$Ag_{2.5}Bi_{24}Cl_{15.5}O_{29.5}$	*hP*83	(189) *P*-62*m* – $k^6j^4ig^2f^3e$

$Ag_5[Bi_{48}O_{59}Cl_{30}]Cl$ [1]
Structural features: BiO_n polyhedra (mainly :BiO_4 square ψ-pyramids) share atoms to form a 3D-framework; triple chains of edge- and vertex-linked $AgCl_5$ square pyramids in large channels parallel to [001], additional Cl in these and other channels (partial disorder).

Aurivillius B. (1990) [1]
$Ag_{2.40}Bi_{24}Cl_{15.70}O_{30}$
a = 2.00893, c = 0.38589 nm, c/a = 0.192, V = 1.3487 nm^3, Z = 1

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
O1	6*k*	*m*..	0.081	0.537	$^1/_2$		tetrahedron Bi_4
Cl2	6*k*	*m*..	0.107	0.2172	$^1/_2$		non-colinear Ag_2
Bi3	6*k*	*m*..	0.1886	0.5329	$^1/_2$		non-coplanar square O_4
O4	6*k*	*m*..	0.1911	0.4153	$^1/_2$		tetrahedron Bi_4
Bi5	6*k*	*m*..	0.3081	0.4207	$^1/_2$	0.5	
Bi6	6*k*	*m*..	0.3409	0.4353	$^1/_2$	0.5	
Bi7	6*j*	*m*..	0.1342	0.3606	0		non-coplanar square O_4
O8	6*j*	*m*..	0.1426	0.4715	0		non-coplanar triangle Bi_3
O9	6*j*	*m*..	0.2488	0.359	0		tetrahedron Bi_4
Cl10	6*j*	*m*..	0.3318	0.5551	0		
O11	6*i*	..*m*	0.587	0	0.09	0.5	
Cl12	3*g*	*m*2*m*	0.3334	0	$^1/_2$		non-coplanar square Bi_4
O13	3*g*	*m*2*m*	0.6928	0	$^1/_2$		
Ag14	3*f*	*m*2*m*	0.1327	0	0	0.8	
Bi15	3*f*	*m*2*m*	0.4747	0	0		
Bi16	3*f*	*m*2*m*	0.7529	0	0		non-coplanar square O_4
Cl17	2*e*	3.*m*	0	0	0.083	0.35	

Transformation from published data: origin shift 0 0 $^1/_2$
Experimental: single crystal, diffractometer, X-rays, R = 0.052

Remarks: O vacancies not located. Partial occupation of site Cl17 by O or Ag could not be excluded. Average structure; the superstructure was refined in the same space group with double cell volume (new axes a,b,2c). Short interatomic distances for partly occupied site(s).

References: [1] Aurivillius B. (1990), Acta Chem. Scand. 44, 111-122.