

$p112$

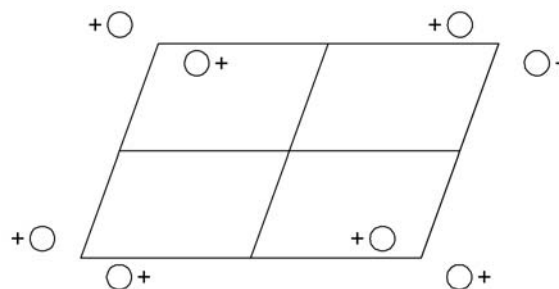
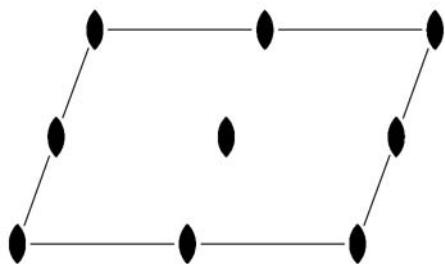
2

Monoclinic/Oblique

No. 3

$p112$

Patterson symmetry $p112/m$



Origin on 2

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

Symmetry operations

(1) 1 (2) 2 0,0,z

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

Positions

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

Symmetry of special projections

Along [001] $p2$
 $\mathbf{a}' = \mathbf{a}$ $\mathbf{b}' = \mathbf{b}$
 Origin at 0, 0, z

Along [100] $\bar{1}m1$
 $\mathbf{a}' = \mathbf{b}_p$
 Origin at x, 0, 0

Along [010] $\bar{1}m1$
 $\mathbf{a}' = \mathbf{a}_p$
 Origin at 0, y, 0

Maximal non-isotypic subgroups

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

Maximal isotypic subgroups of lowest index

IIc [2] $p112$ ($\mathbf{a}' = 2\mathbf{a}$ or $\mathbf{b}' = 2\mathbf{b}$ or $\mathbf{a}' = \mathbf{a} + \mathbf{b}, \mathbf{b}' = -\mathbf{a} + \mathbf{b}$) (3)

Minimal non-isotypic supergroups

I [2] $p112/m$ (6); [2] $p112/a$ (7); [2] $p222$ (19); [2] $p2_122$ (20); [2] $p2_12_12$ (21); [2] $c222$ (22); [2] $pmm2$ (23); [2] $pma2$ (24); [2] $pba2$ (25); [2] $cmm2$ (26); [2] $p4$ (49); [2] $p\bar{4}$ (50); [3] $p6$ (73)
II none