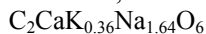
 $hP22$ $(186) P6_3mc - c^2b^3a^2$

(Na,K)₂Ca(CO₃)₂ ht [1], nyerereite high

Structural features: CO₃ trigonal units (perpendicular to [001]) arranged in triangle-mesh layers (hc stacking); (Na,K) in "octahedral" voids, Ca in the carbonate layers.

McKie D., Frankis E.J. (1977) [1]



$a = 0.505$, $c = 1.285$ nm, $c/a = 2.545$, $V = 0.2838$ nm³, $Z = 2$

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	6c	.m.	0.48	0.52	0.0		single atom C
O2	6c	.m.	0.85	0.15	0.25		single atom C
C3	2b	3m.	$\frac{1}{3}$	$\frac{2}{3}$	0.0		coplanar triangle O ₃
M4	2b	3m.	$\frac{1}{3}$	$\frac{2}{3}$	0.325		9-vertex polyhedron O ₉
Na5	2b	3m.	$\frac{1}{3}$	$\frac{2}{3}$	0.625		octahedron O ₆
Ca6	2a	3m.	0	0	0.0		coplanar hexagon O ₆
C7	2a	3m.	0	0	0.25		coplanar triangle O ₃

$\text{M4} = 0.64\text{Na} + 0.36\text{K}$

Transformation from published data: origin shift 0 0 0.5

Experimental: single crystal, Weissenberg photographs, X-rays, T = 613 K

Remarks: Phase stable at T > 613 K. Natural specimen from the Oldoinyo Lengai volcano, Tanzania; heated in situ.

References: [1] McKie D., Frankis E.J. (1977), Z. Kristallogr. 145, 73-95.