

Cu₃P₄S₄I₃*hP*84(185) *P*6₃*cm* – d⁴c⁶**(CuI)₃P₄S₄** [1]

Structural features: P₄S₄ cage molecules (one P₃S, one P₃S₃ and two P₃S₂ rings) share vertices with chains of vertex-linked Cu(PI₃) tetrahedra to form a 3D-framework.

Reiser S. et al. (2002) [1]

Cu₃I₃P₄S₄*a* = 1.9082, *c* = 0.6691 nm, *c/a* = 0.351, *V* = 2.1099 nm³, *Z* = 6

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
I1	12 <i>d</i>	1	0.1986	0.53194	0.36872		non-coplanar triangle Cu ₃
S2	12 <i>d</i>	1	0.22096	0.324	0.3458		non-colinear P ₂
Cu3	12 <i>d</i>	1	0.3332	0.53916	0.2663		tetrahedron PI ₃
P4	12 <i>d</i>	1	0.33631	0.4276	0.3543		tetrahedron S ₂ CuP
Cu5	6 <i>c</i>	.. <i>m</i>	0.12585	0	0.0977		tetrahedron PI ₃
I6	6 <i>c</i>	.. <i>m</i>	0.13279	0	0.4889		non-coplanar triangle Cu ₃
P7	6 <i>c</i>	.. <i>m</i>	0.2372	0	0.0		tetrahedron S ₃ Cu
S8	6 <i>c</i>	.. <i>m</i>	0.3052	0	0.2467		non-colinear P ₂
P9	6 <i>c</i>	.. <i>m</i>	0.4008	0	0.0991		non-coplanar triangle SP ₂
S10	6 <i>c</i>	.. <i>m</i>	0.5894	0	0.148		non-colinear P ₂

Transformation from published data: origin shift 0 0 0.7182

Experimental: twinned crystal, diffractometer, X-rays, *R* = 0.032, *T* = 273 K

References: [1] Reiser S., Brunklaus G., Hong J.H., Chan J.C.C., Eckert H., Pfitzner A. (2002), Chem. Eur. J. 8, 4228-4233.