Cervantite $Sb^{3+}Sb^{5+}O_4$

Crystal Data: Orthorhombic. *Point Group:* $mm2$. Fine-grained, massive.

Physical Properties: *Cleavage:* {001}, excellent; {100}, distinct. Hardness = 4–5
D(meas.) = > 6.5 D(calc.) = 6.64

Optical Properties: Semitransparent. *Color:* Yellow to nearly white; colorless in transmitted light. *Streak:* Pale yellow to white. *Luster:* Earthy when powdery.
Optical Class: Biaxial. n = 2.0–2.1 2V(meas.) = n.d.

Cell Data: *Space Group:* $Pna2_1$. $a = 5.43$ $b = 4.79$ $c = 11.73$ Z = 4

X-ray Powder Pattern: Brasina, Serbia.
3.06 (10), 2.91 (7), 1.854 (7), 1.635 (7), 2.70 (6), 2.38 (6), 1.774 (6)

Chemistry: The composition has been established by correspondence of other properties with synthetic $Sb^{3+}Sb^{5+}O_4$.

Occurrence: A secondary mineral formed from the oxidation of stibnite.

Association: Stibnite.

Distribution: The existence of the species was re-established on material from the Zajača-Stolice district, Brasina, Serbia. At Baia Sprie (Felsőbánya), Romania. In the Cetine mine, 20 km southwest of Siena, and the Pereta mine, Scansano, Tuscany, Italy. At the Clara Mine, near Oberwolfach, Black Forest, Germany. From Pocca, Bolivia. Material from other localities requires modern confirmation.

Name: For the supposed original occurrence at Cervantes, Spain, type material from which is not available.

References: (1) Gründer, W., H. Pätzold, and H. Strunz (1962) Sb_2O_4 als Mineral (Cervantit) [cervantite confirmed]. Neues Jahrb. Mineral., Monatsh., 93–98 (in German with English abs.).
(2) (1962) Amer. Mineral., 47, 1221 (abs. ref. 1). (3) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 597–598 [probably cervantite in part].
(4) Thornton, G. (1977) A neutron diffraction study of α-Sb_2O_4. Acta Cryst., 33, 1271–1273.
(5) (1960) NBS Circ. 539, 10, 8.