

$\text{K}_{0.33}(\text{K}_{0.17}\text{La}_{0.83})\text{Cl}_3$ $hP10$ $(176) P6_3/m - hcb$ **K₃La₅Cl₁₈** [1]

Structural features: Infinite columns of base-linked (La,K)Cl₆Cl₃ tricapped trigonal prisms share atoms to form a 3D-framework; additional K in channels of hexagonal cross-section parallel to [001] (partial disorder). Ordering variant of Pr_{1.29}Cl₃ (PrCl_{2.33}).

Seifert H.J. et al. (1985) [1]

 $\text{Cl}_3\text{K}_{0.49}\text{La}_{0.83}$ $a = 0.7857, c = 0.4309 \text{ nm}, c/a = 0.548, V = 0.2304 \text{ nm}^3, Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Cl1	6 <i>h</i>	<i>m</i> ..	0.3957	0.0877	1/4		square pyramid La ₃ K ₂
M2	2 <i>c</i>	-6..	1/3	2/3	1/4		tricapped trigonal prism Cl ₉
K3	2 <i>b</i>	-3..	0	0	0	0.32	

 $\text{M2} = 0.833\text{La} + 0.167\text{K}$ Transformation from published data: *y,x,-z*

Experimental: single crystal, diffractometer, X-rays, R = 0.085

Remarks: Refinement of the occupancy of site M2 showed no significant deviation from 1K:5La. Short interatomic distances for partly occupied site(s).

References: [1] Seifert H.J., Fink H., Thiel G. (1985), J. Less-Common Met. 110, 139-147.