$K_{0.07}Ho[PO_4][OH]_{0.07}$	*hP*24	(180) $P6_222$ – kedc

$HoPO_4$:KOH [1]

Structural features: Distorted HoO_8 square antiprisms are interconnected via common edges and PO_4 tetrahedra to form a 3D-framework; (K,OH) in channels parallel to [001] (partial disorder). Filled-up derivative of hexagonal $CePO_4$.

Zaki M. et al. (1994) [1]

$H_{0.07}HoK_{0.07}O_{4.07}P$

a = 0.6936, c = 0.6418 nm, c/a = 0.925, V = 0.2674 nm^3, Z = 3

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	12*k*	1	0.311	0.4401	0.20023		single atom P
M2	6*e*	2..	0	0	0.05467	0.072	
Ho3	3*d*	222	$^1/_2$	0	$^1/_2$		8-vertex polyhedron O_8
P4	3*c*	222	$^1/_2$	0	0		tetrahedron O_4

M2 = 0.5K + 0.5OH

Transformation from published data: origin shift 0 0 $^1/_2$

Experimental: powder, diffractometer, X-rays, R_B = 0.056

Remarks: Short interatomic distances for partly occupied site(s). Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments.

References: [1] Zaki M., Aamili A., El Ghozzi M., Zambon D., Zahir M., Sadel A., Cousseins J.C. (1994), Adv. Mater. Res. (Zuerich) 1/2, 201-208.