

Chabazite-Sr**(Sr, Ca)₂[Al₄Si₈O₂₄]·11H₂O**

Crystal Data: Pseudohexagonal. *Point Group:* $\bar{3} 2/m$. As rough, discoidal crystals, to 0.3 mm; in aggregates to 3 mm. *Twining:* On {113}.

Physical Properties: *Cleavage:* Moderate on {101}. *Fracture:* Rough. *Tenacity:* Brittle. Hardness = 4-4.5 D(meas.) = 2.16(1) D(calc.) = 2.20

Optical Properties: Transparent. *Color:* Colorless to yellowish. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Uniaxial (+). $\omega = 1.503(1)$ $\epsilon = 1.507(1)$ Nonpleochroic.

Cell Data: *Space Group:* $R\bar{3} m$. $a = 13.715(6)$ $c = 15.09(1)$ $Z = 3$

X-ray Powder Pattern: Suoluaiiv Mountain, Lovozero massif, Kola Peninsula, Russia. 2.92 (100), 9.38 (80), 4.34 (70), 1.697 (70), 5.55 (60)

Chemistry:	(1)
Na ₂ O	0.85
K ₂ O	2.97
CaO	4.79
SrO	10.32
BaO	0.36
Al ₂ O ₃	21.74
SiO ₂	41.33
<u>H₂O</u>	<u>18.40</u>
Total	99.76

(1) Suoluaiiv Mountain, Lovozero massif, Kola Peninsula, Russia; electron microprobe analysis, H₂O by TGA; corresponds to (Sr_{1.08}Ca_{0.92}K_{0.68}Na_{0.30}Ba_{0.02}) $\Sigma=3.00$ [(Si_{7.28}Al_{4.62}) $\Sigma=11.9$ O₂₄]·11.06H₂O.

Mineral Group: Zeolite group, chabazite series.

Occurrence: In a K-feldspar and aegirine pegmatite veinlet in an alkaline massif.

Association: Analcime, gonnardite, lâvenite, vinogradovite, phillipsite, seidozerite, apatite, K-feldspar, aegirine.

Distribution: At Suoluaiiv Mountain, Lovozero alkaline massif, Kola Peninsula, Russia.

Name: From the Greek *chabazios*, an ancient name of a stone. A suffix indicates the most abundant extra-framework cation. Chabazite without a suffix is the correct name for a member of the chabazite series that is not specifically identified on compositional grounds.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia.

References: (1) Pekov, I.V., A.G. Turchkova, N.V. Chukanov, A.E. Zadov, and V.G. Grishin (2000) Chabazite-Sr, (Sr,Ca)[Al₂Si₄O₁₂]·6H₂O, a new zeolite mineral from the Lovozero massif, Kola Peninsula. *Zapiski Vseross. Mineral. Obshch.*, 129(4), 54-58 (in Russian, English abs.). (2) (2000) *Amer. Mineral.*, 86, 939 (abs. ref. 1). (3) Coombs, D.S., A. Alberti, T. Armbruster, G. Artioli, C. Colella, E. Galli, J.D. Grice, F. Liebau, J.A. Mandarino, H. Minato, E.H. Nickel, E. Passaglia, D.R. Peacor, S. Quartieri, R. Rinaldi, M. Ross, R.A. Sheppard, E. Tillmanns, and G. Vezzalini (1998) Recommended nomenclature for zeolite minerals: Report of the Subcommittee on Zeolites of the IMA, Commission on New Mineral and Mineral Names. *Mineral. Mag.*, 62, 533-571.