

Crystal Data: Tetragonal. *Point Group:* 4/m. As radiating aggregates, to 2 cm, consisting of acicular striated tetragonal crystals elongated along [001], to 7 mm, with distinct fiber-optic light-conducting properties. Crystals display {100}, {110}, {111}, {101} and {001}.

Physical Properties: *Cleavage:* None. *Tenacity:* n.d. *Fracture:* n.d. *Hardness* = 6
D(meas.) = 3.30(1) D(calc.) = 3.35

Optical Properties: Transparent. *Color:* Light pink. *Streak:* White. *Luster:* Silky.
Optical Class: Uniaxial (-). $\omega = 1.725(2)$ $\varepsilon = 1.721(2)$

Cell Data: *Space Group:* P4/n. $a = 15.5362(2)$ $c = 11.7960(3)$ $Z = 2$

X-ray Powder Pattern: Tuydo combe, near Lojane, Republic of Macedonia.
2.740 (100), 2.365 (94), 3.038 (33), 1.6165 (25), 10.96 (23), 3.464 (22), 2.583 (21)

| Chemistry: | (1) | (2) |
|--------------------------------|-------|--------|
| Na ₂ O | 0.01 | |
| FeO | 0.04 | |
| MnO | 0.18 | |
| MgO | 1.80 | 2.82 |
| CaO | 36.50 | 37.13 |
| Al ₂ O ₃ | 20.01 | 19.54 |
| SiO ₂ | 36.73 | 37.68 |
| H ₂ O | 3.10 | 2.83 |
| Total | 98.37 | 100.00 |

(1) Tuydo combe, near Lojane, Republic of Macedonia; average electron microprobe analysis supplemented by IR spectroscopy and TGA; corresponds to (Ca_{18.99}Na_{0.01})_{Σ=19.00}(Mg_{0.60}Al_{0.40})_{Σ=1.00}(Al_{11.05}Mg_{0.70}Mn_{0.07}Fe_{0.02})_{Σ=11.84}Si_{17.84}O_{68.72}(OH)₉. (2) Ca₁₉Mg(Al,Mg)₁₂Si₁₈O₆₉(OH)₉.

Mineral Group: Vesuvianite group.

Occurrence: Of hydrothermal origin in cavities in a garnet-bearing rodingite.

Association: Calcite, grossular-andradite, clinochlore.

Distribution: From Tuydo combe, near Lojane, Republic of Macedonia.

Name: The prefix indicates a member of the vesuvianite group with Mg²⁺ dominant in the Y1 site.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (59783).

References: (1) Panikirovskii, T.L., V.V. Shilovskikh, E.Yu. Avdontseva, A.A. Zolotarev, V.Yu. Karpenko, A.S. Mazur, V.N. Yakovenchuk, A.V. Bazai, S.V. Krivovichev, and I.V. Pekov (2017) Magnesiovesuvianite, Ca₁₉Mg(Al,Mg)₁₂Si₁₈O₆₉(OH)₉, a new vesuvianite-group mineral. *J. Geosci.*, 62(1), 25-36. (2) (2018) *Amer. Mineral.*, 103, 334 (abs. ref. 1).