$KCa_{1.5}Mg_{0.7}(Al_{0.30}Si_{0.70})_{18}O_{36}[H_2O]_{16.7}$	*hP*83	(187) *P*-6*m*2 – $o^2n^3ml^2k^3j^2i^2gda$

$K_{0.79}Ca_{1.50}Mg_{0.70}Al_{5.49}Si_{12.54}O_{36}\cdot 16.72H_2O$ [1], offretite, zeolite OFF hydrated
Structural features: $(Si,Al)O_4$ tetrahedra share vertices to form an OFF-type zeolite framework with cancrinite-type cages (six 4-rings, two planar and three non-planar 6-rings) interconnected via hexagonal prisms, gmelinite-type cages (nine 4-rings, two planar 6-rings and three non-planar 8-rings), and channels delimited by 12-rings parallel to [001]; K at the centers of cancrinite-type cages, hydrated Mg at the centers of gmelinite-type cages, Ca and additional H_2O in the channels (partial disorder).

Gualtieri A. et al. (1998) [1]
$Al_{5.40}Ca_{1.52}H_{31}K_{0.96}Mg_{0.97}O_{51.50}Si_{12.60}$
a = 1.339, c = 0.7598 nm, c/a = 0.567, V = 1.1798 nm^3, Z = 1

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	12*o*	1	0.00993	0.31727	0.316		non-colinear Si_2
M2	12*o*	1	0.09983	0.43457	0.2087		tetrahedron O_4
O3	6*n*	.*m*.	0.23703	0.76287	0.25		non-colinear Si_2
O4	6*n*	.*m*.	0.45983	0.54007	0.2926		non-colinear Si_2
$(OH_2)5$	6*n*	.*m*.	0.76583	0.23417	0.1682		4-vertex polyhedron $Ca(OH_2)_3$
M6	6*m*	*m*..	0.24493	0.00137	$^1/_2$		tetrahedron O_4
O7	6*l*	*m*..	0.07413	0.40227	0		non-colinear Si_2
$(OH_2)8$	6*l*	*m*..	0.19833	0.04207	0	0.26	non-colinear $(OH_2)_2$
O9	3*k*	*mm*2	0.10013	0.89977	$^1/_2$		non-colinear Si_2
$(OH_2)10$	3*k*	*mm*2	0.56703	0.43297	$^1/_2$	0.85	non-colinear Ca_2
O11	3*k*	*mm*2	0.87303	0.12687	$^1/_2$		non-colinear Si_2
$(OH_2)12$	3*j*	*mm*2	0.09013	0.90987	0	0.81	non-colinear $(OH_2)_2$
$(OH_2)13$	3*j*	*mm*2	0.58723	0.41277	0	0.32	non-coplanar square $(OH_2)_4$
Ca14	2*i*	3*m*.	$^2/_3$	$^1/_3$	0.2664	0.36	
Ca15	2*i*	3*m*.	$^2/_3$	$^1/_3$	0.4021	0.4	
$(OH_2)16$	2*g*	3*m*.	0	0	0.2335		single atom Mg
K17	1*d*	-6*m*2	$^1/_3$	$^2/_3$	$^1/_2$	0.96	trigonal prism O_6
Mg18	1*a*	-6*m*2	0	0	0	0.97	colinear $(OH_2)_2$

M2 = 0.70Si + 0.30Al; M6 = 0.70Si + 0.30Al
Transformation from published data: -*x*,-*y*,-*z*; origin shift $^2/_3$ $^1/_3$ 0
Experimental: powder, diffractometer, neutrons, wR_p = 0.014

Remarks: Natural specimen from Fitta, Italy. Composition $K_{0.79}Mg_{0.70}Ca_{1.50}(Al_{5.49}Si_{12.54}O_{36})\cdot 16.72H_2O$ from electron microprobe analysis. 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] Gualtieri A., Artioli G., Passaglia E., Bigi S., Viani A., Hanson J.C. (1998), Am. Mineral. 83, 590-606.