

$P4nc$ 

No. 104

 $C_{4v}^6$ 

	Axes	Coordinates	Wyckoff positions		
			$ 2a$	$ 4b$	$ 8c$
<b>I Maximal translationengleiche subgroups</b>					
[2] $P4$ (75)			$ 1a; 1b$	$ 2 \times 2c$	$ 2 \times 4d$
[2] $Pnn2$ (34)			$ 2a$	$ 2 \times 2b$	$ 2 \times 4c$
[2] $Ccc2$ (37)	$\mathbf{a-b, a+b, c}$	$\frac{1}{2}(x-y) + \frac{1}{4}, \frac{1}{2}(x+y) + \frac{1}{4}, z$	$ 4c$	$ 4a; 4b$	$ 2 \times 8d$
<b>II Maximal klassengleiche subgroups</b>					
<b>Enlarged unit cell, isomorphic</b>					
[3] $P4nc$	$\mathbf{a, b, 3c}$	$x, y, \frac{1}{3}z; \pm(0, 0, \frac{1}{3})$	$ 3 \times 2a$	$ 3 \times 4b$	$ 3 \times 8c$
[ $p$ ] $P4nc$	$\mathbf{a, b, pc}$	$x, y, \frac{1}{p}z; + (0, 0, \frac{u}{p})$ $p = \text{prime} > 2; u = 1, \dots, p-1$	$ p \times 2a$	$ p \times 4b$	$ p \times 8c$
[9] $P4nc$	$\mathbf{3a, 3b, c}$	$\frac{1}{3}x, \frac{1}{3}y, z; \pm(\frac{1}{3}, 0, 0); \pm(0, \frac{1}{3}, 0);$ $\pm(\frac{1}{3}, \frac{1}{3}, 0); \pm(\frac{1}{3}, \frac{2}{3}, 0)$	$ 2a; 2 \times 8c$	$ 4b; 4 \times 8c$	$ 9 \times 8c$
[ $p^2$ ] $P4nc$	$\mathbf{pa, pb, c}$	$\frac{1}{p}x, \frac{1}{p}y, z; +(\frac{u}{p}, \frac{v}{p}, 0)$ $p = \text{prime} > 2; u, v = 1, \dots, p-1$	$ 2a; \frac{1}{4}(p^2-1) \times 8c$	$ 4b; \frac{1}{2}(p^2-1) \times 8c$	$ p^2 \times 8c$