

**Crystal Data:** Orthorhombic. *Point Group:* *mm*2. As irregular grains, to 239 μm.  
*Twinning:* Strain-induced polysynthetic twinning observed.

**Physical Properties:** *Cleavage:* None. *Tenacity:* Ductile (flexibly inelastic). *Fracture:* Irregular.  
Hardness = 4-5 VHN = 393 (50 g load). D(meas.) = n.d. D(calc.) = 10.694

**Optical Properties:** Opaque. *Color:* Bright creamy white in plane-polarized reflected light, no internal reflections. *Birefringence:* Weak. *Pleochroism:* None. *Anisotropism:* Distinct in shades of deep bright blue, lemon-buff, and mauve to pale pink. *Streak:* n.d. *Luster:* Metallic.

*Optical Class:* n.d.

R<sub>1</sub>-R<sub>2</sub>: (470) 49.0-50.9 (35.9-37.6)<sub>oil</sub>, (546) 53.2-55.1 (40.3-42.1)<sub>oil</sub>, (589) 55.4-57.5 (42.5-44.3)<sub>oil</sub>, (650) 58.5-60.1 (45.4-47.2)<sub>oil</sub>

**Cell Data:** Space Group: *Cmc*2<sub>1</sub>. *a* = 3.906(1) *b* = 17.5551(5) *c* = 6.957(2) *Z* = 8

**X-ray Powder Pattern:** Mesamax Northwest deposit, Ungava region, Québec, Canada.  
2.2454 (100), 0.8584 (56), 2.0567 (52), 1.2122 (50), 1.2842 (42), 2.0009 (40), 2.3029 (35)

Chemistry:	(1)	(2)
S	0.02	
Fe	0.11	
As	0.31	
Sb	35.75	36.39
Pd	63.49	63.61
Total	99.68	100.00

(1) Mesamax Northwest deposit, Ungava region, Québec, Canada; average of 69 electron microprobe analyses, corresponds to (Pd<sub>1.995</sub>Fe<sub>0.007</sub>)<sub>Σ=2.002</sub>(Sb<sub>0.982</sub>As<sub>0.014</sub>S<sub>0.002</sub>)<sub>Σ=0.998</sub>. (2) Pd<sub>2</sub>Sb.

**Occurrence:** In drill core through the contact zone between massive and disseminated sulfide mineralization hosted by amphibolite and serpentinite replacing pyroxenite and peridotite.

**Association:** Clinocllore monoclinic pyrrhotite, pentlandite, chalcopyrite, galena, sphalerite, cobaltite, magnetite, sudburyite, electrum, altaite, and more rarely ungavaite, sperrylite, michenerite, petzite, hessite.

**Distribution:** From the Mesamax Northwest deposit, Cape Smith Fold belt, Ungava region, Québec, Canada.

**Name:** Honors Professor Anthony J. Naldrett (b. 1933), University of Toronto and past President of both the Mineralogical Association of Canada and the International Mineralogical Association for significant contributions to our understanding of platinum-group element (PGE) deposits.

**Type Material:** Natural History Museum, London, England (BM 2004,34) and the Canadian Museum of Nature, Ottawa, Canada (CNMMN 84397).

**References:** (1) Cabri, L.J., A.M. McDonald, C.J. Stanley, N.S. Rudashevsky, G. Poirier, B.R. Durham, J.E. Mungall, and V.N. Rudashevsky (2005) Naldrettite, Pd<sub>2</sub>Sb, a new intermetallic mineral from the Mesamax Northwest deposit, Ungava region, Québec, Canada. *Mineral. Mag.*, 69, 89-97. (2) (2005) *Amer. Mineral.*, 90, 1466-1467 (abs. ref. 1).