

PG No. 12  $D_4$  422 [ tetragonal ]

Table 1: Wyckoff site: 1o, site symmetry: 422

No.	position	mapping
1	[0, 0, 0]	[1, 2, 3, 4, 5, 6, 7, 8]

Table 2: Wyckoff site: 2a, site symmetry: 4..

No.	position	mapping
1	[0, 0, z]	[1, 2, 3, 4]
2	[0, 0, -z]	[5, 6, 7, 8]

Table 3: Wyckoff site: 4b, site symmetry: ..2

No.	position	mapping
1	[x, x, 0]	[1, 7]
2	[-x, -x, 0]	[2, 8]
3	[-x, x, 0]	[3, 5]
4	[x, -x, 0]	[4, 6]

Table 4: Wyckoff site: 4c, site symmetry: .2.

No.	position	mapping
1	[x, 0, 0]	[1, 6]
2	[-x, 0, 0]	[2, 5]
3	[0, x, 0]	[3, 7]
4	[0, -x, 0]	[4, 8]

Table 5: Wyckoff site: 8d, 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]	[5]
6	[x, -y, -z]	[6]
7	[y, x, -z]	[7]

*continued ...*

Table 5

No.	position	mapping
8	$[-y, -x, -z]$	[8]