$K_{0.7}Na_{2.75}Ca_{0.15}(Al_{0.47}Si_{0.53})_8O_{16}$	*hP*60	(176) $P6_3/m$ – i^3h^3fa

$K_{1.4}Na_{5.5}Ca_{0.3}Al_{7.5}Si_{8.5}O_{32}$ [1], nepheline
Structural features: $(Si,Al)O_4$ tetrahedra share vertices to form a distorted tridymite-type framework; K and Na in channels delimited by regular or distorted 6-rings parallel to [001].

Dollase W.A. (1970) [1]
$Al_{3.75}K_{0.61}Na_3O_{16}Si_{4.25}$
a = 1.0007, c = 0.8385 nm, c/a = 0.838, V = 0.7272 nm^3, Z = 2

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	12*i*	1	0.2775	0.2259	0.0612		non-colinear Si_2
M2	12*i*	1	0.3334	0.0939	0.0638		tetrahedron O_4
O3	12*i*	1	0.5169	0.1677	0.0047		non-colinear Si_2
O4	6*h*	*m*..	0.3174	0.0272	$^1/_4$		non-colinear Si_2
O5	6*h*	*m*..	0.3401	0.6315	$^1/_4$	0.333	
Na6	6*h*	*m*..	0.5573	0.0031	$^1/_4$		8-vertex polyhedron O_8
M7	4*f*	3..	$^1/_3$	$^2/_3$	0.0554		
K8	2*a*	-6..	0	0	$^1/_4$	0.61	tricapped trigonal prism O_9

M2 = 0.531Si + 0.469Al; M7 = 0.531Si + 0.469Al
Transformation from published data: *y*,*x*,-*z*
Experimental: single crystal, diffractometer, X-rays, R = 0.080

Remarks: Natural specimen from Larvik, Norway. Composition $K_{1.40}Na_{5.47}Ca_{0.30}Al_{7.47}Si_{8.53}O_{32}$ from chemical analysis. Ca not located. We assigned an approximate value to the Al/Si ratio of sites M based on the nominal composition. Short interatomic distances for partly occupied site(s). Average structure; a constrained superstructure was refined in space group (173) $P6_3$. In table 1 of [1] the z-coordinate of former O(2) is misprinted as $^1/_4$ instead of $^3/_4$ (better interatomic distances).

References: [1] Dollase W.A. (1970), Z. Kristallogr. 132, 27-44.