Oxyplumboroméite $Pb_2Sb_2O_7$

Crystal Data: Isometric. *Point Group*: 4/*m* $\bar{3}$ 2/*m*. As rounded grains or imperfect octahedral crystals < 0.4 mm.

Physical Properties: *Cleavage*: n.d. *Fracture*: Uneven. *Tenacity*: Brittle. Hardness = ~ 5 D(meas.) = n.d. D(calc.) = 6.732

Optical Properties: Transparent. *Color*: Yellow to brownish yellow. *Streak*: Straw-yellow. *Luster*: n.d.
Optical Class: Isotropic. *n*(calc.) = 2.061

Cell Data: *Space Group*: *Fd*$\bar{3}$ *m*. *a* = 10.3783(6) Z = 8

X-ray Powder Pattern: Harstigen mine, Pajsberg, Värmland, Sweden.
2.992 (100), 1.833 (48), 1.564 (38), 2.593 (32), 1.190 (12), 1.498 (11), 1.1600 (9)

Chemistry:

	(1)
Sb_2O_5	48.69
Al_2O_3	0.01
Fe_2O_3	3.85
SiO_2	0.00
CaO	8.46
MnO	1.06
SrO	0.23
BaO	0.01
PbO	35.82
Na_2O	0.24
SO_3	0.07
H_2O	[0.05]
Total	98.49

(1) Harstigen mine, Pajsberg, Värmland, Sweden; average of 8 electron microprobe analyses, Fe^{3+} confirmed by Mössbauer spectroscopy, Mn^{2+} confirmed by electronic absorption spectra, H_2O by FTIR spectroscopy; corresponding to $(Pb_{0.92}Ca_{0.87}Mn_{0.09}Sr_{0.01}Na_{0.05})_{\Sigma=1.93}(Sb^{5+}_{1.73}Fe^{3+}_{0.27})_{\Sigma=2.00}[O_{6.64}(OH)_{0.03}]_{\Sigma=6.67}$.

Mineral Group: Pyrochlore supergroup, roméite group.

Occurrence: In fissure veins cutting tephroite skarn.

Association: Calcite, leucophoenicite.

Distribution: From the Harstigen mine, Pajsberg, Värmland, Sweden.

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

Type Material: Swedish Museum of Natural History, Stockholm, Sweden (g22779).

References: (1) Hålenius, U. and F. Bosi (2013) Oxyplumboroméite, $Pb_2Sb_2O_7$, a new mineral species of the pyrochlore supergroup from Harstigen mine, Värmland, Sweden. Mineral. Mag., 77(7), 2931-2939. (2) (2015) Amer. Mineral., 100, 2357-2360 (abs. ref. 1).