MSG No. 81.38 $P_I\bar{4}$ [Type IV, tetragonal]

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

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

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

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

Table 3: Wyckoff site: `2c`, site symmetry: `-4'..`

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

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

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

Table 5: Wyckoff site: `4e`, site symmetry: `2..`

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

Table 6: Wyckoff site: `4f`, site symmetry: `2..`

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

Table 7: Wyckoff site: `8g`, site symmetry: `1`

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