

$p2/b11$

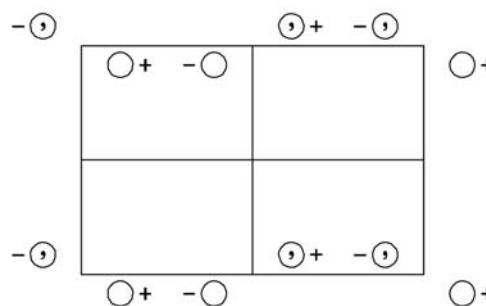
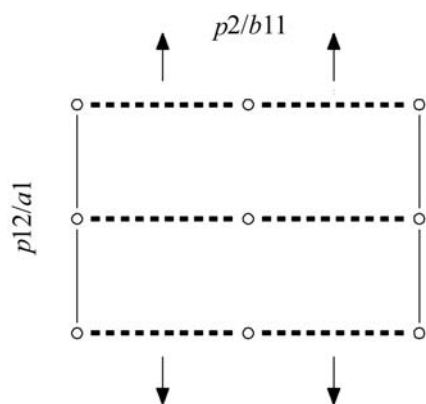
$2/m$

Monoclinic/Rectangular

No. 16

$p2/b11$

Patterson symmetry $p2/m11$



Origin at $\bar{1}$ on glide plane b

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

Symmetry operations

- (1) 1 (2) $2 \quad x, \frac{1}{4}, 0$ (3) $\bar{1} \quad 0, 0, 0$ (4) $b \quad 0, y, z$
 $(1|0, 0, 0)$ $(2_x|0, \frac{1}{2}, 0)$ $(\bar{1}|0, 0, 0)$ $(m_x|0, \frac{1}{2}, 0)$

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

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates				Reflection conditions
4 <i>d</i> 1	(1) x, y, z	(2) $x, \bar{y} + \frac{1}{2}, \bar{z}$	(3) $\bar{x}, \bar{y}, \bar{z}$	(4) $\bar{x}, y + \frac{1}{2}, z$	General: $0k: k = 2n$ Special: as above, plus no extra conditions $hk: k = 2n$ $hk: k = 2n$
2 <i>c</i> 2	$x, \frac{1}{4}, 0$	$\bar{x}, \frac{3}{4}, 0$			
2 <i>b</i> $\bar{1}$	$\frac{1}{2}, 0, 0$	$\frac{1}{2}, \frac{1}{2}, 0$			
2 <i>a</i> $\bar{1}$	$0, 0, 0$	$0, \frac{1}{2}, 0$			

Symmetry of special projections

Along [001] $p2mg$
 $\mathbf{a}' = \mathbf{b}_p$ $\mathbf{b}' = -\mathbf{a}$
 Origin at $0, 0, z$

Along [100] $\not p211$
 $\mathbf{a}' = \frac{1}{2}\mathbf{b}$
 Origin at $x, 0, 0$

Along [010] $\not p2mm$
 $\mathbf{a}' = \frac{1}{2}\mathbf{a}$
 Origin at $0, y, 0$

Maximal non-isotypic subgroups

I [2] $pb11$ (12) 1; 4
 [2] $p211$ (8) 1; 2
 [2] $p\bar{1}$ (2) 1; 3

IIa none

IIb [2] $p2_1/b11$ ($\mathbf{a}' = 2\mathbf{a}$) (17)

Maximal isotypic subgroups of lowest index

IIc [2] $p2/b11$ ($\mathbf{a}' = 2\mathbf{a}$) (16)

Minimal non-isotypic supergroups

I [2] $pmaa$ (38); [2] $pban$ (39); [2] $pmam$ (40); [2] $pbaa$ (43)

II [2] $c2/m11$ (18); [2] $p2/m11$ ($\mathbf{b}' = \frac{1}{2}\mathbf{b}$) (14)