SG No. 213 O^7 $P4_132$ [cubic]

* plus set: $+[0, 0, 0]$
* Wyckoff site: `4a`, site symmetry: `.32`

Table 1: Wyckoff bond: `4a@4a`

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

Table 2: Wyckoff bond: `12b@4a`

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

Table 3: Wyckoff bond: `12c@4a`

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

Table 4: Wyckoff bond: `24d@4a`

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

* Wyckoff site: `4b`, site symmetry: `.32`

Table 5: Wyckoff bond: `4a@4b`

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

Table 6: Wyckoff bond: `12b@4b`

No.	vector	center	mapping
1	$[X, X, Y]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[1,-14]`
2	$[-X, -X, Y]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[2,-13]`
3	$[-X, X, -Y]$	$[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}]$	`[3,-15]`
4	$[X, -X, -Y]$	$[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}]$	`[4,-16]`

continued ...

Table 6

No.	vector	center	mapping
5	$[Y, X, X]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[5,-24]`
6	$[Y, -X, -X]$	$[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}]$	`[6,-23]`
7	$[-Y, -X, X]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[7,-21]`
8	$[-Y, X, -X]$	$[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}]$	`[8,-22]`
9	$[X, Y, X]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[9,-19]`
10	$[-X, Y, -X]$	$[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}]$	`[10,-20]`
11	$[X, -Y, -X]$	$[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}]$	`[11,-18]`
12	$[-X, -Y, X]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[12,-17]`

Table 7: Wyckoff bond: `12c@4b`

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

Table 8: Wyckoff bond: `24d@4b`

No.	vector	center	mapping
1	$[X, Y, Z]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[1]`
2	$[-X, -Y, Z]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[2]`
3	$[-X, Y, -Z]$	$[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}]$	`[3]`
4	$[X, -Y, -Z]$	$[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}]$	`[4]`
5	$[Z, X, Y]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[5]`
6	$[Z, -X, -Y]$	$[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}]$	`[6]`
7	$[-Z, -X, Y]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[7]`
8	$[-Z, X, -Y]$	$[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}]$	`[8]`
9	$[Y, Z, X]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[9]`
10	$[-Y, Z, -X]$	$[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}]$	`[10]`
11	$[Y, -Z, -X]$	$[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}]$	`[11]`
12	$[-Y, -Z, X]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[12]`
13	$[Y, X, -Z]$	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}]$	`[13]`
14	$[-Y, -X, -Z]$	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	`[14]`

continued ...

Table 8

No.	vector	center	mapping
15	$[Y, -X, Z]$	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[15]
16	$[-Y, X, Z]$	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[16]
17	$[X, Z, -Y]$	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[17]
18	$[-X, Z, Y]$	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[18]
19	$[-X, -Z, -Y]$	$\left[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[19]
20	$[X, -Z, Y]$	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[20]
21	$[Z, Y, -X]$	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[21]
22	$[Z, -Y, X]$	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[22]
23	$[-Z, Y, X]$	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[23]
24	$[-Z, -Y, -X]$	$\left[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[24]

* Wyckoff site: 8c, site symmetry: .3.

