

$\mu 6$

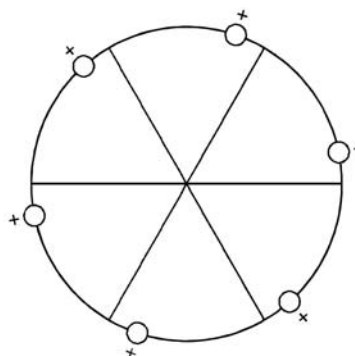
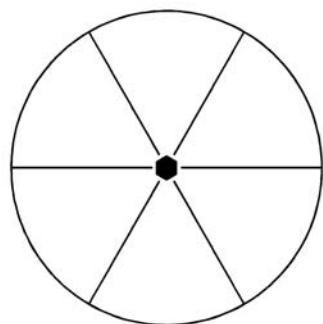
6

Hexagonal

No. 53

$\mu 6$

Patterson symmetry $\mu 6/m$



Origin on 6

Asymmetric unit $0 \leq x; 0 \leq y; 0 \leq z \leq 1; y \leq x$

Symmetry operations

- | | | |
|------------------------------------|---|---|
| (1) 1
(1 0,0,0) | (2) 3^+ 0,0,z
(3_z 0,0,0) | (3) 3^- 0,0,z
(3_z^{-1} 0,0,0) |
| (4) 2^- 0,0,z
(2_z 0,0,0) | (5) 6^- 0,0,z
(6_z^{-1} 0,0,0) | (6) 6^+ 0,0,z
(6_z 0,0,0) |

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

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates			Reflection conditions
6 <i>b</i> 1	(1) x, y, z (4) \bar{x}, \bar{y}, z	(2) $\bar{y}, x - y, z$ (5) $y, \bar{x} + y, z$	(3) $\bar{x} + y, \bar{x}, z$ (6) $x - y, x, z$	General: no conditions Special: no extra conditions
1 <i>a</i> 6	0, 0, z			

Symmetry of special projections

Along [001] 6	Along [100] $\mu 1 1 m$ $\mathbf{a}' = \mathbf{c}$ Origin at $x, 0, 0$	Along [210] $\mu 1 1 m$ $\mathbf{a}' = \mathbf{c}$ Origin at $x, \frac{1}{2}x, 0$
Origin at $0, 0, z$		

Maximal non-isotypic non-enantiomorphic subgroups

I	[2] $\mu 3$ (42) 1; 2; 3 [3] $\mu 1 1 2$ (8) 1; 4
IIa	none
IIb	[2] $\mu 6_3$ ($\mathbf{c}' = 2\mathbf{c}$) (56); [3] $\mu 6_4$ ($\mathbf{c}' = 3\mathbf{c}$) (57); [3] $\mu 6_2$ ($\mathbf{c}' = 3\mathbf{c}$) (55)

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc [2] $\mu 6$ ($\mathbf{c}' = 2\mathbf{c}$) (53)

Minimal non-isotypic non-enantiomorphic supergroups

I	[2] $\mu 6/m$ (60); [2] $\mu 6 2 2$ (62); [2] $\mu 6 m m$ (68); [2] $\mu 6 c c$ (69)
II	none