

$\bar{3}_1$

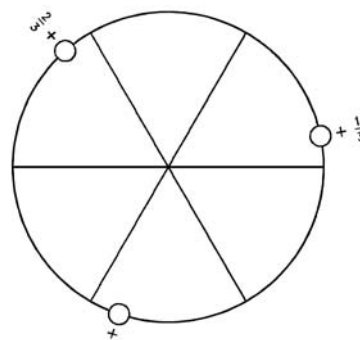
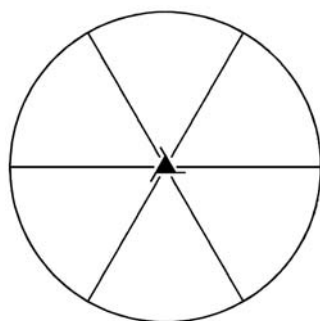
3

Trigonal

No. 43

$\bar{3}_1$

Patterson symmetry $\bar{3}$



Origin on 3_1

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

Symmetry operations

- | | | |
|-----------|-------------------------------|------------------------------------|
| (1) 1 | (2) $3^+(\frac{1}{3})$ 0,0,z | (3) $3^-(\frac{2}{3})$ 0,0,z |
| (1 0,0,0) | (3_2 0,0, $\frac{1}{3}$) | (3_2^{-1} 0,0, $\frac{2}{3}$) |

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

Positions

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

Symmetry of special projections

Along [001] 3	Along [100] $\mu 1$	Along [210] $\mu 1$
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 [3] $\mu 1$ (1) 1

IIa none

IIb none

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc [2] $\mu 3_2$ ($\mathbf{c}' = 2\mathbf{c}$) (44); [7] $\mu 3_1$ ($\mathbf{c}' = 7\mathbf{c}$) (43)

Minimal non-isotypic non-enantiomorphic supergroups

I [2] $\mu 3_1$ 12 (47); [2] $\mu 6_1$ (54); [2] $\mu 6_4$ (57)

II [3] $\mu 3$ ($\mathbf{c}' = \frac{1}{3}\mathbf{c}$) (42)