SG No. 205 T_{h}^{6} $Pa\bar{3}$ [cubic]

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

Table 1: Wyckoff site: `4a`, site symmetry: `.-3.`

No.	position	mapping
1	$[0,\ 0,\ 0]$	`[1,5,9,13,17,21]`
2	$\left[\frac{1}{2},\ 0,\ \frac{1}{2}\right]$	`[2,7,12,14,19,24]`
3	$\left[0,\ \frac{1}{2},\ \frac{1}{2}\right]$	`[3,8,10,15,20,22]`
4	$\left[\frac{1}{2},\ \frac{1}{2},\ 0\right]$	`[4,6,11,16,18,23]`

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

No.	position	mapping
1	$\left[\frac{1}{2},\ \frac{1}{2},\ \frac{1}{2}\right]$	`[1,5,9,13,17,21]`
2	$\left[0,\ \frac{1}{2},\ 0\right]$	`[2,7,12,14,19,24]`
3	$\left[\frac{1}{2},\ 0,\ 0\right]$	`[3,8,10,15,20,22]`
4	$\left[0,\ 0,\ \frac{1}{2}\right]$	`[4,6,11,16,18,23]`

Table 3: Wyckoff site: `8c`, site symmetry: `.3.`

No.	position	mapping
1	$[x,\ x,\ x]$	`[1,5,9]`
2	$\left[\frac{1}{2}-x,\ -x,\ x+\frac{1}{2}\right]$	`[2,7,12]`
3	$\left[-x,\ x+\frac{1}{2},\ \frac{1}{2}-x\right]$	`[3,8,10]`
4	$\left[x+\frac{1}{2},\ \frac{1}{2}-x,\ -x\right]$	`[4,6,11]`
5	$[-x,\ -x,\ -x]$	`[13,17,21]`
6	$\left[x+\frac{1}{2},\ x,\ \frac{1}{2}-x\right]$	`[14,19,24]`
7	$\left[x,\ \frac{1}{2}-x,\ x+\frac{1}{2}\right]$	`[15,20,22]`
8	$\left[\frac{1}{2}-x,\ x+\frac{1}{2},\ x\right]$	`[16,18,23]`

Table 4: Wyckoff site: `24d`, site symmetry: `1`

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

continued ...

Table 4

No.	position	mapping
9	$[y,\, z,\, x]$	[9]
10	$\left[-y,\, z+\frac{1}{2},\, \frac{1}{2}-x\right]$	[10]
11	$\left[y+\frac{1}{2},\, \frac{1}{2}-z,\, -x\right]$	[11]
12	$\left[\frac{1}{2}-y,\, -z,\, x+\frac{1}{2}\right]$	[12]
13	$[-x,\, -y,\, -z]$	[13]
14	$\left[x+\frac{1}{2},\, y,\, \frac{1}{2}-z\right]$	[14]
15	$\left[x,\, \frac{1}{2}-y,\, z+\frac{1}{2}\right]$	[15]
16	$\left[\frac{1}{2}-x,\, y+\frac{1}{2},\, z\right]$	[16]
17	$[-z,\, -x,\, -y]$	[17]
18	$\left[\frac{1}{2}-z,\, x+\frac{1}{2},\, y\right]$	[18]
19	$\left[z+\frac{1}{2},\, x,\, \frac{1}{2}-y\right]$	[19]
20	$\left[z,\, \frac{1}{2}-x,\, y+\frac{1}{2}\right]$	[20]
21	$[-y,\, -z,\, -x]$	[21]
22	$\left[y,\, \frac{1}{2}-z,\, x+\frac{1}{2}\right]$	[22]
23	$\left[\frac{1}{2}-y,\, z+\frac{1}{2},\, x\right]$	[23]
24	$\left[y+\frac{1}{2},\, z,\, \frac{1}{2}-x\right]$	[24]