$Na_{7.2}(Al_{0.4}Si_{0.6})_{12}[CO_3]_{1.2}O_{24}[H_2O]_3$	*hP*84	(186) $P6_3mc$ – $d^2c^8b^3a^3$

$Na_{7.2}Al_{4.8}Si_{7.2}O_{24}(CO_3)_{1.2}\cdot 3H_2O$ [1], zeolite CAN-CO_3
Structural features: $(Si,Al)O_4$ tetrahedra share vertices to form a CAN-type zeolite framework with channels delimited by 12-rings perpendicular to [001]; H_2O at the centers of cancrinite-type cages (11-face polyhedra formed by six 4-rings, two planar and three non-planar 6-rings), CO_3 trigonal units (orientational disorder) in the channels, Na above 6-rings in cages and channels.

Khomyakov A.P. et al. (1991) [1]
$Al_{4.80}C_{1.22}H_6Na_{7.28}O_{31.08}Si_{7.20}$
a = 1.2575, c = 0.5105 nm, c/a = 0.406, V = 0.6991 nm^3, Z = 1

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
M1	12*d*	1	0.0793	0.4122	0.2112		tetrahedron O_4
O2	12*d*	1	0.3566	0.0356	0.0122		non-colinear Si_2
(OH_2)3	6*c*	.*m*.	0.058	0.942	0.422	0.17	
O4	6*c*	.*m*.	0.0598	0.9402	0.34	0.31	
O5	6*c*	.*m*.	0.06	0.94	0.148	0.37	
O6	6*c*	.*m*.	0.2022	0.7978	0.1246		non-colinear Si_2
O7	6*c*	.*m*.	0.4421	0.5579	0.1849		non-colinear Si_2
(OH_2)8	6*c*	.*m*.	0.648	0.352	0.16	0.18	
Na9	6*c*	.*m*.	0.86	0.14	0.252	0.1	
Na10	6*c*	.*m*.	0.8775	0.1225	0.2452	0.85	
Na11	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.043	0.24	
Na12	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.119	0.55	
(OH_2)13	2*b*	3*m*.	$^1/_3$	$^2/_3$	0.62	0.29	
(OH_2)14	2*a*	3*m*.	0	0	0.0	0.16	
C15	2*a*	3*m*.	0	0	0.152	0.31	
C16	2*a*	3*m*.	0	0	0.351	0.3	

M1 = 0.6Si + 0.4Al
Transformation from published data: origin shift 0 0 0.54
Experimental: single crystal, diffractometer, X-rays, R = 0.029

Remarks: When relevant, we changed the last digit of the atom coordinates to respect the symmetry conditions for special positions. 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] Khomyakov A.P., Pobedimskaya E.A., Nadezhina T.N., Terent'eva L.E., Rastsvetaeva R.K. (1991), Vestn. Mosk. Univ., Ser. 4: Geol. 1991(5), 79-84.