SG No. 51 D_{2h}^{5} $Pmma$ [orthorhombic]

* plus set: $+[0,\ 0,\ 0]$

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

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

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

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

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

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

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

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

Table 5: Wyckoff site: `2e`, site symmetry: `mm2`

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

Table 6: Wyckoff site: `2f`, site symmetry: `mm2`

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

Table 7: Wyckoff site: `4g`, site symmetry: `.2.`

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

Table 8: Wyckoff site: `4h`, site symmetry: `.2.`

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

Table 9: Wyckoff site: `4i`, site symmetry: `.m.`

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

Table 10: Wyckoff site: `4j`, site symmetry: `.m.`

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

Table 11: Wyckoff site: `4k`, site symmetry: `m..`

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

Table 12: Wyckoff site: `8l`, site symmetry: `1`

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