

Crystal Data: Monoclinic. *Point Group:* 2/m, 2, or m. As irregular grains to 3 mm, intergrown within aggregates of skippenite.

Physical Properties: *Fracture:* Conchoidal. Hardness = n.d. VHN = 155–186, 166 average (25 g load). D(meas.) = n.d. D(calc.) = 7.82

Optical Properties: Opaque. *Color:* Black on a fresh fracture; white with a bluish tint in reflected light. *Luster:* Metallic. *Anisotropism:* Moderate, in blue-gray to dark grayish brown. R₁–R₂: (400) —, (420) 46.0–46.6, (440) 46.7–47.2, (460) 47.3–47.6, (480) 47.7–48.0, (500) 47.9–48.3, (520) 48.1–48.5, (540) 48.0–48.6, (560) 47.8–48.7, (580) 47.8–48.8, (600) 47.9–48.8, (620) 47.9–48.9, (640) 48.0–48.9, (660) 48.0–49.0, (680) 47.9–49.0, (700) 47.9–49.0

Cell Data: *Space Group:* P2/m, P2, or Pm. a = 12.921(3) b = 3.997(1) c = 14.989(3) β = 109.2(2)° Z = 2

X-ray Powder Pattern: Otish Mountains deposit, Canada. 2.976 (10), 2.929 (10), 3.573 (9b), 2.407 (7), 2.140 (7b), 2.065 (7b), 1.484 (7)

Chemistry:

	(1)
Cu	8.06 – 9.16
Pb	14.03 – 16.39
Bi	42.69 – 46.44
Se	27.44 – 28.73
Te	0.19 – 0.53
S	3.03 – 3.47

Total

(1) Otish Mountains deposit, Canada; by electron microprobe, ranges of 11 grains, the average of which corresponds to Cu_{2.36}Pb_{1.26}Bi_{3.70}(Se_{6.21}S_{1.74}Te_{0.05})_{Σ=8.00}.

Occurrence: In a vein-type uranium deposit with other tellurides and selenides.

Association: Skippenite, součekite, clausthalite, chalcopyrite, Au–Ag alloy.

Distribution: From the Otish Mountains uranium deposit, Quebec, Canada.

Name: For Professor David H. Watkinson, Carleton University, Ottawa, Canada.

Type Material: n.d.

References: (1) Johan, Z., P. Picot, and F. Ruhlmann (1987) The ore mineralogy of the Otish Mountains uranium deposit, Quebec: skippenite, Bi₂Se₂Te, and watkinsonite, Cu₂PbBi₄(Se, S)₈, two new mineral species. Can. Mineral., 25, 625–637. (2) (1989) Amer. Mineral., 74, 948 (abs. ref. 1).