

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As aggregates of fibrous crystals, individually to 1 mm, elongated along [010].

Physical Properties: *Cleavage:* Perfect on {001} and {100}. *Fracture:* Fibrous.
Tenacity: Flexible. *Hardness* = 5-5.5 D(meas.) = n.d. D(calc.) = 3.33

Optical Properties: Transparent. *Color:* Pinkish white, black with oxidation. *Streak:* White.
Luster: Vitreous, silky [aggregates].
Optical Class: Biaxial (+). $a = 1.593(3)$ $\beta = 1.618(3)$ $\gamma = 1.653(3)$ $2V(\text{calc.}) = 82^\circ$

Cell Data: *Space Group:* $P\bar{1}$. $a = 7.612(7)$ $b = 7.038(4)$, $c = 6.700(4)$
 $\alpha = 90.23(6)^\circ$ $\beta = 94.70(7)^\circ$ $\gamma = 105.26(8)^\circ$ $Z = 2$

X-ray Powder Pattern: Tanohata mine, Tanohata village, Iwate prefecture, Japan.
2.95 (100), 3.13 (89), 3.11 (69), 2.18 (40), 6.64 (35), 2.81 (33), 3.67 (26)

Chemistry:	(1)
SiO ₂	51.97
MnO	37.99
MgO	1.06
CaO	0.41
Na ₂ O	1.97
Li ₂ O	3.34
<u>H₂O</u>	<u>[2.59]</u>
Total	99.33

(1) Tanohata mine, Tanohata village, Iwate prefecture, Japan; electron microprobe analyses supplemented by LAM-ICP-MS and IR spectroscopy, H₂O calculated as OH⁻ for charge balance; corresponding to (Li_{0.78}Na_{0.22})(Mn_{1.86}Ca_{0.03}Mg_{0.09})Si_{3.01}O₈(OH).

Mineral Group: Wollastonite group.

Occurrence: In lens-like veins in a sediment-hosted Mn-ore deposit in contact metamorphic rocks near a granodiorite intrusion.

Association: Quartz, aegirine, Mn-arfvedsonite, nambulite, natronambulite, barite.

Distribution: From the dumps of the No. 3 (Matsumaezawa) ore body, Tanohata mine, Tanohata village, Iwate prefecture, Japan.

Name: For a village close to the location from which the first specimens were collected.

Type Material: National Museum of Nature and Science, Tokyo, Japan (NSM M29298).

References: (1) Nagase, T., H. Hori, M. Kitamine, M. Nagashima, A. Abduriyim, and T. Kuribayashi (2012) Tanohataite, LiMn₂Si₃O₈(OH): a new mineral from the Tanohata mine, Iwate Prefecture, Japan. *Journal of Mineralogical and Petrological Sciences*, 107(3), 149-154.
(2) (2015) *Amer. Mineral.*, 100, 1329-1330 (abs. ref. 1).