

$p1$

No. 1

$p1$

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

General position

Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

1 a 1

(1) x,y

I Maximal translationengleiche subgroups

none

II Maximal klassengleiche subgroups

• **Enlarged unit cell**

[2] $\mathbf{a}' = 2\mathbf{a}$

$p1$ (1) $\langle 1 \rangle$

$2\mathbf{a}, \mathbf{b}$

[2] $\mathbf{b}' = 2\mathbf{b}$

$p1$ (1) $\langle 1 \rangle$

$\mathbf{a}, 2\mathbf{b}$

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

$c1$ (1, $p1$) $\langle 1 \rangle$

$2\mathbf{a}, -\mathbf{a} + \mathbf{b}$

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

$p1$ (1) $\langle 1 \rangle$

$3\mathbf{a}, \mathbf{b}$

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

$p1$ (1) $\langle 1 \rangle$

$3\mathbf{a}, -\mathbf{a} + \mathbf{b}$

[3] $\mathbf{a}' = 3\mathbf{a}, \mathbf{b}' = -2\mathbf{a} + \mathbf{b}$

$p1$ (1) $\langle 1 \rangle$

$3\mathbf{a}, -2\mathbf{a} + \mathbf{b}$

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

$p1$ (1) $\langle 1 \rangle$

$\mathbf{a}, 3\mathbf{b}$

• **Series of maximal isomorphic subgroups**

[p] $\mathbf{a}' = p\mathbf{a}, \mathbf{b}' = -q\mathbf{a} + \mathbf{b}$

$p1$ (1) $\langle 1 \rangle$
 $p > 1; 0 \leq q < p$
no conjugate subgroups

$p\mathbf{a}, -q\mathbf{a} + \mathbf{b}$

[p] $\mathbf{b}' = p\mathbf{b}$

$p1$ (1) $\langle 1 \rangle$
 $p > 1$
no conjugate subgroups

$\mathbf{a}, p\mathbf{b}$

I Minimal translationengleiche supergroups

[2] $p2$ (2); [2] pm (3); [2] pg (4); [2] cm (5); [3] $p3$ (13)

II Minimal non-isomorphic klassengleiche supergroups

none