

MSG No. 81.36  $P_c\bar{4}$  [ Type IV, tetragonal ]

Table 1: Wyckoff site: 2a, site symmetry:  $-4..$

No.	position	mapping
1	$[0, 0, 0]$	$[1, 2, 3, 4]$
2	$[0, 0, \frac{1}{2}]$	$[5, 6, 7, 8]$

Table 2: Wyckoff site: 2b, site symmetry:  $-4'..$

No.	position	mapping
1	$[0, 0, \frac{1}{4}]$	$[1, 2, 7, 8]$
2	$[0, 0, \frac{3}{4}]$	$[3, 4, 5, 6]$

Table 3: Wyckoff site: 2c, site symmetry:  $-4..$

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, 0]$	$[1, 2, 3, 4]$
2	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$	$[5, 6, 7, 8]$

Table 4: Wyckoff site: 2d, site symmetry:  $-4'..$

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{4}]$	$[1, 2, 7, 8]$
2	$[\frac{1}{2}, \frac{1}{2}, \frac{3}{4}]$	$[3, 4, 5, 6]$

Table 5: Wyckoff site: 4e, site symmetry:  $2..$

No.	position	mapping
1	$[0, 0, z]$	$[1, 2]$
2	$[0, 0, -z]$	$[3, 4]$
3	$[0, 0, z + \frac{1}{2}]$	$[5, 6]$
4	$[0, 0, \frac{1}{2} - z]$	$[7, 8]$

Table 6: Wyckoff site: **4f**, site symmetry:  $2..$ 

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, z]$	[1,2]
2	$[\frac{1}{2}, \frac{1}{2}, -z]$	[3,4]
3	$[\frac{1}{2}, \frac{1}{2}, z + \frac{1}{2}]$	[5,6]
4	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2} - z]$	[7,8]

Table 7: Wyckoff site: **4g**, site symmetry:  $2..$ 

No.	position	mapping
1	$[0, \frac{1}{2}, z]$	[1,2]
2	$[\frac{1}{2}, 0, -z]$	[3,4]
3	$[0, \frac{1}{2}, z + \frac{1}{2}]$	[5,6]
4	$[\frac{1}{2}, 0, \frac{1}{2} - z]$	[7,8]

Table 8: Wyckoff site: **8h**, site symmetry:  $1$ 

No.	position	mapping
1	$[x, y, z]$	[1]
2	$[-x, -y, z]$	[2]
3	$[y, -x, -z]$	[3]
4	$[-y, x, -z]$	[4]
5	$[x, y, z + \frac{1}{2}]$	[5]
6	$[-x, -y, z + \frac{1}{2}]$	[6]
7	$[y, -x, \frac{1}{2} - z]$	[7]
8	$[-y, x, \frac{1}{2} - z]$	[8]