MSG No. 110.250 I_c4_1cd [Type IV, tetragonal]

Table 1: Wyckoff site: 8a, site symmetry: 2m'm'.

No.	position	mapping
1	$[0, 0, z]$	[1,4,21,22]
2	$\left[0, \frac{1}{2}, z + \frac{1}{4}\right]$	[2,3,31,32]
3	$\left[0, 0, z + \frac{1}{2}\right]$	[5,6,17,20]
4	$\left[\frac{1}{2}, 0, z + \frac{1}{4}\right]$	[7,8,26,27]
5	$\left[\frac{1}{2}, \frac{1}{2}, z + \frac{1}{2}\right]$	[9,12,29,30]
6	$\left[\frac{1}{2}, 0, z + \frac{3}{4}\right]$	[10,11,23,24]
7	$\left[\frac{1}{2}, \frac{1}{2}, z\right]$	[13,14,25,28]
8	$\left[0, \frac{1}{2}, z + \frac{3}{4}\right]$	[15,16,18,19]

Table 2: Wyckoff site: 16b, site symmetry: 2'..

No.	position	mapping
1	$\left[\frac{3}{4}, \frac{1}{4}, z\right]$	[1,28]
2	$\left[\frac{3}{4}, \frac{1}{4}, z + \frac{1}{4}\right]$	[2,27]
3	$\left[\frac{1}{4}, \frac{3}{4}, z + \frac{1}{4}\right]$	[3,26]
4	$\left[\frac{1}{4}, \frac{3}{4}, z\right]$	[4,25]
5	$\left[\frac{1}{4}, \frac{1}{4}, z + \frac{1}{2}\right]$	[5,30]
6	$\left[\frac{3}{4}, \frac{3}{4}, z + \frac{1}{2}\right]$	[6,29]
7	$\left[\frac{1}{4}, \frac{1}{4}, z + \frac{1}{4}\right]$	[7,32]
8	$\left[\frac{3}{4}, \frac{3}{4}, z + \frac{1}{4}\right]$	[8,31]
9	$\left[\frac{1}{4}, \frac{3}{4}, z + \frac{1}{2}\right]$	[9,20]
10	$\left[\frac{1}{4}, \frac{3}{4}, z + \frac{3}{4}\right]$	[10,19]
11	$\left[\frac{3}{4}, \frac{1}{4}, z + \frac{3}{4}\right]$	[11,18]
12	$\left[\frac{3}{4}, \frac{1}{4}, z + \frac{1}{2}\right]$	[12,17]
13	$\left[\frac{3}{4}, \frac{3}{4}, z\right]$	[13,22]
14	$\left[\frac{1}{4}, \frac{1}{4}, z\right]$	[14,21]
15	$\left[\frac{3}{4}, \frac{3}{4}, z + \frac{3}{4}\right]$	[15,24]
16	$\left[\frac{1}{4}, \frac{1}{4}, z + \frac{3}{4}\right]$	[16,23]

Table 3: Wyckoff site: 16c, site symmetry: .m'.

No.	position	mapping
1	$[0, y, z]$	[1,21]
2	$\left[-y, \frac{1}{2}, z + \frac{1}{4}\right]$	[2,31]
3	$\left[y, \frac{1}{2}, z + \frac{1}{4}\right]$	[3,32]
4	$[0, -y, z]$	[4,22]
5	$\left[0, y, z + \frac{1}{2}\right]$	[5,17]
6	$\left[0, -y, z + \frac{1}{2}\right]$	[6,20]
7	$\left[\frac{1}{2} - y, 0, z + \frac{1}{4}\right]$	[7,26]

