

$\bar{3}m2$

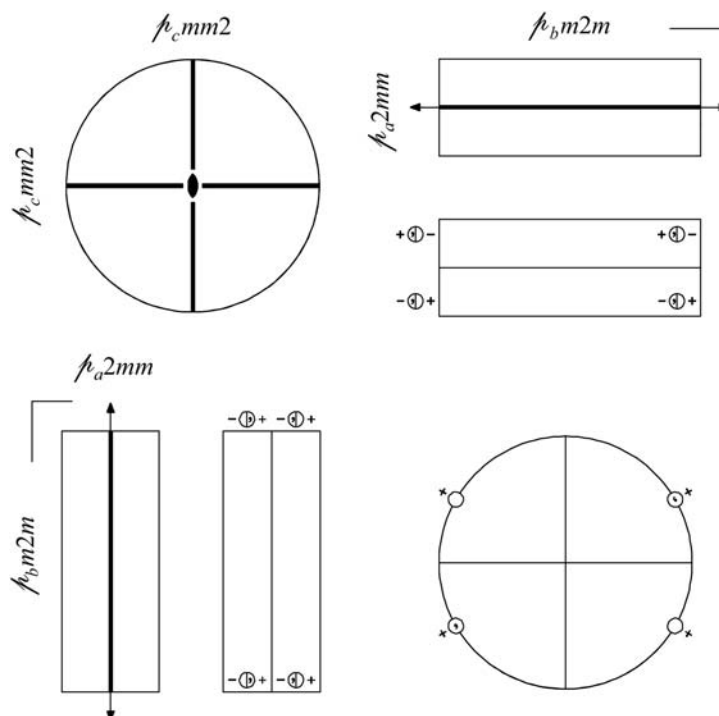
$mm2$

Orthorhombic

No. 15

$\bar{3}m2$

Patterson symmetry  $\bar{3}mmm$



Origin on  $mm2$

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

Symmetry operations

- (1) 1      (2) 2  $0,0,z$       (3)  $m$   $x,0,z$       (4)  $m$   $0,y,z$

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

**Positions**

		Coordinates				Reflection conditions
Multiplicity, Wyckoff letter, Site symmetry						General:
4	<i>d</i> 1	(1) $x, y, z$	(2) $\bar{x}, \bar{y}, z$	(3) $x, \bar{y}, z$	(4) $\bar{x}, y, z$	no conditions  Special: no extra conditions
2	<i>c</i> $m \dots$	$0, y, z$	$0, \bar{y}, z$			
2	<i>b</i> $\dots m \dots$	$x, 0, z$	$\bar{x}, 0, z$			
1	<i>a</i> $m m 2$	$0, 0, z$				

**Symmetry of special projections**

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

**Maximal non-isotypic non-enantiomorphic subgroups**

<b>I</b>	$[2] \mu 112$ (8)	1; 2
	$[2] \mu 1m1$ ( $\mu m 11$ , 4)	1; 3
	$[2] \mu m11$ (4)	1; 4
<b>IIa</b>	none	
<b>IIb</b>	$[2] \mu mc2_1$ ( $\mathbf{c}' = 2\mathbf{c}$ ) (17); $[2] \mu cm2_1$ ( $\mathbf{c}' = 2\mathbf{c}$ ) ( $\mu mc2_1$ , 17); $[2] \mu cc2$ ( $\mathbf{c}' = 2\mathbf{c}$ ) (16)	

**Maximal isotypic subgroups and enantiomorphic subgroups of lowest index**

**IIc**  $[2] \mu m m 2$  ( $\mathbf{c}' = 2\mathbf{c}$ ) (15)

**Minimal non-isotypic non-enantiomorphic supergroups**

**I**  $[2] \mu m m m$  (20);  $[2] \mu 4m m$  (34);  $[2] \mu 4_2 c m$  (35);  $[2] \mu \bar{4}2 m$  (37);  $[3] \mu 6m m$  (68)

**II** none