Chlorocalcite $KCaCl_3$

Crystal Data: Orthorhombic, pseudocubic (probable). *Point Group:* $2/m\ 2/m\ 2/m$. Crystals pseudocubic, with pseudododecahedral and pseudo-octahedral modifications, may be prismatic or tabular. *Twinning:* Polysynthetic, lamellar parallel pseudocube faces.

Physical Properties: *Cleavage:* In three nearly perpendicular directions, one direction better than the other two. Hardness = 2.5–3 D(meas.) = n.d. D(calc.) = 2.16 Deliquescent, bitter taste.

Optical Properties: Semitransparent. *Color:* White, may be violet.
Optical Class: Biaxial (–); weak birefringence. $n = \sim 1.52$ 2V(meas.) = n.d.

Cell Data: *Space Group: Pnma* (synthetic). $a = 7.551$ $b = 10.442$ $c = 7.251$ Z = 5

X-ray Powder Pattern: Synthetic.
2.612 (100), 3.137 (35), 3.697 (30), 3.119 (30), 5.227 (25), 2.107 (25), 3.058 (18)

Chemistry:

	(1)	(2)
Na	0.17	
K	21.44	21.07
Ca	21.40	21.60
Cl	57.56	57.33
Total	100.57	100.00

(1) Vesuvius, Italy. (2) $KCaCl_3$.

Occurrence: As a sublimate in volcanic fumaroles (Vesuvius, Italy).

Association: Sylvite, halite, hematite (Vesuvius, Italy); halite, tachyhydrite (Stassfurt, Germany).

Distribution: On Vesuvius, Campania, Italy. From Stassfurt, 34 km south of Magdeburg, Saxony-Anhalt, Germany.

Name: For CHLORine and CALCium in the composition.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 91–92. (2) (1969) NBS Mono. 25, 7, 36.