MSG No. 15.90 C_c2/c [Type IV, monoclinic]

Table 1: Wyckoff site: `4a`, site symmetry: `2/m'`

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

Table 2: Wyckoff site: `4b`, site symmetry: `2/m'`

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

Table 3: Wyckoff site: `4c`, site symmetry: `2'/m'`

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

Table 4: Wyckoff site: `4d`, site symmetry: `2'/m'`

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

Table 5: Wyckoff site: `8e`, site symmetry: `-1'`

No.	position	mapping
1	$\left[\frac{1}{4},\ \frac{1}{4},\ \frac{3}{4}\right]$	`[1,15]`
2	$\left[\frac{3}{4},\ \frac{1}{4},\ \frac{3}{4}\right]$	`[2,16]`

continued ...

Table 5

No.	position	mapping
3	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[3,13]
4	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[4,14]
5	$\left[\frac{3}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[5,11]
6	$\left[\frac{1}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[6,12]
7	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[7,9]
8	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[8,10]

Table 6: Wyckoff site: 8f, site symmetry: -1

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

Table 7: Wyckoff site: 8g, site symmetry: 2

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

Table 8: Wyckoff site: 8h, site symmetry: 2'

No.	position	mapping
1	$[0, y, 0]$	[1,10]
2	$\left[0, y, \frac{1}{2}\right]$	[2,9]
3	$[0, -y, 0]$	[3,12]
4	$\left[0, -y, \frac{1}{2}\right]$	[4,11]
5	$\left[\frac{1}{2}, y+\frac{1}{2}, 0\right]$	[5,14]

continued ...

Table 8

No.	position	mapping
6	$\left[\frac{1}{2}, y+\frac{1}{2}, \frac{1}{2}\right]$	`[6,13]`
7	$\left[\frac{1}{2}, \frac{1}{2}-y, 0\right]$	`[7,16]`
8	$\left[\frac{1}{2}, \frac{1}{2}-y, \frac{1}{2}\right]$	`[8,15]`

Table 9: Wyckoff site: `8i`, site symmetry: `m'`

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

Table 10: Wyckoff site: `16j`, site symmetry: `1`

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