Table 9: Wyckoff bond: 8a@8c

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

Table 10: Wyckoff bond: 24b@8c

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, x, x]$	[1]
2	$[-X, -Y, Z]$	$\left[\frac{1}{2} - x, -x, x + \frac{1}{2}\right]$	[2]
3	$[-X, Y, -Z]$	$\left[-x, x + \frac{1}{2}, \frac{1}{2} - x\right]$	[3]
4	$[X, -Y, -Z]$	$\left[x + \frac{1}{2}, \frac{1}{2} - x, -x\right]$	[4]
5	$[Z, X, Y]$	$[x, x, x]$	[5]
6	$[Z, -X, -Y]$	$\left[x + \frac{1}{2}, \frac{1}{2} - x, -x\right]$	[6]
7	$[-Z, -X, Y]$	$\left[\frac{1}{2} - x, -x, x + \frac{1}{2}\right]$	[7]
8	$[-Z, X, -Y]$	$\left[-x, x + \frac{1}{2}, \frac{1}{2} - x\right]$	[8]
9	$[Y, Z, X]$	$[x, x, x]$	[9]
10	$[-Y, Z, -X]$	$\left[-x, x + \frac{1}{2}, \frac{1}{2} - x\right]$	[10]
11	$[Y, -Z, -X]$	$\left[x + \frac{1}{2}, \frac{1}{2} - x, -x\right]$	[11]
12	$[-Y, -Z, X]$	$\left[\frac{1}{2} - x, -x, x + \frac{1}{2}\right]$	[12]
13	$[Y, X, -Z]$	$\left[x + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{4} - x\right]$	[13]
14	$[-Y, -X, -Z]$	$\left[\frac{3}{4} - x, \frac{3}{4} - x, \frac{3}{4} - x\right]$	[14]

continued ...

Table 10

No.	vector	center	mapping
15	$[Y, -X, Z]$	$\left[x+\frac{1}{4}, \frac{1}{4}-x, x+\frac{3}{4}\right]$	`[15]`
16	$[-Y, X, Z]$	$\left[\frac{1}{4}-x, x+\frac{3}{4}, x+\frac{1}{4}\right]$	`[16]`
17	$[X, Z, -Y]$	$\left[x+\frac{3}{4}, x+\frac{1}{4}, \frac{1}{4}-x\right]$	`[17]`
18	$[-X, Z, Y]$	$\left[\frac{1}{4}-x, x+\frac{3}{4}, x+\frac{1}{4}\right]$	`[18]`
19	$[-X, -Z, -Y]$	$\left[\frac{3}{4}-x, \frac{3}{4}-x, \frac{3}{4}-x\right]$	`[19]`
20	$[X, -Z, Y]$	$\left[x+\frac{1}{4}, \frac{1}{4}-x, x+\frac{3}{4}\right]$	`[20]`
21	$[Z, Y, -X]$	$\left[x+\frac{3}{4}, x+\frac{1}{4}, \frac{1}{4}-x\right]$	`[21]`
22	$[Z, -Y, X]$	$\left[x+\frac{1}{4}, \frac{1}{4}-x, x+\frac{3}{4}\right]$	`[22]`
23	$[-Z, Y, X]$	$\left[\frac{1}{4}-x, x+\frac{3}{4}, x+\frac{1}{4}\right]$	`[23]`
24	$[-Z, -Y, -X]$	$\left[\frac{3}{4}-x, \frac{3}{4}-x, \frac{3}{4}-x\right]$	`[24]`

* Wyckoff site: `12d`, site symmetry: `..2`

Table 11: Wyckoff bond: `12a@12d`

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

Table 12: Wyckoff bond: `12b@12d`

No.	vector	center	mapping
1	$[0, X, X]$	$\left[\frac{1}{8}, y, y+\frac{1}{4}\right]$	`[1,18]`
2	$[0, -X, X]$	$\left[\frac{3}{8}, -y, y+\frac{3}{4}\right]$	`[2,20]`
3	$[0, X, -X]$	$\left[\frac{7}{8}, y+\frac{1}{2}, \frac{1}{4}-y\right]$	`[3,17]`
4	$[0, -X, -X]$	$\left[\frac{5}{8}, \frac{1}{2}-y, \frac{3}{4}-y\right]$	`[4,19]`
5	$[X, 0, X]$	$\left[y+\frac{1}{4}, \frac{1}{8}, y\right]$	`[5,15]`
6	$[X, 0, -X]$	$\left[y+\frac{3}{4}, \frac{3}{8}, -y\right]$	`[6,13]`
7	$[-X, 0, X]$	$\left[\frac{1}{4}-y, \frac{7}{8}, y+\frac{1}{2}\right]$	`[7,16]`
8	$[-X, 0, -X]$	$\left[\frac{3}{4}-y, \frac{5}{8}, \frac{1}{2}-y\right]$	`[8,14]`
9	$[X, X, 0]$	$\left[y, y+\frac{1}{4}, \frac{1}{8}\right]$	`[9,21]`
10	$[-X, X, 0]$	$\left[-y, y+\frac{3}{4}, \frac{3}{8}\right]$	`[10,23]`

continued ...

