Chlormanganokalite K_4MnCl_6

Crystal Data: Hexagonal. *Point Group:* $\overline{3}\,2/m$. As rhombohedra, which may be in parallel groupings.

Physical Properties: *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = 2.5
D(meas.) = 2.31; 2.315 (synthetic). D(calc.) = 2.303 (synthetic). Readily soluble in H_2O; deliquescent.

Optical Properties: Transparent. *Color:* Pale wine-yellow, lemon-yellow, canary-yellow.
Luster: Vitreous.
Optical Class: Uniaxial (+). $n = 1.59$, low birefringence.

Cell Data: *Space Group:* $R\overline{3}m$ (synthetic). $a = 11.93$ $c = 14.79$ Z = 6

X-ray Powder Pattern: Synthetic. (ICDD 3-856).
2.55 (100), 2.69 (80), 5.90 (50), 3.55 (50), 2.82 (28), 3.45 (24), 2.50 (24)

Chemistry:

	(1)	(2)
KCl	69.42	70.32
$MnCl_2$	26.45	29.68
$MgCl_2$	0.16	
Na_2SO_4	1.19	
H_2O	1.52	
insol.	0.71	
Total	99.45	100.00

(1) Vesuvius, Italy. (2) K_4MnCl_6.

Occurrence: In cavities in ejected scoria.

Association: Halite, sylvite, hematite.

Distribution: On Vesuvius, Campania, Italy.

Name: For CHLORine, MANGANese, and potassium (KALium), in its composition.

Type Material: Natural History Museum, Paris, France, 106.340, 106.341 [decomposed]; The Natural History Museum, London, England, 1907,191–193.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 109. (2) Bellanca, A. (1947) La struttura della cloromanganocalite. Periodico Miner. 16(1–2), 73–88 (in Italian).