

**Crystal Data:** Orthorhombic. *Point Group:* n.d. As rounded to irregular inclusions, to 115  $\mu\text{m}$ , in chalcopyrite.

**Physical Properties:** Hardness = n.d. VHN = 92 (25 g load). D(meas.) = 9.5 (synthetic). D(calc.) = 9.45

**Optical Properties:** Opaque. *Color:* In polished section, white with a gray tinge. *Luster:* Metallic. *Anisotropism:* Weak in air, stronger in oil, in pale gray to dark gray.

R<sub>1</sub>–R<sub>2</sub>: (470) 51.8–52.8, (546) 52.9–53.9, (589) 54.2–55.0, (650) 57.1–57.7

**Cell Data:** *Space Group:* n.d. (synthetic).  $a = 11.608(2)$   $b = 12.186(1)$   $c = 6.793(1)$   
Z = 6

**X-ray Powder Pattern:** Synthetic.

2.912 (10), 2.187 (9), 1.959 (7), 1.661 (5), 1.624 (5), 1.462 (5), 1.155 (5)

**Chemistry:**

	(1)	(2)
Pd	34.9	34.5
Pt		1.0
Hg	22.1	22.0
Bi	n.d.	0.13
Te	42.1	42.1
Total	99.1	99.73

(1) Temagami Mine, Canada; by electron microprobe, corresponding to Pd<sub>2.99</sub>Hg<sub>1.00</sub>Te<sub>3.01</sub>.

(2) Stillwater complex, Montana, USA; by electron microprobe, corresponding to (Pd<sub>2.95</sub>Pt<sub>0.05</sub>)<sub>Σ=3.00</sub>Hg<sub>1.00</sub>Te<sub>3.00</sub>.

**Occurrence:** Cogenetic with moderately high-temperature invasive chalcopyrite magma (Temagami Mine, Canada).

**Association:** Merenskyite, hessite, chalcopyrite, stützite.

**Distribution:** In Canada, in Ontario, from the Temagami Cu–Ni mine, Temagami Island, Lake Temagami, Nipissing district [TL] and from a prospect near Rathbun Lake. In the USA, from the Stillwater complex, Montana; and the New Rambler Cu–Ni mine, Medicine Bow Mountains, east of Encampment, Albany Co., Wyoming.

**Name:** For the Temagami mine in Canada, where the mineral was first found.

**Type Material:** Royal Ontario Museum, Toronto, Canada, M32528.

**References:** (1) Cabri, L.J., J.H.G. Laflamme, and J.M. Stewart (1973) Temagamite, a new palladium–mercury telluride from the Temagami copper deposit, Ontario, Canada. *Can. Mineral.*, 12, 193–198. (2) (1975) *Amer. Mineral.*, 60, 947 (abs. ref. 1). (3) Cabri, L.J., Ed. (1981) *Platinum group elements: mineralogy, geology, recovery*. *Can. Inst. Min. & Met.*, 143, 157.