

$\mu 6_2$

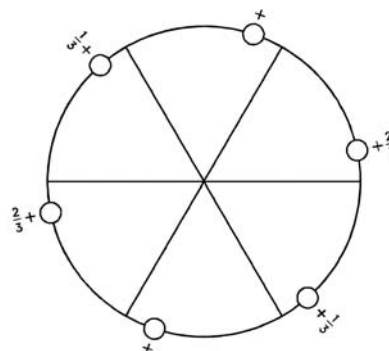
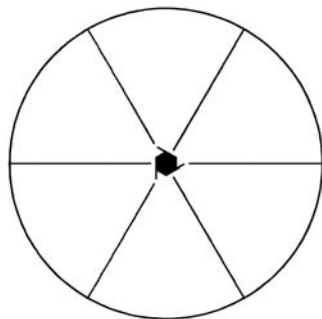
6

Hexagonal

No. 55

$\mu 6_2$

Patterson symmetry  $\mu 6/m$



Origin on 2 on  $6_2$

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

Symmetry operations

- |                                  |   |   |
|----------------------------------|---|---|
| (1) 1<br>(1 0,0,0)               | (2) $3^+(\frac{2}{3})$ 0,0,z<br>( $3_z^-$  0,0, $\frac{2}{3}$ ) | (3) $3^-(\frac{1}{3})$ 0,0,z<br>( $3_z^-$  0,0, $\frac{1}{3}$ ) |
| (4) 2 0,0,z<br>( $2_z^-$  0,0,0) | (5) $6^-(\frac{2}{3})$ 0,0,z<br>( $6_z^-$  0,0, $\frac{2}{3}$ ) | (6) $6^+(\frac{1}{3})$ 0,0,z<br>( $6_z^-$  0,0, $\frac{1}{3}$ ) |

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

**Positions**

Multiplicity,  
Wyckoff letter,  
Site symmetry

Coordinates

Reflection conditions

General:

6 *b* 1 (1)  $x, y, z$  (2)  $\bar{y}, x - y, z + \frac{2}{3}$  (3)  $\bar{x} + y, \bar{x}, z + \frac{1}{3}$   
(4)  $\bar{x}, \bar{y}, z$  (5)  $y, \bar{x} + y, z + \frac{2}{3}$  (6)  $x - y, x, z + \frac{1}{3}$

$l : l = 3n$

Special: no extra conditions

3 *a* 2.. 0,0, $z$  0,0, $z + \frac{2}{3}$  0,0, $z + \frac{1}{3}$

**Symmetry of special projections**

Along [001] 6

Along [100]  $\mu 11m$

Along [210]  $\mu 11m$

$\mathbf{a}' = \mathbf{c}$

$\mathbf{a}' = \mathbf{c}$

Origin at 0,0, $z$

Origin at  $x, 0, 0$

Origin at  $x, \frac{1}{2}x, 0$

**Maximal non-isotypic non-enantiomorphic subgroups**

**I** [2]  $\mu 3_2$  (44) 1; 2; 3  
[3]  $\mu 112$  (8) 1; 4

**IIa** none

**IIb** [2]  $\mu 6_1$  ( $\mathbf{c}' = 2\mathbf{c}$ ) (54)

**Maximal isotypic subgroups and enantiomorphic subgroups of lowest index**

**IIc** [2]  $\mu 6_4$  ( $\mathbf{c}' = 2\mathbf{c}$ ) (57); [7]  $\mu 6_2$  ( $\mathbf{c}' = 7\mathbf{c}$ ) (55)

**Minimal non-isotypic non-enantiomorphic supergroups**

**I** [2]  $\mu 6_2 22$  (64)

**II** [3]  $\mu 6$  ( $\mathbf{c}' = \frac{1}{3}\mathbf{c}$ ) (53)