MSG No. 147.16 $P_c\bar{3}$ [Type IV, trigonal]

Table 1: Wyckoff site: `2a`, site symmetry: `-3..`

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

Table 2: Wyckoff site: `2b`, site symmetry: `-3'..`

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

Table 3: Wyckoff site: `4c`, site symmetry: `3..`

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

Table 4: Wyckoff site: `4d`, site symmetry: `3..`

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

Table 5: Wyckoff site: `6e`, site symmetry: `-1`

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

Table 6: Wyckoff site: `6f`, site symmetry: `-1'`

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

Table 7: Wyckoff site: `12g`, site symmetry: `1`

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