

Crystal Data: Monoclinic. *Point Group:* 2/m. As elongate inclusions to ~200 μm.

Physical Properties: *Cleavage:* Observed, rare. *Fracture:* n.d. *Tenacity:* Brittle.
Hardness = n.d. VHN = 309-450 (100 g load). D(meas.) = n.d. D(calc.) = 4.66(1)

Optical Properties: Opaque. *Color:* Black, gray in reflected light. *Streak:* Sepia.
Luster: Submetallic.
Optical Class: n.d. *Pleochroism:* Strong gray-white (oil). *Anisotropism:* Moderate, gray-blue to white.
R₁-R₂: (470) 26.0-34.2, (543) 24.4-31.7, (587) 23.4-30.6, (657) 22.3-29.7

Cell Data: *Space Group:* P2₁/n (probable). *a* = 10.00(1) *b* = 5.758(7) *c* = 9.88(1)
β = 90.64(6)° *Z* = 2

X-ray Powder Pattern: Praborna Mn deposit, Aosta Valley, Italy.
3.15 (100), 3.13 (80), 2.409 (80), 2.170 (60), 1.556 (50), 2.229 (40), 4.96 (30)

Chemistry:	(1)
MnO ₂	58.71
Mn ₂ O ₃	16.51
Fe ₂ O ₃	6.27
TiO ₂	0.70
SiO ₂	0.45
K ₂ O	0.83
Na ₂ O	0.17
BaO	1.39
SrO	12.77
Total	97.80

(1) Praborna Mn deposit, Aosta Valley, Italy; electron microprobe analysis; corresponding to (Sr_{1.01}K_{0.14}Ba_{0.07}Na_{0.04})_{Σ=1.26}(Mn⁴⁺_{5.52}Mn³⁺_{1.71}Fe³⁺_{0.64}Ti_{0.07}Si_{0.06})_{Σ=8.00}O₁₆.

Polymorphism & Series: Forms a series with cryptomelane and hollandite.

Mineral Group: Hollandite supergroup, coronadite group.

Occurrence: A primary mineral in meta-ophiolite rocks (amphibolite-eclogite facies), the Mn deposit originally of seafloor hydrothermal origin.

Association: Braunite, hollandite, cryptomelane, fluorapatite, titanite, jadeite, strontio Piemontite.

Distribution: From the Praborna Mn deposit, 5 km south of Saint-Marcel, Aosta Valley, Italy.

Name: The strontium analog of cryptomelane. The name alludes to the composition, *strontio*, and the Greek *melas*, *-anos*, for black.

Type Material: The Geological Museum of Lausanne, Switzerland (MGL 58770), and in the Laboratoire et Galerie de Minéralogie, Muséum National d'Histoire Naturelle, Paris, France (SM 7090.96).

References: (1) Meisser, N., E.-A. Perseil, J. Brugger, and P.-J. Chiappero (1999) Strontiomelane, SrMn₆⁴⁺Mn₂³⁺O₁₆, a new mineral species of the cryptomelane group from St. Marcel-Praborna, Aosta Valley, Italy. *Can. Mineral.*, 37, 673-678. (2) (2000) *Amer. Mineral.*, 85, 628 (abs. ref. 1). (3) Biagioni C., C. Capalbo and M. Pasero (2013) Nomenclature tunings in the hollandite supergroup. *Eur. J. Mineral.*, 25, 85-90.