$Ba_2[P_2O_7]$	*hP*39	(189) *P*-62*m* – lkihgf^2e

$Ba_2P_2O_7$ σ [1]
Structural features: Directly superposed hexagon-mesh Ba layers; units of two vertex-linked PO_4 octahedra (parallel to [001], splitting of the bridging O sites to assure an angle Si-O-Si < 180°) center the hexagons.

El Belghitti A.A. et al. (1995) [1]
$Ba_2O_{6.99}P_2$
a = 0.9415, c = 0.7078 nm, c/a = 0.752, V = 0.5434 nm^3, Z = 3

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	12*l*	1	0.3232	0.5112	0.2212		single atom P
O2	6*k*	*m*..	0.254	0.628	$^1/_2$	0.33	
O3	6*i*	..*m*	0.1528	0	0.2686		single atom P
P4	4*h*	3..	$^1/_3$	$^2/_3$	0.2835		
Ba5	3*g*	*m*2*m*	0.7112	0	$^1/_2$		10-vertex polyhedron O_{10}
O6	3*f*	*m*2*m*	0.076	0	0	0.33	non-colinear O_2
Ba7	3*f*	*m*2*m*	0.3822	0	0		11-vertex polyhedron O_{11}
P8	2*e*	3.*m*	0	0	0.2129		trigonal prism O_6

Transformation from published data: -*x*,-*y*,-*z*; origin shift 0 0 $^1/_2$
Experimental: single crystal, diffractometer, X-rays, R = 0.025, T = 298 K

Remarks: Phase stated to be stable at T > 1000 K, however, the sample was slowly cooled to rt. Short interatomic distances for partly occupied site(s).

References: [1] El Belghitti A.A., Elmarzouki A., Boukhari A., Holt E.M. (1995), Acta Crystallogr. C 51, 1478-1480.