Monteponite CdO

Crystal Data: Cubic. *Point Group:* $4/m\ \overline{3}\ 2/m$. As octahedra, with cube modification, in a druse of fine crystals, to 0.05 mm; pulverulent, massive. *Twinning:* Penetration twins, law unknown.

Physical Properties: Hardness = 3 D(meas.) = 8.1–8.2 (synthetic). D(calc.) = 8.238

Optical Properties: Transparent. *Color:* Black; red to orange-brown in transmitted light. *Luster:* Brilliant.
Optical Class: Isotropic. $n = 2.49$ (Li).

Cell Data: *Space Group:* $Fm3m$ (synthetic). a = 4.6953 Z = 4

X-ray Powder Pattern: Synthetic.
2.712 (100), 2.349 (88), 1.661 (43), 1.416 (28), 1.355 (13), 1.0499 (13), 0.9584 (11)

Chemistry:

	(1)	(2)
Cd	87.5	87.54
O	[12.5]	12.46
Total	[100.0]	100.00

(1) Genarutta mine, Sardinia, Italy; O by difference. (2) CdO.

Mineral Group: Periclase group.

Occurrence: As a coating over "calamine" (Genarutta mine, Sardinia, Italy); in sulfide ore (Verkhoyan'ya, Russia).

Association: "Calamine" [smithsonite or hemimorphite] (Genarutta mine, Sardinia, Italy); cadmium, otavite (Verkhoyan'ya, Russia).

Distribution: From the Genarutta mine, Monteponi, near Iglesias, Sardinia, Italy. At Welrath, Belgium. From southern Verkhoyan'ya, Russia.

Name: For Monteponi, near the locality on Sardinia, Italy.

Type Material: n.d.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 502–503 [cadmium oxide]. (2) Vlasov, K.A., Ed. (1966) Mineralogy of rare elements, v. II, 575–576. (3) Fairbanks, E.E. (1946) The punched card identification of ore minerals [cadmium oxide=monteponite]. Econ. Geol., 41, 761–768, esp. 767. (4) (1947) Amer. Mineral., 32, 484 (abs. ref. 3). (5) (1953) NBS Circ. 539, 2, 27.