Pseudocotunnite $K_2PbCl_4(?)$

Crystal Data: Orthorhombic (probable). *Point Group:* $2/m\ 2/m\ 2/m$. Needlelike crystals, elongated ‖ [001], may be lathlike, flattened on {010} or {100}, to 5 mm; as warty aggregates, dendritic crusts.

Physical Properties: Hardness = n.d. D(meas.) = n.d. D(calc.) = 4.25 Soluble in warm H_2O.

Optical Properties: Semitransparent. *Color:* Colorless to white, yellow, greenish yellow. *Luster:* Dull.
Optical Class: Biaxial; medium strong birefringence. *Orientation:* $Z = c$. n = n.d. 2V(meas.) = n.d.

Cell Data: *Space Group:* *Pnma* (synthetic). $a = 11.80(5)$ $b = 5.77(5)$ $c = 9.82(5)$ Z = 4

X-ray Powder Pattern: n.d.

Chemistry:

	(1)	(2)	(3)
Na	1.53		
K	17.11	18.97	18.30
Pb	43.00	47.67	48.50
Ca	2.13		
Cl	36.23	33.36	33.20
Total	100.00	[100.00]	100.00

(1) Vesuvius, Italy; SO_4 and F in traces. (2) Analysis (1) recalculated to 100% after deduction of Na and Ca as chlorides. (3) K_2PbCl_4.

Occurrence: In volcanic fumaroles.

Association: Tenorite, cotunnite.

Distribution: On Vesuvius, Campania, Italy.

Name: From the Greek for *false*, and the mineral's supposed resemblance to *cotunnite*.

Type Material: Natural History Museum, Paris, France, 108.1573.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 96–97. (2) Bellanca, A. (1952) Sulla struttura della pseudocotunnite. Rend. Soc. Ital. Mineral. Petrol., 8, 53 (in Italian).