

$p11m$

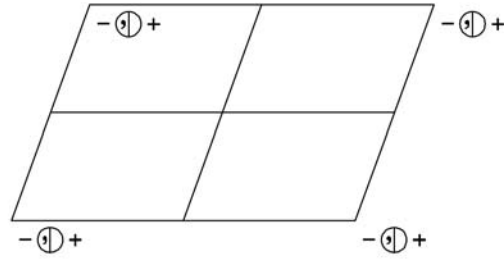
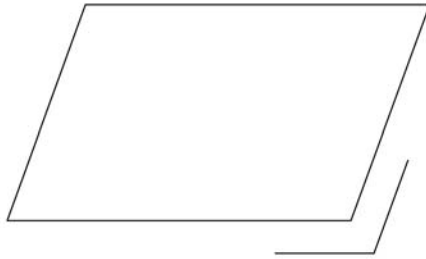
$m$

Monoclinic/Oblique

No. 4

$p11m$

Patterson symmetry  $p112/m$



**Origin** on mirror plane  $m$

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

**Symmetry operations**

(1) 1            (2)  $m \ x,y,0$

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

**Positions**

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

**Symmetry of special projections**

Along [001] $p1$ $\mathbf{a}' = \mathbf{a}$ $\mathbf{b}' = \mathbf{b}$ Origin at 0, 0, $z$	Along [100] $\cancel{p11m}$ $\mathbf{a}' = \mathbf{b}_p$ Origin at $x, 0, 0$	Along [010] $\cancel{p11m}$ $\mathbf{a}' = \mathbf{a}_p$ Origin at 0, $y, 0$
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**Maximal non-isotypic subgroups**

<b>I</b> [2] $p1(1)$ 1
<b>IIa</b> none
<b>IIb</b> [2] $p11a(\mathbf{a}' = 2\mathbf{a})$ (5); [2] $p11b(\mathbf{b}' = 2\mathbf{b})$ ( $p11a, 5$ ); [2] $c11a(\mathbf{a}' = 2\mathbf{a}, \mathbf{b}' = 2\mathbf{b})$ ( $p11a, 5$ )

**Maximal isotypic subgroups of lowest index**

<b>IIc</b> [2] $p11m(\mathbf{a}' = 2\mathbf{a}$ or $\mathbf{b}' = 2\mathbf{b}$ or $\mathbf{a}' = \mathbf{a} + \mathbf{b}, \mathbf{b}' = -\mathbf{a} + \mathbf{b})$ (4)
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**Minimal non-isotypic supergroups**

<b>I</b> [2] $p112/m$ (6); [2] $pm2m$ (27); [2] $pb2_1m$ (29); [2] $cm2m$ (35); [3] $p\bar{6}$ (74)
<b>II</b> none