

$P1$

$C_1^1$

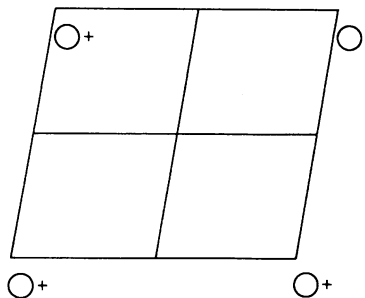
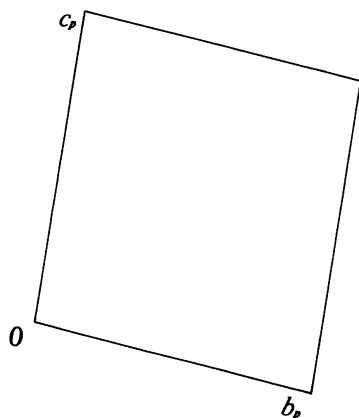
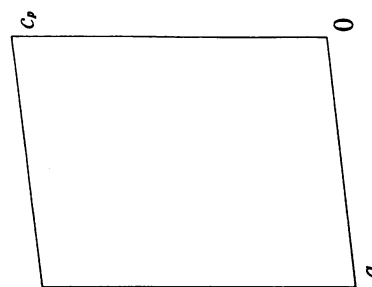
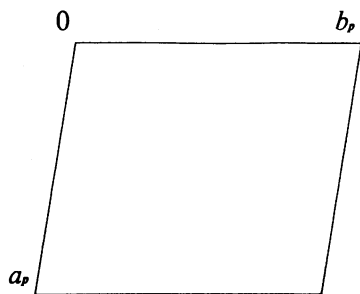
1

Triclinic

No. 1

$P1$

Patterson symmetry  $P\bar{1}$



Drawings for type II cell. Proper cell reduction (Chapter 9.2) gives either a type I ( $\alpha, \beta, \gamma$  acute) or a type II ( $\alpha, \beta, \gamma$  non-acute) cell.

**Origin** arbitrary

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

**Symmetry operations**

(1) 1

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

**Positions**

Multiplicity, Wyckoff letter, Site symmetry	Coordinates	Reflection conditions
1 $a$ 1	(1) $x,y,z$	General: no conditions

**Symmetry of special projections**

Along [001] $p1$ $\mathbf{a}' = \mathbf{a}_p$ $\mathbf{b}' = \mathbf{b}_p$ Origin at 0,0, $z$	Along [100] $p1$ $\mathbf{a}' = \mathbf{b}_p$ $\mathbf{b}' = \mathbf{c}_p$ Origin at $x,0,0$	Along [010] $p1$ $\mathbf{a}' = \mathbf{c}_p$ $\mathbf{b}' = \mathbf{a}_p$ Origin at 0, $y,0$
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**Maximal non-isomorphic subgroups**

- I** none  
**IIa** none  
**IIb** none

**Maximal isomorphic subgroups of lowest index**

- IIc** [2]  $P1$  ( $\mathbf{a}' = 2\mathbf{a}$  or  $\mathbf{b}' = 2\mathbf{b}$  or  $\mathbf{c}' = 2\mathbf{c}$  or  $\mathbf{b}' = \mathbf{b} + \mathbf{c}$ ,  $\mathbf{c}' = -\mathbf{b} + \mathbf{c}$  or  $\mathbf{a}' = \mathbf{a} - \mathbf{c}$ ,  $\mathbf{c}' = \mathbf{a} + \mathbf{c}$  or  $\mathbf{a}' = \mathbf{a} + \mathbf{b}$ ,  $\mathbf{b}' = -\mathbf{a} + \mathbf{b}$  or  $\mathbf{a}' = \mathbf{b} + \mathbf{c}$ ,  $\mathbf{b}' = \mathbf{a} + \mathbf{c}$ ,  $\mathbf{c}' = \mathbf{a} + \mathbf{b}$ ) (1)

**Minimal non-isomorphic supergroups**

- I** [2]  $P\bar{1}$  (2); [2]  $P2$  (3); [2]  $P2_1$  (4); [2]  $C2$  (5); [2]  $Pm$  (6); [2]  $Pc$  (7); [2]  $Cm$  (8); [2]  $Cc$  (9); [3]  $P3$  (143); [3]  $P3_1$  (144); [3]  $P3_2$  (145); [3]  $R3$  (146)  
**II** none