

Crystal Data: Monoclinic. *Point Group:* 2/m. As grains, to 100 μm.

Physical Properties: Hardness = n.d. VHN = 376–399, 388 average, and 296–308, 302 average on two grains (15 g load). D(meas.) = 10.25 (synthetic). D(calc.) = 10.62

Optical Properties: Opaque. *Color:* In polished section, cream with a yellowish tint. *Luster:* Metallic. *Pleochroism:* None in air, very faintly discernible in oil. *Anisotropism:* Moderate to strong in air, strong in oil, in gray to light brownish gray.

R: (400) —, (420) 44.6, (440) 45.3, (460) 45.9, (480) 46.7, (500) 47.8, (520) 49.0, (540) 50.0, (560) 51.3, (580) 52.6, (600) 53.9, (620) 55.2, (640) 56.5, (660) 57.8, (680) 58.9, (700) 60.1

Cell Data: *Space Group:* P2₁/c (synthetic). a = 7.458(1) b = 13.938(1) c = 8.839(1)
β = 91.97(1)° Z = 4

X-ray Powder Pattern: Stillwater complex, Montana, USA.

2.237 (100), 1.305 (80b), 2.543 (70), 2.134 (60), 2.094 (60), 1.961 (60), 2.196 (50b)

Chemistry:

	(1)	(2)
Pd	65.4	65.23
Sn	0.07	
As	0.33	
Bi	0.15	
Sb	0.12	
Te	34.1	34.77
Total	100.17	100.00

(1) Stillwater complex, Montana, USA; by electron microprobe, corresponding to Pd_{8.99}(Te_{3.91}As_{0.07}Bi_{0.01}Sn_{0.01}Sb_{0.01})_{Σ=4.01}. (2) Pd₉Te₄.

Occurrence: As tiny grains in mineral concentrates.

Association: Keithconnite, magnetite, kotulskite, merenskyite, moncheite, braggite, vysotskite.

Distribution: From the Banded and Upper Zones of the Stillwater complex, Montana, USA [TL].

Name: For TELLURium and PALLADIum in the composition.

Type Material: Canadian Geological Survey, Ottawa; Royal Ontario Museum, Toronto, Canada, M35867; National Museum of Natural History, Washington, D.C., USA, 144958.

References: (1) Cabri, L.J., J.R. Rowland, J.H.G. Laflamme, and J.M. Stewart (1979) Keithconnite, telluropalladinite and other Pd–Pt tellurides from the Stillwater Complex, Montana. *Can. Mineral.*, 17, 589–594. (2) (1981) *Amer. Mineral.*, 66, 1275 (abs. ref. 1). ??added??ck??need copy?? (3) Matković, P. and K. Schubert (1978) Kristallstruktur von Pd₉Te₄. *J. Less Common Metals*, 58, 39–46 (in German with English abs.). (4) Cabri, L.J., Ed. (1981) Platinum group elements: mineralogy, geology, recovery. *Can. Inst. Min. & Met.*, 142–143, 158.