

$\bar{3}21$

321

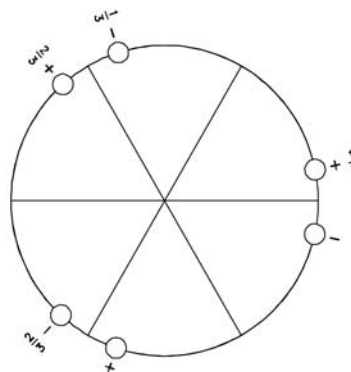
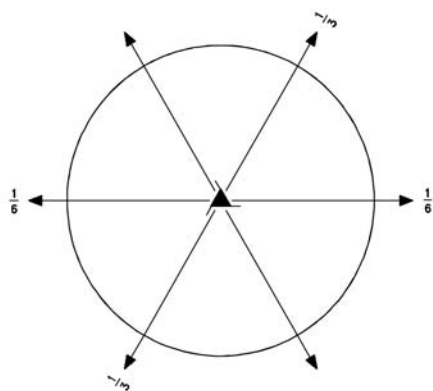
Trigonal

No. 47

$\bar{3}21$

Patterson symmetry $\bar{3}m1$

SECOND SETTING



Origin on $2[110]$ at $3_1(1,1,2)1$

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

Symmetry operations

- | | | |
|---------------|------------------------------|------------------------------|
| (1) 1 | (2) $3^+(\frac{1}{3})$ 0,0,z | (3) $3^-(\frac{2}{3})$ 0,0,z |
| (4) 2 $x,x,0$ | (5) 2 $x,0,\frac{1}{3}$ | (6) 2 $0,y,\frac{1}{6}$ |

Generators selected (1); $t(0,0,1)$; (2); (4)

Positions

Multiplicity, Wyckoff letter, Site symmetry	Coordinates			Reflection conditions
6 <i>c</i> 1	(1) x, y, z (4) y, x, \bar{z}	(2) $\bar{y}, x - y, z + \frac{1}{3}$ (5) $x - y, \bar{y}, \bar{z} + \frac{2}{3}$	(3) $\bar{x} + y, \bar{x}, z + \frac{2}{3}$ (6) $\bar{x}, \bar{x} + y, \bar{z} + \frac{1}{3}$	General: $l : l = 3n$ Special: no extra conditions
3 <i>b</i> .2.	$x, 0, \frac{5}{6}$	$0, x, \frac{1}{6}$	$\bar{x}, \bar{x}, \frac{1}{2}$	
3 <i>a</i> .2.	$x, 0, \frac{1}{3}$	$0, x, \frac{2}{3}$	$\bar{x}, \bar{x}, 0$	

Symmetry of special projections

Along [001] $3m$	Along [100] $\bar{3}211$	Along [210] $\bar{3}1m1$
Origin at 0,0,z	$\mathbf{a}' = \mathbf{c}$ Origin at $x, 0, \frac{1}{3}$	$\mathbf{a}' = \mathbf{c}$ Origin at $x, \frac{1}{2}x, \frac{1}{6}$

Maximal non-isotypic non-enantiomorphic subgroups

I	$[2]\bar{3}111$ ($\bar{3}1, 43$)	1; 2; 3
	$[3]\bar{3}121$ ($\bar{3}211, 3$)	1; 4
	$[3]\bar{3}121$ ($\bar{3}211, 3$)	1; 5
	$[3]\bar{3}121$ ($\bar{3}211, 3$)	1; 6

IIa none

IIb none

Maximal isotypic subgroups and enantiomorphic subgroups of lowest index

IIc $[2]\bar{3}21$ ($\mathbf{c}' = 2\mathbf{c}$) ($\bar{3}2, 48$); $[7]\bar{3}21$ ($\mathbf{c}' = 7\mathbf{c}$) ($\bar{3}12, 47$)

Minimal non-isotypic non-enantiomorphic supergroups

I $[2]\bar{6}22$ (63); $[2]\bar{6}_422$ (66)

II $[3]\bar{3}12$ ($\mathbf{c}' = \frac{1}{3}\mathbf{c}$) (46)