

MSG No. 105.218 P_I4_2mc [Type IV, tetragonal]

Table 1: Wyckoff site: 2a, site symmetry: 4'mm'

No.	position	mapping
1	$[\frac{1}{2}, 0, z]$	[1, 4, 5, 6, 10, 11, 15, 16]
2	$[0, \frac{1}{2}, z + \frac{1}{2}]$	[2, 3, 7, 8, 9, 12, 13, 14]

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

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, z]$	[1, 4, 5, 6]
2	$[\frac{1}{2}, \frac{1}{2}, z + \frac{1}{2}]$	[2, 3, 7, 8]
3	$[0, 0, z + \frac{1}{2}]$	[9, 12, 13, 14]
4	$[0, 0, z]$	[10, 11, 15, 16]

Table 3: Wyckoff site: 8c, site symmetry: .m'

No.	position	mapping
1	$[x, x + \frac{1}{2}, z]$	[1, 16]
2	$[\frac{1}{2} - x, x, z + \frac{1}{2}]$	[2, 13]
3	$[x + \frac{1}{2}, -x, z + \frac{1}{2}]$	[3, 14]
4	$[-x, \frac{1}{2} - x, z]$	[4, 15]
5	$[-x, x + \frac{1}{2}, z]$	[5, 10]
6	$[x, \frac{1}{2} - x, z]$	[6, 11]
7	$[\frac{1}{2} - x, -x, z + \frac{1}{2}]$	[7, 12]
8	$[x + \frac{1}{2}, x, z + \frac{1}{2}]$	[8, 9]

Table 4: Wyckoff site: 8d, site symmetry: .m.

No.	position	mapping
1	$[x, 0, z]$	[1, 6]
2	$[0, x, z + \frac{1}{2}]$	[2, 8]
3	$[0, -x, z + \frac{1}{2}]$	[3, 7]
4	$[-x, 0, z]$	[4, 5]
5	$[x + \frac{1}{2}, \frac{1}{2}, z + \frac{1}{2}]$	[9, 14]
6	$[\frac{1}{2}, x + \frac{1}{2}, z]$	[10, 16]
7	$[\frac{1}{2}, \frac{1}{2} - x, z]$	[11, 15]
8	$[\frac{1}{2} - x, \frac{1}{2}, z + \frac{1}{2}]$	[12, 13]

Table 5: Wyckoff site: **16e**, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1]
2	$[-y, x, z + \frac{1}{2}]$	[2]
3	$[y, -x, z + \frac{1}{2}]$	[3]
4	$[-x, -y, z]$	[4]
5	$[-x, y, z]$	[5]
6	$[x, -y, z]$	[6]
7	$[-y, -x, z + \frac{1}{2}]$	[7]
8	$[y, x, z + \frac{1}{2}]$	[8]
9	$[x + \frac{1}{2}, y + \frac{1}{2}, z + \frac{1}{2}]$	[9]
10	$[\frac{1}{2} - y, x + \frac{1}{2}, z]$	[10]
11	$[y + \frac{1}{2}, \frac{1}{2} - x, z]$	[11]
12	$[\frac{1}{2} - x, \frac{1}{2} - y, z + \frac{1}{2}]$	[12]
13	$[\frac{1}{2} - x, y + \frac{1}{2}, z + \frac{1}{2}]$	[13]
14	$[x + \frac{1}{2}, \frac{1}{2} - y, z + \frac{1}{2}]$	[14]
15	$[\frac{1}{2} - y, \frac{1}{2} - x, z]$	[15]
16	$[y + \frac{1}{2}, x + \frac{1}{2}, z]$	[16]