

MSG No. 227.128 $Fd\bar{3}m$ [Type I, cubic]

Table 1: Wyckoff site: 8a, site symmetry: $-43m$

No.	position	mapping
1	$[\frac{1}{8}, \frac{1}{8}, \frac{1}{8}]$	[1, 8, 9, 10, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 35, 36, 37, 38, 39, 40]
2	$[\frac{3}{8}, \frac{7}{8}, \frac{3}{8}]$	[2, 7, 15, 33, 43, 48, 51, 52, 59, 82, 92, 93, 108, 110, 112, 121, 137, 138, 149, 150, 157, 176, 190, 191]
3	$[\frac{3}{8}, \frac{3}{8}, \frac{7}{8}]$	[3, 4, 11, 34, 44, 45, 50, 55, 63, 81, 91, 96, 101, 102, 109, 128, 142, 143, 156, 158, 160, 169, 185, 186]
4	$[\frac{7}{8}, \frac{3}{8}, \frac{3}{8}]$	[5, 6, 13, 32, 46, 47, 60, 62, 64, 73, 89, 90, 99, 100, 107, 130, 140, 141, 146, 151, 159, 177, 187, 192]
5	$[\frac{7}{8}, \frac{7}{8}, \frac{7}{8}]$	[12, 14, 16, 25, 41, 42, 53, 54, 61, 80, 94, 95, 98, 103, 111, 129, 139, 144, 147, 148, 155, 178, 188, 189]
6	$[\frac{1}{8}, \frac{5}{8}, \frac{5}{8}]$	[49, 56, 57, 58, 65, 66, 67, 68, 69, 70, 71, 72, 74, 75, 76, 77, 78, 79, 83, 84, 85, 86, 87, 88]
7	$[\frac{5}{8}, \frac{1}{8}, \frac{5}{8}]$	[97, 104, 105, 106, 113, 114, 115, 116, 117, 118, 119, 120, 122, 123, 124, 125, 126, 127, 131, 132, 133, 134, 135, 136]
8	$[\frac{5}{8}, \frac{5}{8}, \frac{1}{8}]$	[145, 152, 153, 154, 161, 162, 163, 164, 165, 166, 167, 168, 170, 171, 172, 173, 174, 175, 179, 180, 181, 182, 183, 184]

Table 2: Wyckoff site: 8b, site symmetry: $-43m$

No.	position	mapping
1	$[\frac{3}{8}, \frac{3}{8}, \frac{3}{8}]$	[1, 17, 18, 36, 38, 40, 56, 70, 71, 77, 78, 85, 105, 115, 120, 122, 127, 135, 154, 164, 165, 171, 172, 179]
2	$[\frac{5}{8}, \frac{5}{8}, \frac{5}{8}]$	[2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 16, 25, 32, 33, 34, 41, 42, 43, 44, 45, 46, 47, 48]
3	$[\frac{3}{8}, \frac{7}{8}, \frac{7}{8}]$	[8, 22, 23, 29, 30, 37, 49, 65, 66, 84, 86, 88, 106, 116, 117, 123, 124, 131, 153, 163, 168, 170, 175, 183]
4	$[\frac{7}{8}, \frac{3}{8}, \frac{7}{8}]$	[9, 19, 24, 26, 31, 39, 58, 68, 69, 75, 76, 83, 97, 113, 114, 132, 134, 136, 152, 166, 167, 173, 174, 181]
5	$[\frac{7}{8}, \frac{7}{8}, \frac{3}{8}]$	[10, 20, 21, 27, 28, 35, 57, 67, 72, 74, 79, 87, 104, 118, 119, 125, 126, 133, 145, 161, 162, 180, 182, 184]
6	$[\frac{5}{8}, \frac{1}{8}, \frac{1}{8}]$	[50, 51, 52, 53, 54, 55, 59, 60, 61, 62, 63, 64, 73, 80, 81, 82, 89, 90, 91, 92, 93, 94, 95, 96]
7	$[\frac{1}{8}, \frac{5}{8}, \frac{1}{8}]$	[98, 99, 100, 101, 102, 103, 107, 108, 109, 110, 111, 112, 121, 128, 129, 130, 137, 138, 139, 140, 141, 142, 143, 144]
8	$[\frac{1}{8}, \frac{1}{8}, \frac{5}{8}]$	[146, 147, 148, 149, 150, 151, 155, 156, 157, 158, 159, 160, 169, 176, 177, 178, 185, 186, 187, 188, 189, 190, 191, 192]

