

$\mu 2cm$

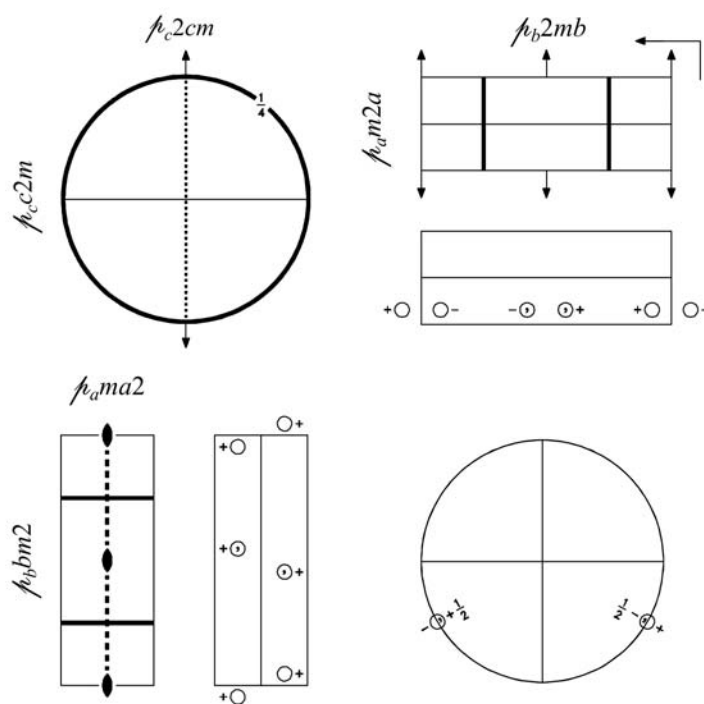
$2mm$

Orthorhombic

No. 19

$\mu 2cm$

Patterson symmetry μmmm



Origin on $2c1$

Asymmetric unit $0 \leq z \leq \frac{1}{4}$

Symmetry operations

- | | | | |
|-------------|---------------------------|----------------------------------------|----------------------------------------|
| (1) 1 | (2) 2_x $x, 0, 0$ | (3) c $x, 0, z$ | (4) m $x, y, \frac{1}{4}$ |
| (1 0, 0, 0) | (2 _x 0, 0, 0) | (m _y 0, 0, $\frac{1}{2}$) | (m _z 0, 0, $\frac{1}{2}$) |

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

Positions

Multiplicity, Wyckoff letter, Site symmetry		Coordinates				Reflection conditions
4	c 1	(1) x, y, z	(2) x, \bar{y}, \bar{z}	(3) $x, \bar{y}, z + \frac{1}{2}$	(4) $x, y, \bar{z} + \frac{1}{2}$	General: $l : l = 2n$ Special: no extra conditions
2	b $\dots m$	$x, y, \frac{1}{4}$	$x, \bar{y}, \frac{3}{4}$			
2	a $2\dots$	$x, 0, 0$	$x, 0, \frac{1}{2}$			

Symmetry of special projections

Along [001] $11m$	Along [100] $\mu 2mg$	Along [010] $\mu 1m1$
Origin at $0, 0, z$	$\mathbf{a}' = \mathbf{c}$ Origin at $x, 0, 0$	$\mathbf{a}' = \frac{1}{2}\mathbf{c}$ Origin at $0, y, 0$

Maximal non-isotypic non-enantiomorphic subgroups

I	$[2] \mu 11m$ (10)	1; 4
	$[2] \mu 1c1$ ($\mu c11, 5$)	1; 3
	$[2] \mu 211$ (3)	1; 2

IIa none

IIb none

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc $[3] \mu 2cm$ ($\mathbf{c}' = 3\mathbf{c}$) (19)

Minimal non-isotypic non-enantiomorphic supergroups

I $[2] \mu ccm$ (21); $[2] \mu mcm$ (22); $[3] \mu \bar{6}c2$ (72)

II $[2] \mu 2mm$ ($\mathbf{c}' = \frac{1}{2}\mathbf{c}$) (18)