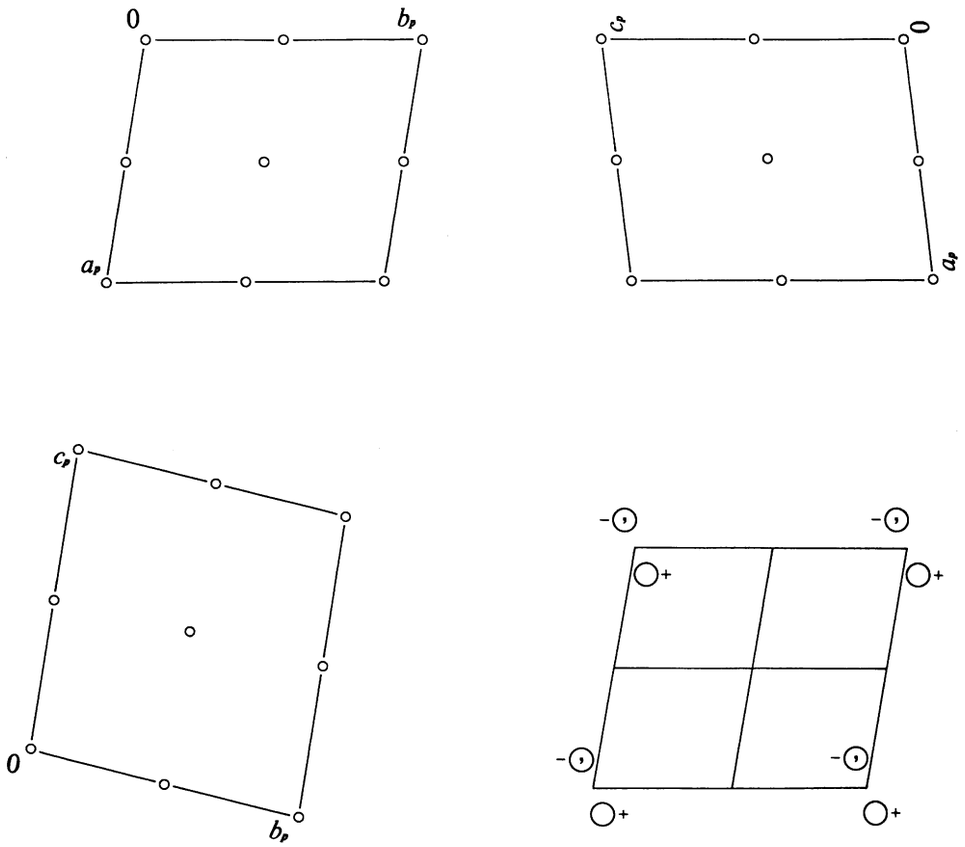
$P\bar{1}$ C_i^1 $\bar{1}$ Triclinic

No. 2 $P\bar{1}$

Patterson symmetry $P\bar{1}$



Drawings for type II cell. Proper cell reduction (Chapter 9.2) gives either a type I (α, β, γ acute) or a type II (α, β, γ non-acute) cell.

Origin at $\bar{1}$

Asymmetric unit $0 \le x \le \frac{1}{2}; \quad 0 \le y \le 1; \quad 0 \le z \le 1$

Symmetry operations

(1) 1 (2) $\bar{1}$ 0,0,0

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

Positions

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

Symmetry of special projections

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

Along [100] $p2$
$\mathbf{a}' = \mathbf{b}_p$ $\mathbf{b}' = \mathbf{c}_p$
Origin at $x,0,0$

Along [010] $p2$
$\mathbf{a}' = \mathbf{c}_p$ $\mathbf{b}' = \mathbf{a}_p$
Origin at $0,y,0$

Maximal non-isomorphic subgroups

I [2] $P1$ (1) 1

IIa none

IIb none

Maximal isomorphic subgroups of lowest index

IIc [2] $P\bar{1}$ ($\mathbf{a}' = 2\mathbf{a}$ 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 $\mathbf{a}' = \mathbf{b}+\mathbf{c}, \mathbf{b}' = \mathbf{a}+\mathbf{c}, \mathbf{c}' = \mathbf{a}+\mathbf{b}$) (2)

Minimal non-isomorphic supergroups

I [2] $P2/m$ (10); [2] $P2_1/m$ (11); [2] $C2/m$ (12); [2] $P2/c$ (13); [2] $P2_1/c$ (14); [2] $C2/c$ (15); [3] $P\bar{3}$ (147); [3] $R\bar{3}$ (148)

II none