

# Hexagonal

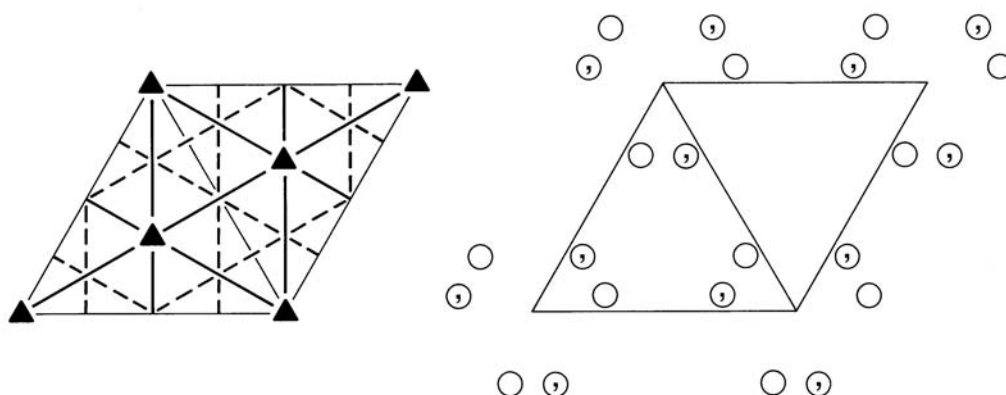
$3m$

$p3m1$

Patterson symmetry  $p6mm$

$p3m1$

No. 14



Origin at  $3m1$

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

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

### Symmetry operations

- (1) 1                    (2)  $3^+ 0,0$                     (3)  $3^- 0,0$   
 (4)  $m \ x, \bar{x}$                     (5)  $m \ x, 2x$                     (6)  $m \ 2x, x$

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

### Positions

Multiplicity,  
Wyckoff letter,  
Site symmetry

Coordinates

Reflection conditions

6 *e* 1                    (1)  $x, y$                     (2)  $\bar{y}, x-y$                     (3)  $\bar{x}+y, \bar{x}$   
 (4)  $\bar{y}, \bar{x}$                     (5)  $\bar{x}+y, y$                     (6)  $x, x-y$

General:

no conditions

Special: no extra conditions

3 *d* . *m* .                     $x, \bar{x}$                      $x, 2x$                      $2\bar{x}, \bar{x}$

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

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

1 *a*  $3m$  .                     $0,0$