

Gortdrumite



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Crystal Data: Orthorhombic. *Point Group:* n.d. As anhedral grains, to 200 μm .
Twinning: Fine lamellar twinning in some grains.

Physical Properties: Hardness = n.d. VHN = 186–230 (10 g load). D(meas.) = n.d.
D(calc.) = [6.80]

Optical Properties: Opaque. *Color:* Blackish lead-gray, resembling chalcocite.
Luster: Metallic. *Anisotropism:* Strong, with colors from grayish white with a bluish tint to blue.
 R_1 – R_2 : (400) 28.0–31.4, (420) 28.1–31.4, (440) 28.0–31.3, (460) 27.8–31.2, (480) 27.6–31.1, (500) 27.4–31.1, (520) 27.0–30.8, (540) 26.7–30.5, (560) 26.2–30.0, (580) 25.9–29.5, (600) 25.6–29.0, (620) 25.4–28.6, (640) 25.3–28.4, (660) 25.3–28.2, (680) 25.3–28.1, (700) 25.2–28.0

Cell Data: *Space Group:* n.d. $a = 14.958$ $b = 7.900$ $c = 24.10$ $Z = 4$

X-ray Powder Pattern: Gortdrum deposit, Ireland.
4.58 (100), 3.38 (70), 2.88 (50), 2.78 (50), 6.03 (40), 3.08 (30), 3.02 (30)

Chemistry:	(1)	(2)	(3)
Cu	38.68	36.8	
Fe	2.07	2.1	
Hg	41.55	39.6	
S	16.81	21.0	
Total	99.11	99.5	

(1) Gortdrum deposit, Ireland; by electron microprobe, average of four analyses; corresponds to $\text{Cu}_{18.58}\text{Fe}_{1.13}\text{Hg}_{6.32}\text{S}_{16.00}$. (2) Do.; by electron microprobe, corresponds to $\text{Cu}_{14.15}\text{Fe}_{0.92}\text{Hg}_{4.82}\text{S}_{16.00}$.

Occurrence: Admixed with other sulfide minerals in a vein cutting dolomitized limestone; mineral associations suggest formation at less than 200 °C.

Association: Chalcopyrite, bornite, chalcocite, cinnabar, ferroan dolomite, barite.

Distribution: From the Gortdrum deposit, near Tipperary, Co. Tipperary, Ireland [TL].

Name: For the type locality, the Gortdrum deposit, Ireland.

Type Material: The Natural History Museum, London, England, 1983,62.

References: (1) Steed, G.M. (1983) Gortdrumite, a new sulphide mineral containing copper and mercury, from Ireland. *Mineral. Mag.*, 47, 35–36. (2) (1984) *Amer. Mineral.*, 69, 407 (abs. ref. 1). (3) Criddle, A.J. and C.J. Stanley, Eds. (1993) *Quantitative data file for ore minerals*, 3rd ed. Chapman & Hall, London, 210.