

Crystal Data: Hexagonal. *Point Group:* 6mm. As tabular to lamellar crystals to 10 μm, as pseudo-hexagonal platelets to ~30 μm with prominent pinacoidal faces. As random aggregates.

Physical Properties: *Cleavage:* n.d.; synthetic analog perfect on {001}. *Tenacity:* n.d.
Fracture: n.d. *Hardness:* = n.d. *D(meas.):* = n.d. *D(calc.):* = 5.93

Optical Properties: Translucent. *Color:* Colorless to white. *Streak:* White. *Luster:* Vitreous to nacreous.

Optical Class: Uniaxial (probably). *n(average):* = 1.8-2 *n(calc.):* = 1.90 *Pleochroism:* None.

Cell Data: *Space Group:* P6₃mc. *a:* = 5.254(2) *c:* = 13.450(5) *Z:* = 2

X-ray Powder Pattern: Eureka mine, Castell-estaó, Catalan Pyrenees, Lleida province, Spain. 3.193 (100), 2.029 (95), 2.627 (84), 2.242 (65), 2.275 (29), 2.011 (25), 2.070 (19)

Chemistry:	(1)	(2)
Na	3.88	4.00
Ca	0.29	
Pb	72.03	72.14
C	[4.17]	4.18
O	[19.47]	19.50
H	[0.17]	0.18
Total	100.01	100.00

(1) Eureka mine, Castell-estaó, Catalan Pyrenees, Lleida province, Spain; average of 10 electron microprobe analyses, complex ions confirmed by Raman and IR spectroscopy; H, C and O calculated from stoichiometry; corresponds to Na_{0.96}Ca_{0.04}Pb_{1.98}(CO₃)₂(OH).

(2) NaPb₂(CO₃)₂(OH).

Occurrence: A post-mining, secondary mineral that forms sparse coatings from supergene enrichment of a "red-bed", sediment-hosted U-V-Cu deposit.

Association: Hydrozincite, aragonite, gordaite, As-vanadinite, andersonite, čejkaite, malachite, devilline.

Distribution: From the Eureka mine, Castell-estaó, Catalan Pyrenees, Lleida province, Spain.

Name: Honors amateur mineralogist and mineral collector Joan Abella i Creus (b. 1968) from Sabadell, Catalonia, Spain, who collected the first specimens.

Type Material: Natural History Museum of Barcelona, Catalonia, Spain (MGB 26.350).

References: (1) Ibáñez-Insa, J., J.J. Elvira, X. Llovet, J. Pérez-Cano, N. Oriols, M. Busquets-Masó, and S. Hernández (2017) Abellaite, NaPb₂(CO₃)₂(OH), a new supergene mineral from the Eureka mine, Lleida province, Catalonia, Spain. *Eur. J. Mineral.*, 29(5), 915-922. (2) (2018) *Amer. Mineral.*, 103, 1711 (abs. ref. 1).