Table 12

No.	vector	center	mapping
11	$[X, -X, 0]$	$\left[y+\frac{1}{2}, \frac{1}{4}-y, \frac{7}{8}\right]$	[11,22]
12	$[-X, -X, 0]$	$\left[\frac{1}{2}-y, \frac{3}{4}-y, \frac{5}{8}\right]$	[12,24]

Table 13: Wyckoff bond: 24c@12d

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

* Wyckoff site: 24e, site symmetry: 1

Table 14: Wyckoff bond: 24a@24e

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, y, z]$	[1]
2	$[-X, -Y, Z]$	$\left[\frac{1}{2}-x, -y, z+\frac{1}{2}\right]$	[2]
3	$[-X, Y, -Z]$	$\left[-x, y+\frac{1}{2}, \frac{1}{2}-z\right]$	[3]
4	$[X, -Y, -Z]$	$\left[x+\frac{1}{2}, \frac{1}{2}-y, -z\right]$	[4]
5	$[Z, X, Y]$	$[z, x, y]$	[5]
6	$[Z, -X, -Y]$	$\left[z+\frac{1}{2}, \frac{1}{2}-x, -y\right]$	[6]

continued ...

Table 14

No.	vector	center	mapping
7	$[-Z, -X, Y]$	$\left[\frac{1}{2} - z, -x, y + \frac{1}{2}\right]$	[7]
8	$[-Z, X, -Y]$	$\left[-z, x + \frac{1}{2}, \frac{1}{2} - y\right]$	[8]
9	$[Y, Z, X]$	$[y, z, x]$	[9]
10	$[-Y, Z, -X]$	$\left[-y, z + \frac{1}{2}, \frac{1}{2} - x\right]$	[10]
11	$[Y, -Z, -X]$	$\left[y + \frac{1}{2}, \frac{1}{2} - z, -x\right]$	[11]
12	$[-Y, -Z, X]$	$\left[\frac{1}{2} - y, -z, x + \frac{1}{2}\right]$	[12]
13	$[Y, X, -Z]$	$\left[y + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{4} - z\right]$	[13]
14	$[-Y, -X, -Z]$	$\left[\frac{3}{4} - y, \frac{3}{4} - x, \frac{3}{4} - z\right]$	[14]
15	$[Y, -X, Z]$	$\left[y + \frac{1}{4}, \frac{1}{4} - x, z + \frac{3}{4}\right]$	[15]
16	$[-Y, X, Z]$	$\left[\frac{1}{4} - y, x + \frac{3}{4}, z + \frac{1}{4}\right]$	[16]
17	$[X, Z, -Y]$	$\left[x + \frac{3}{4}, z + \frac{1}{4}, \frac{1}{4} - y\right]$	[17]
18	$[-X, Z, Y]$	$\left[\frac{1}{4} - x, z + \frac{3}{4}, y + \frac{1}{4}\right]$	[18]
19	$[-X, -Z, -Y]$	$\left[\frac{3}{4} - x, \frac{3}{4} - z, \frac{3}{4} - y\right]$	[19]
20	$[X, -Z, Y]$	$\left[x + \frac{1}{4}, \frac{1}{4} - z, y + \frac{3}{4}\right]$	[20]
21	$[Z, Y, -X]$	$\left[z + \frac{3}{4}, y + \frac{1}{4}, \frac{1}{4} - x\right]$	[21]
22	$[Z, -Y, X]$	$\left[z + \frac{1}{4}, \frac{1}{4} - y, x + \frac{3}{4}\right]$	[22]
23	$[-Z, Y, X]$	$\left[\frac{1}{4} - z, y + \frac{3}{4}, x + \frac{1}{4}\right]$	[23]
24	$[-Z, -Y, -X]$	$\left[\frac{3}{4} - z, \frac{3}{4} - y, \frac{3}{4} - x\right]$	[24]