

Crystal Data: Tetragonal. *Point Group:* 4/m 2/m 2/m. Crystals, prismatic and striated || [001], showing {100}, {110}, {111}, {132}, {012}, and several other forms, to 1 mm.

Physical Properties: *Cleavage:* {110}, perfect; {100}, very good; {001}, trace. Hardness = 3.5 D(meas.) = 4.3 D(calc.) = [5.24]

Optical Properties: Opaque, translucent in thin fragments. *Color:* Red to red-brown; yellow in transmitted light. *Streak:* Brown. *Luster:* Metallic.

Optical Class: Uniaxial (+); weak birefringence. *Pleochroism:* E = brownish yellow; O = straw-yellow. $\omega = > 1.74$ $\epsilon = \text{n.d.}$

Cell Data: *Space Group:* P4₂/mbc. $a = 8.590(5)$ $c = 5.913(5)$ $Z = 4$

X-ray Powder Pattern: Pernek, Slovakia.

1.050 (125), 1.014 (125), 1.670 (100), 1.309 (60), 1.158 (60), 3.22 (50), 3.04 (50)

Chemistry:

	(1)	(2)
As ₂ O ₃	9.72	
Sb ₂ O ₃	67.95	80.23
FeO	17.58	19.77
ZnO	1.10	
Total	96.35	100.00

(1) Buca della Vena mine, Italy; by electron microprobe, total Fe as FeO, Sb as Sb₂O₃, As as As₂O₃; corresponds to (Fe_{0.88}Zn_{0.05})_{Σ=0.93}(Sb_{1.69}As_{0.36})_{Σ=2.05}O₄. (2) FeSb₂O₄.

Occurrence: In oxidized antimony-bearing hydrothermal mineral deposits.

Association: Kermesite, valentinite, sénarmontite, stibnite, calcite (Pernek, Slovakia); apuanite, versiliaite, derbylite, bournonite, pyrite, sphalerite (Buca della Vena mine, Italy).

Distribution: From Pernek, near Pezinok, Slovakia. In the Buca della Vena iron mine, north of Stazzema, Apuan Alps, Tuscany, Italy. From Canada, in the Lac Nicolet mine, South Ham, Quebec.

Name: To honor Professor Ferenc Schafarzik (1854–1927), Hungarian mineralogist, of the Polytechnic, Budapest, Hungary.

Type Material: University of Vienna, Vienna, Austria.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1035–1036. (2) Zemann, J. (1951) Formel und Kristallstruktur des Schafarzikits. *Tschermaks Mineral. Petrog. Mitt.*, 2, 166–175 (in German). (3) Fischer, R. and F. Pertlik (1975) Verfeinerung der Kristallstruktur des Schafarzikits, FeSb₂O₄. *Tschermaks Mineral. Petrog. Mitt.*, 22, 236–241 (in German with English abs.). (4) Mellini, M., M. Amouric, A. Baronnet, and G. Mercuriot (1981) Microstructures and nonstoichiometry in schafarzikite-like minerals. *Amer. Mineral.*, 66, 1073–1079.