

NdPtSb	<i>hP6</i>	(186) $P6_3mc - b^2a$
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NdPtSb [1]; NdPdAs It [3]; CeAgGe [2]; LaAgGe [2]

Structural features: 3D-framework of fused Nd₆ trigonal prisms centered alternatively by Pt and Sb. PtNd₆ trigonal prisms share edges to form a 3D-framework (the same is true for the SbNd₆ prisms). Branch of LiGaGe with less puckered hexagon-mesh PtSb layers.

Wenski G., Mewis A. (1986) [1]

NdPtSb

$a = 0.4534$, $c = 0.7866$ nm, $c/a = 1.735$, $V = 0.1400$ nm³, $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Sb1	2 <i>b</i>	3 <i>m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.2635		bicapped square prism Pt ₄ Nd ₆
Pt2	2 <i>b</i>	3 <i>m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.7137		bicapped square prism Sb ₄ Nd ₆
Nd3	2 <i>a</i>	3 <i>m.</i>	0	0	0.0		bicapped hexagonal prism Pt ₆ Sb ₆ Nd ₂

Transformation from published data: -*x*, -*y*, -*z*; origin shift 0 0 0.5

Experimental: single crystal, diffractometer, X-rays, wR = 0.029

References: [1] Wenski G., Mewis A. (1986), Z. Kristallogr. 176, 125-134. [2] Pecharskii V.K., Gschneidner K.A. Jr., Bodak O.I., Protsyk A.S. (1991), J. Less-Common Met. 168, 257-268. [3] Johrendt D., Mewis A. (1992), J. Alloys Compd. 183, 210-223.