MSG No. 195.2 $P231'$ [Type II, cubic]

Table 1: Wyckoff site: `1a`, site symmetry: `23.1'`

No.	position	mapping
1	[0, 0, 0]	`[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24]`

Table 2: Wyckoff site: `1b`, site symmetry: `23.1'`

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

Table 3: Wyckoff site: `3c`, site symmetry: `222..1'`

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

Table 4: Wyckoff site: `3d`, site symmetry: `222..1'`

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

Table 5: Wyckoff site: `4e`, site symmetry: `.3.1'`

No.	position	mapping
1	$[x, x, x]$	`[1,5,6,13,17,18]`
2	$[x, -x, -x]$	`[2,10,11,14,22,23]`
3	$[-x, x, -x]$	`[3,7,12,15,19,24]`
4	$[-x, -x, x]$	`[4,8,9,16,20,21]`

Table 6: Wyckoff site: `6f`, site symmetry: `2..1'`

No.	position	mapping
1	$[x,\ 0,\ 0]$	`[1,2,13,14]`
2	$[-x,\ 0,\ 0]$	`[3,4,15,16]`
3	$[0,\ x,\ 0]$	`[5,12,17,24]`
4	$[0,\ 0,\ x]$	`[6,9,18,21]`
5	$[0,\ 0,\ -x]$	`[7,11,19,23]`
6	$[0,\ -x,\ 0]$	`[8,10,20,22]`

Table 7: Wyckoff site: `6g`, site symmetry: `2..1'`

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

Table 8: Wyckoff site: `6h`, site symmetry: `2..1'`

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

Table 9: Wyckoff site: `6i`, site symmetry: `2..1'`

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

Table 10: Wyckoff site: `12j`, site symmetry: `11'`

No.	position	mapping
1	$[x,\ y,\ z]$	`[1,13]`
2	$[x,\ -y,\ -z]$	`[2,14]`
3	$[-x,\ y,\ -z]$	`[3,15]`
4	$[-x,\ -y,\ z]$	`[4,16]`
5	$[z,\ x,\ y]$	`[5,17]`
6	$[y,\ z,\ x]$	`[6,18]`
7	$[-y,\ z,\ -x]$	`[7,19]`
8	$[-z,\ -x,\ y]$	`[8,20]`
9	$[-y,\ -z,\ x]$	`[9,21]`
10	$[z,\ -x,\ -y]$	`[10,22]`
11	$[y,\ -z,\ -x]$	`[11,23]`
12	$[-z,\ x,\ -y]$	`[12,24]`