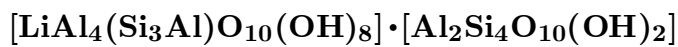


Lunijianlaite

©2001 Mineral Data Publishing, version 1.2

Crystal Data: n.d. *Point Group:* n.d. Crystals acicular, to 2 mm, in radiating aggregates.**Physical Properties:** *Cleavage:* {001}, perfect. *Hardness* = 2 *D*(meas.) = 2.75
D(calc.) = n.d.**Optical Properties:** Transparent. *Color:* Colorless to white. *Luster:* Vitreous to pearly, silky in aggregates.*Optical Class:* Biaxial (-). *Orientation:* May show inclined extinction. $\alpha = 1.576(5)$
 $\beta = 1.582(5)$ $\gamma = 1.587(5)$ $2V(\text{meas.}) = 60(5)^\circ$ **Cell Data:** *Space Group:* n.d. $a = 5.09$ $b = 8.97$ $c = 23.397 [c \cdot \sin \beta]$. $\beta = \text{n.d.}$
 $Z = \text{n.d.}$ **X-ray Powder Pattern:** Qingtian, China; * = cookeite overlaps.

4.704 (100*), 3.343 (47), 3.539 (45*), 2.919 (40), 14.267 (22*), 7.802 (22), 2.832 (22)

Chemistry:

	(1)
SiO ₂	41.61
Al ₂ O ₃	44.80
Fe ₂ O ₃	0.60
Li ₂ O	1.57
Na ₂ O	0.063
K ₂ O	0.012
H ₂ O ⁺	11.296
Total	99.951

(1) Qingtian, China; by electron microprobe, Li by AA, H₂O by TGA; corresponds to Li_{0.73}Al_{4.19}(Si₃Al)O₁₀(OH)₈ • Al₂Si₄O₁₀(OH)₂.**Polymorphism & Series:** Regular 1:1 interstratification of cookeite and pyrophyllite.**Occurrence:** Within corundum, in a hydrothermal pyrophyllite deposit in rhyolite.**Association:** Corundum, diaspore, chlorite, illite, halloysite, svanbergite, zeolites, hematite.**Distribution:** From Qingtian, Chekiang Province, China.**Name:** From the Chinese *luni*, for the chlorite group, representing cookeite; *jian*, a connective; and *lain* for pyrophyllite.**Type Material:** n.d.**References:** (1) Youhua Kong, Xiuwen Peng, and Dehui Tian (1990) Lunijianlaite – a new regular interstratified mineral. *Acta Mineral. Sinica*, 10(4), 289–298 (in Chinese with English abs.). (2) (1992) *Amer. Mineral.*, 77, 447–448 (abs. ref. 1).