Sphaerobismoite Bi_2O_3

Crystal Data: Tetragonal. *Point Group:* n.d. Crystals tabular, to 20 μm, may show a tetragonal outline, in spherulitic aggregates.

Physical Properties: *Fracture:* Conchoidal. Hardness = 4 D(meas.) = n.d. D(calc.) = 7.17

Optical Properties: Semitransparent. *Color:* Green, pale yellow, or gray. *Streak:* White. *Luster:* Adamantine to dull.
Optical Class: Uniaxial (+). $\omega = 2.13(2)$ $\epsilon = 2.18(2)$

Cell Data: *Space Group:* n.d. $a = 8.08(2)$ $c = 6.46(2)$ $Z = 4$

X-ray Powder Pattern: Black Forest, Germany.
3.16 (100), 5.73 (70), 1.902 (60), 3.44 (50), 2.02 (50)

Chemistry:

	(1)
Bi_2O_3	98.40
As_2O_3	1.78
Total	100.18

(1) Black Forest, Germany; by electron microprobe, corresponding to $(Bi_{1.92}As_{0.08})_{\Sigma=2.00}O_3$.

Polymorphism & Series: Dimorphous with bismite.

Occurrence: An oxidation product of wittichenite and emplectite.

Association: Bismutite, mixite, malachite, barite, quartz, "limonite".

Distribution: From Neubulach, and at Schmiedestollen-Holde, near Wittichen, Black Forest, Germany.

Name: In allusion to the spherical aggregates, and *bismuth* in its composition.

Type Material: n.d.

References: (1) Walenta, K. (1995) Sphaerobismoite, a new mineral of the composition Bi_2O_3 from the Black Forest. Aufschluss, 46, 245–248 (in German). (2) (1996) Amer. Mineral., 81, 1514–1515 (abs. ref. 1).