

$p11a$

m

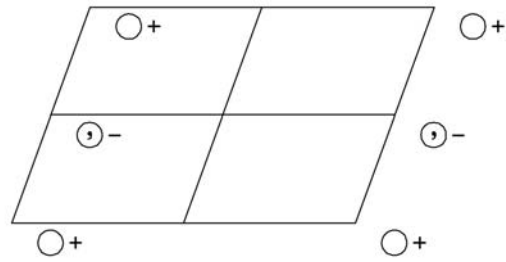
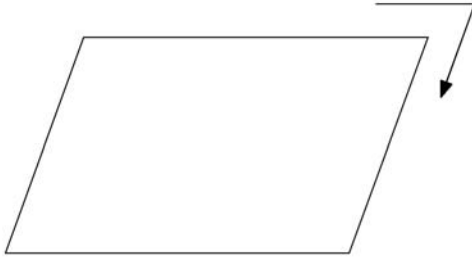
Monoclinic/Oblique

No. 5

$p11a$

Patterson symmetry $p112/m$

CELL CHOICE 1



Origin on glide plane a

Asymmetric unit $0 \leq x \leq 1; 0 \leq y \leq 1; 0 \leq z$

Symmetry operations

(1) 1 (2) $a \ x, y, 0$

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

Positions

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

Symmetry of special projections

Along $[001]$ $p 1$ $\mathbf{a}' = \frac{1}{2}\mathbf{a}$ $\mathbf{b}' = \mathbf{b}$ Origin at $0, 0, z$	Along $[100]$ $\bar{1} 1 m$ $\mathbf{a}' = \mathbf{b}_p$ Origin at $x, 0, 0$	Along $[010]$ $\bar{1} 1 g$ $\mathbf{a}' = \mathbf{a}_p$ Origin at $0, y, 0$
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Maximal non-isotypic subgroups

I $[2] p 1 (1) \quad 1$
IIa none
IIb none

Maximal isotypic subgroups of lowest index

IIc $[2] p 1 1 a (\mathbf{b}' = 2\mathbf{b} \text{ or } \mathbf{a}' = \mathbf{a} + 2\mathbf{b}, \mathbf{b}' = 2\mathbf{b}) (5)$
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Minimal non-isotypic supergroups

I $[2] p 1 1 2/a (7)$; $[2] p m 2_1 b (28)$; $[2] p b 2 b (30)$; $[2] p m 2 a (31)$; $[2] p m 2_1 n (32)$; $[2] p b 2_1 a (33)$; $[2] p b 2 n (34)$; $[2] c m 2 e (36)$
II $[2] p 1 1 m (\mathbf{a}' = \frac{1}{2}\mathbf{a}) (4)$

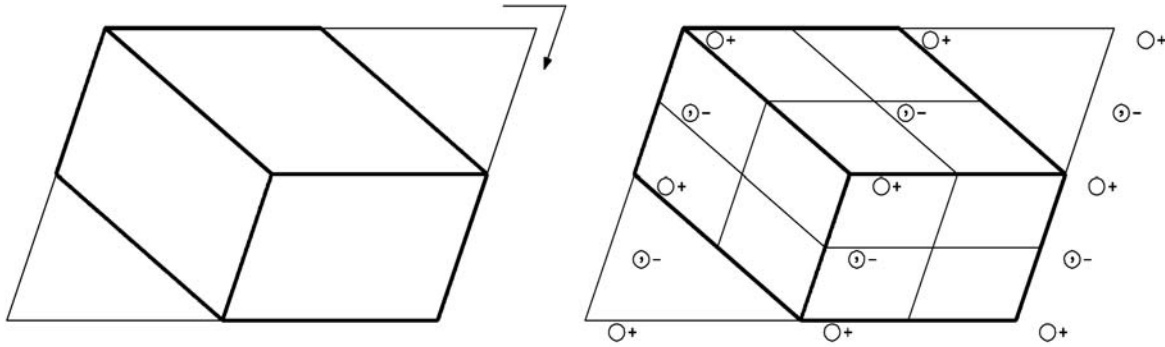
$p11a$

m

Monoclinic/Oblique

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DIFFERENT CELL CHOICES



$p11a$

CELL CHOICE 1

Origin on glide plane a

Asymmetric unit $0 \leq x \leq 1; 0 \leq y \leq 1; 0 \leq z$

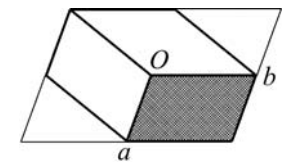
Generators selected (1); $t(1,0,0)$; $t(0,1,0)$; (2)

Positions

Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

2	a	1	(1) x, y, z	(2) $x + \frac{1}{2}, y, \bar{z}$
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Reflection conditions

General:

$hk: h = 2n$

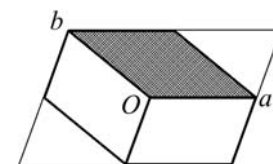
$h0: h = 2n$

p11n

CELL CHOICE 2

Origin on glide plane *n***Asymmetric unit** $0 \leq x \leq 1; 0 \leq y \leq 1; 0 \leq z$ **Generators selected** (1); $t(1,0,0)$; $t(0,1,0)$; (2)**Positions**Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

2 *a* 1 (1) x, y, z (2) $x + \frac{1}{2}, y + \frac{1}{2}, \bar{z}$ 

Reflection conditions

General:

$$hk: h + k = 2n$$

$$h0: h = 2n$$

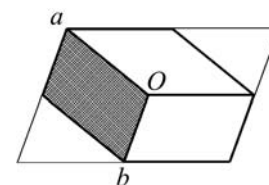
$$0k: k = 2n$$

p11b

CELL CHOICE 3

Origin on glide plane *b***Asymmetric unit** $0 \leq x \leq 1; 0 \leq y \leq 1; 0 \leq z$ **Generators selected** (1); $t(1,0,0)$; $t(0,1,0)$; (2)**Positions**Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

2 *a* 1 (1) x, y, z (2) $x, y + \frac{1}{2}, \bar{z}$ 

Reflection conditions

General:

$$hk: k = 2n$$

$$0k: k = 2n$$