MSG No. 12.59 $C2/m1'$ [Type II, monoclinic]

Table 1: Wyckoff site: `2a`, site symmetry: `2/m1'`

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

Table 2: Wyckoff site: `2b`, site symmetry: `2/m1'`

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

Table 3: Wyckoff site: `2c`, site symmetry: `2/m1'`

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

Table 4: Wyckoff site: `2d`, site symmetry: `2/m1'`

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

Table 5: Wyckoff site: `4e`, site symmetry: `-11'`

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

Table 6: Wyckoff site: `4f`, site symmetry: `-11'`

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

Table 7: Wyckoff site: `4g`, site symmetry: `21'`

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

Table 8: Wyckoff site: `4h`, site symmetry: `21'`

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

Table 9: Wyckoff site: `4i`, site symmetry: `m1'`

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

Table 10: Wyckoff site: `8j`, site symmetry: `11'`

No.	position	mapping
1	$[x, y, z]$	`[1,9]`
2	$[-x, y, -z]$	`[2,10]`
3	$[-x, -y, -z]$	`[3,11]`
4	$[x, -y, z]$	`[4,12]`

continued ...

Table 10

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