$Na(Zn_{0.8}Co_{0.2})[PO_4][H_2O]$	*hP*132	(178) $P6_122 - c^{10}b^2$

$Na_6[Co_{0.2}Zn_{0.8}PO_4]_6 \cdot 6H_2O$ [2]
Structural features: PO_4 and $(Zn,Co)O_4$ tetrahedra share vertices to form a 3D-framework; Na and H_2O in cavities interconnected via 6- and 8-rings (partial disorder).

Helliwell M. et al. (1999) [1]
$Co_{0.16}H_2NaO_5PZn_{0.84}$
a = 1.0464, c = 1.5056 nm, c/a = 1.439, V = 1.4277 nm^3, Z = 12

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
Na1	12*c*	1	0.091	0.018	0.538	0.32	
O2	12*c*	1	0.1174	0.4286	0.0181		non-colinear PZn
O3	12*c*	1	0.1978	0.2469	0.0535		non-colinear PZn
Na4	12*c*	1	0.212	0.185	0.549	0.18	
P5	12*c*	1	0.2406	0.4097	0.05934		tetrahedron O_4
O6	12*c*	1	0.2646	0.4612	0.1553		single atom P
O7	12*c*	1	0.3838	0.5081	0.0088		non-colinear PZn
$(OH_2)8$	12*c*	1	0.414	0.102	0.50967	0.66	single atom (OH_2)
$(OH_2)9$	12*c*	1	0.416	0.173	0.564	0.34	
Na10	12*c*	1	0.6631	0.2974	0.0765	0.5	
M11	6*b*	..2	0.15823	0.31646	$^1/_4$		tetrahedron O_4
M12	6*b*	..2	0.50727	0.01454	$^1/_4$		tetrahedron O_4

M11 = 0.88Zn + 0.12Co; M12 = 0.81Zn + 0.19Co
Transformation from published data ($P6_522$): new axes -a,-b,-c; origin shift 0 0 $^1/_2$
Experimental: single crystal, diffractometer, X-rays, R = 0.051, T = 294 K

Remarks: Short interatomic distances for partly occupied site(s). Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments. Co could not be located in [2] (atom coordinates not published).

References: [1] Helliwell M., Helliwell J.R., Kaucic V., Logar N.Z., Barba L., Busetto E., Lausi A. (1999), Acta Crystallogr. B 55, 327-332. [2] Zabukovec Logar N., Rajic N., Kaucic V., Golic L. (1995), J. Chem. Soc., Chem. Commun. 1995, 353-354.