MSG No. 48.264 P_Innn [Type IV, orthorhombic]

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

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

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

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

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

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

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

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

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

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

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

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

Table 7: Wyckoff site: `4g`, site symmetry: `m'2m'`

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

Table 8: Wyckoff site: `4h`, site symmetry: `m'2m'`

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

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

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

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

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

Table 11: Wyckoff site: `8k`, site symmetry: `-1`

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

Table 12: Wyckoff site: `8l`, site symmetry: `m'..`

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

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

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

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

No.	position	mapping
1	$\left[x, y, \frac{1}{4}\right]$	`[1,16]`
2	$\left[x, \frac{1}{2}-y, \frac{1}{4}\right]$	`[2,15]`
3	$\left[\frac{1}{2}-x, y, \frac{1}{4}\right]$	`[3,14]`

continued ...

Table 14

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

Table 15: Wyckoff site: 16o, site symmetry: 1

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