Santanaite $9PbO \cdot 2PbO_2 \cdot CrO_3$

Crystal Data: Hexagonal. *Point Group:* 622. Platy hexagonal crystals, flattened on {0001}, to 0.5 mm, in aggregates.

Physical Properties: *Cleavage:* {0001} and $\{11\bar{2}0\}$, very good; $\{10\bar{1}0\}$, rare. Hardness = ∼4 D(meas.) = n.d. D(calc.) = 9.155

Optical Properties: Semitransparent. *Color:* Straw-yellow; gray-brown in reflected light, with light yellow internal reflections. *Luster:* Adamantine.
Optical Class: Uniaxial (–). $\omega = 2.32$ $\epsilon = 2.12$

Cell Data: *Space Group:* $P6_322$. a = 9.03(1) $c = 39.84(8)$ Z = 6

X-ray Powder Pattern: Santa Ana mine, Chile.
3.539 (10), 2.606 (8), 2.080 (5), 1.701 (5), 2.948 (4), 2.846 (4), 2.243 (4)

Chemistry:

	(1)	(2)
Pb	88.0	88.10
Cr	1.9	2.01
O	[10.1]	9.89
Total	[100.0]	100.00

(1) Santa Ana mine, Chile; by electron microprobe, O by difference. (2) $Pb_{11}CrO_{16}$.

Occurrence: An alteration product of galena with other chromium-bearing minerals in an oxidized hydrothermal lead deposit.

Association: Galena, phoenicochroite, chromatian wulfenite, diaboleite, quartz.

Distribution: At the Santa Ana mine, near Caracoles, Sierra Gorda district, Antofagasta, Chile.

Name: For the occurrence at the Santa Ana mine, Chile.

Type Material: n.d.

References: (1) Mücke, A. (1972) Santanait, ein neues Bleichromat-Mineral. Neues Jahrb. Mineral., Monatsh., 455–458 (in German with English abs.). (2) (1973) Amer. Mineral., 58, 966 (abs. ref. 1).