Table 3: Wyckoff site: 16c, site symmetry: $.-3m$

No.	position	mapping
1	[0, 0, 0]	[1, 12, 14, 16, 17, 18, 25, 36, 38, 40, 41, 42]
2	$[\frac{1}{4}, 0, \frac{1}{4}]$	[2, 7, 9, 15, 19, 24, 26, 31, 33, 39, 43, 48]
3	$[\frac{1}{4}, \frac{1}{4}, 0]$	[3, 4, 10, 11, 20, 21, 27, 28, 34, 35, 44, 45]
4	$[0, \frac{1}{4}, \frac{1}{4}]$	[5, 6, 8, 13, 22, 23, 29, 30, 32, 37, 46, 47]
5	$[0, \frac{1}{2}, \frac{1}{2}]$	[49, 60, 62, 64, 65, 66, 73, 84, 86, 88, 89, 90]
6	$[\frac{1}{4}, \frac{1}{2}, \frac{3}{4}]$	[50, 55, 57, 63, 67, 72, 74, 79, 81, 87, 91, 96]
7	$[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}]$	[51, 52, 58, 59, 68, 69, 75, 76, 82, 83, 92, 93]
8	$[0, \frac{3}{4}, \frac{3}{4}]$	[53, 54, 56, 61, 70, 71, 77, 78, 80, 85, 94, 95]
9	$[\frac{1}{2}, 0, \frac{1}{2}]$	[97, 108, 110, 112, 113, 114, 121, 132, 134, 136, 137, 138]
10	$[\frac{3}{4}, 0, \frac{3}{4}]$	[98, 103, 105, 111, 115, 120, 122, 127, 129, 135, 139, 144]
11	$[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}]$	[99, 100, 106, 107, 116, 117, 123, 124, 130, 131, 140, 141]
12	$[\frac{1}{2}, \frac{1}{4}, \frac{3}{4}]$	[101, 102, 104, 109, 118, 119, 125, 126, 128, 133, 142, 143]
13	$[\frac{1}{2}, \frac{1}{2}, 0]$	[145, 156, 158, 160, 161, 162, 169, 180, 182, 184, 185, 186]
14	$[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}]$	[146, 151, 153, 159, 163, 168, 170, 175, 177, 183, 187, 192]
15	$[\frac{3}{4}, \frac{3}{4}, 0]$	[147, 148, 154, 155, 164, 165, 171, 172, 178, 179, 188, 189]

continued ...

Table 3

No.	position	mapping
16	$[\frac{1}{2}, \frac{3}{4}, \frac{1}{4}]$	[149, 150, 152, 157, 166, 167, 173, 174, 176, 181, 190, 191]

