Rb_6O	*hP*28	(176) $P6_3/m$ – ihf^{2}b

Rb_6O [1]
Structural features: Close-packed Rb layers in hc_3 stacking; O in octahedral voids in interlayers around h-stacked layers. Units of two face-sharing ORb_6 octahedra.

Simon A., Deiseroth H.J. (1976) [1]
ORb_6
a = 0.8393, c = 3.0467 nm, c/a = 3.630, V = 1.8586 nm^3, Z = 4

site	Wyck.	sym.	x	y	z	occ.	atomic environment
Rb1	12*i*	1	0.3166	0.3874	0.1398		single atom O
Rb2	6*h*	*m*..	0.0834	0.4295	$^1/_4$		non-colinear O_2
O3	4*f*	3..	$^1/_3$	$^2/_3$	0.1873		octahedron Rb_6
Rb4	4*f*	3..	$^1/_3$	$^2/_3$	0.5161		cuboctahedron Rb_{12}
Rb5	2*b*	-3..	0	0	0		cuboctahedron Rb_{12}

Experimental: single crystal, Weissenberg photographs, X-rays, R = 0.120, T = 223 K

Remarks: Phase stable at T < 281 K.

References: [1] Simon A., Deiseroth H.J. (1976), Rev. Chim. Miner. 13, 98-112.