Molybdophyllite $Pb_2Mg_2Si_2O_7(OH)_2$

Crystal Data: Hexagonal. *Point Group:* Rhombohedral. In foliated aggregates of platy crystals.

Physical Properties: *Cleavage:* {0001}, perfect. *Tenacity:* Somewhat flexible in thin foliae. Hardness = 3–4 D(meas.) = 4.717 D(calc.) = n.d.

Optical Properties: Transparent to translucent. *Color:* Pale green; colorless in thin section. *Luster:* Vitreous; pearly on {001}.
Optical Class: Uniaxial (–). $\omega = 1.815$ $\epsilon = 1.761$

Cell Data: *Space Group:* n.d. Z = n.d.

X-ray Powder Pattern: Långban, Sweden.
13.8 (100), 4.60 (90), 2.67 (70), 3.80 (60), 3.04 (60), 2.95 (60), 1.762 (60)

Chemistry:

	(1)	(2)
SiO_2	18.15	18.06
Al_2O_3	0.46	
PbO	61.09	67.11
MgO	11.71	12.12
Na_2O	0.82	
K_2O	0.69	
H_2O	6.32	2.71
Total	99.24	100.00

(1) Långban, Sweden. (2) $Pb_2Mg_2Si_2O_7(OH)_2$.

Occurrence: In skarns in granular limestone or dolostone.

Association: Hausmannite, calcite, rhodonite, garnet.

Distribution: From Långban, Värmland, Sweden.

Name: From the Greek *molybdos*, for *lead*, and *phyllos*, for *leaf*, in allusion to its lead content and foliated habit.

Type Material: n.d.

References: (1) Dana, E.S. and W.E. Ford (1909) Dana's system of mineralogy, (6th edition), app. II, 70. (2) Aminoff, G. (1918) Röntgenographische Ermittelung der Symmetrie und des Elementes p_0 des Molybdophyllits. Geol. Fören. Förhandl. Stockholm, 40, 923–938 (in German). (3) Welin, E. (1968) X-ray powder data for minerals from Långban and the related mineral deposits of Central Sweden. Arkiv Mineral. Geol., 4(30), 499–541.