$Cu_6Bi[AsO_4]_3[OH]_6[H_2O]_3$	*hP*110	(176) $P6_3/m$ – i^6h^6d

$BiCu_6(AsO_4)_3(OH)_6 \cdot 3H_2O$ [1], mixite
Structural features: $BiO_6(OH)_3$ tricapped trigonal prisms share vertices with AsO_4 tetrahedra to form infinite columns, which are interconnected via ribbons of edge-linked $Cu(O_2[OH]_2)$ squares to form a 3D-framework; H_2O in large channels parallel to [001] (partial disorder).

Miletich R. et al. (1997) [1]
$As_3BiCu_6H_{12}O_{21}$
a = 1.3633, c = 0.5913 nm, c/a = 0.434, V = 0.9517 nm^3, Z = 2

site	Wyck.	sym.	x	y	z	occ.	atomic environment
$(OH_2)1$	12*i*	1	0.077	0.19	0.112	0.083	
$(OH_2)2$	12*i*	1	0.117	0.185	0.012	0.167	
$(OH_2)3$	12*i*	1	0.175	0.161	0.007	0.083	
O4	12*i*	1	0.1787	0.5742	0.0184		single atom As
$(OH_2)5$	12*i*	1	0.204	0.045	0.104	0.083	
Cu6	12*i*	1	0.31429	0.41073	0.00284		square pyramid $(OH)_2O_3$
O7	6*h*	*m*..	0.0079	0.3987	$^1/_4$		non-coplanar triangle $AsCu_2$
$(OH_2)8$	6*h*	*m*..	0.0179	0.0079	$^1/_4$	0.167	
As9	6*h*	*m*..	0.14974	0.49327	$^1/_4$		tetrahedron O_4
O10	6*h*	*m*..	0.2138	0.4147	$^1/_4$		non-coplanar triangle $AsCu_2$
(OH)11	6*h*	*m*..	0.3796	0.3699	$^1/_4$		non-colinear Cu_2
(OH)12	6*h*	*m*..	0.4427	0.197	$^1/_4$		non-colinear Cu_2
Bi13	2*d*	-6..	$^2/_3$	$^1/_3$	$^1/_4$		tricapped trigonal prism $O_6(OH)_3$

Transformation from published data: origin shift 0 0 $^1/_2$
Experimental: single crystal, diffractometer, X-rays, R = 0.042

Remarks: 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] Miletich R., Zemann J., Nowak M. (1997), Phys. Chem. Miner. 24, 411-422.