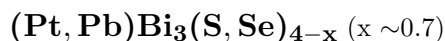


**Crerarite**

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**Crystal Data:** Cubic. *Point Group:*  $4/m\bar{3}2/m$ . Anhedral grains, to 120  $\mu\text{m}$ .**Physical Properties:** *Cleavage:* Perfect on {001}. Hardness = ~3.5 (softer than chalcopyrite). D(meas.) = n.d. D(calc.) = 7.75**Optical Properties:** Opaque. *Color:* Pale gray in reflected light, with a slight bluish tint in oil. *Luster:* Metallic.

R: (400) 53.7, (420) 53.8, (440) 53.1, (460) 52.4, (480) 51.6, (500) 50.8, (520) 50.5, (540) 49.9, (560) 49.7, (580) 49.4, (600) 49.4, (620) 49.1, (640) 48.9, (660) 48.7, (680) 48.5, (700) 48.5

**Cell Data:** *Space Group:*  $Fm\bar{3}m$ .  $a = 5.86(5)$   $Z = 1$ **X-ray Powder Pattern:** Lac Sheen, Canada.

2.94 (100), 3.37 (50), 1.472 (50), 2.07 (30), 1.766 (15), 1.687 (15), 1.347 (10)

**Chemistry:**

	(1)
Pt	[10.34]
Pd	0.03
Pb	13.85
Cu	0.09
Ni	< 0.05
Fe	0.08
Te	0.03
Se	0.86
Bi	65.26
S	10.55
Total	[101.09]

(1) Lac Sheen, Canada; by electron microprobe, average of analyses of three grains, original total given as 101.11%; corresponding to  $\text{Pt}_{0.51}\text{Pb}_{0.65}\text{Fe}_{0.01}\text{Cu}_{0.01}\text{Bi}_{3.02}(\text{S}_{3.18}\text{Se}_{0.11})_{\Sigma=3.29}$ .**Occurrence:** In an amphibolite boulder, perhaps glacially transported, containing sulfides.**Association:** Chalcopyrite, pentlandite, pyrrhotite, sphalerite, galena, michenerite, actinolite, chlorite, quartz.**Distribution:** From an erratic boulder found on the north shore of Lac Sheen, near Belleterre, Quebec, Canada [TL].**Name:** Honors Professor David Crerar (1945–1994), economic geologist, Princeton University, Princeton, New Jersey, USA.**Type Material:** Mineralogical Museum, Bayerische Julius-Maximilians University, Würzburg, Germany, M2897 a/b; Royal Ontario Museum, Toronto, Canada, M46005–46007.**References:** (1) Cook, N.J., S.A. Wood, W. Gebert, H.-J. Bernhardt, and O. Medenbach (1994) Crerarite, a new Pt–Bi–Pb–S mineral from the Cu–Ni–PGE deposit at Lac Sheen, Abitibi-Témiscamingue, Québec, Canada. *Neues Jahrb. Mineral., Monatsh.*, 567–575. (2) (1995) *Amer. Mineral.*, 80, 845 (abs. ref. 1).