$K_6Ta_{6.5}(O_{0.6}F_{0.4})_{24}$	*hP*41	(174) *P*-6 – k^6j^7g

$K_6Ta_{6.5}O_{14.5}F_{9.5}$ [1]
Structural features: $Ta(O,F)_6$ octahedra share vertices to form a 3D-framework; infinite columns of base-linked $Ta(O,F)_6$ trigonal prisms (partial disorder) surrounded by K atoms in channels parallel to [001].

Vlasse M. et al. (1979) [1]
$F_{9.50}K_6O_{14.50}Ta_{6.50}$
a = 1.3109, c = 0.388 nm, c/a = 0.296, V = 0.5774 nm^3, Z = 1

site	Wyck.	sym.	x	y	z	occ.	atomic environment
K1	3*k*	*m*..	0.08497	0.31933	$^1/_2$		bicapped square prism O_{10}
M2	3*k*	*m*..	0.11567	0.13133	$^1/_2$	0.5	
M3	3*k*	*m*..	0.13567	0.08533	$^1/_2$	0.5	
M4	3*k*	*m*..	0.34147	0.51053	$^1/_2$		non-colinear Ta_2
K5	3*k*	*m*..	0.35227	0.26503	$^1/_2$		
M6	3*k*	*m*..	0.49897	0.13073	$^1/_2$		non-colinear Ta_2
M7	3*j*	*m*..	0.00187	0.49713	0		non-colinear Ta_2
M8	3*j*	*m*..	0.21777	0.53733	0		non-colinear Ta_2
M9	3*j*	*m*..	0.26297	0.35113	0		single atom Ta
M10	3*j*	*m*..	0.35107	0.08703	0		single atom Ta
Ta11	3*j*	*m*..	0.36817	0.52663	0		octahedron O_6
Ta12	3*j*	*m*..	0.52697	0.15363	0		octahedron O_6
M13	3*j*	*m*..	0.53177	0.30213	0		non-colinear Ta_2
Ta14	2*g*	3..	0	0	0.129	0.25	

M2 = 0.604O + 0.396F; M3 = 0.604O + 0.396F; M4 = 0.604O + 0.396F; M6 = 0.604O + 0.396F; M7 = 0.604O + 0.396F; M8 = 0.604O + 0.396F; M9 = 0.604O + 0.396F; M10 = 0.604O + 0.396F; M13 = 0.604O + 0.396F
Transformation from published data: *y*,*x*,*z*; origin shift $^1/_3$ $^2/_3$ $^1/_2$
Experimental: single crystal, diffractometer, X-rays, R = 0.061

Remarks: No attempt was made to distinguish F and O in the refinement; we assigned an approximate value to the F/O ratio of sites M based on the nominal composition. Short interatomic distances for partly occupied site(s).

References: [1] Vlasse M., Boukhari A., Chaminade J.P., Pouchard M. (1979), Mater. Res. Bull. 14, 101-108.