

$\text{K}_3\text{Ta}_3[\text{Si}_2\text{O}_7]\text{O}_6$	<i>hP42</i>	(189) <i>P-62m</i> – $\text{h}^2\text{hg}^2\text{f}^2\text{c}$
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$\text{K}_6\text{Ta}_6\text{Si}_4\text{O}_{26}$ [1]

Structural features: Triple infinite chains of vertex-linked TaO_6 octahedra are interconnected via common vertices with units of two vertex-linked SiO_4 tetrahedra to form a 3D-framework; K in channels parallel to [001].

Choisnet J. et al. (1976) [1]

$\text{K}_3\text{O}_{13}\text{Si}_2\text{Ta}_3$

$a = 0.9066$, $c = 0.7873$ nm, $c/a = 0.868$, $V = 0.5604$ nm³, $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
O1	12 <i>l</i>	1	0.176	0.5	0.289		single atom Si
Ta2	6 <i>i</i>	$\bar{3}m$	0.239	0	0.249		octahedron O_6
O3	6 <i>i</i>	$\bar{3}m$	0.811	0	0.26		non-colinear Ta_2
Si4	4 <i>h</i>	3 $\bar{2}$	$\frac{1}{3}$	$\frac{2}{3}$	0.208		tetrahedron O_4
O5	3 <i>g</i>	$m\bar{2}m$	0.242	0	$\frac{1}{2}$		non-colinear Ta_2
K6	3 <i>g</i>	$m\bar{2}m$	0.586	0	$\frac{1}{2}$		trigonal prism O_6
O7	3 <i>f</i>	$m\bar{2}m$	0.262	0	0		non-colinear Ta_2
K8	3 <i>f</i>	$m\bar{2}m$	0.61	0	0		tetrahedron O_4
O9	2 <i>c</i>	$\bar{6}2\bar{2}$	$\frac{1}{3}$	$\frac{2}{3}$	0		colinear Si_2

Experimental: powder, diffractometer, X-rays, R = 0.066

References: [1] Choisnet J., Nguyen N., Groult D., Raveau B. (1976), Mater. Res. Bull. 11, 887-894.