Table 3

No.	position	mapping
8	$\left[y+\frac{1}{2},\, 0,\, z+\frac{1}{4}\right]$	[8,27]
9	$\left[\frac{1}{2},\, y+\frac{1}{2},\, z+\frac{1}{2}\right]$	[9,29]
10	$\left[\frac{1}{2}-y,\, 0,\, z+\frac{3}{4}\right]$	[10,23]
11	$\left[y+\frac{1}{2},\, 0,\, z+\frac{3}{4}\right]$	[11,24]
12	$\left[\frac{1}{2},\, \frac{1}{2}-y,\, z+\frac{1}{2}\right]$	[12,30]
13	$\left[\frac{1}{2},\, y+\frac{1}{2},\, z\right]$	[13,25]
14	$\left[\frac{1}{2},\, \frac{1}{2}-y,\, z\right]$	[14,28]
15	$\left[-y,\, \frac{1}{2},\, z+\frac{3}{4}\right]$	[15,18]
16	$\left[y,\, \frac{1}{2},\, z+\frac{3}{4}\right]$	[16,19]

Table 4: Wyckoff site: `32d`, site symmetry: `1`

No.	position	mapping
1	$[x,\, y,\, z]$	[1]
2	$\left[-y,\, x+\frac{1}{2},\, z+\frac{1}{4}\right]$	[2]
3	$\left[y,\, \frac{1}{2}-x,\, z+\frac{1}{4}\right]$	[3]
4	$[-x,\, -y,\, z]$	[4]
5	$\left[-x,\, y,\, z+\frac{1}{2}\right]$	[5]
6	$\left[x,\, -y,\, z+\frac{1}{2}\right]$	[6]
7	$\left[\frac{1}{2}-y,\, -x,\, z+\frac{1}{4}\right]$	[7]
8	$\left[y+\frac{1}{2},\, x,\, z+\frac{1}{4}\right]$	[8]
9	$\left[x+\frac{1}{2},\, y+\frac{1}{2},\, z+\frac{1}{2}\right]$	[9]
10	$\left[\frac{1}{2}-y,\, x,\, z+\frac{3}{4}\right]$	[10]
11	$\left[y+\frac{1}{2},\, -x,\, z+\frac{3}{4}\right]$	[11]
12	$\left[\frac{1}{2}-x,\, \frac{1}{2}-y,\, z+\frac{1}{2}\right]$	[12]
13	$\left[\frac{1}{2}-x,\, y+\frac{1}{2},\, z\right]$	[13]
14	$\left[x+\frac{1}{2},\, \frac{1}{2}-y,\, z\right]$	[14]
15	$\left[-y,\, \frac{1}{2}-x,\, z+\frac{3}{4}\right]$	[15]
16	$\left[y,\, x+\frac{1}{2},\, z+\frac{3}{4}\right]$	[16]
17	$\left[x,\, y,\, z+\frac{1}{2}\right]$	[17]
18	$\left[-y,\, x+\frac{1}{2},\, z+\frac{3}{4}\right]$	[18]
19	$\left[y,\, \frac{1}{2}-x,\, z+\frac{3}{4}\right]$	[19]
20	$\left[-x,\, -y,\, z+\frac{1}{2}\right]$	[20]
21	$[-x,\, y,\, z]$	[21]
22	$[x,\, -y,\, z]$	[22]
23	$\left[\frac{1}{2}-y,\, -x,\, z+\frac{3}{4}\right]$	[23]
24	$\left[y+\frac{1}{2},\, x,\, z+\frac{3}{4}\right]$	[24]
25	$\left[x+\frac{1}{2},\, y+\frac{1}{2},\, z\right]$	[25]
26	$\left[\frac{1}{2}-y,\, x,\, z+\frac{1}{4}\right]$	[26]
27	$\left[y+\frac{1}{2},\, -x,\, z+\frac{1}{4}\right]$	[27]
28	$\left[\frac{1}{2}-x,\, \frac{1}{2}-y,\, z\right]$	[28]
29	$\left[\frac{1}{2}-x,\, y+\frac{1}{2},\, z+\frac{1}{2}\right]$	[29]
30	$\left[x+\frac{1}{2},\, \frac{1}{2}-y,\, z+\frac{1}{2}\right]$	[30]
31	$\left[-y,\, \frac{1}{2}-x,\, z+\frac{1}{4}\right]$	[31]

continued ...

Table 4

No.	position	mapping
32	$\left[y,\ x+\frac{1}{2},\ z+\frac{1}{4}\right]$	[32]