

$\mu 6_3$

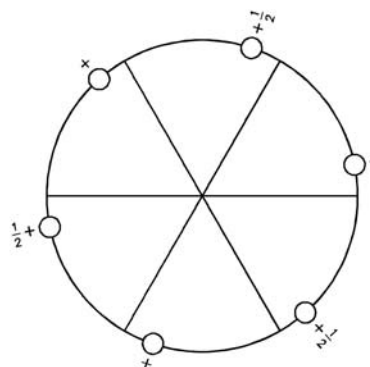
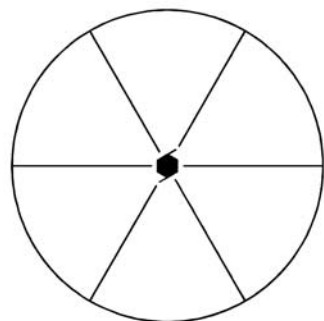
6

Hexagonal

No. 56

$\mu 6_3$

Patterson symmetry $\mu 6/m$



Origin on 3 on 6_3

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

Symmetry operations

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

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) $\bar{x}, \bar{y}, z + \frac{1}{2}$	(2) $\bar{y}, x - y, z$ (5) $y, \bar{x} + y, z + \frac{1}{2}$	(3) $\bar{x} + y, \bar{x}, z$ (6) $x - y, x, z + \frac{1}{2}$	General: $l : l = 2n$ Special: no extra conditions
2 <i>a</i> 3..	0, 0, z	0, 0, $z + \frac{1}{2}$		

Symmetry of special projections

Along [001] 6	Along [100] $\mu 11g$ $\mathbf{a}' = \mathbf{c}$ Origin at $x, 0, 0$	Along [210] $\mu 11g$ $\mathbf{a}' = \mathbf{c}$ 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] $\mu 112_1$ (9) 1; 4

IIa none

IIb [3] $\mu 6_3$ ($\mathbf{c}' = 3\mathbf{c}$) (58); [3] $\mu 6_1$ ($\mathbf{c}' = 3\mathbf{c}$) (54)

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc [3] $\mu 6_3$ ($\mathbf{c}' = 3\mathbf{c}$) (56)

Minimal non-isotypic non-enantiomorphic supergroups

I [2] $\mu 6_3/m$ (61); [2] $\mu 6_3 22$ (65); [2] $\mu 6_3 mc$ (70)

II [2] $\mu 6$ ($\mathbf{c}' = \frac{1}{2}\mathbf{c}$) (53)