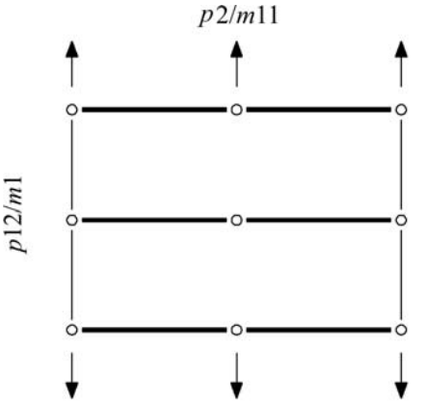
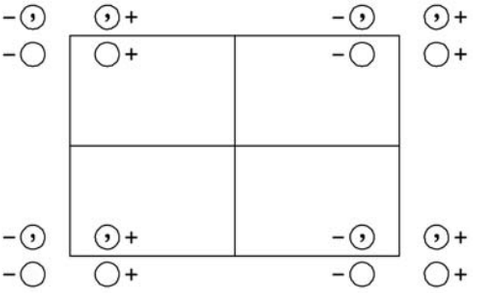
$p2/m11$ $2/m$ Monoclinic/Rectangular

No. 14 $p2/m11$

Patterson symmetry $p2/m11$





Origin at centre $(2/m)$

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

Symmetry operations

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

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

Positions

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

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 $x,0,0$

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)