$K_{12}Ta_{15.5}(O_{0.66}F_{0.34})_{54}$	*hP*83	(174) *P*-6 – $k^{10}j^{17}i$

$K_6Ta_{7.75}O_{17.75}F_{9.25}$ [1]
Structural features: $Ta(O,F)_6$ octahedra share vertices to form a 3D-framework; $Ta(O,F)_6$ trigonal prisms (partial disorder) surrounded by K atoms in large channels parallel to [001], additional K in other channels.

Boukhari A. et al. (1979) [1]
$F_{18.52}K_{12}O_{35.48}Ta_{15.50}$
a = 1.932, c = 0.3878 nm, c/a = 0.201, V = 1.2536 nm^3, Z = 1

site	Wyck.	sym.	x	y	z	occ.	atomic environment
K1	3*k*	*m*..	0.027	0.15	$^1/_2$		8-vertex polyhedron O_8
M2	3*k*	*m*..	0.104	0.496	$^1/_2$		non-colinear Ta_2
M3	3*k*	*m*..	0.15	0.313	$^1/_2$		non-colinear Ta_2
M4	3*k*	*m*..	0.199	0.154	$^1/_2$		non-colinear Ta_2
K5	3*k*	*m*..	0.299	0.533	$^1/_2$		10-vertex polyhedron O_{10}
M6	3*k*	*m*..	0.323	0.039	$^1/_2$		non-colinear Ta_2
M7	3*k*	*m*..	0.394	0.382	$^1/_2$		non-colinear Ta_2
K8	3*k*	*m*..	0.416	0.24	$^1/_2$		square antiprism O_8
K9	3*k*	*m*..	0.516	0.108	$^1/_2$		10-vertex polyhedron O_{10}
M10	3*k*	*m*..	0.575	0.303	$^1/_2$		non-colinear Ta_2
M11	3*j*	*m*..	0.01	0.393	0		non-colinear Ta_2
M12	3*j*	*m*..	0.047	0.274	0		non-colinear Ta_2
M13	3*j*	*m*..	0.056	0.551	0		non-colinear Ta_2
Ta14	3*j*	*m*..	0.1129	0.4953	0		octahedron O_6
M15	3*j*	*m*..	0.119	0.07	0		single atom Ta
Ta16	3*j*	*m*..	0.1641	0.3282	0		octahedron O_6
M17	3*j*	*m*..	0.167	0.233	0		non-colinear Ta_2
M18	3*j*	*m*..	0.176	0.439	0		non-colinear Ta_2
M19	3*j*	*m*..	0.214	0.591	0		single atom Ta
Ta20	3*j*	*m*..	0.2265	0.1765	0		octahedron O_6
M21	3*j*	*m*..	0.274	0.105	0		non-colinear Ta_2
M22	3*j*	*m*..	0.281	0.389	0		non-colinear Ta_2
Ta23	3*j*	*m*..	0.3227	0.0463	0		octahedron O_6
M24	3*j*	*m*..	0.324	0.27	0		non-colinear Ta_2
Ta25	3*j*	*m*..	0.3797	0.3859	0		octahedron O_6
M26	3*j*	*m*..	0.431	0.147	0		single atom Ta
M27	3*j*	*m*..	0.479	0.379	0		single atom Ta
Ta28	2*i*	3..	$^2/_3$	$^1/_3$	0.127	0.25	

M2 = 0.657O + 0.343F; M3 = 0.657O + 0.343F; M4 = 0.657O + 0.343F; M6 = 0.657O + 0.343F; M7 = 0.657O + 0.343F; M10 = 0.657O + 0.343F; M11 = 0.657O + 0.343F; M12 = 0.657O + 0.343F; M13 = 0.657O + 0.343F; M15 = 0.657O + 0.343F; M17 = 0.657O + 0.343F; M18 = 0.657O + 0.343F; M19 = 0.657O + 0.343F; M21 = 0.657O + 0.343F; M22 = 0.657O + 0.343F; M24 = 0.657O + 0.343F; M26 = 0.657O + 0.343F; M27 = 0.657O + 0.343F
Transformation from published data: -*y*,-*x*,-*z*; origin shift 0 0 $^1/_2$
Experimental: single crystal, diffractometer, X-rays, R = 0.063

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] Boukhari A., Chaminade J.P., Pouchard M., Vlasse M. (1979), Acta Crystallogr. B 35, 2518-2522.