

Pr_8CoGa_3	$hP24$	$(186) P6_3mc - c^3b^2a$
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Pr_8CoGa_3 [1]

Structural features: 3D-framework of fused Pr_6 prisms centered by additional Pr, Co and Ga. Substitution derivative of Ni_2In (ht- Co_2Ge).

Grin Y.N. et al. (1984) [1]

CoGa_3Pr_8

$a = 1.0489$, $c = 0.691$ nm, $c/a = 0.659$, $V = 0.6584$ nm³, $Z = 2$

site	Wyck.	sym.	x	y	z	occ.	atomic environment
Ga1	$6c$	$.m.$	0.1639	0.8361	0.245		pseudo Frank-Kasper Pr_{11}
Pr2	$6c$	$.m.$	0.465	0.535	0.002		16-vertex Frank-Kasper $\text{Co}_2\text{Ga}_4\text{Pr}_{10}$
Pr3	$6c$	$.m.$	0.8294	0.1706	0.215		icosahedron CoGa_4Pr_7
Pr4	$2b$	$3m.$	$\frac{1}{3}$	$\frac{2}{3}$	0.379		14-vertex Frank-Kasper $\text{Co}_2\text{Ga}_3\text{Pr}_9$
Co5	$2b$	$3m.$	$\frac{1}{3}$	$\frac{2}{3}$	0.778		monocapped trigonal prism Pr_7
Pr6	$2a$	$3m.$	0	0	0.0		rhombic dodecahedron Ga_6Pr_8

Transformation from published data: origin shift 0 0 0.285

Experimental: single crystal, diffractometer, X-rays, $R = 0.067$

References: [1] Grin Y.N., Sichevich O.M., Gladyshevskii R.E., Yarmolyuk Y.P. (1984), Sov. Phys. Crystallogr. 29, 419-421 (Kristallografiya 29, 419-421).