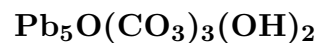


Plumbonacrite



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Crystal Data: Hexagonal. *Point Group:* 6mm. As aggregates of scaly crystals, to 0.1 mm.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = 7.07$ (synthetic). $D(\text{calc.}) = [7.069]$

Optical Properties: Transparent to translucent. *Color:* Colorless to white. *Luster:* Pearly.
Optical Class: [Uniaxial.] $\omega = \text{n.d.}$ $\epsilon = \text{n.d.}$

Cell Data: *Space Group:* $P6_3cm$ (synthetic). $a = 9.0921(7)$ $c = 24.923(3)$ $Z = 6$

X-ray Powder Pattern: Synthetic; near to hydrocerussite.
2.619 (10), 4.26 (8), 3.357 (7), 1.699 (5), 2.953 (4), 2.235 (4), 3.98 (3)

Chemistry:	(1)	(2)
CO ₂	4.76	10.43
PbO	92.85	88.15
H ₂ O	2.01	1.42
insol.	0.78	
Total	100.40	100.00

(1) Wanlockhead, Scotland. (2) $\text{Pb}_5\text{O}(\text{CO}_3)_3(\text{OH})_2$.

Occurrence: Rare in the oxidized zone of hydrothermal polymetallic deposits.

Association: Anglesite, linarite, galena (Tiger, Arizona, USA).

Distribution: From Wanlockhead, Dumfriesshire, Scotland. In the Mammoth-St. Anthony mine, Tiger, Pinal Co., Arizona, USA.

Name: From the Latin for *lead* and the French *nacre*, for *mother-of-pearl*, in allusion to its composition and nacreous luster.

Type Material: n.d.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 270 [hydrocerussite, part]. (2) Olby, J.K. (1966) The basic lead carbonates. *J. Inorg. Nucl. Chem.*, 28, 2507–2512. (3) Haacke, D.F. and P.A. Williams (1981) Stability of plumbonacrite. *J. Inorg. Nucl. Chem.*, 43, 406. (4) Krivovichev, S.V. and P.C. Burns (2000) Crystal chemistry of basic lead carbonates. II. Crystal structure of synthetic "plumbonacrite". *Mineral. Mag.*, 64, 1069–1075.