

Crystal Data: Monoclinic, pseudotetragonal. *Point Group:* 2/*m*. Thin tabular crystals, to 1 cm, platy on {010}, commonly bent, with striations on (001) || [100] and [010]; also granular massive. *Twinning:* Crossed twin lamellae exhibited on (001) sections.

Physical Properties: *Cleavage:* Perfect on {010}, excellent on {101}. *Tenacity:* Flexible, slightly malleable. Hardness = 1.5 VHN = 60–94 (100 g load). D(meas.) = 7.35–7.49 D(calc.) = 7.29

Optical Properties: Opaque. *Color:* Blackish lead-gray; pale gray in polished section. *Streak:* Blackish lead-gray. *Luster:* Metallic, bright on fresh cleavage. *Pleochroism:* Weak in air and oil. *Anisotropism:* Weak but distinct. R₁–R₂: (400) 46.4–48.4, (420) 45.4–47.4, (440) 44.5–46.7, (460) 43.6–45.9, (480) 42.9–45.1, (500) 42.1–44.2, (520) 31.3–43.3, (540) 40.5–42.4, (560) 39.8–41.6, (580) 39.2–40.9, (600) 38.7–40.3, (620) 38.3–39.8, (640) 37.8–39.2, (660) 37.2–38.6, (680) 36.6–37.8, (700) 36.0–37.2

Cell Data: *Space Group:* P2₁/*m* (synthetic). *a* = 4.220(1) *b* = 4.176(1) *c* = 15.119(3) β = 95.42(3)° *Z* = 2

X-ray Powder Pattern: Săcărișmb, Romania. 3.023 (100), 2.829 (80), 2.081 (50), 2.431 (40), 1.511 (40), 1.823 (30), 1.710 (30)

Chemistry:	(1)	(2)	(3)	(1)	(2)	(3)
Pb	56.81	56.76	58.8	Sb	7.39	7.68
Au	7.51	7.47	9.0	Te	17.72	16.97
Ag		0.10	0.17	S	10.76	10.83
Fe	0.41	0.02		Total	100.60	99.85
Cu		0.02				101.0

(1) Săcărișmb, Romania; corresponding to (Te_{0.81}Au_{0.22})_{Σ=1.03}Pb_{1.00}(Pb_{0.60}Sb_{0.36}Fe_{0.04})_{Σ=1.00}S_{2.00}. (2) Do.; by electron microprobe, average of 61 analyses on one specimen; corresponding to (Te_{0.78}Au_{0.22})_{Σ=1.00}Pb_{1.00}(Pb_{0.62}Sb_{0.37})_{Σ=0.99}S_{2.00}. (3) Cripple Creek, Colorado, USA; by electron microprobe, corresponding to (Te_{0.71}Au_{0.28}Ag_{0.01})_{Σ=1.00}Pb_{1.00}(Pb_{0.71}Sb_{0.39})_{Σ=0.99}S_{2.00}.

Occurrence: In Au–Te-bearing epithermal hydrothermal veins.

Association: Altaite, petzite, stutzite, sylvanite, tellurantimony, coloradoite, krennerite, arsenic, gold, proustite, rhodochrosite, arsenopyrite, sphalerite, tetrahedrite (Săcărișmb, Romania); calaverite, gold, tellurobismuthite, altaite, galena, pyrite (Bohuliby mine, Czech Republic).

Distribution: In Romania, from Săcărișmb (Nagyág) [TL] and Baia-de-Arieș (Offenbánya). In the Bohuliby mine, Jílové gold deposit, Czech Republic. From the Chelopech deposit, Sofia, Bulgaria. At Schellgaden, Austria. From Manka, Kazakhstan. At Zod, Armenia. In the Glen Rosa mine, Selukwe, Zimbabwe. In the USA, from Gold Hill, Boulder Co., and Cripple Creek, Teller Co., Colorado; in the Dorleska mine, Coffee Creek district, Trinity Co., California; from the Mayflower mine, Tobacco Root Mountains, Madison Co., Montana; and at the Foote mine, Kings Mountain, Cleveland Co., North Carolina. In Canada, in the Huronian mine, Moss Township, Ontario; and from the Olive Mabel claim, Gainer Creek, British Columbia. At Farallon Negro, Catamarca Province, Argentina. In the Kalgoorlie district, at Oroya, and in the Golden Mile deposit, Western Australia. From the Sylvia mine, Tararu Creek, New Zealand. In the Rendajji mine, Shizuoka Prefecture, Japan. From the Tarua gold field, Vitu Levu, Fiji Islands.

Name: For the Săcărișmb (Nagyág), Romania locality.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 168–169. (2) Stumpfel, E.F. (1970) New electron probe and optical data on gold tellurides. *Amer. Mineral.*, 55, 808–814. (3) Stanley, C.J., A.C. Roberts, and D.C. Harris (1994) New data for nagyágite. *Mineral. Mag.*, 58, 479–482. (4) Effenberger, H., W. H. Paar, D. Topa, F.J. Culetto, and G. Giester (1999) Towards the crystal structure of nagyágite, [Pb(Pb, Sb)S₂][(Au, Te)]. *Amer. Mineral.*, 669–676. (5) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 388.

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