

$pb2_1m$

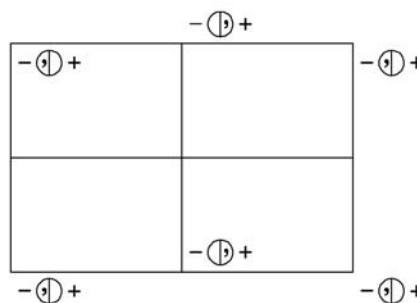
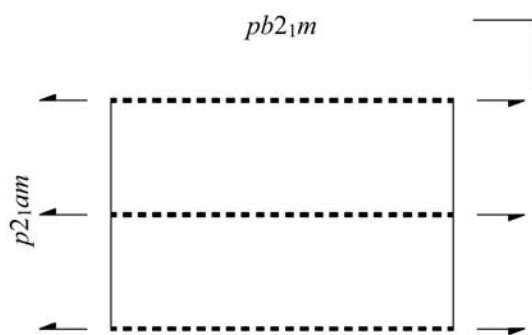
$m2m$

Orthorhombic/Rectangular

No. 29

$pb2_1m$

Patterson symmetry $pmmm$



Origin on $b2_1m$

Asymmetric unit $0 \leq x \leq \frac{1}{2}; 0 \leq y \leq 1; 0 \leq z$

Symmetry operations

- (1) 1 (2) $2(0, \frac{1}{2}, 0) \ 0, y, 0$ (3) $b \ 0, y, z$ (4) $m \ x, y, 0$

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

Positions

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

Symmetry of special projections

Along [001] $p1g1$
 $\mathbf{a}' = \mathbf{a}$ $\mathbf{b}' = \mathbf{b}$
 Origin at 0, 0, z

Along [100] $\cancel{p11m}$
 $\mathbf{a}' = \frac{1}{2}\mathbf{b}$
 Origin at $x, 0, 0$

Along [010] $\cancel{p2mm}$
 $\mathbf{a}' = \mathbf{a}$
 Origin at 0, $y, 0$

Maximal non-isotypic subgroups

I [2] $pb11$ (12) 1; 3
 [2] $p12_11$ ($p2_111, 9$) 1; 2
 [2] $p11m$ (4) 1; 4

IIa none

IIb [2] $pb2_1a$ ($\mathbf{a}' = 2\mathbf{a}$) (33)

Maximal isotypic subgroups of lowest index

IIc [2] $pb2_1m$ ($\mathbf{a}' = 2\mathbf{a}$) (29); [3] $pb2_1m$ ($\mathbf{b}' = 3\mathbf{b}$) (29)

Minimal non-isotypic supergroups

I [2] $pmam$ (40); [2] $pbam$ (44)

II [2] $pm2m$ ($\mathbf{b}' = \frac{1}{2}\mathbf{b}$) (27)