

$\mu\bar{6}$

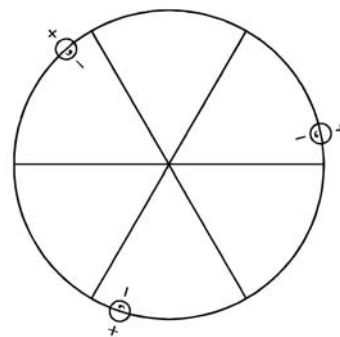
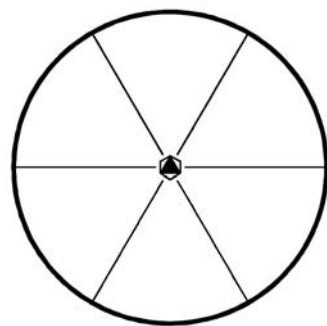
$\bar{6}$

Hexagonal

No. 59

$\mu\bar{6}$

Patterson symmetry $\mu\bar{6}/m$



Origin at $\bar{6}$

Asymmetric unit $0 \leq x; 0 \leq y; 0 \leq z \leq \frac{1}{2}$

Symmetry operations

- | | | |
|----------------------------------|---|---|
| (1) 1
(1 0,0,0) | (2) 3^+ 0,0,z
(3_2^+ 0,0,0) | (3) 3^- 0,0,z
(3_2^- 0,0,0) |
| (4) m x,y,0
(m_z 0,0,0) | (5) $\bar{6}^-$ 0,0,z; 0,0,0
($\bar{6}_z^-$ 0,0,0) | (6) $\bar{6}^+$ 0,0,z; 0,0,0
($\bar{6}_z^+$ 0,0,0) |

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

Positions

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

Symmetry of special projections

Along [001] 3	Along [100] $\mu 1 m 1$	Along [210] $\mu 1 m 1$
Origin at $0, 0, z$	$\mathbf{a}' = \mathbf{c}$ Origin at $x, 0, 0$	$\mathbf{a}' = \mathbf{c}$ Origin at $x, \frac{1}{2}x, 0$

Maximal non-isotypic non-enantiomorphic subgroups

I	$[2] \mu 3 (42)$	1; 2; 3
	$[3] \mu 1 1 m (10)$	1; 4

IIa none

IIb none

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc $[2] \mu \bar{6} (\mathbf{c}' = 2\mathbf{c}) (59)$

Minimal non-isotypic non-enantiomorphic supergroups

I $[2] \mu 6/m (60)$; $[2] \mu 6_3/m (61)$; $[2] \mu \bar{6} m 2 (71)$; $[2] \mu \bar{6} c 2 (72)$

II none