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**Crystal Data:** Orthorhombic. Point Group: 2/m 2/m 2/m. Crystals tabular  $\{010\}$ , with square or octagonal outline, or elongated along [100], to 1 cm; may be in subparallel or divergent platy groups. Twinning: On  $\{101\}$ , nearly perpendicular, common.

**Physical Properties:** Cleavage: Perfect on  $\{010\}$ . Hardness = 3.5–4 D(meas.) = 7.02 D(calc.) = 7.06

Optical Properties: Translucent. Color: Smoky brown, brownish yellow to yellow. Streak: Yellow to yellowish white. Luster: Resinous to adamantine. Optical Class: Biaxial (+). Orientation: X = b; Y = c; Z = a. Dispersion: r > v, strong.  $\alpha = 2.30$   $\beta = 2.34-2.35$   $\gamma = 2.36-2.40$  2V(meas.) = Very large.

**Cell Data:** Space Group: Cmcm. a = 5.603(5) b = 12.245(8) c = 5.448(7) Z = 4

**X-ray Powder Pattern:** Djebel Nador, Algeria. (ICDD 17-469). 2.800 (100), 3.71 (30), 1.945 (30), 1.615 (30), 1.587 (30), 2.703 (25), 2.057 (25)

$\alpha$	• ,	
Chen	nisti	rv
O II O I	11100	· J '

	(1)	(2)	(3)
Pb	51.60	51.88	52.27
$\operatorname{Sb}$	31.55	31.17	30.71
O	8.00	8.22	8.07
Cl	8.85	9.00	8.95
Total	100.00	100.27	100.00

(1-2) Djebel Nador, Algeria. (3) PbSbO<sub>2</sub>Cl.

**Occurrence:** As an alteration product of other antimony-bearing minerals in hydrothermal mineral deposits.

**Association:** Jamesonite, galena, sphalerite, bindheimite, sénarmontite, valentinite, anglesite, cerussite, smithsonite, mimetite.

**Distribution:** Large crystals at Djebel Nador, Qacentina (Constantine), Algeria. Fine groups in the Touissit mine, near Oujda, Morocco. In England, from the Bodannon mine and at Portquin Beach, St. Endellion; in the Trevinnick mine, St. Kew; at the Treore mine, St. Teath; and from Wheal Leigh, Pillaton, Cornwall. At Långban, Jakobsberg, and in the Harstigen mine, near Persberg, Värmland, Sweden. At the Reichensteinerberg mine, near Reichenstein, Westerwald, Germany. At the Madzharov deposit, Rhodope Mountains, Bulgaria. In the Kara Elcha mercury deposit, Turkmenistan. From the Kara-Oba Mo-W deposit, Bet-Pak-Dal Desert, central Kazakhstan. At Tsumeb, Namibia.

Name: For its original occurrence at Djebel Nador, Algeria.

References: (1) Dana, E.S. (1892) Dana's system of mineralogy, (6th edition), 863. (2) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1039–1041. (3) Giuseppetti, G. and C. Tadini (1973) Riesame della struttura cristallina della nadorite: PbSbO<sub>2</sub>Cl. Period. Mineral., 42, 335–345 (in Italian with English abs.).