Crystal Data: Orthorhombic. Point Group: $2/m \ 2/m \ 2/m$. Scaly, commonly earthy, as incrustations and massive.


Optical Properties: Translucent, transparent on thin edges. Color: Sulfur-yellow to orpiment-yellow, may have a reddish tint; in transmitted light, colorless to pale yellow. Streak: Yellow. Luster: Greasy to dull.

Optical Class: Biaxial (+). Pleochroism: $Y$ = light sulfur-yellow; $Z$ = deep yellow. Dispersion: Strong. $\alpha = 2.51 \ \beta = 2.61 \ \gamma = 2.71 \ 2V(meas.) = \sim 90^\circ$

Cell Data: Space Group: $Pc_{\text{am}}$ (synthetic). $a = 5.4903(1) \quad b = 5.8920(1) \quad c = 4.7520(1) \quad Z = 4$

X-ray Powder Pattern: Synthetic.
3.068 (100), 2.946 (24), 2.745 (23), 2.3767 (17), 1.7232 (16), 1.6401 (15), 2.0078 (13)

Chemistry: Analyses of natural material are not available; identification is through correspondence of other properties with synthetic material.

Occurrence: As an oxidation product of galena, bournonite, boulangerite, and other lead-bearing minerals.

Association: Cerussite, litharge, minium, wulfenite, antimony oxides, “limonite”.

Distribution: Although widespread, typically only in minor amounts. Localities for representative material include: in Germany, from Freiberg, Saxony, at Greifenstein, Nassau, and elsewhere. In France, at Malmes, Gard; Ally, Haute-Loire; in the La Gardette mine, Bourg d’Oisans, Isère; and others. At Băița (Războieni), Romania. From Laurium, Greece, in slag. At Caracoles, Bolivia. On Popocatepetl volcano, Puebla; at Carachilas, Baja California; Tornacuxtla, Hidalgo; and many other places in Mexico. In the USA, in California, from the Cerro Gordo district, Inyo Co., and on Cucamonga Peak, San Bernardino Co.; in Arizona, from the Tonopah-Belmont mine, Osborne district, at the Moon Anchor mine, Potter-Cramer property, and the Rat Tail claim, Vulture district, Maricopa Co.; in the Flux mine, Patagonia Mountains, Santa Cruz Co.; and several other places. From Dundas, Tasmania, Australia.

Name: From early Arabic, through the Spanish mazacote and the French for oxide of lead.