

$p11m$

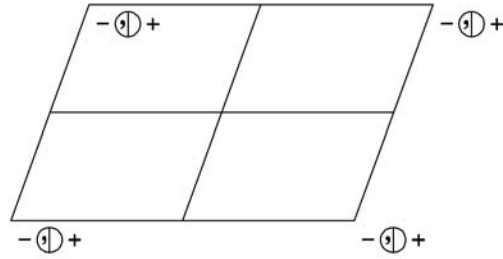
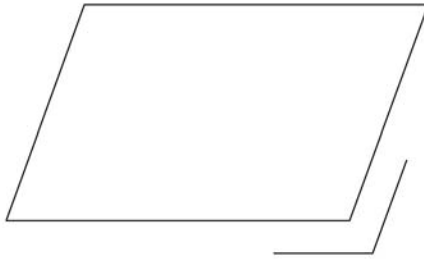
m

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) $m \ x, y, 0$
 $(1|0, 0, 0)$ $(m_z|0, 0, 0)$

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

I [2] $p1(1)$ 1
IIa none
IIb [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

IIc [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

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