

**Crystal Data:** Orthorhombic. *Point Group:* 2/m 2/m 2/m. As fine-needles in fibrous sheaf-like aggregates and spherulites.

**Physical Properties:** *Cleavage:* Good on (010). *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = 4-5 VHN = 320 (20 g load). D(meas.) = 2.93(1) D(calc.) = 2.931

**Optical Properties:** Transparent. *Color:* White, colorless in thin section. *Streak:* White. *Luster:* Vitreous to silky. *Optical Class:* Biaxial (-).  $\alpha = 1.645(2)$   $\beta = 1.664(2)$   $\gamma = 1.675(3)$   $2V(\text{meas.}) = 75(10)^\circ$   $2V(\text{calc.}) = 75^\circ$  *Orientation:*  $X = a$  (or  $b$ ),  $Y = c$ ,  $Z = b$  (or  $a$ ).

**Cell Data:** *Space Group:* Cmc<sub>2</sub>.  $a = 3.7617(2)$   $b = 16.9385(8)$   $c = 17.3196(9)$   $Z = 2$

**X-ray Powder Pattern:** Upper Chegem caldera, near Mt. Lakargi, Northern Caucasus, Russia. 3.081 (100), 3.030 (79), 2.889 (74), 2.537 (74), 2.946 (43), 8.47 (39), 3.209 (33)

<b>Chemistry:</b>	(1)
SiO <sub>2</sub>	37.16
CaO	57.66
Cl	6.78
H <sub>2</sub> O	[0.13]
<u>-O=Cl</u>	<u>1.53</u>
Total	100.20

(1) Upper Chegem caldera, near Mt. Lakargi, Northern Caucasus, Russia; average of 45 electron microprobe analyses, H<sub>2</sub>O calculated for charge balance, corresponding to Ca<sub>9.99</sub>Si<sub>6.01</sub>O<sub>21</sub>(Cl<sub>1.86</sub>OH<sub>0.14</sub>).

**Occurrence:** In a thermally altered (sanidinite facies) carbonate-silicate xenolith about 10 m in size enclosed in ignimbrite.

**Association:** Wadalite, wollastonite, trabzonite, rankinite, larnite.

**Distribution:** Upper Chegem caldera, near Mt. Lakargi, Kabardino-Balkaria, Northern Caucasus, Russia.

**Name:** Honors Vladimir L. Rusinov (1935-2007), a Russian petrologist who studied the thermodynamics of non-equilibrium mineral systems.

**Type Material:** A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia (4022/1).

**References:** (1) Galuskin, E.V., I.O. Galuskina, B. Lazic, T. Armbruster, A.E. Zadov, T. Krzykawski, K. Banasik, V.M. Gazeev, and N.N. Pertsev (2011) Rusinovite, Ca<sub>10</sub>(Si<sub>2</sub>O<sub>7</sub>)<sub>3</sub>Cl<sub>2</sub>: a new skarn mineral from the Upper Chegem caldera, Kabardino-Balkaria, Northern Caucasus, Russia. *European Journal of Mineralogy*, 23, 837-844. (2) (2014) *Amer. Mineral.*, 99, 873 (abs. ref. 1).