

Crystal Data: Monoclinic. *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. *Twinning:* Polysynthetic on {001}.

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

Optical Properties: Transparent to translucent. *Color:* Bluish green; white (felty aggregates).
Streak: n.d. *Luster:* Vitreous.
Optical Class: Biaxial (-). $\alpha = 1.736(2)$ $\beta = 1.746(2)$ $\gamma = 1.750(2)$ $2V(\text{meas.}) = 20(2)^\circ$
 $2V(\text{calc.}) = \text{n.d.}$ *Dispersion:* $r < v$, strong. *Orientation:* $X = a$, $Y \sim b$, $Z = c$. *Pleochroism:* Distinct,
 $X = \text{blue-green}$, $Y = \text{yellowish green}$, $Z = \text{almost colorless}$. *Absorption:* $X > Y > Z$.

Cell Data: *Space Group:* *Pc*. $a = 5.6973(1)$ $b = 17.1823(4)$ $c = 23.5718(5)$ $\beta = 90.046(3)^\circ$ $Z = 4$

X-ray Powder Pattern: Tashelga River valley, Gorny Shoria, Kemerovo oblast, Russia.
2.616 (100), 2.584 (81), 2.202 (72), 2.406 (61), 11.79 (48), 2.437 (44), 2.845 (43)

Chemistry:	(1)
CaO	7.98
MgO	6.75
MnO	0.45
FeO	[11.32]
Fe ₂ O ₃	[1.40]
Al ₂ O ₃	70.70
H ₂ O	1.8
Total	100.40

(1) Tashelga River valley, Gorny Shoria, Kemerovo oblast, Russia; average of 5 electron microprobe analyses, supplemented by FTIR spectroscopy, Fe₂O₃/FeO estimated from peak heights in X-ray spectrum, H₂O by LOI; corresponds to $\text{H}_{1.27}\text{Ca}_{0.90}\text{Mg}_{1.06}\text{Mn}_{0.04}\text{Fe}^{2+}_{21.00}\text{Fe}^{3+}_{30.11}\text{Al}_{8.80}\text{O}_{17.00}$.

Occurrence: In skarn-like rocks anomalously enriched with Al₂O₃.

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).

References: (1) Ananyev, S.A., S.I. Konovalenko, R.K. Rastsvetaeva, S.M. Aksenov, N.V. Chukanov, A.N. Sapozhnikov, V.E. Zagorsky, and A.A. Virus (2011) Tashelgite, CaMgFe²⁺Al₉O₁₆(OH), a new mineral species from Calc-Skarnoid in Gorny Shoria. *Geology of Ore Deposits*, 53(8), 751-757. (2) Rastsvetaeva, R.K., S.M. Aksenov, and N.V. Chukanov (2010) Structure of the tashelgite mineral Ca₂Mg₂Fe²⁺₂Al₁₈O₃₂(OH)₂ from Western Siberia: A new structure type. *Doklady Chem.* (2010), 434(1), 233-236. (3) (2012) *Amer. Mineral.*, 97, 2070-2071 (abs. ref. 2).