SG No. 216 T_{d}^2 $F\bar{4}3m$ [cubic]

* plus set: $+[0,\,0,\,0]$, $+\left[0,\,\frac{1}{2},\,\frac{1}{2}\right]$, $+\left[\frac{1}{2},\,0,\,\frac{1}{2}\right]$, $+\left[\frac{1}{2},\,\frac{1}{2},\,0\right]$

Table 1: Wyckoff site: `4a`, site symmetry: `-43m`

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

Table 2: Wyckoff site: `4b`, site symmetry: `-43m`

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

Table 3: Wyckoff site: `4c`, site symmetry: `-43m`

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

Table 4: Wyckoff site: `4d`, site symmetry: `-43m`

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

Table 5: Wyckoff site: `16e`, site symmetry: `.3m`

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

Table 6: Wyckoff site: `24f`, site symmetry: `2.mm`

No.	position	mapping
1	$[x,\,0,\,0]$	`[1,4,17,20]`
2	$[-x,\,0,\,0]$	`[2,3,18,19]`
3	$[0,\,x,\,0]$	`[5,8,13,16]`

continued ...

Table 6

No.	position	mapping
4	$[0, -x, 0]$	`[6,7,14,15]`
5	$[0, 0, x]$	`[9,12,21,24]`
6	$[0, 0, -x]$	`[10,11,22,23]`

Table 7: Wyckoff site: `24g`, site symmetry: `2.mm`

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

Table 8: Wyckoff site: `48h`, site symmetry: `..m`

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

Table 9: Wyckoff site: `96i`, site symmetry: `1`

No.	position	mapping
1	$[x, y, z]$	`[1]`
2	$[-x, -y, z]$	`[2]`
3	$[-x, y, -z]$	`[3]`
4	$[x, -y, -z]$	`[4]`
5	$[z, x, y]$	`[5]`
6	$[z, -x, -y]$	`[6]`

continued ...

Table 9

No.	position	mapping
7	$[-z, -x, y]$	[7]
8	$[-z, x, -y]$	[8]
9	$[y, z, x]$	[9]
10	$[-y, z, -x]$	[10]
11	$[y, -z, -x]$	[11]
12	$[-y, -z, x]$	[12]
13	$[y, x, z]$	[13]
14	$[-y, -x, z]$	[14]
15	$[y, -x, -z]$	[15]
16	$[-y, x, -z]$	[16]
17	$[x, z, y]$	[17]
18	$[-x, z, -y]$	[18]
19	$[-x, -z, y]$	[19]
20	$[x, -z, -y]$	[20]
21	$[z, y, x]$	[21]
22	$[z, -y, -x]$	[22]
23	$[-z, y, -x]$	[23]
24	$[-z, -y, x]$	[24]