SG No. 49 D_{2h}^{3} $Pccm$ [orthorhombic]

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

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

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

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

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

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

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

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

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

Table 5: Wyckoff site: `2e`, site symmetry: `222`

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

Table 6: Wyckoff site: `2f`, site symmetry: `222`

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

Table 7: Wyckoff site: `2g`, site symmetry: `222`

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

Table 8: Wyckoff site: `2h`, site symmetry: `222`

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

Table 9: Wyckoff site: `4i`, site symmetry: `2..`

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

Table 10: Wyckoff site: `4j`, site symmetry: `2..`

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

Table 11: Wyckoff site: `4k`, site symmetry: `.2.`

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

Table 12: Wyckoff site: `4l`, site symmetry: `.2.`

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

Table 13: Wyckoff site: `4m`, site symmetry: `..2`

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

Table 14: Wyckoff site: `4n`, site symmetry: `..2`

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

Table 15: Wyckoff site: `4o`, site symmetry: `..2`

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

Table 16: Wyckoff site: `4p`, site symmetry: `..2`

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

Table 17: Wyckoff site: `4q`, site symmetry: `..m`

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

Table 18: Wyckoff site: `8r`, site symmetry: `1`

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