Table 4: Wyckoff site: 16d, site symmetry: $\cdot -3m$

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$	[1, 12, 14, 16, 17, 18, 25, 36, 38, 40, 41, 42]
2	$[\frac{3}{4}, \frac{1}{2}, \frac{3}{4}]$	[2, 7, 9, 15, 19, 24, 26, 31, 33, 39, 43, 48]
3	$[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}]$	[3, 4, 10, 11, 20, 21, 27, 28, 34, 35, 44, 45]
4	$[\frac{1}{2}, \frac{3}{4}, \frac{3}{4}]$	[5, 6, 8, 13, 22, 23, 29, 30, 32, 37, 46, 47]
5	$[\frac{1}{2}, 0, 0]$	[49, 60, 62, 64, 65, 66, 73, 84, 86, 88, 89, 90]
6	$[\frac{3}{4}, 0, \frac{1}{4}]$	[50, 55, 57, 63, 67, 72, 74, 79, 81, 87, 91, 96]
7	$[\frac{3}{4}, \frac{1}{4}, 0]$	[51, 52, 58, 59, 68, 69, 75, 76, 82, 83, 92, 93]
8	$[\frac{1}{2}, \frac{1}{4}, \frac{1}{4}]$	[53, 54, 56, 61, 70, 71, 77, 78, 80, 85, 94, 95]
9	$[0, \frac{1}{2}, 0]$	[97, 108, 110, 112, 113, 114, 121, 132, 134, 136, 137, 138]
10	$[\frac{1}{4}, \frac{1}{2}, \frac{1}{4}]$	[98, 103, 105, 111, 115, 120, 122, 127, 129, 135, 139, 144]
11	$[\frac{1}{4}, \frac{3}{4}, 0]$	[99, 100, 106, 107, 116, 117, 123, 124, 130, 131, 140, 141]
12	$[0, \frac{3}{4}, \frac{1}{4}]$	[101, 102, 104, 109, 118, 119, 125, 126, 128, 133, 142, 143]
13	$[0, 0, \frac{1}{2}]$	[145, 156, 158, 160, 161, 162, 169, 180, 182, 184, 185, 186]
14	$[\frac{1}{4}, 0, \frac{3}{4}]$	[146, 151, 153, 159, 163, 168, 170, 175, 177, 183, 187, 192]
15	$[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}]$	[147, 148, 154, 155, 164, 165, 171, 172, 178, 179, 188, 189]
16	$[0, \frac{1}{4}, \frac{3}{4}]$	[149, 150, 152, 157, 166, 167, 173, 174, 176, 181, 190, 191]

Table 5: Wyckoff site: 32e, site symmetry: $\cdot 3m$

No.	position	mapping
1	$[x, x, x]$	[1, 17, 18, 36, 38, 40]
2	$[x + \frac{1}{4}, -x, x + \frac{1}{4}]$	[2, 7, 15, 33, 43, 48]
3	$[x + \frac{1}{4}, x + \frac{1}{4}, -x]$	[3, 4, 11, 34, 44, 45]
4	$[-x, x + \frac{1}{4}, x + \frac{1}{4}]$	[5, 6, 13, 32, 46, 47]
5	$[x, \frac{1}{4} - x, \frac{1}{4} - x]$	[8, 22, 23, 29, 30, 37]
6	$[\frac{1}{4} - x, x, \frac{1}{4} - x]$	[9, 19, 24, 26, 31, 39]
7	$[\frac{1}{4} - x, \frac{1}{4} - x, x]$	[10, 20, 21, 27, 28, 35]
8	$[-x, -x, -x]$	[12, 14, 16, 25, 41, 42]
9	$[x, x + \frac{1}{2}, x + \frac{1}{2}]$	[49, 65, 66, 84, 86, 88]
10	$[x + \frac{1}{4}, \frac{1}{2} - x, x + \frac{3}{4}]$	[50, 55, 63, 81, 91, 96]
11	$[x + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - x]$	[51, 52, 59, 82, 92, 93]
12	$[-x, x + \frac{3}{4}, x + \frac{3}{4}]$	[53, 54, 61, 80, 94, 95]
13	$[x, \frac{3}{4} - x, \frac{3}{4} - x]$	[56, 70, 71, 77, 78, 85]
14	$[\frac{1}{4} - x, x + \frac{1}{2}, \frac{3}{4} - x]$	[57, 67, 72, 74, 79, 87]
15	$[\frac{1}{4} - x, \frac{3}{4} - x, x + \frac{1}{2}]$	[58, 68, 69, 75, 76, 83]
16	$[-x, \frac{1}{2} - x, \frac{1}{2} - x]$	[60, 62, 64, 73, 89, 90]
17	$[x + \frac{1}{2}, x, x + \frac{1}{2}]$	[97, 113, 114, 132, 134, 136]

continued ...

