

Crystal Data: Tetragonal. *Point Group:* $4/m\ 2/m\ 2/m$. Of variable and complex habit; crystals commonly tabular on {001}, prismatic \parallel [001], equant pyramidal, to 1 cm; in drusy crusts, earthy, massive. *Twinning:* On {112}, contact and penetration twins, may be repeated.

Physical Properties: *Cleavage:* Good on {110}, uneven; imperfect on {011}.
Fracture: Conchoidal. *Tenacity:* Sectile, plastic. Hardness = 1.5 D(meas.) = 7.15
D(calc.) = 7.23 Fluoresces brick-red under UV.

Optical Properties: Transparent to translucent. *Color:* Colorless, white, ash-gray, yellowish gray, brown, color deepening on exposure to light; colorless in transmitted light. *Streak:* Pale yellowish white. *Luster:* Adamantine.

Optical Class: Uniaxial (+). *Pleochroism:* Weak. *Absorption:* $E > O$. $\omega = 1.973$ $\epsilon = 2.656$

Cell Data: *Space Group:* $I4/mmm$ (synthetic). $a = 4.4795(5)$ $c = 10.9054(9)$ $Z = 4$

X-ray Powder Pattern: Synthetic.
3.170 (100), 4.15 (75), 2.067 (40), 2.727 (30), 1.962 (30), 1.970 (16), 2.824 (12)

Chemistry: Analyses of natural material are not available.

Polymorphism & Series: Forms a series with kuzminite.

Occurrence: An uncommon secondary mineral formed through the alteration of other mercury minerals.

Association: Mercury, amalgam, cinnabar, mercurian tetrahedrite, eglestonite, terlinguaite, montroydite, kleinite, moschelite, kadyrelite, kuzminite, chursinite, kelyanite, calcite, "limonite", clay minerals.

Distribution: From Moschellandsberg [ck?? Landsberg, near Obermoschel??], Rhineland-Palatinate, Germany [TL]. At Alva, Serbia. Large crystals from Almadén, Ciudad Real Province, Spain. Found near Montpellier, Hérault, France. In England, at the Chatsworth mine, Grassington Moor, Yorkshire. From the Kadyrel deposit, Tuva, Siberia, Russia. Rich specimens from El Doktor, Queretaro; Huahuaxtla, Guerrero; Plateros, Zacatecas; and elsewhere in Mexico. In the USA, in California, near Palo Alto, San Mateo Co., and the Redington mine, Napa Co.; from the Sunflower district, Maricopa Co., Arizona; in the McDermitt mine, Humboldt Co., Nevada; abundant at Terlingua, Brewster Co., Texas; and from near Jackfork, Pike Co., Arkansas. Some other minor localities are known.

Name: Of uncertain origin; possibly from the Greek for *beautiful* and *honey*.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 25–28. (2) Calos, N.J., C.H.L. Kennard, and R.L. Davis (1989) The structure of calomel, Hg_2Cl_2 , derived from neutron powder data. *Zeits. Krist.*, 187, 305–307. (3) (1976) NBS Mono. 25, 13, 30.