

$p2/m11$

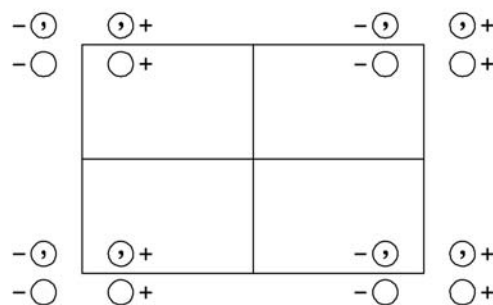
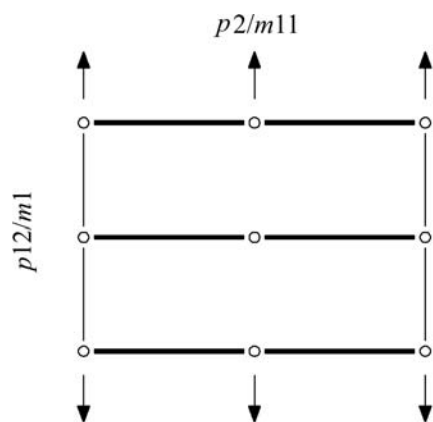
$2/m$

Monoclinic/Rectangular

No. 14

$p2/m11$

Patterson symmetry $p2/m11$



Origin at centre ($2/m$)

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

Symmetry operations

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

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

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates				Reflection conditions
					General:
4 <i>i</i> 1	(1) x, y, z	(2) x, \bar{y}, \bar{z}	(3) $\bar{x}, \bar{y}, \bar{z}$	(4) \bar{x}, y, z	no conditions Special: no extra conditions
2 <i>h</i> <i>m</i>	$\frac{1}{2}, y, z$	$\frac{1}{2}, \bar{y}, \bar{z}$			
2 <i>g</i> <i>m</i>	$0, y, z$	$0, \bar{y}, \bar{z}$			
2 <i>f</i> 2	$x, \frac{1}{2}, 0$	$\bar{x}, \frac{1}{2}, 0$			
2 <i>e</i> 2	$x, 0, 0$	$\bar{x}, 0, 0$			
1 <i>d</i> $2/m$	$\frac{1}{2}, \frac{1}{2}, 0$				
1 <i>c</i> $2/m$	$0, \frac{1}{2}, 0$				
1 <i>b</i> $2/m$	$\frac{1}{2}, 0, 0$				
1 <i>a</i> $2/m$	$0, 0, 0$				

Symmetry of special projections

Along [001] $p2mm$
 $\mathbf{a}' = \mathbf{a}$ $\mathbf{b}' = \mathbf{b}_p$
 Origin at $0, 0, z$

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

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

Maximal non-isotypic subgroups

I [2] $pm11$ (11) 1; 4
 [2] $p211$ (8) 1; 2
 [2] $p\bar{1}$ (2) 1; 3

IIa none

IIb [2] $c2/m11$ ($\mathbf{a}' = 2\mathbf{a}, \mathbf{b}' = 2\mathbf{b}$) (18); [2] $p2/b11$ ($\mathbf{b}' = 2\mathbf{b}$) (16); [2] $p2_1/m11$ ($\mathbf{a}' = 2\mathbf{a}$) (15)

Maximal isotypic subgroups of lowest index

IIc [2] $p2/m11$ ($\mathbf{a}' = 2\mathbf{a}$) (14); [2] $p2/m11$ ($\mathbf{b}' = 2\mathbf{b}$) (14)

Minimal non-isotypic supergroups

I [2] $pmmm$ (37); [2] $pmaa$ (38); [2] $pmma$ (41); [2] $pman$ (42)

II [2] $c2/m11$ (18)