

Crystal Data: Triclinic, pseudomonoclinic. *Point Group:* $\bar{1}$. Crystals elongated || [010], lath-shaped on {001}, to 18 cm; typically in radiating aggregates, may be tufted and hairlike. *Twinning:* On $\{4\bar{1}1\}$.

Physical Properties: *Cleavage:* Perfect on {001}; parting on {010}. *Tenacity:* Sectile, thin fragments flexible. Hardness = 1–1.5 VHN = 30–90 (5 g load). D(meas.) = 4.68 D(calc.) = 4.88

Optical Properties: Translucent. *Color:* Cherry-red; red in thin fragments. *Streak:* Brownish red. *Luster:* Adamantine to semimetallic.

Optical Class: Biaxial (+). *Orientation:* $Z = b$. $\alpha = 2.99$ $\beta = 3.14$ $\gamma = 3.48$

Anisotropism: Very strong to extreme.

R_1 – R_2 : (400) 31.1–37.5, (420) 30.0–36.4, (440) 29.0–35.2, (460) 28.0–34.0, (480) 27.2–33.0, (500) 26.4–32.2, (520) 25.7–31.3, (540) 25.2–30.6, (560) 24.8–30.0, (580) 24.4–29.4, (600) 24.0–29.0, (620) 23.8–28.6, (640) 23.5–28.2, (660) 23.4–28.0, (680) 23.2–27.8, (700) 23.1–27.7

Cell Data: *Space Group:* $P\bar{1}$. $a = 8.147(1)$ $b = 10.709(1)$ $c = 5.785(1)$ $\alpha = 102.78(2)^\circ$ $\beta = 110.63(2)^\circ$ $\gamma = 101.00(1)^\circ$ $Z = 4$

X-ray Powder Pattern: Zimbabwe. (ICDD 11-91).

2.92 (100), 3.13 (90), 2.69 (70), 4.06 (60), 1.782 (60), 5.29 (50), 2.49 (50)

Chemistry:

	(1)	(2)
Sb	75.2	75.24
O	4.8	4.94
S	19.9	19.82
Total	99.9	100.00

(1) Globe and Phoenix mine, Zimbabwe; by electron microprobe. (2) Sb₂OS₂.

Occurrence: A secondary mineral, as an alteration of stibnite, in antimony deposits.

Association: Stibnite, antimony, sénarmontite, valentinite, cervantite, stibiconite.

Distribution: In small amounts in many deposits. From Bräunsdorf, near Freiberg, Saxony, Germany. Fine examples from the Kriznica mine, near Pernek, and in the Pezinok mine, Malé Karpaty Mountains, Slovakia. At Příbram, Czech Republic. In the Chalanches mine, near Allemont, Isère, France. From the Cetine mine, 20 km southwest of Siena, Tuscany, Italy. At Kadamdja, Kyrgyzstan. In the Santa Cruz and San Francisco mines, Poopó, Oruro, Bolivia. Exceptional radiating groups from the Globe and Phoenix mine, Kwekwe (Que Que), Zimbabwe. At Sombrerete, Zacatecas, Mexico. From Canada, in the Lac Nicolet mine, South Ham, Quebec, and at other localities. In the USA, at the Mohave mine, Kern Co., California; noted at nearly 30 localities in Nevada, all minor. From Broken Hill, New South Wales, Australia. Outstanding examples from ??, China.

Name: From *kermes* (after Persian *qurmizq*, *crimson*) for red amorphous antimony trisulfide.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 279–280. (2) Cervelle, B. (1971) Détermination par microrélectométrie de propriétés optiques d'un cristal monoclinique absorbant (kermésite Sb₂S₂O). Bull. Soc. fr. Minéral., 94, 486–491 (in French). (3) Bonazzi, P., S. Menchetti, and C. Sabelli (1987) Structure refinement of kermesite: symmetry, twinning, and comparison with stibnite. Neues Jahrb. Mineral., Monatsh., 557–567.