

Hexagonal

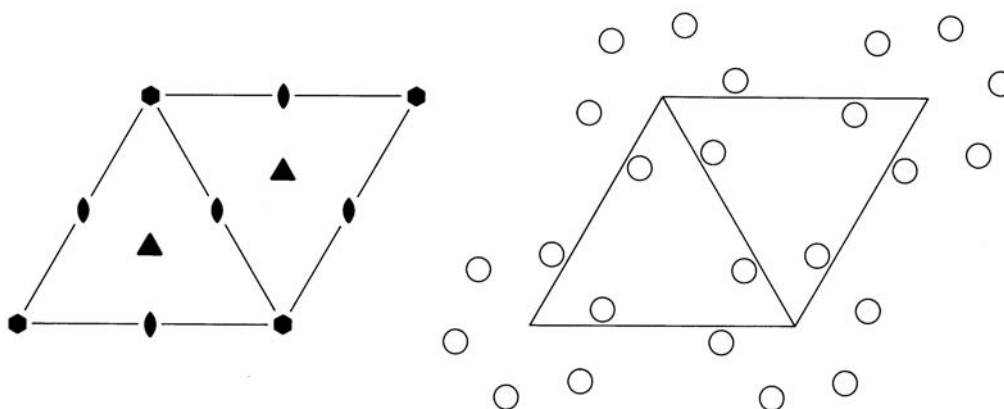
6

p6

Patterson symmetry *p6*

p6

No. 16



Origin at 6

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

Symmetry operations

- (1) 1 (2) 3⁺ 0,0 (3) 3⁻ 0,0
- (4) 2 0,0 (5) 6⁻ 0,0 (6) 6⁺ 0,0

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

Positions

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

Maximal non-isomorphic subgroups

- I** [2] *p3* (13) 1; 2; 3
- [3] *p2* (2) 1; 4

IIa none

IIb none

Maximal isomorphic subgroups of lowest index

IIc [3] *h6* (*a'* = 3*a*, *b'* = 3*b*) (*p6*, 16)

Minimal non-isomorphic supergroups

I [2] *p6mm* (17)

II none