

$\mu 6_1$

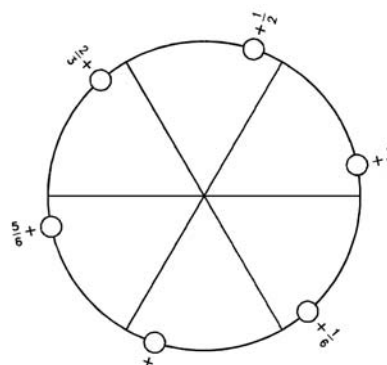
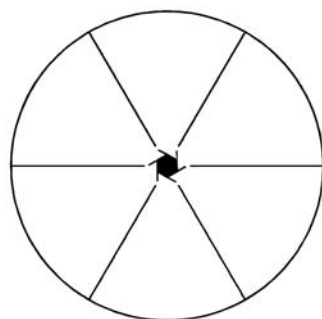
6

Hexagonal

No. 54

$\mu 6_1$

Patterson symmetry $\mu 6/m$



Origin on 6_1

Asymmetric unit $0 \leq z \leq \frac{1}{6}$

Symmetry operations

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

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

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates			Reflection conditions
				General:
6 <i>a</i> 1	(1) x, y, z	(2) $\bar{y}, x - y, z + \frac{1}{3}$	(3) $\bar{x} + y, \bar{x}, z + \frac{2}{3}$	$l : l = 6n$
	(4) $\bar{x}, \bar{y}, z + \frac{1}{2}$	(5) $y, \bar{x} + y, z + \frac{5}{6}$	(6) $x - y, x, z + \frac{1}{6}$	

Symmetry of special projections

Along [001] 6	Along [100] $\mu 11g$	Along [210] $\mu 11g$
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] $\mu 3_1$ (43) 1; 2; 3
 [3] $\mu 112_1$ (9) 1; 4

IIa none

IIb none

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc [5] $\mu 6_5$ ($\mathbf{c}' = 5\mathbf{c}$) (58); [7] $\mu 6_1$ ($\mathbf{c}' = 7\mathbf{c}$) (54)

Minimal non-isotypic non-enantiomorphic supergroups

I [2] $\mu 6_1$ 22 (63)

II [2] $\mu 6_2$ ($\mathbf{c}' = \frac{1}{2}\mathbf{c}$) (55); [3] $\mu 6_3$ ($\mathbf{c}' = \frac{1}{3}\mathbf{c}$) (56)