

$\bar{4}$

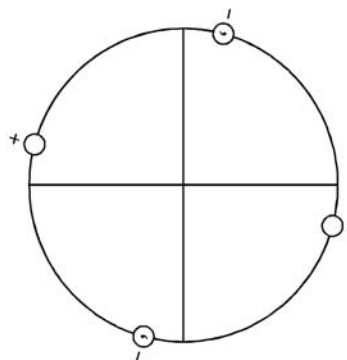
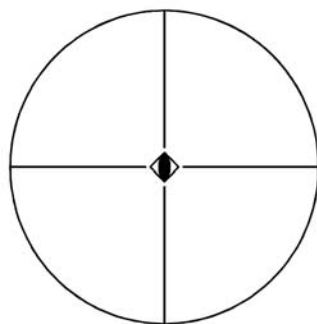
$\bar{4}$

Tetragonal

No. 27

$\bar{4}$

Patterson symmetry  $\bar{4}/m$



Origin at  $\bar{4}$

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

Symmetry operations

- (1) 1      (2) 2  $0,0,z$       (3)  $\bar{4}^+$   $0,0,z; 0,0,0$       (4)  $\bar{4}^-$   $0,0,z; 0,0,0$

**Generators selected** (1);  $t(0,0,1)$ ; (2); (3)

**Positions**

		Coordinates				Reflection conditions
Multiplicity, Wyckoff letter, Site symmetry						General:
4	$d$ 1	(1) $x, y, z$	(2) $\bar{x}, \bar{y}, z$	(3) $y, \bar{x}, \bar{z}$	(4) $\bar{y}, x, \bar{z}$	no conditions Special: no extra conditions
2	$c$ 2..	$0, 0, z$	$0, 0, \bar{z}$			
1	$b$ $\bar{4}$ ..	$0, 0, \frac{1}{2}$				
1	$a$ $\bar{4}$ ..	$0, 0, 0$				

**Symmetry of special projections**

Along [001] 4	Along [100] $\mu\bar{4} 1 1 m$	Along [110] $\mu\bar{4} 1 1 m$
Origin at 0, 0, z	$\mathbf{a}' = \mathbf{c}$ Origin at $x, 0, 0$	$\mathbf{a}' = \mathbf{c}$ Origin at $x, x, 0$

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

**I**  $[2]\mu\bar{4} 1 1 2$  (8) 1; 2

**IIa** none

**IIb** none

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

**IIc**  $[2]\mu\bar{4} (\mathbf{c}' = 2\mathbf{c})$  (27)

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

**I**  $[2]\mu\bar{4}/m$  (28);  $[2]\mu\bar{4}_2/m$  (29);  $[2]\mu\bar{4} 2 m$  (37);  $[2]\mu\bar{4} 2 c$  (38)

**II** none