Table 5

No.	position	mapping
18	$[x + \frac{3}{4}, -x, x + \frac{3}{4}]$	[98, 103, 111, 129, 139, 144]
19	$[x + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - x]$	[99, 100, 107, 130, 140, 141]
20	$[\frac{1}{2} - x, x + \frac{1}{4}, x + \frac{3}{4}]$	[101, 102, 109, 128, 142, 143]
21	$[x + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - x]$	[104, 118, 119, 125, 126, 133]
22	$[\frac{3}{4} - x, x, \frac{3}{4} - x]$	[105, 115, 120, 122, 127, 135]
23	$[\frac{3}{4} - x, \frac{1}{4} - x, x + \frac{1}{2}]$	[106, 116, 117, 123, 124, 131]
24	$[\frac{1}{2} - x, -x, \frac{1}{2} - x]$	[108, 110, 112, 121, 137, 138]
25	$[x + \frac{1}{2}, x + \frac{1}{2}, x]$	[145, 161, 162, 180, 182, 184]
26	$[x + \frac{3}{4}, \frac{1}{2} - x, x + \frac{1}{4}]$	[146, 151, 159, 177, 187, 192]
27	$[x + \frac{3}{4}, x + \frac{3}{4}, -x]$	[147, 148, 155, 178, 188, 189]
28	$[\frac{1}{2} - x, x + \frac{3}{4}, x + \frac{1}{4}]$	[149, 150, 157, 176, 190, 191]
29	$[x + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - x]$	[152, 166, 167, 173, 174, 181]
30	$[\frac{3}{4} - x, x + \frac{1}{2}, \frac{1}{4} - x]$	[153, 163, 168, 170, 175, 183]
31	$[\frac{3}{4} - x, \frac{3}{4} - x, x]$	[154, 164, 165, 171, 172, 179]
32	$[\frac{1}{2} - x, \frac{1}{2} - x, -x]$	[156, 158, 160, 169, 185, 186]

Table 6: Wyckoff site: 48f, site symmetry: 2.mm

No.	position	mapping
1	$[x, \frac{1}{8}, \frac{1}{8}]$	[1, 8, 37, 38]
2	$[x + \frac{1}{4}, \frac{7}{8}, \frac{3}{8}]$	[2, 33, 51, 82]
3	$[x + \frac{1}{4}, \frac{3}{8}, \frac{7}{8}]$	[3, 34, 50, 81]
4	$[\frac{3}{8}, \frac{3}{8}, -x]$	[4, 45, 160, 186]
5	$[\frac{7}{8}, \frac{3}{8}, x + \frac{1}{4}]$	[5, 47, 159, 187]
6	$[\frac{7}{8}, x + \frac{1}{4}, \frac{3}{8}]$	[6, 46, 107, 140]
7	$[\frac{3}{8}, -x, \frac{3}{8}]$	[7, 48, 108, 137]
8	$[\frac{1}{4} - x, \frac{1}{8}, \frac{1}{8}]$	[9, 10, 26, 27]
9	$[\frac{3}{8}, x + \frac{1}{4}, \frac{7}{8}]$	[11, 44, 102, 142]
10	$[\frac{7}{8}, -x, \frac{7}{8}]$	[12, 41, 103, 144]
11	$[-x, \frac{3}{8}, \frac{3}{8}]$	[13, 32, 62, 73]
12	$[-x, \frac{7}{8}, \frac{7}{8}]$	[14, 25, 61, 80]
13	$[\frac{3}{8}, \frac{7}{8}, x + \frac{1}{4}]$	[15, 43, 149, 191]
14	$[\frac{7}{8}, \frac{7}{8}, -x]$	[16, 42, 148, 189]
15	$[\frac{1}{8}, x, \frac{1}{8}]$	[17, 24, 31, 36]
16	$[\frac{1}{8}, \frac{1}{8}, x]$	[18, 21, 28, 40]
17	$[\frac{1}{8}, \frac{1}{8}, \frac{1}{4} - x]$	[19, 23, 29, 39]
18	$[\frac{1}{8}, \frac{1}{4} - x, \frac{1}{8}]$	[20, 22, 30, 35]
19	$[x, \frac{5}{8}, \frac{5}{8}]$	[49, 56, 85, 86]
20	$[\frac{3}{8}, \frac{7}{8}, \frac{1}{2} - x]$	[52, 93, 112, 138]
21	$[\frac{7}{8}, \frac{7}{8}, x + \frac{3}{4}]$	[53, 95, 111, 139]
22	$[\frac{7}{8}, x + \frac{3}{4}, \frac{7}{8}]$	[54, 94, 155, 188]
23	$[\frac{3}{8}, \frac{1}{2} - x, \frac{7}{8}]$	[55, 96, 156, 185]
24	$[\frac{1}{4} - x, \frac{5}{8}, \frac{5}{8}]$	[57, 58, 74, 75]
25	$[\frac{3}{8}, x + \frac{3}{4}, \frac{3}{8}]$	[59, 92, 150, 190]

