

Crystal Data: Monoclinic. *Point Group:* 2/m. As elongated grains < 1 mm.

Physical Properties: *Cleavage:* None. *Fracture:* Irregular. *Tenacity:* Brittle. Hardness = ~ 3
VHN = 200 (50 g load). D(meas.) = n.d. D(calc.) = 5.34

Optical Properties: Opaque. *Color:* Grayish black; grayish white in reflected light.

Streak: Dark gray. *Luster:* Metallic.

Optical Class: n.d. *Anisotropism:* Distinct, shades of gray.

R_1 - R_2 : (470) 37.0-39.3, (546) 34.1-36.9, (589) 33.1-36.2, (650) 31.3-34.1

Cell Data: *Space Group:* $P2_1/n$. $a = 8.533(1)$ $b = 8.075(1)$ $c = 24.828(2)$ $\beta = 99.077(6)^\circ$
 $Z = 1$

X-ray Powder Pattern: Barika Au-Ag deposit, Azarbaijan Province, Western Iran.

3.646 (100), 2.769 (91), 2.752 (78), 2.972 (66), 3.835 (63), 3.408 (62), 3.441 (60)

Chemistry:	(1)
Ag	5.80
Pb	35.77
Sb	18.33
As	15.64
Tl	0.15
S	24.00
Total	99.69

(1) Barika Au-Ag deposit, Azarbaijan Province, Western Iran; average of 5 electron microprobe analyses; corresponding to $\text{Pb}_{9.31}\text{Ag}_{2.90}\text{Tl}_{0.04}(\text{Sb}_{8.12}\text{As}_{11.26})_{\Sigma=19.36}\text{S}_{40.37}$.

Occurrence: In hydrothermal quartz-barite veinlets cutting a folded and metamorphosed volcanogenic massive sulfide deposit containing Ag-As-Sb-Pb-rich sulfosalt mineralization.

Association: Guettardite, quartz, barite.

Distribution: At the Barika Au-Ag deposit, Azarbaijan Province, Western Iran.

Name: For the locality that produced the first specimens.

Type Material: Natural History Museum, Vienna, Austria (N 9581).

References: (1) Topa, D., E. Makovicky, H. Tajeddin, H. Putz, and G. Zagler (2013) Barikaite, $\text{Pb}_{10}\text{Ag}_3(\text{Sb}_8\text{As}_{11})\text{S}_{19}\text{S}_{40}$, a new member of the sartorite homologous series. *Mineral. Mag.*, 77(7), 3039-3046. (2) Topa D., and E. Makovicky (2013) The crystal structure of barikaite. *Mineral. Mag.*, 77(8), 3093-3104. (3) (2016) *Amer. Mineral.*, 101, 487 (abs. refs. 1 & 2).