$Al[PO_4]$	*hP*12	(186) $P6_3mc$ – cb^3

$AlPO_4$ tridymite-type ht [1]
Structural features: AlO_4 and PO_4 tetrahedra share vertices to form a 3D-framework with channels delimited by 6-rings parallel to [001]. Substitution derivative of SiO_2 tridymite.

Graetsch H.A. (2001) [1]
AlO_4P
a = 0.50976, c = 0.83441 nm, c/a = 1.637, V = 0.1878 nm^3, Z = 2

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
O1	6*c*	.*m*.	0.5109	0.4891	0.4411		colinear PAl
P2	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.0		tetrahedron O_4
O3	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.1749		colinear PAl
Al4	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.374		tetrahedron O_4

Transformation from published data: -*x*,-*y*,-*z*; origin shift 0 0 0.0635
Experimental: powder, diffractometer, X-rays, R_p = 0.013, T = 593 K

Remarks: Phase stable at T > 573 K. Space group (159) *P*31*c* was tested and rejected; refinement of an alternative model considering multiple splitting of the O sites gave better interatomic distances.

References: [1] Graetsch H.A. (2001), Acta Crystallogr. C 57, 665-667.