

Cu[SCN]	<i>hP8</i>	(186) $P6_3mc - b^4$
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CuNCS β 2H [2]

Structural features: Cu(S₃N) tetrahedra are interconnected via thiocyanate units (linear Cu-N=C=S segments) to form an extended wurtzite-like framework.

Smith D.L., Saunders V.I. (1982) [1]

CCuNS

$a = 0.385$, $c = 1.0937$ nm, $c/a = 2.841$, $V = 0.1404$ nm³, $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
S1	<i>2b</i>	<i>3m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.0		single atom C
C2	<i>2b</i>	<i>3m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.1558		single atom N
N3	<i>2b</i>	<i>3m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.2564		single atom C
Cu4	<i>2b</i>	<i>3m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.4328		tetrahedron NS ₃

Transformation from published data ($P6_3mc$ *): $-x, -y, -z$; origin shift $\frac{2}{3} \frac{1}{3} 0.567$

Experimental: single crystal, diffractometer, X-rays, $R = 0.059$, $T = 296$ K

Remarks: In [1] the origin of the cell is shifted by $\frac{1}{3} \frac{2}{3} 0$ from the description in the International Tables for Crystallography.

References: [1] Smith D.L., Saunders V.I. (1982), Acta Crystallogr. B 38, 907-909. [2] Smith D.L., Saunders V.I. (1981), Acta Crystallogr. B 37, 1807-1812.