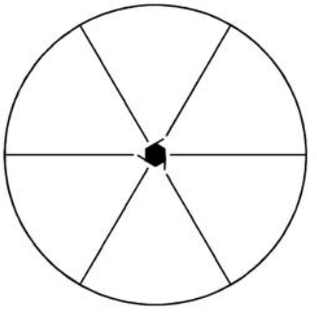
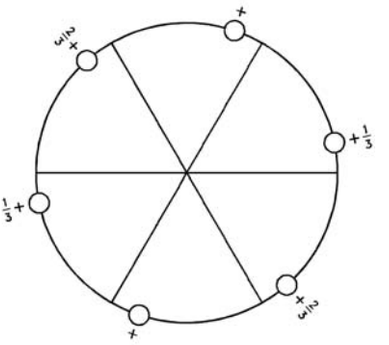
$\not p 6_4$ 6 Hexagonal

No. 57 $\not p 6_4$ Patterson symmetry $\not p 6/m$





Origin on 2 on 6_4

Asymmetric unit $0 \le x; \quad 0 \le y; \quad 0 \le z \le 1; \quad y \le x$

Symmetry operations

(1) 1
(2) $3^+(\frac{1}{3})$ $0,0,z$
(3) $3^-(\frac{2}{3})$ $0,0,z$
(4) 2 $0,0,z$
(5) $6^-(\frac{1}{3})$ $0,0,z$
(6) $6^+(\frac{2}{3})$ $0,0,z$

Generators selected (1); $t(0,0,1)$; (2); (4)

Positions

Multiplicity, Wyckoff letter, Site symmetry		Coordinates			Reflection conditions
6 b 1	(1) x,y,z	(2) $\bar{y},x-y,z+\frac{1}{3}$	(3) $\bar{x}+y,\bar{x},z+\frac{2}{3}$		General:
	(4) $\bar{x},\bar{y},z$	(5) $y,\bar{x}+y,z+\frac{1}{3}$	(6) $x-y,x,z+\frac{2}{3}$		$l \;:\; l=3n$
					Special: no extra conditions
3 a 2 . .	$0,0,z$	$0,0,z+\frac{1}{3}$	$0,0,z+\frac{2}{3}$		

Symmetry of special projections

Along [001] 6
Origin at $0,0,z$

Along [100] $\not{P}1\,1\,m$
$\mathbf{a}'=\mathbf{c}$
Origin at $x,0,0$

Along [210] $\not{P}1\,1\,m$
$\mathbf{a}'=\mathbf{c}$
Origin at $x,\frac{1}{2}x,0$

Maximal non-isotypic non-enantiomorphic subgroups

I [2] $\not{P}3_1$ (43) 1; 2; 3
[3] $\not{P}1\,1\,2$ (8) 1; 4

IIa none

IIb [2] $\not{P}6_5$ ($\mathbf{c}'=2\mathbf{c}$) (58)

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc [2] $\not{P}6_2$ ($\mathbf{c}'=2\mathbf{c}$) (55); [7] $\not{P}6_4$ ($\mathbf{c}'=7\mathbf{c}$) (57)

Minimal non-isotypic non-enantiomorphic supergroups

I [2] $\not{P}6_4\,2\,2$ (66)

II [3] $\not{P}6$ ($\mathbf{c}'=\frac{1}{3}\mathbf{c}$) (53)