continued ...

Table 6

No.	position	mapping
26	$[\frac{7}{8}, \frac{1}{2} - x, \frac{3}{8}]$	[60, 89, 151, 192]
27	$[\frac{3}{8}, \frac{3}{8}, x + \frac{3}{4}]$	[63, 91, 101, 143]
28	$[\frac{7}{8}, \frac{3}{8}, \frac{1}{2} - x]$	[64, 90, 100, 141]
29	$[\frac{1}{8}, x + \frac{1}{2}, \frac{5}{8}]$	[65, 72, 79, 84]
30	$[\frac{1}{8}, \frac{5}{8}, x + \frac{1}{2}]$	[66, 69, 76, 88]
31	$[\frac{1}{8}, \frac{5}{8}, \frac{3}{4} - x]$	[67, 71, 77, 87]
32	$[\frac{1}{8}, \frac{3}{4} - x, \frac{5}{8}]$	[68, 70, 78, 83]
33	$[x + \frac{1}{2}, \frac{1}{8}, \frac{5}{8}]$	[97, 104, 133, 134]
34	$[x + \frac{3}{4}, \frac{7}{8}, \frac{7}{8}]$	[98, 129, 147, 178]
35	$[x + \frac{3}{4}, \frac{3}{8}, \frac{3}{8}]$	[99, 130, 146, 177]
36	$[\frac{3}{4} - x, \frac{1}{8}, \frac{5}{8}]$	[105, 106, 122, 123]
37	$[\frac{1}{2} - x, \frac{3}{8}, \frac{7}{8}]$	[109, 128, 158, 169]
38	$[\frac{1}{2} - x, \frac{7}{8}, \frac{3}{8}]$	[110, 121, 157, 176]
39	$[\frac{5}{8}, x, \frac{5}{8}]$	[113, 120, 127, 132]
40	$[\frac{5}{8}, \frac{1}{8}, x + \frac{1}{2}]$	[114, 117, 124, 136]
41	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{4} - x]$	[115, 119, 125, 135]
42	$[\frac{5}{8}, \frac{1}{4} - x, \frac{5}{8}]$	[116, 118, 126, 131]
43	$[x + \frac{1}{2}, \frac{5}{8}, \frac{1}{8}]$	[145, 152, 181, 182]
44	$[\frac{3}{4} - x, \frac{5}{8}, \frac{1}{8}]$	[153, 154, 170, 171]
45	$[\frac{5}{8}, x + \frac{1}{2}, \frac{1}{8}]$	[161, 168, 175, 180]
46	$[\frac{5}{8}, \frac{5}{8}, x]$	[162, 165, 172, 184]
47	$[\frac{5}{8}, \frac{5}{8}, \frac{1}{4} - x]$	[163, 167, 173, 183]
48	$[\frac{5}{8}, \frac{3}{4} - x, \frac{1}{8}]$	[164, 166, 174, 179]

