

Crystal Data: Cubic. *Point Group:* $\bar{4}3m$. As tetrahedral crystals, to 2 mm, showing {100}, {110}, {111}, and {211}. *Twining:* Interpenetrant, may be multiple.

Physical Properties: *Cleavage:* Very imperfect on {110}. *Fracture:* Uneven. *Tenacity:* Rather brittle. Hardness = 4.5 D(meas.) = 6.62–6.76 D(calc.) = [6.76]

Optical Properties: Transparent to opaque. *Color:* Dark brown, yellowish gray, grayish white, straw-yellow, colorless; colorless to pale brown in thin section. *Streak:* White or yellowish gray. *Luster:* Resinous or adamantine.

Optical Class: Isotropic; anomalously biaxial (-). $n = 2.05$

Cell Data: *Space Group:* $I\bar{4}3d$. $a = 10.29$ $Z = [4]$

X-ray Powder Pattern: Synthetic.

3.20 (100), 2.70 (100), 4.13 (80), 2.070 (70), 1.990 (70), 1.664 (70), 1.584 (70)

Chemistry:	(1)	(2)
SiO ₂	16.52	16.21
Bi ₂ O ₃	82.23	83.79
rem.	1.15	
Total	99.90	100.00

(1) Schneeberg, Germany; remainder is Fe₂O₃ and P₂O₅. (2) Bi₄(SiO₄)₃.

Occurrence: In bismuth-rich hydrothermal veins.

Association: Bismuth, quartz.

Distribution: In Germany, from Schneeberg and Johanngeorgenstadt, Saxony; at Hechtsberg, near Hausach, and in the Clara Mine, near Oberwolfach, Black Forest. From Dognacea (Dognaczka), Romania. At Lanlivery, Cornwall, England. From the Southwick cliffs, near Dalbeattie, Kirkcudbrightshire, Scotland. In Canada, from the Evans-Lou quarry, near Wakefield Lake, Quebec.

Name: From the Greek for *good* and *dissolved*, in reference to its low point of fusion.

Type Material: Mining Academy, Freiberg, Germany, 23972.

References: (1) Dana, E.S. (1892) Dana's system of mineralogy, (6th edition), 436. (2) Menzer, G. (1931) Die Kristallstruktur von Eulytin. Zeits. Krist., 78, 136–163 (in German). (3) Durif-Varambon, A. (1959) Étude de la substitution du silicium dans quelques types d'orthosilicates. Bull. Soc. fr. Minéral., 82, 285–314 (in French). (4) Segal, D.J., R.P. Santoro, and R.E. Newnham (1966) Neutron diffraction study of BiSi₃O₁₂. Zeits. Krist., 123, 73–76. (5) Phillips, W.R. and D.T. Griffen (1981) Optical mineralogy, 412.