

**Blixite****Pb<sub>2</sub>Cl(O, OH)<sub>2</sub>**

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**Crystal Data:** Orthorhombic. *Point Group:* n.d. Massive, in films.**Physical Properties:** *Cleavage:* One direction, distinct. *Hardness* = ~3 *D*(meas.) = 7.35 *D*(calc.) = [7.35]**Optical Properties:** Semitransparent. *Color:* Pale yellow, yellow-orange, to grayish yellow. *Streak:* Pale yellow. *Luster:* Vitreous, may be dull.*Optical Class:* Biaxial (+). *Orientation:* Extinction || cleavage; OAP ⊥ to cleavage.  $\alpha = \sim 2.05$   
 $\beta = \text{n.d.}$   $\gamma = \sim 2.20$   $2V(\text{meas.}) = \sim 80^\circ$ **Cell Data:** *Space Group:* n.d.  $a = 5.832(3)$   $b = 5.694(5)$   $c = 25.47(2)$   $Z = 8$ **X-ray Powder Pattern:** Långban, Sweden.

2.93 (10), 3.88 (8), 1.660 (8), 2.83 (6), 2.12 (6), 2.04 (6), 3.18 (5)

**Chemistry:**

	(1)	(2)
Fe <sub>2</sub> O <sub>3</sub>		0.49
CuO		0.15
ZnO		0.06
PbO	69.50	60.32
CaO	0.30	
PbCl <sub>2</sub>	30.16	37.01
H <sub>2</sub> O	0.79	
SO <sub>3</sub>		2.07
Total	100.75	100.10

(1) Långban, Sweden; corresponds to (Pb<sub>1.95</sub>Ca<sub>0.02</sub>)<sub>Σ=1.97</sub>Cl<sub>1.02</sub>[O<sub>1.27</sub>(OH)<sub>0.41</sub>]<sub>Σ=1.68</sub>. (2) Elura deposit, Australia; by electron microprobe, average of two analyses, original analyses elemental, here converted to PbCl<sub>2</sub> and oxides; S probably in anglesite.**Occurrence:** In hausmannite-rich dolomite and manganophyllite skarn in a metamorphosed Fe–Mn orebody (Långban, Sweden); a reaction product in slag immersed in sea water (Laurium, Greece).**Association:** Dolomite, hausmannite, copper, manganophyllite (Långban, Sweden); brucite, hydrocerussite (Mendip Hills, England); mendipite, anglesite (Elura deposit, Australia).**Distribution:** From Långban, Värmland, Sweden. In the Merehead quarry, Mendip Hills, Somerset, England. At Laurium, Greece, in slag. Found in the Elura Zn–Pb–Ag deposit, 43 km northeast of Cobar, New South Wales, Australia.**Name:** For Dr. Ragnar Blix (1898–1985), chemist at the Swedish Museum of Natural History, who performed analyses of many Långban minerals.**Type Material:** Swedish Museum of Natural History, Stockholm, Sweden, 251539; National Museum of Natural History, Washington, D.C., USA, 114720.**References:** (1) Gabrielson, O., A. Parwel, and F.E. Wickman (1958) Blixite, a new lead-oxyhalide mineral from Långban. *Arkiv Mineral. Geol.*, 2(32), 411–415. (2) (1960) *Amer. Mineral.*, 45, 908 (abs. ref. 1). (3) Scott, K.M. (1994) Lead oxychlorides at Elura, western NSW, Australia. *Mineral. Mag.*, 58, 336–338.