

$p2_111$

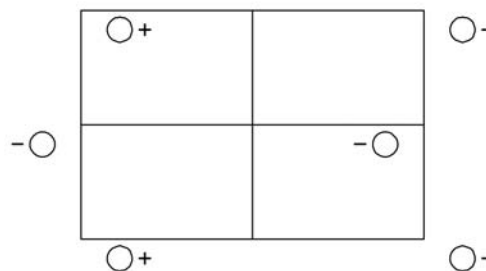
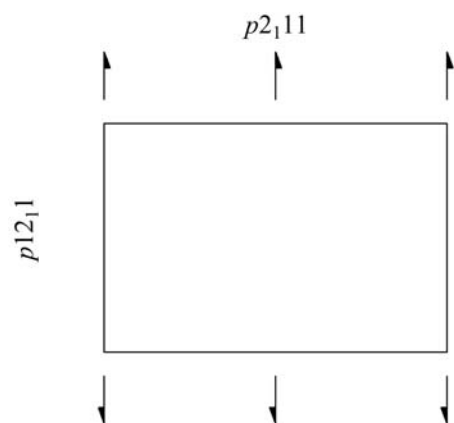
2

Monoclinic/Rectangular

No. 9

$p2_111$

Patterson symmetry $p2/m11$



Origin on 2_1

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

Symmetry operations

- (1) 1 (2) $2(\frac{1}{2}, 0, 0) \ x, 0, 0$
 $(1|0, 0, 0) \quad (2_x|\frac{1}{2}, 0, 0)$

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

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates	Reflection conditions
2 a 1	(1) x, y, z (2) $x + \frac{1}{2}, \bar{y}, \bar{z}$	General: $h0: h = 2n$

Symmetry of special projections

Along $[001]$ $p1g1$ $\mathbf{a}' = \mathbf{b}_p$ $\mathbf{b}' = -\mathbf{a}$ Origin at $0, 0, z$	Along $[100]$ $\not{p}211$ $\mathbf{a}' = \mathbf{b}$ Origin at $x, 0, 0$	Along $[010]$ $\not{p}11g$ $\mathbf{a}' = \mathbf{a}$ Origin at $0, y, 0$
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Maximal non-isotypic subgroups

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

Maximal isotypic subgroups of lowest index

IIc $[2] p2_111 (\mathbf{b}' = 2\mathbf{b}) (9)$; $[3] p2_111 (\mathbf{a}' = 3\mathbf{a}) (9)$

Minimal non-isotypic supergroups

I $[2] p2_1/m11 (15)$; $[2] p2_1/b11 (17)$; $[2] p2_122 (20)$; $[2] p2_12_12 (21)$; $[2] pm2_1b (28)$; $[2] pb2_1m (29)$; $[2] pm2_1n (32)$; $[2] pb2_1a (33)$
II $[2] c211 (10)$; $[2] p211 (\mathbf{a}' = \frac{1}{2}\mathbf{a}) (8)$