

Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m. As inclusions, to 150 μm ; as skeletal and/or myrmekitic aggregates to 200 μm .

Physical Properties: *Cleavage:* None. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 2-2.5 VHN = 28-40, 33 average (15 g load). D(meas.) = n.d. D(calc.) = 6.673

Optical Properties: Opaque. *Color:* Black; pale blue-gray to pale pinkish in reflected light. *Streak:* Black. *Luster:* Metallic. *Optical Class:* n.d. *Pleochroism:* Weak to stronger near endmember composition, pale blue-gray to pale pinkish. Weakly bireflectant. *Anisotropism:* Increases significantly near endmember composition from light gray-blue and light pink tints to copper-red and light gray tints. R₁-R₂: (400) 26.9-50.7, (420) 25.7-44.0, (440) 24.9-40.2, (460) 24.2-37.5, (470) 24.0-36.3, (480) 23.7-35.1, (500) 23.1-32.8, (520) 22.3-30.6, (540) 21.5-28.6, (546) 21.4-28.2, (560) 21.1-27.1, (580) 21.4-25.7, (589) 21.9-25.1, (600) 22.5-24.4, (620) 24.6-23.3, (640) 27.9-22.8, (650) 29.8-22.9, (660) 31.7-23.0, (680) 35.8-24.3, (700) 39.4-27.1

Cell Data: Space Group: *Pnmm*. $a = 4.918(2)$ $b = 6.001(2)$ $c = 3.670(1)$ $Z = 2$

X-ray Powder Pattern: Předbořice uranium deposit, Central Bohemia Region, Czech Republic. 2.639 (100), 2.563 (85), 2.938 (70), 1.935 (70), 1.834 (30), 1.760 (25), 1.492 (25)

Chemistry:	(1)	(2)	(3)	(1)	(2)	(3)
Ag	0.22	0.04		Co	0.03	
Cu	15.39	28.42	28.69	Ni	0.08	
Hg	0.01			Pd	0.11	
Pb	0.03			S	0.09	0.03
Fe	12.18			Se	71.61	71.53
				Total	99.64	100.12
						100.00

(1) Předbořice, Czech Republic; average of 9 electron microprobe analyses; corresponds to (Cu_{0.53}Fe_{0.48}) $\Sigma=1.01$ (Se_{1.98}S_{0.01}) $\Sigma=1.99$. (2) El Dragón, Bolivia; average of 5 electron microprobe analyses; corresponds to (Cu_{0.58}Fe_{0.38}Pd_{0.03}Ag_{0.01}Ni_{0.01}) $\Sigma=1.01$ (Se_{1.99}S_{0.01}) $\Sigma=2.00$. (3) CuSe₂.

Mineral Group: Marcasite group.

Occurrence: In low-temperature hydrothermal veins cutting metamorphic rocks near the contact with a granitoid pluton (Czech Republic); a late-stage mineral in hydrothermal veinlets cutting black shale and siltstone (Bolivia); in calcitic veinlets in porphyry (Argentina).

Association: Eucairite, atabascaite/klockmannite, tiemannite, eskebornite, unknown selenides (Czech Republic); krut'aite, klockmannite, watkinsonite, native selenium (Bolivia); clausthalite, krut'aite, molybdomenite, native selenium (Argentina).

Distribution: At the Předbořice uranium deposit, Central Bohemia Region, Czech Republic; at the El Dragón mine, Potosí, Bolivia and at Sierra de Cacheuta, Luján de Cuyo Department, Mendoza, Argentina.

Name: Honors Václav Petříček (b. 1948), Czech crystallographer, Institute of Physics of the Czech Academy of Sciences, Prague, for his contributions to crystallography.

Type Material: Mineralogical and Geological Museum, Harvard University, Cambridge, Massachusetts, USA (MGMH 2016.01).

References: (1) Bindi, L., H.-J. Förster, G. Grundmann, F.N. Keutsch, and C.J. Stanley (2016) Petříčekite, CuSe₂, a new member of the marcasite group from the Předbořice Deposit, Central Bohemia Region, Czech Republic. *Minerals*, 6(2), 33. (2) (2020) *Amer. Mineral.*, 105, 1115-1116 (abs. ref. 1).