

Table 1: Wyckoff site: **6a**, site symmetry: $2'2'2$

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

Table 2: Wyckoff site: **6b**, site symmetry: $2'22'$

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

Table 3: Wyckoff site: **6c**, site symmetry: $2'2'2$

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

Table 4: Wyckoff site: **6d**, site symmetry: $2'22'$

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

Table 5: Wyckoff site: **12e**, site symmetry: $2'..$

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

Table 6: Wyckoff site: **12f**, site symmetry: $2'..$

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

Table 7: Wyckoff site: **12g**, site symmetry: $.2'$

No.	position	mapping
1	$[x, 0, \frac{3}{4}]$	$[1, 19]$
2	$[x, x, \frac{7}{12}]$	$[2, 22]$
3	$[0, x, \frac{5}{12}]$	$[3, 20]$
4	$[-x, 0, \frac{1}{4}]$	$[4, 23]$
5	$[-x, -x, \frac{1}{12}]$	$[5, 21]$
6	$[0, -x, \frac{11}{12}]$	$[6, 24]$
7	$[x, 0, \frac{1}{4}]$	$[7, 13]$
8	$[0, x, \frac{11}{12}]$	$[8, 15]$
9	$[-x, -x, \frac{7}{12}]$	$[9, 17]$

continued ...

Table 7

No.	position	mapping
10	$[x, x, \frac{1}{12}]$	[10,14]
11	$[-x, 0, \frac{3}{4}]$	[11,16]
12	$[0, -x, \frac{5}{12}]$	[12,18]

Table 8: Wyckoff site: 12h, site symmetry: $\cdot 2$.

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

Table 9: Wyckoff site: 12i, site symmetry: $\cdot \cdot 2$

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

Table 10: Wyckoff site: 12j, site symmetry: $\dots 2'$

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

Table 11: Wyckoff site: 24k, site symmetry: 1

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