Table 7: Wyckoff site: 96g, site symmetry: . . m

No.	position	mapping
1	$[x, x, z]$	[1, 36]
2	$[x + \frac{1}{4}, -z, x + \frac{1}{4}]$	[2, 43]
3	$[x + \frac{1}{4}, z + \frac{1}{4}, -x]$	[3, 45]
4	$[z + \frac{1}{4}, x + \frac{1}{4}, -x]$	[4, 44]
5	$[-z, x + \frac{1}{4}, x + \frac{1}{4}]$	[5, 46]
6	$[-x, x + \frac{1}{4}, z + \frac{1}{4}]$	[6, 32]
7	$[x + \frac{1}{4}, -x, z + \frac{1}{4}]$	[7, 33]
8	$[x, \frac{1}{4} - x, \frac{1}{4} - z]$	[8, 30]
9	$[\frac{1}{4} - x, x, \frac{1}{4} - z]$	[9, 31]
10	$[\frac{1}{4} - x, \frac{1}{4} - x, z]$	[10, 35]
11	$[x + \frac{1}{4}, x + \frac{1}{4}, -z]$	[11, 34]
12	$[-x, -x, -z]$	[12, 25]
13	$[-x, z + \frac{1}{4}, x + \frac{1}{4}]$	[13, 47]
14	$[-x, -z, -x]$	[14, 42]
15	$[z + \frac{1}{4}, -x, x + \frac{1}{4}]$	[15, 48]
16	$[-z, -x, -x]$	[16, 41]
17	$[z, x, x]$	[17, 40]

continued ...

Table 7

No.	position	mapping
18	$[x, z, x]$	[18, 38]
19	$[\frac{1}{4} - x, z, \frac{1}{4} - x]$	[19, 26]
20	$[\frac{1}{4} - z, \frac{1}{4} - x, x]$	[20, 28]
21	$[\frac{1}{4} - x, \frac{1}{4} - z, x]$	[21, 27]
22	$[z, \frac{1}{4} - x, \frac{1}{4} - x]$	[22, 29]
23	$[x, \frac{1}{4} - z, \frac{1}{4} - x]$	[23, 37]
24	$[\frac{1}{4} - z, x, \frac{1}{4} - x]$	[24, 39]
25	$[x, x + \frac{1}{2}, z + \frac{1}{2}]$	[49, 84]
26	$[x + \frac{1}{4}, \frac{1}{2} - z, x + \frac{3}{4}]$	[50, 91]
27	$[x + \frac{1}{4}, z + \frac{3}{4}, \frac{1}{2} - x]$	[51, 93]
28	$[z + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - x]$	[52, 92]
29	$[-z, x + \frac{3}{4}, x + \frac{3}{4}]$	[53, 94]
30	$[-x, x + \frac{3}{4}, z + \frac{3}{4}]$	[54, 80]
31	$[x + \frac{1}{4}, \frac{1}{2} - x, z + \frac{3}{4}]$	[55, 81]
32	$[x, \frac{3}{4} - x, \frac{3}{4} - z]$	[56, 78]
33	$[\frac{1}{4} - x, x + \frac{1}{2}, \frac{3}{4} - z]$	[57, 79]
34	$[\frac{1}{4} - x, \frac{3}{4} - x, z + \frac{1}{2}]$	[58, 83]
35	$[x + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - z]$	[59, 82]
36	$[-x, \frac{1}{2} - x, \frac{1}{2} - z]$	[60, 73]
37	$[-x, z + \frac{3}{4}, x + \frac{3}{4}]$	[61, 95]
38	$[-x, \frac{1}{2} - z, \frac{1}{2} - x]$	[62, 90]
39	$[z + \frac{1}{4}, \frac{1}{2} - x, x + \frac{3}{4}]$	[63, 96]
40	$[-z, \frac{1}{2} - x, \frac{1}{2} - x]$	[64, 89]
41	$[z, x + \frac{1}{2}, x + \frac{1}{2}]$	[65, 88]
42	$[x, z + \frac{1}{2}, x + \frac{1}{2}]$	[66, 86]
43	$[\frac{1}{4} - x, z + \frac{1}{2}, \frac{3}{4} - x]$	[67, 74]
44	$[\frac{1}{4} - z, \frac{3}{4} - x, x + \frac{1}{2}]$	[68, 76]
45	$[\frac{1}{4} - x, \frac{3}{4} - z, x + \frac{1}{2}]$	[69, 75]
46	$[z, \frac{3}{4} - x, \frac{3}{4} - x]$	[70, 77]
47	$[x, \frac{3}{4} - z, \frac{3}{4} - x]$	[71, 85]
48	$[\frac{1}{4} - z, x + \frac{1}{2}, \frac{3}{4} - x]$	[72, 87]
49	$[x + \frac{1}{2}, x, z + \frac{1}{2}]$	[97, 132]
50	$[x + \frac{3}{4}, -z, x + \frac{3}{4}]$	[98, 139]
51	$[x + \frac{3}{4}, z + \frac{1}{4}, \frac{1}{2} - x]$	[99, 141]
52	$[z + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - x]$	[100, 140]
53	$[\frac{1}{2} - z, x + \frac{1}{4}, x + \frac{3}{4}]$	[101, 142]
54	$[\frac{1}{2} - x, x + \frac{1}{4}, z + \frac{3}{4}]$	[102, 128]
55	$[x + \frac{3}{4}, -x, z + \frac{3}{4}]$	[103, 129]
56	$[x + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - z]$	[104, 126]
57	$[\frac{3}{4} - x, x, \frac{3}{4} - z]$	[105, 127]
58	$[\frac{3}{4} - x, \frac{1}{4} - x, z + \frac{1}{2}]$	[106, 131]
59	$[x + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - z]$	[107, 130]
60	$[\frac{1}{2} - x, -x, \frac{1}{2} - z]$	[108, 121]
61	$[\frac{1}{2} - x, z + \frac{1}{4}, x + \frac{3}{4}]$	[109, 143]
62	$[\frac{1}{2} - x, -z, \frac{1}{2} - x]$	[110, 138]
63	$[z + \frac{3}{4}, -x, x + \frac{3}{4}]$	[111, 144]
64	$[\frac{1}{2} - z, -x, \frac{1}{2} - x]$	[112, 137]

