MSG No. 105.216 $P_c 4_2 mc$ [Type IV, tetragonal]

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

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

Table 2: Wyckoff site: `2b`, site symmetry: `4'mm'`

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

Table 3: Wyckoff site: `4c`, site symmetry: `2mm.`

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

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

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

Table 5: Wyckoff site: `8e`, site symmetry: `.m.`

No.	position	mapping
1	$[x,\, 0,\, z]$	`[1,6]`
2	$\left[0,\, x,\, z+\frac{1}{2}\right]$	`[2,8]`

continued ...

Table 5

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

Table 6: Wyckoff site: 8f, site symmetry: .m.

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

Table 7: Wyckoff site: 16g, site symmetry: 1

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