Strontiofluorite   **SrF$_2$**

Crystal Data: Isometric.   *Point Group:* $4/m\,\bar{3}\,2/m$.   As cubo-octahedral crystals to 0.3 mm, as spherical grains to1 mm, or as fine-grained compact massive aggregates; as pseudomorphs after prismatic lamprophyllite.

Physical Properties: *Cleavage:* Perfect {111}.   *Fracture:* Stepped.   *Tenacity:* Brittle. Hardness = 4   D(meas.) = 4.05   D(calc.) = 4.11

Optical Properties: Translucent.   *Color:* Pale gray; colorless in transmitted light.   *Streak:* White. *Luster:* Greasy.
Optical Class: Isotropic.   n = 1.438(2)

Cell Data: *Space Group: Fm$\bar{3}$m.*   a = 5.713(8)   Z = 4

X-ray Powder Pattern: Khibiny massif, Kola Peninsula, Russia.
3.324 (100), 2.029 (90), 1.731 (60), 1.172 (50), 1.317 (30), 2.886 (20), 1.434 (20)

Chemistry:

	(1)
Na	1.79
Ca	9.57
Sr	42.81
Ba	7.06
La	2.14
Ce	2.78
Nd	0.64
F	33.15
Total	99.94

(1) Mt. Koashva, Khibiy massif, Kola Peninsula, Russia; average of several electron microprobe analyses; corresponding to $(Sr_{0.56}Ca_{0.27}Na_{0.09}Ba_{0.06}Ce_{0.02}La_{0.02}Nd_{0.01})_{\Sigma=1.03}F_2$.

Mineral Group: Fluorite group.

Occurrence: In lenses of sodalite-microcline-aegirine rock within an apatite-rich urtite; produced by intense alteration of primary Sr-bearing minerals by F-rich hydrothermal fluids in a peralkaline parageneses.

Association: Astrophyllite, burbankite, chlorobartonite, fluorite, fluorapatite, polezhaevite-(Ce).

Distribution: Mt. Koashva and Mt. Kitchepakhk, Khibiny alkaline massif, Kola Peninsula, Russia.

Name: As a Sr-dominant analogue of fluorite.

Type Material: Mineralogical Museum, St. Petersburg State University, Russia; Geological and Mineralogical Museum of the Geological Institute, Kola Science Center, Russian Academy of Sciences, Apatity, Russia (6455).

References: (1) Yakovenchuk, V.N., G.Y. Ivanyuk, Y.A. Pakhomovsky, E.A. Selivanova, J.A. Korchak, and A.P. Nikolaev (2010) Strontiofluorite, SrF$_2$, a new mineral species from the Khibiny Massif, Kola Peninsula, Russia. Can. Mineral., 48, 1487-1492. (2) (2013) Amer. Mineral., 98, 281-282 (abs. ref. 1).