

$P4_12_12$ D_4^4

422

Tetragonal

No. 92

 $P4_12_12$ Patterson symmetry $P4/m m m$ Origin on 2 [1 1 0] at $2_1 1 (1, 2)$

Positions

Multiplicity,
Wyckoff letter,
Site symmetry,
Coordinates

Patterson peaks (U, V, W (Multiplicity))

8	b	1	x,y,z; -x,-y,1/2+z; etc.			
			$0, 0, 0$ (8)	$2x, 2y, 1/2$ (1)	$1/2+x+y, 1/2-x+y, 3/4$ (1)	
			$1/2+2x, 1/2, 3/4+2z$ (1)	$1/2, 1/2+2y, 1/4+2z$ (1)	$x-y, -x+y, 2z$ (1)	
			$x+y, x+y, 1/2+2z$ (1)			
4	a	. . 2	x,x,0; -x,-x,1/2; etc.			
			$0, 0, 0$ (4)	$2x, 2x, 1/2$ (1)	$1/2+2x, 1/2, 3/4$ (1)	

Vectors between two sets of unique atoms

Wyckoff letters

Wyckoff letters

b,	b	$x1-x2, y1-y2, z1-z2$ (1)
		$x1+x2, y1+y2, 1/2+z1-z2$ (1)
		$1/2+x1+y2, 1/2+y1-x2, 3/4+z1-z2$ (1)
		$1/2+x1-y2, 1/2+y1+x2, 1/4+z1-z2$ (1)
		$1/2+x1+x2, 1/2+y1-y2, 3/4+z1+z2$ (1)
		$1/2+x1-x2, 1/2+y1+y2, 1/4+z1+z2$ (1)
		$x1-y2, y1-x2, z1+z2$ (1)
		$x1+y2, y1+x2, 1/2+z1+z2$ (1)
		$1/2-x1-y2, 1/2-y1+x2, 3/4-z1+z2$ (1)
		$1/2-x1+y2, 1/2-y1-x2, 1/4-z1+z2$ (1)
		$1/2-x1-x2, 1/2-y1+y2, 3/4-z1-z2$ (1)
		$1/2-x1+x2, 1/2-y1-y2, 1/4-z1-z2$ (1)
b,	a	$x1-x2, y1-x2, z1$ (1)
		$x1+x2, y1+x2, 1/2+z1$ (1)
		$1/2+x1+x2, 1/2+y1-x2, 3/4+z1$ (1)
		$1/2+x1-x2, 1/2+y1+x2, 1/4+z1$ (1)
		$1/2-x1-x2, 1/2-y1+x2, 3/4-z1$ (1)
		$1/2-x1+x2, 1/2-y1-x2, 1/4-z1$ (1)
a,	a	$x1-x2, x1-x2, 0$ (2)
		$x1+x2, x1+x2, 1/2$ (2)
		$1/2+x1+x2, 1/2+x1-x2, 3/4$ (2)