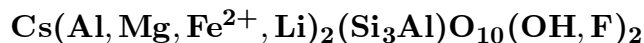


Nanpingite



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Crystal Data: Monoclinic. *Point Group:* $2/m$. Rarely as pseudohexagonal crystals; as radiating and comb aggregates, and scales and plates, to 1 cm.

Physical Properties: *Cleavage:* {001}, perfect. *Tenacity:* Brittle, with some elasticity. Hardness = 2–3 $D(\text{meas.}) = 3.11(2)$ $D(\text{calc.}) = 3.19$

Optical Properties: Transparent in flakes. *Color:* White to silver-white. *Streak:* White. *Luster:* Vitreous, pearly on sheets.

Optical Class: Biaxial (–). *Orientation:* $Z = b$. *Dispersion:* $r > v$, weak. $\alpha = 1.551(5)$
 $\beta = 1.584(2)$ $\gamma = 1.588(2)$ $2V(\text{meas.}) = 46(2)^\circ$

Cell Data: *Space Group:* $C2/c$. $a = 5.362(3)$ $b = 8.86(1)$ $c = 21.42(1)$ $\beta = 95.77(2)^\circ$
 $Z = 4$

X-ray Powder Pattern: Nanping area, China.

2.664 (100), 2.129 (85), 2.122 (16), 2.654 (14), 1.328 (14), 3.329 (6), 3.622 (5)

Chemistry:

	(1)
SiO ₂	38.54
Al ₂ O ₃	25.61
FeO	2.44
MnO	0.07
MgO	1.78
Li ₂ O	0.44
Na ₂ O	0.00
K ₂ O	0.54
Rb ₂ O	0.25
Cs ₂ O	25.29
F	1.00
H ₂ O	3.27
–O = F ₂	0.42
Total	98.81

(1) Nanping area, China; by combined wet chemical analysis and electron microprobe, TiO₂ 0.002%, CaO 0.007%; corresponds to $(\text{Cs}_{0.88}\text{K}_{0.06}\text{Rb}_{0.01})_{\Sigma=0.95}(\text{Al}_{1.64}\text{Mg}_{0.22}\text{Fe}_{0.17}\text{Li}_{0.15})_{\Sigma=2.18}(\text{Si}_{3.16}\text{Al}_{0.84})_{\Sigma=4.00}\text{O}_{9.95}[(\text{OH})_{1.79}\text{F}_{0.26}]_{\Sigma=2.05}$.

Polymorphism & Series: $2M_1$ polytype.

Mineral Group: Mica group.

Occurrence: In veinlets in the pollucite-rich middle zone of a muscovite-albite-spodumene pegmatite.

Association: Montebasite, quartz, apatite.

Distribution: At an undefined locality in the Nanping area, Fukien Province, China.

Name: For its occurrence in the Nanping area, China.

Type Material: Institute of Mineral Deposits, Chinese Academy of Geological Sciences; National Museum of Geology, Beijing, China.

References: (1) Yueqing Yang, Yunxiang Ni, Liben Wang, Wenying Wang, Yaping Zhang, and Chenghu Chen (1988) Nanpingite—a new cesium mineral. *Yanshi Kuangwuxue Zashi*, 7, 49–58 (in Chinese with English abs.). (2) (1990) *Amer. Mineral.*, 75, 708–709 (abs. ref. 1).

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