

$\text{Au}_3\text{Gd}[\text{CN}]_6[\text{H}_2\text{O}]_{2.3}$	<i>hP19</i>	(189) <i>P</i> -62 <i>m</i> – i <sup>2</sup> gfa
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**Gd[Au(CN)<sub>2</sub>]<sub>3</sub>·2.3H<sub>2</sub>O** [1]; Sm[Au(CN)<sub>2</sub>]<sub>3</sub>·2.3H<sub>2</sub>O [2]

Structural features: Single GdN<sub>6</sub>(OH<sub>2</sub>)<sub>3</sub> tricapped trigonal prismatic units and C-Au-C non-linear units are interconnected via C-N bonds (cyanide units) to form infinite chains parallel to [001].

Stier A., Range K.J. (1996) [1]

$\text{Au}_3\text{C}_6\text{GdH}_{4.56}\text{N}_6\text{O}_{2.28}$

$a = 0.66319$ ,  $c = 0.9108$  nm,  $c/a = 1.373$ ,  $V = 0.3469$  nm<sup>3</sup>,  $Z = 1$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
N1	6i	.. <i>m</i>	0.2548	0	0.2		single atom C
C2	6i	.. <i>m</i>	0.3531	0	0.3134		single atom N
Au3	3g	<i>m2m</i>	0.49731	0	<sup>1</sup> / <sub>2</sub>		non-colinear C <sub>2</sub>
(OH <sub>2</sub> )4	3f	<i>m2m</i>	0.6312	0	0	0.76	single atom Gd
Gd5	1a	-62 <i>m</i>	0	0	0		tricapped trigonal prism (OH <sub>2</sub> ) <sub>3</sub> N <sub>6</sub>

Experimental: single crystal, diffractometer, X-rays, R = 0.021

Remarks: Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments.

References: [1] Stier A., Range K.J. (1996), Z. Naturforsch. B 51, 698-702. [2] Stier A., Range K.J. (1997), Z. Kristallogr. 212, 51.