MSG No. 65.483 $Cm'mm$ [Type III, orthorhombic]

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

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

Table 2: Wyckoff site: `2b`, site symmetry: `m'mm`

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

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

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

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

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

Table 5: Wyckoff site: `4e`, site symmetry: `..2'/m`

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

Table 6: Wyckoff site: `4f`, site symmetry: `..2'/m`

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

Table 7: Wyckoff site: `4g`, site symmetry: `2mm`

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

Table 8: Wyckoff site: `4h`, site symmetry: `2mm`

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

Table 9: Wyckoff site: `4i`, site symmetry: `m'2'm`

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

Table 10: Wyckoff site: `4j`, site symmetry: `m'2'm`

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

Table 11: Wyckoff site: `4k`, site symmetry: `m'm2'`

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

Table 12: Wyckoff site: `4l`, site symmetry: `m'm2'`

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

Table 13: Wyckoff site: `8m`, site symmetry: `..2'`

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

Table 14: Wyckoff site: `8n`, site symmetry: `m'..`

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

Table 15: Wyckoff site: `8o`, site symmetry: `.m.`

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

Table 16: Wyckoff site: `8p`, site symmetry: `..m`

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

Table 17: Wyckoff site: `8q`, site symmetry: `..m`

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

Table 18: Wyckoff site: `16r`, site symmetry: `1`

No.	position	mapping
1	$[x,\ y,\ z]$	`[1]`
2	$[x,\ -y,\ -z]$	`[2]`
3	$[x,\ -y,\ z]$	`[3]`

continued ...

Table 18

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