

**Jagoite****(Pb, Na)<sub>3</sub>(Fe<sup>3+</sup>, Mg)Si<sub>3</sub>O<sub>10</sub>(Cl, OH)**

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**Crystal Data:** Hexagonal. *Point Group:*  $\bar{6}m2$ . Fine-grained micaceous aggregates of plates.**Physical Properties:** *Cleavage:* Perfect on {0001}. *Tenacity:* Plates are flexible. Hardness = 3 D(meas.) = 5.43 D(calc.) = n.d.**Optical Properties:** Semitransparent. *Color:* Yellow-green. *Streak:* Yellow.*Luster:* Vitreous, shining on cleavages.*Optical Class:* Uniaxial (-).  $n = \sim 2.0$ ; birefringence = 0.025.**Cell Data:** *Space Group:*  $P\bar{6}2c$ .  $a = 8.528(8)$   $c = 33.33(3)$   $Z = [6]$ **X-ray Powder Pattern:** Långban, Sweden.

3.40 (100), 2.80 (80), 4.16 (50), 2.99 (50), 2.50 (40), 2.60 (30), 2.47 (30)

**Chemistry:**

	(1)		(1)
SiO <sub>2</sub>	22.35	MgO	0.60
TiO <sub>2</sub>	0.10	CaO	0.65
Al <sub>2</sub> O <sub>3</sub>	0.50	Na <sub>2</sub> O	0.61
Fe <sub>2</sub> O <sub>3</sub>	7.00	K <sub>2</sub> O	0.37
FeO	0.00	Cl	3.25
MnO	0.88	H <sub>2</sub> O <sup>+</sup>	0.17
PbO	64.26	H <sub>2</sub> O <sup>-</sup>	0.19
BeO	0.12	-O = Cl <sub>2</sub>	0.73
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		Total	100.32

(1) Långban, Sweden; corresponds to  $(\text{Pb}_{2.43}\text{Na}_{0.17}\text{Ca}_{0.10}\text{K}_{0.07})_{\Sigma=2.77}(\text{Fe}_{0.74}^{3+}\text{Mg}_{0.12}\text{Mn}_{0.10}\text{Ti}_{0.01})_{\Sigma=0.97}(\text{Si}_{3.14}\text{Al}_{0.08}\text{Be}_{0.04})_{\Sigma=3.26}\text{O}_{9.98}[\text{Cl}_{0.77}(\text{OH})_{0.16}]_{\Sigma=0.93}$ .**Occurrence:** In hematite ore in a metamorphosed Fe-Mn orebody.**Association:** Melanotekite, quartz.**Distribution:** At Långban, Värmland, Sweden.**Name:** For John Bernard Jago Trelawney (1909–2001), American mineral collector of Palo Alto, California, USA, and benefactor of mineral collections in the USA.**Type Material:** n.d.**References:** (1) Blix, R., O. Gabrielson, and F.E. Wickman (1957) Jagoite, a new lead-silicate mineral from Långban in Sweden. *Arkiv Mineral. Geol.*, 2, 315–317. (2) (1958) *Amer. Mineral.*, 43, 387 (abs. ref. 1). (3) Mellini, M. and S. Merlino (1981) The crystal structure of jagoite. *Amer. Mineral.*, 66, 852–858.