continued ...

Table 7

No.	position	mapping
65	$[z + \frac{1}{2}, x, x + \frac{1}{2}]$	[113, 136]
66	$[x + \frac{1}{2}, z, x + \frac{1}{2}]$	[114, 134]
67	$[\frac{3}{4} - x, z, \frac{3}{4} - x]$	[115, 122]
68	$[\frac{3}{4} - z, \frac{1}{4} - x, x + \frac{1}{2}]$	[116, 124]
69	$[\frac{3}{4} - x, \frac{1}{4} - z, x + \frac{1}{2}]$	[117, 123]
70	$[z + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - x]$	[118, 125]
71	$[x + \frac{1}{2}, \frac{1}{4} - z, \frac{3}{4} - x]$	[119, 133]
72	$[\frac{3}{4} - z, x, \frac{3}{4} - x]$	[120, 135]
73	$[x + \frac{1}{2}, x + \frac{1}{2}, z]$	[145, 180]
74	$[x + \frac{3}{4}, \frac{1}{2} - z, x + \frac{1}{4}]$	[146, 187]
75	$[x + \frac{3}{4}, z + \frac{3}{4}, -x]$	[147, 189]
76	$[z + \frac{3}{4}, x + \frac{3}{4}, -x]$	[148, 188]
77	$[\frac{1}{2} - z, x + \frac{3}{4}, x + \frac{1}{4}]$	[149, 190]
78	$[\frac{1}{2} - x, x + \frac{3}{4}, z + \frac{1}{4}]$	[150, 176]
79	$[x + \frac{3}{4}, \frac{1}{2} - x, z + \frac{1}{4}]$	[151, 177]
80	$[x + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - z]$	[152, 174]
81	$[\frac{3}{4} - x, x + \frac{1}{2}, \frac{1}{4} - z]$	[153, 175]
82	$[\frac{3}{4} - x, \frac{3}{4} - x, z]$	[154, 179]
83	$[x + \frac{3}{4}, x + \frac{3}{4}, -z]$	[155, 178]
84	$[\frac{1}{2} - x, \frac{1}{2} - x, -z]$	[156, 169]
85	$[\frac{1}{2} - x, z + \frac{3}{4}, x + \frac{1}{4}]$	[157, 191]
86	$[\frac{1}{2} - x, \frac{1}{2} - z, -x]$	[158, 186]
87	$[z + \frac{3}{4}, \frac{1}{2} - x, x + \frac{1}{4}]$	[159, 192]
88	$[\frac{1}{2} - z, \frac{1}{2} - x, -x]$	[160, 185]
89	$[z + \frac{1}{2}, x + \frac{1}{2}, x]$	[161, 184]
90	$[x + \frac{1}{2}, z + \frac{1}{2}, x]$	[162, 182]
91	$[\frac{3}{4} - x, z + \frac{1}{2}, \frac{1}{4} - x]$	[163, 170]
92	$[\frac{3}{4} - z, \frac{3}{4} - x, x]$	[164, 172]
93	$[\frac{3}{4} - x, \frac{3}{4} - z, x]$	[165, 171]
94	$[z + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - x]$	[166, 173]
95	$[x + \frac{1}{2}, \frac{3}{4} - z, \frac{1}{4} - x]$	[167, 181]
96	$[\frac{3}{4} - z, x + \frac{1}{2}, \frac{1}{4} - x]$	[168, 183]

