Tanohataite

**Crystal Data:** Triclinic.  
*Point Group:* 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:**  
*Transparency:* Transparent.  
*Color:* Pinkish white, black with oxidation.  
*Streak:* White.  
*Luster:* Vitreous, silky [aggregates].  
*Luster Class:* Biaxial (+).  
*α = 1.593(3)  β = 1.618(3)  γ = 1.653(3)  2V(calc.) = 82°

**Cell Data:**  
*Space Group:* P1.  
*a = 7.612(7)  b = 7.038(4)  c = 6.700(4)  
*α = 90.23(6)°  β = 94.70(7)°  γ = 105.26 (8)°  
*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:**

<p>| | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>SiO₂</td>
<td>51.97</td>
</tr>
<tr>
<td>MnO</td>
<td>37.99</td>
</tr>
<tr>
<td>MgO</td>
<td>1.06</td>
</tr>
<tr>
<td>CaO</td>
<td>0.41</td>
</tr>
<tr>
<td>Na₂O</td>
<td>1.97</td>
</tr>
<tr>
<td>Li₂O</td>
<td>3.34</td>
</tr>
<tr>
<td>H₂O</td>
<td>[2.59]</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>99.33</td>
</tr>
</tbody>
</table>

(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 (Li₀.78Na₀.22)(Mn₁.86Ca₀.03Mg₀.09)Si₃.01O₈(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, natronamnambulite, 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:**