dragón mine, Department of Potosí, Bolivia.

2.986 (100), 3.97 (90), 2.620 (60), 2.808 (50), 3.100 (40), 2.290 (35), 2.385 (30)

<b>Chemistry:</b>	(1)
Cu	9.31
Ag	0.73
Hg	11.43
Pb	13.55
Co	0.03
Ni	0.17
Bi	31.17
Se	34.00
Total	100.39

(1) El Dragón mine, Province of Antonio Quijarro, Department of Potosí, Bolivia; average of 5 electron microprobe analyses; corresponds to (Cu<sub>0.68</sub>Hg<sub>0.27</sub>Ag<sub>0.03</sub>Ni<sub>0.01</sub>) $\Sigma=0.99$ (Bi<sub>0.69</sub>Pb<sub>0.31</sub>) $\Sigma=1.00$ Se<sub>2.01</sub>.

**Polymorphism & Series:** Polymorphous with grundmannite.

**Occurrence:** In a vein cutting interbedded pyritiferous black shales and hematite-bearing siltstones.

**Association:** Watkinsonite, clausenthalite, eldragónite, krut'aite-penroseite solid solution, eskebornite, kloekmannite, umangite, petrovicite, grundmannite, gold.

**Distribution:** From the El Dragón mine, Province of Antonio Quijarro, Department of Potosí, Bolivia.

**Name:** Honors Hans Block (1881-1953), for his contributions to fostering Bolivian mining.

**Type Material:** Natural History Museum, London, England (BM 2015, 136) and the Mineralogical State Collection, Munich, Germany ('Reich der Kristalle') (MSM 73573).

**References:** (1) Förster, H.-J., L. Bindi, C.J. Stanley, and G. Grundmann (2017) Hansblockite, (Cu,Hg)(Bi,Pb)Se<sub>2</sub>, the monoclinic polymorph of grundmannite: a new mineral from the Se mineralization at El Dragón (Bolivia). *Mineral. Mag.*, 81(3), 629-640. (2) (2018) *Amer. Mineral.*, 103, 832 (abs. ref. 1).