

pm

No. 3

$p1m1$

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

General position

Multiplicity,
Wyckoff letter,
Site symmetry

Coordinates

2 c 1

(1) x,y (2) \bar{x},y

I Maximal translationengleiche subgroups

[2] $p1$ (1) 1

II Maximal klassengleiche subgroups

• **Enlarged unit cell**

| | | | |
|--|-----------------------------|----------------------------|----------|
| [2] $\mathbf{a}' = 2\mathbf{a}$ | | | |
| pm (3) | $\langle 2 \rangle$ | $2\mathbf{a}, \mathbf{b}$ | |
| pm (3) | $\langle 2 + (1,0) \rangle$ | $2\mathbf{a}, \mathbf{b}$ | $1/2, 0$ |
| [2] $\mathbf{b}' = 2\mathbf{b}$ | | | |
| pg (4) | $\langle 2 + (0,1) \rangle$ | $\mathbf{a}, 2\mathbf{b}$ | |
| pm (3) | $\langle 2 \rangle$ | $\mathbf{a}, 2\mathbf{b}$ | |
| [2] $\mathbf{a}' = 2\mathbf{a}, \mathbf{b}' = 2\mathbf{b}$ | | | |
| cm (5) | $\langle 2 \rangle$ | $2\mathbf{a}, 2\mathbf{b}$ | |
| cm (5) | $\langle 2 + (1,0) \rangle$ | $2\mathbf{a}, 2\mathbf{b}$ | $1/2, 0$ |
| [3] $\mathbf{a}' = 3\mathbf{a}$ | | | |
| pm (3) | $\langle 2 \rangle$ | $3\mathbf{a}, \mathbf{b}$ | |
| pm (3) | $\langle 2 + (2,0) \rangle$ | $3\mathbf{a}, \mathbf{b}$ | $1, 0$ |
| pm (3) | $\langle 2 + (4,0) \rangle$ | $3\mathbf{a}, \mathbf{b}$ | $2, 0$ |
| [3] $\mathbf{b}' = 3\mathbf{b}$ | | | |
| pm (3) | $\langle 2 \rangle$ | $\mathbf{a}, 3\mathbf{b}$ | |

• **Series of maximal isomorphic subgroups**

| | | | |
|-------------------------------------|---|---------------------------|--------|
| [p] $\mathbf{a}' = p\mathbf{a}$ | | | |
| pm (3) | $\langle 2 + (2u,0) \rangle$ | $p\mathbf{a}, \mathbf{b}$ | $u, 0$ |
| | $p > 2; 0 \leq u < p$ | | |
| | p conjugate subgroups for the prime p | | |
| [p] $\mathbf{b}' = p\mathbf{b}$ | | | |
| pm (3) | $\langle 2 \rangle$ | $\mathbf{a}, p\mathbf{b}$ | |
| | $p > 1$ | | |
| | no conjugate subgroups | | |

I Minimal translationengleiche supergroups

[2] $p2mm$ (6); [2] $p2mg$ (7)

II Minimal non-isomorphic klassengleiche supergroups

• **Additional centring translations**

[2] cm (5)

• **Decreased unit cell**

none