

Au[CN]	<i>hP3</i>	(183) <i>P6mm</i> – a ³
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AuCN [2]

Structural features: Infinite -Au-C-N- linear chains parallel to [001].

Hibble S.J. et al. (2003) [1]

AuCN

$a = 0.33915$, $c = 0.50726$ nm, $c/a = 1.496$, $V = 0.0505$ nm³, $Z = 1$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
C1	1 <i>a</i>	6 <i>mm</i>	0	0	0.0		single atom N
N2	1 <i>a</i>	6 <i>mm</i>	0	0	0.226		single atom C
Au3	1 <i>a</i>	6 <i>mm</i>	0	0	0.608		colinear NC

Transformation from published data: origin shift 0 0 0.392

Experimental: powder, diffractometer, neutrons, time-of-flight, $wR_p = 0.076$, $T = 300$ K

Remarks: Structure model rejected in favor of a refinement in space group (191) *P6/mmm* with a disordered arrangement of C and N. According to the authors of [1], too large differences between the Au-C and Au-N bond lengths were found in [2].

References: [1] Hibble S.J., Hannon A.C., Cheyne S.M. (2003), *Inorg. Chem.* 42, 4724-4730. [2] Bowmaker G.A., Kennedy B.J., Reid J.C. (1998), *Inorg. Chem.* 37, 3968-3974.