

$\text{Zn}_6\text{Ce}_2\text{Ge}_3$	$hP11$	(189) $P-62m - g^2fc$
-------------------------------------	--------	-----------------------

$\text{Ce}_2\text{Zn}_6\text{Ge}_3$ [1]

Structural features: $\text{Ce}_2(\text{Zn}_3)$ layers (the Ce atoms and the centers of Zn_3 triangles form a triangle mesh) and hexagon-mesh Zn_3Ge_3 layers alternate along [001]. $\text{Ge}(\text{Ce}_4\text{Zn}_2)\text{Zn}_3$ tricapped trigonal prisms share atoms to form a 3D-framework. Infinite columns of face-linked Zn_9 clusters (tricapped trigonal prism).

Grytsiv A. et al. (2003) [1]

$\text{Ce}_2\text{Ge}_3\text{Zn}_6$

$a = 0.76769$, $c = 0.41159$ nm, $c/a = 0.536$, $V = 0.2101$ nm³, $Z = 1$

site	Wyck.	sym.	x	y	z	occ.	atomic environment
Ge1	3g	$m2m$	0.3808	0	$\frac{1}{2}$		tricapped trigonal prism Zn_5Ce_4
Zn2	3g	$m2m$	0.7107	0	$\frac{1}{2}$		7-vertex polyhedron Ge_3Zn_4
Zn3	3f	$m2m$	0.1896	0	0		8-vertex polyhedron Zn_6Ge_2
Ce4	2c	-6..	$\frac{1}{3}$	$\frac{2}{3}$	0		15-vertex polyhedron Ge_6Zn_9

Experimental: single crystal, diffractometer, X-rays, $R = 0.033$

References: [1] Grytsiv A., Bauer E., Berger S., Hilscher G., Michor H., Paul C., Rogl P., Daoud Aladine A., Keller L., Roisnel T., Noel H. (2003), J. Phys.: Condens. Matter 15, 3053-3067.