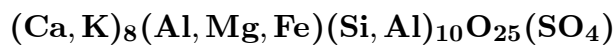


Latiumite

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Crystal Data: Monoclinic. *Point Group:* 2. Elongated tabular crystals, to 5 mm; also massive. *Twinning:* On {100} common, simple or multiple.

Physical Properties: *Cleavage:* {100}, perfect. Hardness = 5.5–6 D(meas.) = 2.93 D(calc.) = 2.92

Optical Properties: Transparent to translucent. *Color:* White, may be zoned or mottled. *Luster:* Vitreous.

Optical Class: Biaxial (+) or (-). *Orientation:* Z = b; X ∧ c = 16°–28°. *Dispersion:* r > v, marked. α = 1.600–1.603 β = 1.606–1.609 γ = 1.614–1.615 2V(meas.) = 83°–90°

Cell Data: *Space Group:* P2₁. a = 12.06(1) b = 5.08(2) c = 10.81(1) β = 106.0° Z = 2

X-ray Powder Pattern: Albano, Italy.

2.86 (s1), 3.06 (s2), 2.96 (s3), 2.54 (s), 4.6 (m), 4.5 (m), 3.83 (m)

Chemistry:

	(1)		(1)
SiO ₂	28.33	K ₂ O	7.20
Al ₂ O ₃	24.67	Cl	0.14
Fe ₂ O ₃	0.50	H ₂ O ⁺	0.27
FeO	0.55	H ₂ O ⁻	0.00
MnO	0.02	CO ₂	1.60
MgO	0.76	SO ₃	5.42
CaO	29.41	-O = Cl ₂	0.03
Na ₂ O	1.11	Total	99.95

(1) Albano, Italy; combination of two partial analyses, corresponding to (Ca_{5.91}K_{1.73}Na_{0.40})_{Σ=8.04} (Al_{0.76}Mg_{0.21}Fe_{0.09}²⁺Fe_{0.07}³⁺)_{Σ=1.03}(Si_{5.31}Al_{4.69})_{Σ=10.00}O₂₅[(SO₄)_{0.76}(CO₃)_{0.40}Cl_{0.02}]_{Σ=1.18}.

Occurrence: In blocks of metamorphosed limestone ejected by volcanism.

Association: Hedenbergite, grossular-andradite, melilite, leucite, haüyne, kaliophilite.

Distribution: From Albano, in the Alban Hills, Lazio, and from Pitigliano, near Grosseto, Tuscany, Italy.

Name: For the Latin name of the district of origin, Latium, Italy.

Type Material: Cambridge University, Cambridge, England, 45482, 29799.

References: (1) Tilley, C.E. and N.F.M. Henry (1953) Latiumite (sulphatic potassium-calcium-aluminum silicate), a new mineral from Albano, Latium, Italy. *Mineral. Mag.*, 30, 39–45. (2) (1954) *Amer. Mineral.*, 39, 402–403 (abs. ref. 1). (3) Cannillo, E., A. Dal Negro, and G. Rossi (1973) The crystal structure of latiumite, a new type of sheet silicate. *Amer. Mineral.*, 58, 466–470.