

$p3$

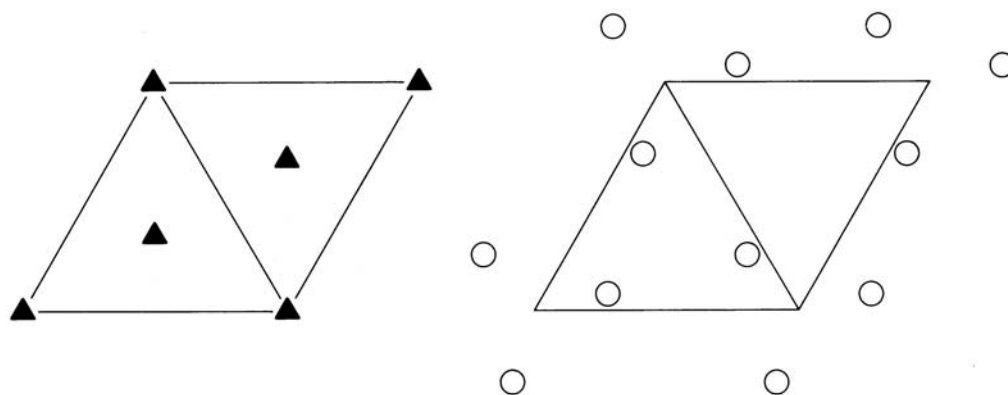
3

Hexagonal

No. 13

$p3$

Patterson symmetry  $p6$



Origin at 3

Asymmetric unit  $0 \leq x \leq \frac{2}{3}; 0 \leq y \leq \frac{2}{3}; x \leq (1+y)/2; y \leq \min(1-x, (1+x)/2)$

Vertices  $0,0 \quad \frac{1}{2},0 \quad \frac{2}{3},\frac{1}{3} \quad \frac{1}{3},\frac{2}{3} \quad 0,\frac{1}{2}$

Symmetry operations

(1) 1 (2)  $3^+$  0,0 (3)  $3^-$  0,0

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

Positions

Multiplicity,  
Wyckoff letter,  
Site symmetry

Coordinates

3 *d* 1 (1)  $x,y$  (2)  $\bar{y},x-y$  (3)  $\bar{x}+y,\bar{x}$

Reflection conditions

General:

no conditions

Special: no extra conditions

1 *c* 3..  $\frac{2}{3},\frac{1}{3}$

1 *b* 3..  $\frac{1}{3},\frac{2}{3}$

1 *a* 3.. 0,0

Maximal non-isomorphic subgroups

I [3]  $p1(1)$  1

IIa none

IIb none

Maximal isomorphic subgroups of lowest index

IIc [3]  $h3(a' = 3a, b' = 3b)(p3, 13)$

Minimal non-isomorphic supergroups

I [2]  $p3m1(14)$ ; [2]  $p31m(15)$ ; [2]  $p6(16)$

II none