

$\bar{p}112_1/m$

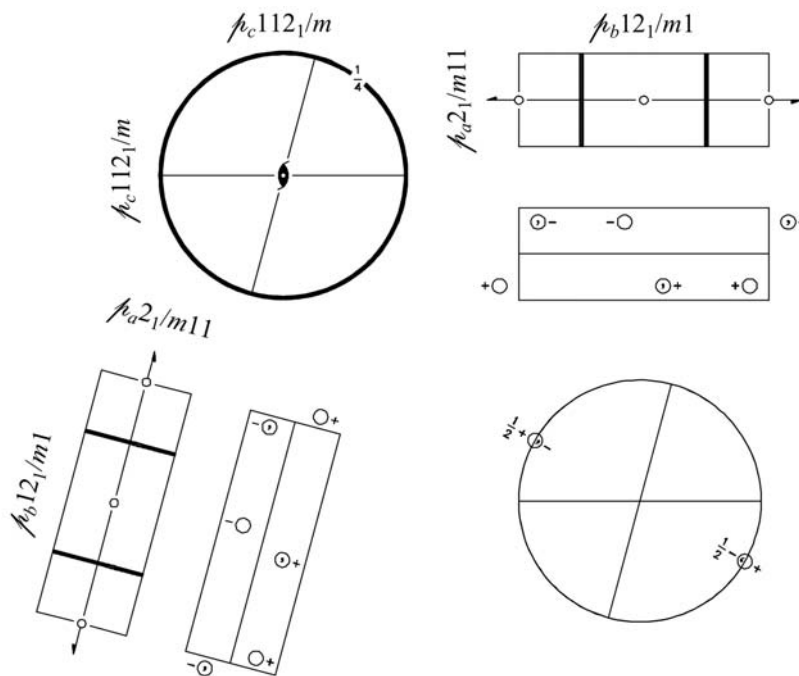
$2/m$

Monoclinic/Rectangular

No. 12

$\bar{p}112_1/m$

Patterson symmetry  $\bar{p}112_1/m$



Origin at  $\bar{1}$  on  $2_1$

Asymmetric unit  $0 \leq z \leq \frac{1}{4}$

Symmetry operations

- |           |                                       |                     |                                       |
|-----------|---------------------------------------|---------------------|---------------------------------------|
| (1) 1     | (2) $2(\frac{1}{2})$ 0,0,z            | (3) $\bar{1}$ 0,0,0 | (4) m x,y, $\frac{1}{4}$              |
| (1 0,0,0) | (2 <sub>c</sub>  0,0, $\frac{1}{2}$ ) | ( $\bar{1}$  0,0,0) | (m <sub>z</sub>  0,0, $\frac{1}{2}$ ) |

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

**Positions**

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

**Symmetry of special projections**

Along [001]  $211$

Along [100]  $\bar{1}2mg$

Along [010]  $\bar{1}2mg$

Origin at  $0, 0, z$

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

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

Origin at  $x, 0, 0$

Origin at  $0, y, 0$

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

**I** [2]  $\bar{1}11m$  (10) 1; 4  
 [2]  $\bar{1}112_1$  (9) 1; 2  
 [2]  $\bar{1}$  (2) 1; 3

**IIa** none

**IIb** none

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

**IIc** [3]  $\bar{1}112_1/m$  ( $\mathbf{c}' = 3\mathbf{c}$ ) (12)

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

**I** [2]  $\bar{1}mcm$  (22); [3]  $\bar{1}6_3/m$  (61)

**II** [2]  $\bar{1}112/m$  ( $\mathbf{c}' = \frac{1}{2}\mathbf{c}$ ) (11)