

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As veins of highly fractured grains, to 0.5 mm. Simple and polysynthetic twinning on (001).

**Physical Properties:** *Cleavage:* {001}, {100}, {010}; imperfect. *Parting:* Perfect on (001). *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = ~5 VHN = 440 (20 g. load). D(meas.) = n.d. D(calc.) = 3.096

**Optical Properties:** Transparent. *Color:* Colorless, white, pale gray. *Streak:* White. *Luster:* Vitreous.

*Optical Class:* Biaxial (−).  $\alpha = 1.660(3)$   $\beta = 1.669(3)$   $\gamma = 1.676(3)$   $2V(\text{meas.}) = 60(5)^\circ$   $2V(\text{calc.}) = 82.4^\circ$  *Orientation:*  $X \parallel b$ ,  $Z \wedge a \approx 25^\circ$ ,  $Y \wedge c \approx 25^\circ$  or  $X \parallel b$ ,  $Z \wedge c \approx 25^\circ$ ,  $Y \wedge a \approx 25^\circ$ .

**Cell Data:** *Space Group:* P2<sub>1</sub>/c.  $a = 18.7872(5)$   $b = 6.7244(2)$   $c = 10.4673(2)$   $\beta = 90.788(10)^\circ$   $Z = 4$

**X-ray Powder Pattern:** Birkhin complex, Baikal area, Eastern Siberia, Russia.  
2.7032 (100), 2.6706 (100), 2.7338 (98), 2.7030 (85), 2.6166 (82), 2.7141 (78), 3.0323 (59)

Chemistry:	(1)	(2)
Na <sub>2</sub> O	0.43	
CaO	62.61	63.63
SiO <sub>2</sub>	28.85	29.22
P <sub>2</sub> O <sub>5</sub>	0.20	
SO <sub>3</sub>	0.05	
CO <sub>2</sub>	7.08	7.14
Total	99.22	100.00

(1) Birkhin complex, Baikal area, Eastern Siberia, Russia; electron microprobe analysis, CO<sub>2</sub> from structure analysis, Raman spectroscopy confirmed the presence of CO<sub>3</sub><sup>2-</sup>, corresponding to (Ca<sub>6.936</sub>Na<sub>0.086</sub>)<sub>Σ=7.022</sub>(Si<sub>2.983</sub>P<sub>0.018</sub>S<sub>0.004</sub>)<sub>Σ=3.005</sub>O<sub>12</sub>(CO<sub>3</sub>). (2) Ca<sub>7</sub>(SiO<sub>4</sub>)<sub>3</sub>(CO<sub>3</sub>).

**Occurrence:** A retrograde product of skarn alteration found in sanidinite facies contact-metamorphosed silicate carbonate xenoliths intruded by gabbroid rocks (Birkhin complex).

**Association:** Pavlovskyite, dellaite, larnite, bredigite, gehlenite, cuspidine, hydroxylellestadite.

**Distribution:** At the Birkhin complex, Baikal area, Olkhon region, Eastern Siberia, Russia.

**Name:** Honors Russian mineralogists Irina Olegovna Galuskina (b. 1961) and Evgeny Vadimovich Galuskin (b. 1960), Faculty of Earth Sciences, University of Silesia, Poland.

**Type Material:** A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia; 4050/1 and the Natural History Museum, Bern, Switzerland; NMBE-40811.

**References:** (1) Lazic, B., T. Armbruster, V.B. Savelyeva, A.E. Zadov, N.N. Pertsev, and P. Dzierżanowski (2011) Galuskinite, Ca<sub>7</sub>(SiO<sub>4</sub>)<sub>3</sub>(CO<sub>3</sub>), a new skarn mineral from the Birkhin gabbro massif, Eastern Siberia, Russia. *Mineral. Mag.*, 75(5), 2631-2648. (2) (2013) Amer. Mineral., 98, 1631 (abs. ref. 1).