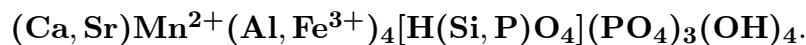


Attakolite

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Crystal Data: Monoclinic. *Point Group:* 2/m. Indistinctly crystalline, massive.
Twining: Possible twin lamellae are observed in thin section.

Physical Properties: Hardness = 5 D(meas.) = 3.09–3.23 D(calc.) = [3.35]

Optical Properties: Transparent. *Color:* White to pale red; colorless in thin section.
Optical Class: Biaxial (+). *Orientation:* Y = b; Z = c; X \wedge a = 24°. *Dispersion:* r < v to
 r \gg v, strong. $\alpha = 1.650\text{--}1.655$ $\beta = 1.654\text{--}1.664$ $\gamma = 1.661\text{--}1.675$ 2V(meas.) = 75°–84°
 2V(calc.) = 74°

Cell Data: *Space Group:* C2/m. a = 17.188(4) b = 11.477(8) c = 7.322(5)
 $\beta = 113.83(4)^\circ$ Z = 4

X-ray Powder Pattern: Västanå mine, Sweden.
 3.09 (10), 3.13 (8), 4.34 (7), 2.97 (6), 6.61 (4), 5.68 (4), 3.51 (4)

Chemistry:	(1)	(2)		(1)	(2)
SiO ₂	9.35	5.9	Na ₂ O	0.03	
Al ₂ O ₃	26.97	26.8	F	0.10	
Fe ₂ O ₃	0.60	3.9	Cl	0.06	
FeO	1.31		H ₂ O ⁺	5.92	[10.5]
MnO	7.10	9.7	H ₂ O ⁻	0.20	
PbO	0.03		CO ₂	0.57	
MgO	0.29		P ₂ O ₅	32.59	33.6
CaO	11.40	6.6	SO ₃	0.13	
SrO	3.30	3.0	-O = (F, Cl) ₂	0.06	
			<hr/>		
			Total	99.89	[100.0]

(1) Västanå mine, Sweden; contaminated with calcite 1.30% and svanbergite 0.76%. (2) Do.;
 by electron microprobe, total Fe as Fe₂O₃ on crystallo-chemical grounds, H₂O by difference;
 corresponds to (Ca_{0.81}Sr_{0.20}) $\Sigma=1.01$ Mn_{0.95}(Al_{3.65}Fe_{0.34}³⁺) $\Sigma=3.99$ [H(Si_{0.68}P_{0.28}) $\Sigma=0.96$ O₄](PO₄)₃(OH)₄.

Occurrence: In an iron deposit.

Association: Berlinite, lazulite, trolleite, apatite, svanbergite, pyrophyllite, hematite, calcite,
 quartz.

Distribution: From the Västanå mine, near Näsrum, Skåne, Sweden.

Name: From the Greek for *salmon*, for the pale red color.

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 v. II, 845. (3) Gabrielson, O. and P. Gejer. (1966) The mineral attakolite. Arkiv Mineral. Geol.,
 3(30), 537–543. (4) (1966) Amer. Mineral., 51, 534 (abs. ref. 3). (5) Grice, J.D. and P.J. Dunn
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