MSG No. 64.470 $Cmca1'$ [Type II, orthorhombic]

Table 1: Wyckoff site: `4a`, site symmetry: `2/m..1'`

No.	position	mapping
1	$[0, 0, 0]$	`[1,2,5,6,17,18,21,22]`
2	$\left[\frac{1}{2}, 0, \frac{1}{2}\right]$	`[3,4,7,8,19,20,23,24]`
3	$\left[\frac{1}{2}, \frac{1}{2}, 0\right]$	`[9,10,13,14,25,26,29,30]`
4	$\left[0, \frac{1}{2}, \frac{1}{2}\right]$	`[11,12,15,16,27,28,31,32]`

Table 2: Wyckoff site: `4b`, site symmetry: `2/m..1'`

No.	position	mapping
1	$\left[\frac{1}{2}, 0, 0\right]$	`[1,2,5,6,17,18,21,22]`
2	$\left[0, 0, \frac{1}{2}\right]$	`[3,4,7,8,19,20,23,24]`
3	$\left[0, \frac{1}{2}, 0\right]$	`[9,10,13,14,25,26,29,30]`
4	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}\right]$	`[11,12,15,16,27,28,31,32]`

Table 3: Wyckoff site: `8c`, site symmetry: `-11'`

No.	position	mapping
1	$\left[\frac{1}{4}, \frac{1}{4}, 0\right]$	`[1,13,17,29]`
2	$\left[\frac{1}{4}, \frac{3}{4}, 0\right]$	`[2,14,18,30]`
3	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}\right]$	`[3,15,19,31]`
4	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}\right]$	`[4,16,20,32]`
5	$\left[\frac{3}{4}, \frac{3}{4}, 0\right]$	`[5,9,21,25]`
6	$\left[\frac{3}{4}, \frac{1}{4}, 0\right]$	`[6,10,22,26]`
7	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}\right]$	`[7,11,23,27]`
8	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}\right]$	`[8,12,24,28]`

Table 4: Wyckoff site: `8d`, site symmetry: `2..1'`

No.	position	mapping
1	$[x, 0, 0]$	`[1,2,17,18]`
2	$\left[\frac{1}{2} - x, 0, \frac{1}{2}\right]$	`[3,4,19,20]`
3	$[-x, 0, 0]$	`[5,6,21,22]`
4	$\left[x + \frac{1}{2}, 0, \frac{1}{2}\right]$	`[7,8,23,24]`
5	$\left[x + \frac{1}{2}, \frac{1}{2}, 0\right]$	`[9,10,25,26]`
6	$\left[-x, \frac{1}{2}, \frac{1}{2}\right]$	`[11,12,27,28]`
7	$\left[\frac{1}{2} - x, \frac{1}{2}, 0\right]$	`[13,14,29,30]`
8	$\left[x, \frac{1}{2}, \frac{1}{2}\right]$	`[15,16,31,32]`

Table 5: Wyckoff site: `8e`, site symmetry: `.2.1'`

No.	position	mapping
1	$\left[\frac{1}{4},\ y,\ \frac{1}{4}\right]$	`[1,3,17,19]`
2	$\left[\frac{1}{4},\ -y,\ \frac{3}{4}\right]$	`[2,4,18,20]`
3	$\left[\frac{3}{4},\ -y,\ \frac{3}{4}\right]$	`[5,7,21,23]`
4	$\left[\frac{3}{4},\ y,\ \frac{1}{4}\right]$	`[6,8,22,24]`
5	$\left[\frac{3}{4},\ y+\frac{1}{2},\ \frac{1}{4}\right]$	`[9,11,25,27]`
6	$\left[\frac{3}{4},\ \frac{1}{2}-y,\ \frac{3}{4}\right]$	`[10,12,26,28]`
7	$\left[\frac{1}{4},\ \frac{1}{2}-y,\ \frac{3}{4}\right]$	`[13,15,29,31]`
8	$\left[\frac{1}{4},\ y+\frac{1}{2},\ \frac{1}{4}\right]$	`[14,16,30,32]`

Table 6: Wyckoff site: `8f`, site symmetry: `m..1'`

No.	position	mapping
1	$[0,\ y,\ z]$	`[1,6,17,22]`
2	$[0,\ -y,\ -z]$	`[2,5,18,21]`
3	$\left[\frac{1}{2},\ y,\ \frac{1}{2}-z\right]$	`[3,8,19,24]`
4	$\left[\frac{1}{2},\ -y,\ z+\frac{1}{2}\right]$	`[4,7,20,23]`
5	$\left[\frac{1}{2},\ y+\frac{1}{2},\ z\right]$	`[9,14,25,30]`
6	$\left[\frac{1}{2},\ \frac{1}{2}-y,\ -z\right]$	`[10,13,26,29]`
7	$\left[0,\ y+\frac{1}{2},\ \frac{1}{2}-z\right]$	`[11,16,27,32]`
8	$\left[0,\ \frac{1}{2}-y,\ z+\frac{1}{2}\right]$	`[12,15,28,31]`

Table 7: Wyckoff site: `16g`, site symmetry: `11'`

No.	position	mapping
1	$[x,\ y,\ z]$	`[1,17]`
2	$[x,\ -y,\ -z]$	`[2,18]`
3	$\left[\frac{1}{2}-x,\ y,\ \frac{1}{2}-z\right]$	`[3,19]`
4	$\left[\frac{1}{2}-x,\ -y,\ z+\frac{1}{2}\right]$	`[4,20]`
5	$[-x,\ -y,\ -z]$	`[5,21]`
6	$[-x,\ y,\ z]$	`[6,22]`
7	$\left[x+\frac{1}{2},\ -y,\ z+\frac{1}{2}\right]$	`[7,23]`
8	$\left[x+\frac{1}{2},\ y,\ \frac{1}{2}-z\right]$	`[8,24]`
9	$\left[x+\frac{1}{2},\ y+\frac{1}{2},\ z\right]$	`[9,25]`
10	$\left[x+\frac{1}{2},\ \frac{1}{2}-y,\ -z\right]$	`[10,26]`
11	$\left[-x,\ y+\frac{1}{2},\ \frac{1}{2}-z\right]$	`[11,27]`
12	$\left[-x,\ \frac{1}{2}-y,\ z+\frac{1}{2}\right]$	`[12,28]`
13	$\left[\frac{1}{2}-x,\ \frac{1}{2}-y,\ -z\right]$	`[13,29]`
14	$\left[\frac{1}{2}-x,\ y+\frac{1}{2},\ z\right]$	`[14,30]`
15	$\left[x,\ \frac{1}{2}-y,\ z+\frac{1}{2}\right]$	`[15,31]`
16	$\left[x,\ y+\frac{1}{2},\ \frac{1}{2}-z\right]$	`[16,32]`