

Olekminskite



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Crystal Data: Hexagonal. *Point Group:* 32. As needlelike crystals, to 0.15 mm, hexagonal to rounded in cross section; in spherulites.

Physical Properties: *Tenacity:* Brittle. Hardness = 3 D(meas.) = 3.70(2)
D(calc.) = 3.65–3.68

Optical Properties: Transparent. *Color:* White. *Luster:* Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.670(2)$ $\epsilon = 1.527(2)$

Cell Data: *Space Group:* [P321] (by analogy to paralstonite). $a = 8.66(2)$ $c = 6.08(2)$
 $Z = 3$

X-ray Powder Pattern: Kedrovyy massif, Russia.
3.50 (100), 2.49 (90), 2.03 (90), 1.305 (70b), 1.928 (60), 1.837 (60), 1.581 (60b)

Chemistry:	(1)
	CO ₂ [29.94]
	La ₂ O ₃ 0.21
	Ce ₂ O ₃ 0.56
	CaO 6.68
	SrO 49.86
	BaO 11.23
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	Total [98.48]

(1) Kedrovyy massif, Russia; by electron microprobe, CO₂ calculated for stoichiometry; corresponds to Sr_{1.00}(Sr_{0.41}Ca_{0.35}Ba_{0.22}Ce_{0.01})_{Σ=0.99}(CO₃)_{2.00}.

Polymorphism & Series: Forms a series with paralstonite.

Occurrence: In barytocalcite–quartz veins in intrusive breccia in an alkaline massif.

Association: Paralstonite, calcite, barite, ankerite, ancylite-(Ce), narsarsukite, sphalerite, galena.

Distribution: From the Kedrovyy massif, five km southeast of the Murun massif, Aldan Shield, Sakha, Russia.

Name: For Olekminsk, Russia, administrative center for the district in which the Kedrovyy massif is located.

Type Material: Mining Institute, St. Petersburg, 2071/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, p461/1.

References: (1) Konev, A.A., E.I. Vorobev, L.F. Piskunova, Z.F. Ushchapovskaya, and G.A. Tichonova (1991) Olekminskite Sr(Sr, Ca, Ba)(CO₃)₂ – a new mineral and the new isomorphous series olekminskite–paralstonite. Zap. Vses. Mineral. Obshch., 120(3), 89–96 (in Russian).

(2) (1993) Amer. Mineral., 78, 451 (abs. ref. 1).