

Orthorhombic

$mm2$

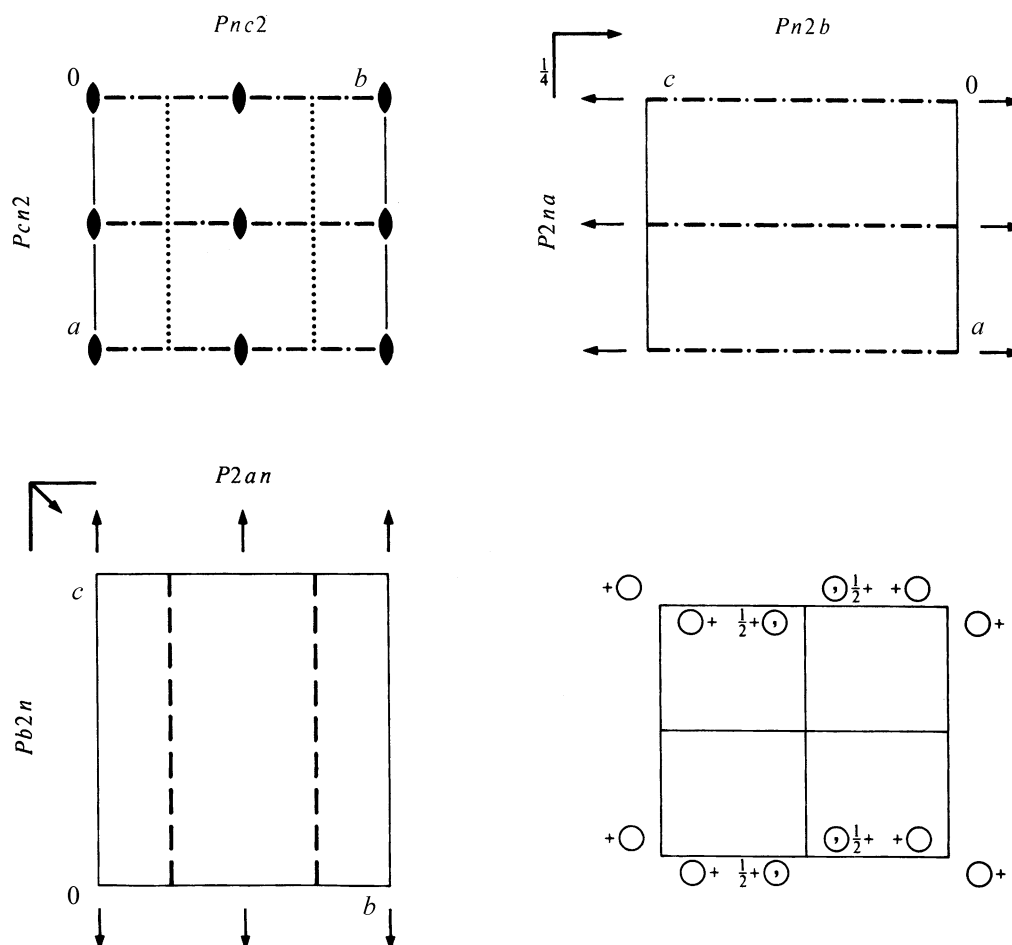
C_{2v}^6

$Pnc2$

Patterson symmetry $Pmmm$

$Pnc2$

No. 30



Origin on $n12$

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

Symmetry operations

(1) 1 (2) $2 \ 0,0,z$ (3) $c \ x, \frac{1}{4}, z$ (4) $n(0, \frac{1}{2}, \frac{1}{2}) \ 0,y,z$

Generators selected (1); $t(1,0,0)$; $t(0,1,0)$; $t(0,0,1)$; (2); (3)

Positions

Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

Reflection conditions

4 $c \ 1$ (1) x,y,z (2) \bar{x},\bar{y},z (3) $x,\bar{y}+\frac{1}{2},z+\frac{1}{2}$ (4) $\bar{x},y+\frac{1}{2},z+\frac{1}{2}$

General:

$Ok\bar{l}: k+l=2n$
 $h0l: l=2n$
 $0k0: k=2n$
 $00l: l=2n$

Special: as above, plus

2 $b \ ..2$ $\frac{1}{2},0,z$ $\frac{1}{2},\frac{1}{2},z+\frac{1}{2}$

$hkl: k+l=2n$

2 $a \ ..2$ $0,0,z$ $0,\frac{1}{2},z+\frac{1}{2}$

$hkl: k+l=2n$

Symmetry of special projections

Along $[001] \ p2gm$
 $\mathbf{a}' = \mathbf{a} \quad \mathbf{b}' = \mathbf{b}$
Origin at $0,0,z$

Along $[100] \ c1m1$
 $\mathbf{a}' = \mathbf{b} \quad \mathbf{b}' = \mathbf{c}$
Origin at $x,0,0$

Along $[010] \ p11m$
 $\mathbf{a}' = \frac{1}{2}\mathbf{c} \quad \mathbf{b}' = \mathbf{a}$
Origin at $0,y,0$