Roméite $(Ca, Fe^{2+}, Mn^{2+}, Na)_2(Sb, Ti)_2O_6(O, OH, F)$

Crystal Data: Cubic. *Point Group:* $4/m\ \overline{3}\ 2/m$. As octahedra, to 1 mm, with subordinate {001}, {110}, {112}, {113}, {133}; in crystalline aggregates; massive. *Twinning:* Uncommon on {111}.

Physical Properties: *Cleavage:* {111}, poor. *Fracture:* Splintery, uneven.
Hardness = 5.5–6.5 D(meas.) = 4.95–5.41 D(calc.) = [5.28–5.39]

Optical Properties: Transparent to translucent. *Color:* Pale yellow, yellowish to reddish brown, dark brown. *Streak:* Nearly white, pale yellow. *Luster:* Vitreous, greasy, subadamantine.
Optical Class: Isotropic; may be anomalously biaxial, zoned or sectored. n = 1.817–1.854

Cell Data: *Space Group:* $Fd3m$. a = 10.24–10.31 Z = 8

X-ray Powder Pattern: Långban, Sweden.
2.95 (10), 6.0 (8), 1.827 (8), 3.09 (7), 1.549 (7), 2.57 (6), 0.869 (6)

Chemistry:

	(1)	(2)	(3)
TiO_2		0.30	
Sb_2O_5	74.72	72.17	74.26
FeO	1.12	2.92	
MnO	6.27	0.43	
PbO		0.51	
MgO		0.35	
CaO	15.81	19.01	25.74
Na_2O	0.81	2.03	
K_2O		0.17	
F		3.50	
H_2O	1.39	0.66	
$-O = F_2$		[1.47]	
Total	100.12	[100.58]	100.00

(1) St. Marcel, Italy. (2) Långban, Sweden; after deduction of remnant 0.52%. (3) $Ca_2Sb_2O_7$.

Occurrence: A secondary mineral in some manganese-bearing hydrothermal mineral deposits which commonly have undergone metamorphism.

Mineral Group: Stibiconite group.

Association: Epidote, manganese oxides (St. Marcel, Italy); yeatmanite, sarkinite, willemite, diopside, andradite (Franklin, New Jersey, USA).

Distribution: In the Praborna mine, south of St. Marcel, Val d'Aosta, Piedmont, Italy. At the Radstädter Tauern-Pass, Salzburg, Austria. From Långban and Jakobsberg, Värmland, Sweden. In the USA, at Franklin, Sussex Co., New Jersey; from the Green prospect, Mopung Hills, Lake district, Churchill Co., Nevada. At the Tripuhy cinnabar mine, Ouro Prêto, Minas Gerais, Brazil. From the Tai Lee mine, Siput Utara, Perak, Malaysia. A few other localities are reported, but require modern authentication.

Name: To honor Jean Baptiste Louis Romé de l'Isle (1736–1790), early French crystallographer.

Type Material: Natural History Museum, Paris, France, 41.151 and 41.152.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1020–1022. (2) Welin, E. (1968) X-ray powder data for minerals from Långban and the related mineral deposits of Central Sweden. Arkiv Mineral. Geol., 4(30), 499–541.