Tashelgite  \( \text{Ca}_2\text{Mg}_2\text{Fe}^{2+}_2\text{Al}_{18}\text{O}_{32}(\text{OH})_2 \)

Crystal Data: Monoclinic. \( \text{Point Group: } m. \) As prismatic or fibrous crystals or in parallel aggregates to 2 mm elongated along \([100]\) and flattened on \{001\}; in felty aggregates to 10 mm. \( \text{Twinning:} \) Polysynthetic on \{001\}.

Physical Properties: \( \text{Cleavage: None. Fracture:} \) n.d. \( \text{Tenacity:} \) Brittle. \( \text{Hardness = 7.5} \) \( D(\text{meas.}) = \) n.d. \( D(\text{calc.}) = 3.67 \)

Optical Properties: \( \text{Color:} \) Bluish green; white (felty aggregates). \( \text{Fracture:} \) n.d. \( \text{Luster:} \) Vitreous. \( \text{Dispersion:} \) \( r < v, \) strong. \( \text{Optical Class:} \) Biaxial (-). \( \alpha = 1.736(2) \) \( \beta = 1.746(2) \) \( \gamma = 1.750(2) \) \( 2V(\text{meas.}) = 20(2)^\circ \)

Chemistry: \( \text{(1) Tashelga River valley, Gorny Shoria, Kemerovo oblast, Russia; average of 5 electron microprobe analyses, supplemented by FTIR spectroscopy, } \text{Fe}_2\text{O}_3/\text{FeO} \text{ estimated from peak heights in X-ray spectrum, } \text{H}_2\text{O} \text{ by LOI; corresponds to } \text{H}_{1.27}\text{Ca}_{0.90}\text{Mg}_{1.06}\text{Mn}_{0.04}\text{Fe}^{2+}_{2.10}\text{Fe}^{3+}_{0.11}\text{Al}_{8.80}\text{O}_{17.00}. \)

Occurrence: In skarn-like rocks anomalously enriched with \( \text{Al}_2\text{O}_3 \).

Association: Calcite, hibonite, grossular, vesuvianite, hercynite, magnetite, corundum, perovskite, scapolite, diopside, apatite.

Distribution: From near the mouth of the Tashelga River, between the Mras-Su and Tom rivers, Kuznetsky Alatau Mts., Gorny Shoria, Kemerovo oblast, Russia.

Name: For the Tashelga River valley, in which the species was first collected.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (3983/1).