

SG No. 212 O^6 $P4_332$ [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]	$[\frac{1}{8}, \frac{1}{8}, \frac{1}{8}]$	[1, 5, 9, -14, -19, -24]
2	[-X, -X, X]	$[\frac{3}{8}, \frac{7}{8}, \frac{5}{8}]$	[2, 7, 12, -13, -17, -21]
3	[-X, X, -X]	$[\frac{7}{8}, \frac{5}{8}, \frac{3}{8}]$	[3, 8, 10, -15, -20, -22]
4	[X, -X, -X]	$[\frac{5}{8}, \frac{3}{8}, \frac{7}{8}]$	[4, 6, 11, -16, -18, -23]

Table 2: Wyckoff bond: 12b@4a

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

Table 3: Wyckoff bond: 12c@4a

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

Table 4: Wyckoff bond: 24d@4a

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

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

Table 5: Wyckoff bond: 4a@4b

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

Table 6: Wyckoff bond: 12b@4b

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

continued ...

Table 6

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

Table 7: Wyckoff bond: 12c@4b

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

Table 8: Wyckoff bond: 24d@4b

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

continued ...

Table 8

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

* Wyckoff site: 8c, site symmetry: $\bar{3}$.

Table 9: Wyckoff bond: 8a@8c

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

Table 10: Wyckoff bond: 24b@8c

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

continued ...

Table 10

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

* Wyckoff site: 12d, site symmetry: $\dots 2$

Table 11: Wyckoff bond: 12a@12d

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

Table 12: Wyckoff bond: 12b@12d

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

continued ...

Table 12

No.	vector	center	mapping
11	$[X, X, 0]$	$[y + \frac{1}{2}, y + \frac{1}{4}, \frac{7}{8}]$	[11,23]
12	$[-X, X, 0]$	$[\frac{1}{2} - y, y + \frac{3}{4}, \frac{5}{8}]$	[12,21]

Table 13: Wyckoff bond: 24c@12d

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

continued ...

Table 14

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