MSG No. 113.270 $P\bar{4}'2_1m'$ [Type III, tetragonal]

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

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

Table 2: Wyckoff site: `2b`, site symmetry: `-4'..`

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

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

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

Table 4: Wyckoff site: `4d`, site symmetry: `2..`

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

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

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

Table 6: Wyckoff site: `8f`, site symmetry: `1`

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