

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As irregular grains to 0.2 mm.

**Physical Properties:** *Cleavage:* None. *Fracture:* Irregular. *Tenacity:* Brittle.  
Hardness = ~ 3 VHN = 230 (227-234) (10 g load). D(meas.) = n.d. D(calc.) = 7.90

**Optical Properties:** Opaque. *Color:* Dark gray to black; white in reflected light.

*Streak:* Dark gray. *Luster:* Metallic.

*Optical Class:* n.d. *Pleochroism:* White with a faint yellowish tint to white with a faint bluish tint.

*Anisotropism:* Moderate both in air and in oil, dark gray to brown.

R<sub>1</sub>-R<sub>2</sub>: (470) 44.5-49.9, (546) 45.1-50.5, (589) 45.6-51.3, (650) 45.4-51.8

**Cell Data:** *Space Group:* P2<sub>1</sub>/m. *a* = 13.182(2) *b* = 4.1840(8) *c* = 15.299(2) *β* = 109.11(1)°  
Z = 2

**X-ray Powder Pattern:** Zálesí uranium deposit, Czech Republic.

3.028 (100), 2.892 (95), 2.980 (88), 3.201 (76), 3.684 (53), 3.625 (53), 2.094 (31)

Chemistry:	(1)	(2)
Cu	0.10	
Ag	10.27	11.41
Cd	0.05	
Pb	11.73	10.96
Bi	43.27	44.22
Se	32.93	33.41
S	0.01	
Total	98.36	100.00

(1) Zálesí uranium deposit, Czech Republic; average of 14 electron microprobe analyses; corresponds to (Ag<sub>1.84</sub>Cu<sub>0.03</sub>)<sub>Σ=1.87</sub>(Pb<sub>1.09</sub>Cd<sub>0.01</sub>)<sub>Σ=1.10</sub>Bi<sub>3.99</sub>Se<sub>8.04</sub>. (2) Ag<sub>2</sub>PbBi<sub>4</sub>Se<sub>8</sub>.

**Occurrence:** A primary phase in hydrothermal veins in a uranium deposit.

**Association:** Quartz, uraninite, hematite, uranophane.

**Distribution:** From the Zálesí uranium deposit, Rychlebské hory Mountains, northern Moravia, Czech Republic.

**Name:** Honors the Czech mineralogist Dr. Jiří Litochleb (b. 1948), currently head of the Department of Mineralogy and Petrology and director of the Natural History Museum, National Museum, Praha, Czech Republic.

**Type Material:** National Museum, Prague, Czech Republic (P1P 11/2009).

**References:** (1) Sejkora, J., E. Makovický, D. Topa, H. Putz, G. Zagler, and J. Plášil (2011) Litochlebite, Ag<sub>2</sub>PbBi<sub>4</sub>Se<sub>8</sub>, a new selenide mineral species from Zálesí, Czech Republic: description and crystal structure. *Can. Mineral.*, 49, 639-650. (2) (2012) *Amer. Mineral.*, 98, 2067-2068 (abs. ref. 1).