

$\text{Ge}_3\text{Bi}_2\text{O}_9$	$hP28$	$(176) P6_3/m - ih^2f$
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$\text{Bi}_2\text{Ge}_3\text{O}_9$ [1]

Structural features: Rings of three vertex-linked GeO_4 tetrahedra are interconnected via $:\text{BiO}_3$ ψ -tetrahedra to form infinite slabs.

Grabmaier B.C. et al. (1979) [1]

$\text{Bi}_2\text{Ge}_3\text{O}_9$

$a = 0.7006$, $c = 0.9786$ nm, $c/a = 1.397$, $V = 0.4160$ nm³, $Z = 2$

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	$12i$	1	0.431	0.082	0.105		non-colinear GeBi
O2	$6h$	$m..$	0.197	0.267	$\frac{1}{4}$		non-colinear Ge_2
Ge3	$6h$	$m..$	0.2917	0.0778	$\frac{1}{4}$		tetrahedron O_4
Bi4	$4f$	$3..$	$\frac{1}{3}$	$\frac{2}{3}$	0.02645		non-coplanar triangle O_3

Experimental: single crystal, diffractometer, X-rays, $R = 0.052$

References: [1] Grabmaier B.C., Haussühl S., Klüfers P. (1979), Z. Kristallogr. 149, 261-267.