MSG No. 51.297 $Pm'm'a'$ [Type III, orthorhombic]

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

No.	position	mapping
1	$[0, 0, 0]$	[1,3,5,7]
2	$\left[\frac{1}{2}, 0, 0\right]$	[2,4,6,8]

Table 2: Wyckoff site: 2b, site symmetry: .2/m'.

No.	position	mapping
1	$\left[0, \frac{1}{2}, 0\right]$	[1,3,5,7]
2	$\left[\frac{1}{2}, \frac{1}{2}, 0\right]$	[2,4,6,8]

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

No.	position	mapping
1	$\left[0, 0, \frac{1}{2}\right]$	[1,3,5,7]
2	$\left[\frac{1}{2}, 0, \frac{1}{2}\right]$	[2,4,6,8]

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

No.	position	mapping
1	$\left[0, \frac{1}{2}, \frac{1}{2}\right]$	[1,3,5,7]
2	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}\right]$	[2,4,6,8]

Table 5: Wyckoff site: 2e, site symmetry: m'm'2

No.	position	mapping
1	$\left[\frac{1}{4}, 0, z\right]$	[1,4,6,7]
2	$\left[\frac{3}{4}, 0, -z\right]$	[2,3,5,8]

Table 6: Wyckoff site: 2f, site symmetry: m'm'2

No.	position	mapping
1	$\left[\frac{1}{4}, \frac{1}{2}, z\right]$	[1,4,6,7]
2	$\left[\frac{3}{4}, \frac{1}{2}, -z\right]$	[2,3,5,8]

Table 7: Wyckoff site: 4g, site symmetry: .2.

No.	position	mapping
1	$[0, y, 0]$	[1,3]
2	$\left[\frac{1}{2}, -y, 0\right]$	[2,4]
3	$[0, -y, 0]$	[5,7]
4	$\left[\frac{1}{2}, y, 0\right]$	[6,8]

Table 8: Wyckoff site: 4h, site symmetry: .2.

No.	position	mapping
1	$\left[0, y, \frac{1}{2}\right]$	[1,3]
2	$\left[\frac{1}{2}, -y, \frac{1}{2}\right]$	[2,4]
3	$\left[0, -y, \frac{1}{2}\right]$	[5,7]
4	$\left[\frac{1}{2}, y, \frac{1}{2}\right]$	[6,8]

Table 9: Wyckoff site: 4i, site symmetry: .m'.

No.	position	mapping
1	$[x, 0, z]$	[1,7]
2	$\left[x + \frac{1}{2}, 0, -z\right]$	[2,8]
3	$[-x, 0, -z]$	[3,5]
4	$\left[\frac{1}{2} - x, 0, z\right]$	[4,6]

Table 10: Wyckoff site: 4j, site symmetry: .m'.

No.	position	mapping
1	$\left[x, \frac{1}{2}, z\right]$	[1,7]
2	$\left[x + \frac{1}{2}, \frac{1}{2}, -z\right]$	[2,8]
3	$\left[-x, \frac{1}{2}, -z\right]$	[3,5]
4	$\left[\frac{1}{2} - x, \frac{1}{2}, z\right]$	[4,6]

Table 11: Wyckoff site: 4k, site symmetry: m'..

No.	position	mapping
1	$\left[\frac{1}{4}, y, z\right]$	[1,6]
2	$\left[\frac{3}{4}, -y, -z\right]$	[2,5]
3	$\left[\frac{3}{4}, y, -z\right]$	[3,8]
4	$\left[\frac{1}{4}, -y, z\right]$	[4,7]

Table 12: Wyckoff site: 8l, site symmetry: 1

No.	position	mapping
1	$[x,\,y,\,z]$	[1]
2	$\left[x+\frac{1}{2},\,-y,\,-z\right]$	[2]
3	$[-x,\,y,\,-z]$	[3]
4	$\left[\frac{1}{2}-x,\,-y,\,z\right]$	[4]
5	$[-x,\,-y,\,-z]$	[5]
6	$\left[\frac{1}{2}-x,\,y,\,z\right]$	[6]
7	$[x,\,-y,\,z]$	[7]
8	$\left[x+\frac{1}{2},\,y,\,-z\right]$	[8]

1	$[x,\,y,\,z]$	[1]
2	$\left[x+\frac{1}{2},\,-y,\,-z\right]$	[2]
3	$[-x,\,y,\,-z]$	[3]
4	$\left[\frac{1}{2}-x,\,-y,\,z\right]$	[4]