SG No. 212 O^6 $P4_332$ [cubic]

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

Table 1: Wyckoff site: `4a`, site symmetry: `.32`

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

Table 2: Wyckoff site: `4b`, site symmetry: `.32`

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

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

No.	position	mapping
1	$\left[\frac{1}{8}, y, \frac{1}{4} - y\right]$	`[1,19]`
2	$\left[\frac{3}{8}, -y, \frac{3}{4} - y\right]$	`[2,17]`
3	$\left[\frac{7}{8}, y + \frac{1}{2}, y + \frac{1}{4}\right]$	`[3,20]`
4	$\left[\frac{5}{8}, \frac{1}{2} - y, y + \frac{3}{4}\right]$	`[4,18]`
5	$\left[\frac{1}{4} - y, \frac{1}{8}, y\right]$	`[5,14]`
6	$\left[\frac{3}{4} - y, \frac{3}{8}, -y\right]$	`[6,16]`
7	$\left[y + \frac{1}{4}, \frac{7}{8}, y + \frac{1}{2}\right]$	`[7,13]`
8	$\left[y + \frac{3}{4}, \frac{5}{8}, \frac{1}{2} - y\right]$	`[8,15]`

continued ...

Table 4

No.	position	mapping
9	$\left[y,\ \frac{1}{4}-y,\ \frac{1}{8}\right]$	[9,24]
10	$\left[-y,\ \frac{3}{4}-y,\ \frac{3}{8}\right]$	[10,22]
11	$\left[y+\frac{1}{2},\ y+\frac{1}{4},\ \frac{7}{8}\right]$	[11,23]
12	$\left[\frac{1}{2}-y,\ y+\frac{3}{4},\ \frac{5}{8}\right]$	[12,21]

Table 5: Wyckoff site: 24e, 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]
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	$\left[y+\frac{1}{4},\ x+\frac{3}{4},\ \frac{3}{4}-z\right]$	[13]
14	$\left[\frac{1}{4}-y,\ \frac{1}{4}-x,\ \frac{1}{4}-z\right]$	[14]
15	$\left[y+\frac{3}{4},\ \frac{3}{4}-x,\ z+\frac{1}{4}\right]$	[15]
16	$\left[\frac{3}{4}-y,\ x+\frac{1}{4},\ z+\frac{3}{4}\right]$	[16]
17	$\left[x+\frac{1}{4},\ z+\frac{3}{4},\ \frac{3}{4}-y\right]$	[17]
18	$\left[\frac{3}{4}-x,\ z+\frac{1}{4},\ y+\frac{3}{4}\right]$	[18]
19	$\left[\frac{1}{4}-x,\ \frac{1}{4}-z,\ \frac{1}{4}-y\right]$	[19]
20	$\left[x+\frac{3}{4},\ \frac{3}{4}-z,\ y+\frac{1}{4}\right]$	[20]
21	$\left[z+\frac{1}{4},\ y+\frac{3}{4},\ \frac{3}{4}-x\right]$	[21]
22	$\left[z+\frac{3}{4},\ \frac{3}{4}-y,\ x+\frac{1}{4}\right]$	[22]
23	$\left[\frac{3}{4}-z,\ y+\frac{1}{4},\ x+\frac{3}{4}\right]$	[23]
24	$\left[\frac{1}{4}-z,\ \frac{1}{4}-y,\ \frac{1}{4}-x\right]$	[24]