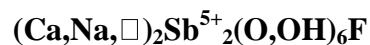


Fluorcalciroméite

Crystal Data: Isometric. *Point Group:* $4/m\bar{3}2/m$. As octahedral crystals, to 1 mm.

Physical Properties: *Cleavage:* None. *Fracture:* Conchoidal. *Tenacity:* Brittle.
Hardness = ~ 5 [By analogy to hydroxycalciroméite.] D(meas.) = n.d. D(calc.) = 5.113

Optical Properties: Translucent. *Color:* Yellow to orange. *Streak:* White. *Luster:* Vitreous to resinous.

Optical Class: Isotropic. $n(\text{calc.}) = 1.826$

Cell Data: *Space Group:* $Fd\bar{3}m$. $a = 10.2987(8)$ $Z = 8$

X-ray Powder Pattern: Starlera mine, Ferrera, Hinterrhein district, Grischun, Switzerland.
2.969 (100), 5.934 (81), 3.102 (20), 1.551 (15), 1.818 (8), 1.979 (7), 2.572 (6)

Chemistry:	(1)		(1)
Na ₂ O	4.11	SiO ₂	0.04
CaO	15.41	TiO ₂	0.01
MnO	0.54	UO ₂	0.01
CuO	0.01	Sb ₂ O ₅	76.18
ZnO	0.01	WO ₃	0.78
PbO	0.02	F	2.79
Al ₂ O ₃	0.10	H ₂ O	[0.59]
FeO	0.50	$-\text{O} = \text{F}_2$	1.17
Y ₂ O ₃	0.07	Total	100.00

(1) Starlera mine, Ferrera, Grischun, Switzerland; average of 13 electron microprobe analyses, H₂O by difference and confirmed by Raman spectroscopy; corresponding to
(Ca_{1.16}Na_{0.56}□_{0.22}Fe²⁺_{0.03}Mn²⁺_{0.03})_{Σ=2.00}(Sb⁵⁺_{1.98}Al_{0.01}W_{0.01})_{Σ=2.00}O₆[F_{0.62}(OH)_{0.28}O_{0.06}□_{0.04}]_{Σ=1.00}.

Mineral Group: Pyrochlore supergroup, roméite group.

Occurrence: In a structurally deformed manganese deposit most likely of synsedimentary exhalative origin.

Association: Braunite, hematite, calcite, quartz, walkkilldellite-(Mn).

Distribution: From the Starlera mine, Ferrera, Hinterrhein district, Grischun, Switzerland.

Name: For a member of the *roméite* group with dominant fluorine in the Y structural site and calcium in the A structural site.

Type Material: At the Museo Regionale di Scienze Naturali, Sezione di Mineralogia, Petrografia e Geologia, Torino, Italy (M/15925). Also at the RRUFF project (R120140) and at the Geology Museum, University of São Paulo, Brazil (DR745).

References: (1) Atencio, D., M.E. Ciriotti, and M.B. Andrade (2013) Fluorcalciroméite, (Ca,Na)₂Sb⁵⁺₂(O,OH)₆F, a new roméite-group mineral from Starlera mine, Ferrera, Grischun, Switzerland: description and crystal structure. *Mineral. Mag.*, 77(4), 467-473. (2) (2015) *Amer. Mineral.*, 100, 2357-2360 (abs. ref. 1).