

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

General position

Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

6 *d* 1

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

I Maximal translationengleiche subgroups

[2] $p3$ (13) 1; 2; 3
[3] $p2$ (2) 1; 4

II Maximal klassengleiche subgroups

• **Enlarged unit cell**

[3] $\mathbf{a}' = 3\mathbf{a}, \mathbf{b}' = 3\mathbf{b}$

$\left\{ \begin{array}{l} h6 (16, p6) \\ h6 (16, p6) \\ h6 (16, p6) \end{array} \right.$	$\langle 2; 4 \rangle$	$\mathbf{a} - \mathbf{b}, \mathbf{a} + 2\mathbf{b}$	
	$\langle 2 + (1, -1); 4 + (2, 0) \rangle$	$\mathbf{a} - \mathbf{b}, \mathbf{a} + 2\mathbf{b}$	1, 0
	$\langle 2 + (2, -2); 4 + (4, 0) \rangle$	$\mathbf{a} - \mathbf{b}, \mathbf{a} + 2\mathbf{b}$	2, 0

[4] $\mathbf{a}' = 2\mathbf{a}, \mathbf{b}' = 2\mathbf{b}$

$\left\{ \begin{array}{l} p6 (16) \\ p6 (16) \\ p6 (16) \\ p6 (16) \end{array} \right.$	$\langle 2; 4 \rangle$	$2\mathbf{a}, 2\mathbf{b}$	
	$\langle 2 + (1, -1); 4 + (2, 0) \rangle$	$2\mathbf{a}, 2\mathbf{b}$	1, 0
	$\langle 2 + (1, 2); 4 + (0, 2) \rangle$	$2\mathbf{a}, 2\mathbf{b}$	0, 1
	$\langle 2 + (2, 1); 4 + (2, 2) \rangle$	$2\mathbf{a}, 2\mathbf{b}$	1, 1

• **Series of maximal isomorphic subgroups**

$[p^2] \mathbf{a}' = p\mathbf{a}, \mathbf{b}' = p\mathbf{b}$

$p6 (16)$	$\langle 2 + (u + v, -u + 2v); 4 + (2u, 2v) \rangle$	$p\mathbf{a}, p\mathbf{b}$	u, v
	$p > 1; 0 \leq u < p; 0 \leq v < p$		
	p^2 conjugate subgroups for prime $p \equiv 2 \pmod{3}$		

$[p = q^2 + r^2 + qr] \mathbf{a}' = q\mathbf{a} - r\mathbf{b}, \mathbf{b}' = r\mathbf{a} + (q + r)\mathbf{b}$

$p6 (16)$	$\langle 2 + (u, -u); 4 + (2u, 0) \rangle$	$q\mathbf{a} - r\mathbf{b}, r\mathbf{a} + (q + r)\mathbf{b}$	$u, 0$
	$p > 2; q > 0; r > 0; 0 \leq u < p$		
	p conjugate subgroups for each pair of q and r		

I Minimal translationengleiche supergroups

[2] $p6mm (17)$

II Minimal non-isomorphic klassengleiche supergroups

none