

$\text{K}_2\text{Si}_4\text{O}_9$	$hP30$	(176) $P6_3/m - ih^2fb$
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**$\text{K}_2\text{Si}_4\text{O}_9$**  [1]

Structural features: Rings of three vertex-linked  $\text{SiO}_4$  tetrahedra share vertices with  $\text{SiO}_6$  octahedra to form a 3D-framework.

Swanson D.K., Prewitt C.T. (1983) [1]

$\text{K}_2\text{O}_9\text{Si}_4$

$a = 0.66124$ ,  $c = 0.95102$  nm,  $c/a = 1.438$ ,  $V = 0.3601$  nm<sup>3</sup>,  $Z = 2$

site	Wyck.	sym.	$x$	$y$	$z$	occ.	atomic environment
O1	$12i$	1	0.23203	0.02296	0.10611		non-colinear $\text{Si}_2$
Si2	$6h$	$m..$	0.36532	0.13189	$\frac{1}{4}$		tetrahedron $\text{O}_4$
O3	$6h$	$m..$	0.58189	0.07339	$\frac{1}{4}$		non-colinear $\text{Si}_2$
K4	$4f$	$3..$	$\frac{1}{3}$	$\frac{2}{3}$	0.05778		tricapped trigonal prism $\text{O}_9$
Si5	$2b$	$-3..$	0	0	0		octahedron $\text{O}_6$

Transformation from published data:  $y, x, -z$

Experimental: single crystal, diffractometer, X-rays,  $R = 0.020$

References: [1] Swanson D.K., Prewitt C.T. (1983), Am. Mineral. 68, 581-585.