MSG No. 47.253 $Pm'm'm'$ [Type III, orthorhombic]

Table 1: Wyckoff site: 1a, site symmetry: m'm'm'

No.	position	mapping
1	$[0, 0, 0]$	[1,2,3,4,5,6,7,8]

Table 2: Wyckoff site: 1b, site symmetry: m'm'm'

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

Table 3: Wyckoff site: 1c, site symmetry: m'm'm'

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

Table 4: Wyckoff site: 1d, site symmetry: m'm'm'

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

Table 5: Wyckoff site: 1e, site symmetry: m'm'm'

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

Table 6: Wyckoff site: 1f, site symmetry: m'm'm'

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

Table 7: Wyckoff site: `1g`, site symmetry: `m'm'm'`

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

Table 8: Wyckoff site: `1h`, site symmetry: `m'm'm'`

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

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

No.	position	mapping
1	$[x, 0, 0]$	[1,2,7,8]
2	$[-x, 0, 0]$	[3,4,5,6]

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

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

Table 11: Wyckoff site: `2k`, site symmetry: `2m'm'`

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

Table 12: Wyckoff site: `2l`, site symmetry: `2m'm'`

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

Table 13: Wyckoff site: 2m, site symmetry: m'2m'

No.	position	mapping
1	$[0, y, 0]$	[1,3,6,8]
2	$[0, -y, 0]$	[2,4,5,7]

Table 14: Wyckoff site: 2n, site symmetry: m'2m'

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

Table 15: Wyckoff site: 2o, site symmetry: m'2m'

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

Table 16: Wyckoff site: 2p, site symmetry: m'2m'

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

Table 17: Wyckoff site: 2q, site symmetry: m'm'2

No.	position	mapping
1	$[0, 0, z]$	[1,4,6,7]
2	$[0, 0, -z]$	[2,3,5,8]

Table 18: Wyckoff site: 2r, site symmetry: m'm'2

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

Table 19: Wyckoff site: `2s`, site symmetry: `m'm'2`

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

Table 20: Wyckoff site: `2t`, site symmetry: `m'm'2`

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

Table 21: Wyckoff site: `4u`, site symmetry: `m'..`

No.	position	mapping
1	$[0, y, z]$	[1,6]
2	$[0, -y, -z]$	[2,5]
3	$[0, y, -z]$	[3,8]
4	$[0, -y, z]$	[4,7]

Table 22: Wyckoff site: `4v`, site symmetry: `m'..`

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

Table 23: Wyckoff site: `4w`, site symmetry: `.m'.`

No.	position	mapping
1	$[x, 0, z]$	[1,7]
2	$[x, 0, -z]$	[2,8]
3	$[-x, 0, -z]$	[3,5]
4	$[-x, 0, z]$	[4,6]

Table 24: Wyckoff site: `4x`, site symmetry: `.m'`.

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

Table 25: Wyckoff site: `4y`, site symmetry: `..m'`

No.	position	mapping
1	$[x, y, 0]$	[1,8]
2	$[x, -y, 0]$	[2,7]
3	$[-x, y, 0]$	[3,6]
4	$[-x, -y, 0]$	[4,5]

Table 26: Wyckoff site: `4z`, site symmetry: `..m'`

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

Table 27: Wyckoff site: `8A`, site symmetry: `1`

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