

Pcc2

C_{2v}^3

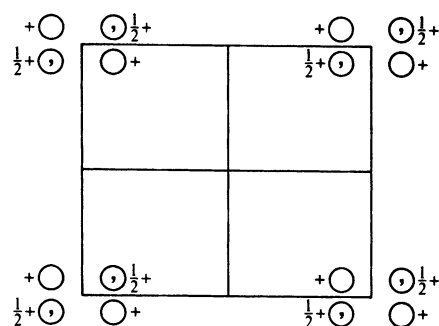
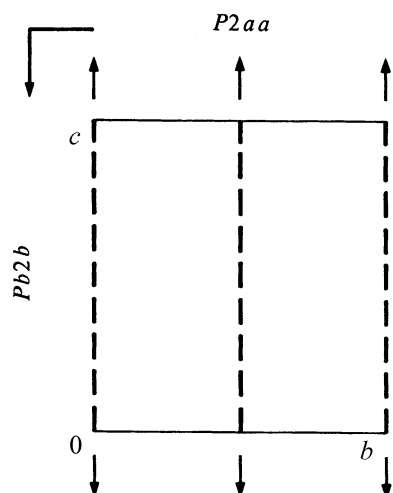
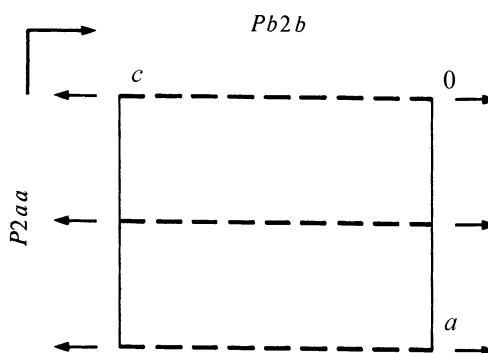
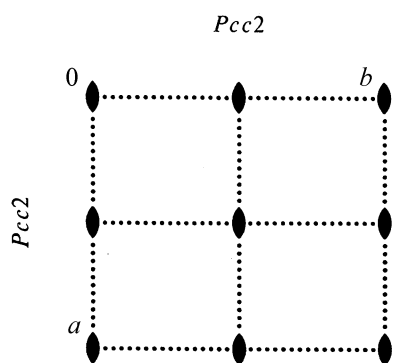
mm2

Orthorhombic

No. 27

Pcc2

Patterson symmetry *Pmmm*



Origin on *cc2*

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

Symmetry operations

(1) 1 (2) 2 0,0,z (3) c x,0,z (4) c 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 e 1	(1) x, y, z	(2) \bar{x}, \bar{y}, z	(3) $x, \bar{y}, z + \frac{1}{2}$	(4) $\bar{x}, y, z + \frac{1}{2}$	General: $0kl: l = 2n$ $h0l: l = 2n$ $00l: l = 2n$ Special: as above, plus $hkl: l = 2n$ $hkl: l = 2n$ $hkl: l = 2n$ $hkl: l = 2n$
2 d ..2	$\frac{1}{2}, \frac{1}{2}, z$	$\frac{1}{2}, \frac{1}{2}, z + \frac{1}{2}$			
2 c ..2	$\frac{1}{2}, 0, z$	$\frac{1}{2}, 0, z + \frac{1}{2}$			
2 b ..2	$0, \frac{1}{2}, z$	$0, \frac{1}{2}, z + \frac{1}{2}$			
2 a ..2	$0, 0, z$	$0, 0, z + \frac{1}{2}$			

Symmetry of special projections

Along [001] *p2mm*

$\mathbf{a}' = \mathbf{a}$ $\mathbf{b}' = \mathbf{b}$

Origin at 0,0,z

Along [100] *p1m1*

$\mathbf{a}' = \mathbf{b}$ $\mathbf{b}' = \frac{1}{2}\mathbf{c}$

Origin at x,0,0

Along [010] *p11m*

$\mathbf{a}' = \frac{1}{2}\mathbf{c}$ $\mathbf{b}' = \mathbf{a}$

Origin at 0,y,0