

$c211$

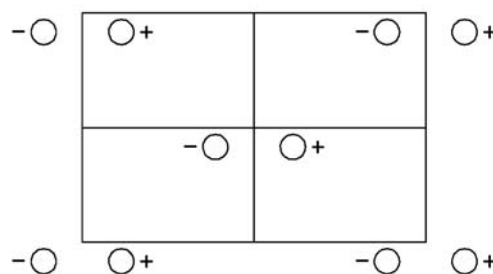
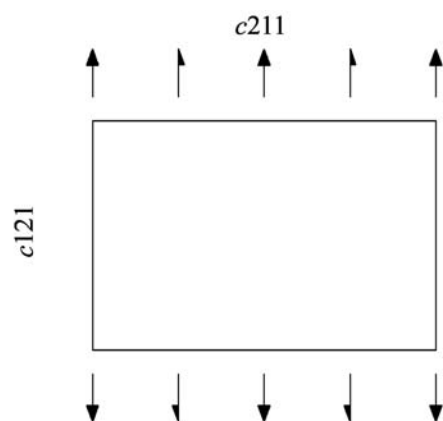
2

Monoclinic/Rectangular

No. 10

$c211$

Patterson symmetry $c2/m11$



Origin on 2

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

Symmetry operations

For $(0, 0, 0)+$ set

(1) 1 (2) 2 $x, 0, 0$

For $(\frac{1}{2}, \frac{1}{2}, 0)+$ set

(1) $t(\frac{1}{2}, \frac{1}{2}, 0)$ (2) $2(\frac{1}{2}, 0, 0) x, \frac{1}{4}, 0$

Generators selected (1); $t(1,0,0)$; $t(0,1,0)$; $t(\frac{1}{2}, \frac{1}{2}, 0)$; (2)

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates		Reflection conditions
	$(0,0,0)+$	$(\frac{1}{2}, \frac{1}{2}, 0)+$	General:
4 <i>b</i> 1	(1) x, y, z	(2) x, \bar{y}, \bar{z}	$hk: h+k=2n$ $h0: h=2n$ $0k: k=2n$
2 <i>a</i> 2	$x, 0, 0$		Special: no extra conditions

Symmetry of special projections

Along [001] $c1m1$ $\mathbf{a}' = \mathbf{b}_p$ $\mathbf{b}' = -\mathbf{a}$ Origin at $0, 0, z$	Along [100] $\cancel{c}211$ $\mathbf{a}' = \frac{1}{2}\mathbf{b}$ Origin at $x, 0, 0$	Along [010] $\cancel{c}11m$ $\mathbf{a}' = \frac{1}{2}\mathbf{a}$ Origin at $0, y, 0$
---	---	---

Maximal non-isotypic subgroups

I	[2] $c1(p1, 1)$	1+
IIa	[2] $p2_111(9)$	1; $2 + (\frac{1}{2}, \frac{1}{2}, 0)$
	[2] $p211(8)$	1; 2
IIb	none	

Maximal isotypic subgroups of lowest index

IIc [3] $c211(\mathbf{a}' = 3\mathbf{a})$ (10)

Minimal non-isotypic supergroups

I	[2] $c2/m11(18)$; [2] $c222(22)$; [2] $cm2m(35)$; [2] $cm2e(36)$; [3] $p312(67)$; [3] $p321(68)$
II	[2] $p211(\mathbf{a}' = \frac{1}{2}\mathbf{a}, \mathbf{b}' = \frac{1}{2}\mathbf{b})$ (8)