Table 8: Wyckoff site: 96h, site symmetry: $\dots 2$

No.	position	mapping
1	$[0, y, -y]$	[1, 14]
2	$[\frac{1}{4}, y, y + \frac{1}{4}]$	[2, 9]
3	$[\frac{1}{4}, \frac{1}{4} - y, -y]$	[3, 10]
4	$[\frac{1}{4} - y, y + \frac{1}{4}, 0]$	[4, 21]
5	$[y, y + \frac{1}{4}, \frac{1}{4}]$	[5, 23]
6	$[-y, \frac{1}{4}, \frac{1}{4} - y]$	[6, 22]
7	$[y + \frac{1}{4}, 0, \frac{1}{4} - y]$	[7, 24]
8	$[0, \frac{1}{4} - y, y + \frac{1}{4}]$	[8, 13]

continued ...

Table 8

No.	position	mapping
9	$[y + \frac{1}{4}, \frac{1}{4}, y]$	[11, 20]
10	$[-y, 0, y]$	[12, 17]
11	$[\frac{1}{4} - y, -y, \frac{1}{4}]$	[15, 19]
12	$[y, -y, 0]$	[16, 18]
13	$[0, -y, y]$	[25, 38]
14	$[\frac{1}{4}, -y, \frac{1}{4} - y]$	[26, 33]
15	$[\frac{1}{4}, y + \frac{1}{4}, y]$	[27, 34]
16	$[y + \frac{1}{4}, \frac{1}{4} - y, 0]$	[28, 45]
17	$[-y, \frac{1}{4} - y, \frac{1}{4}]$	[29, 47]
18	$[y, \frac{1}{4}, y + \frac{1}{4}]$	[30, 46]
19	$[\frac{1}{4} - y, 0, y + \frac{1}{4}]$	[31, 48]
20	$[0, y + \frac{1}{4}, \frac{1}{4} - y]$	[32, 37]
21	$[\frac{1}{4} - y, \frac{1}{4}, -y]$	[35, 44]
22	$[y, 0, -y]$	[36, 41]
23	$[y + \frac{1}{4}, y, \frac{1}{4}]$	[39, 43]
24	$[-y, y, 0]$	[40, 42]
25	$[0, y + \frac{1}{2}, \frac{1}{2} - y]$	[49, 62]
26	$[\frac{1}{4}, y + \frac{1}{2}, y + \frac{3}{4}]$	[50, 57]
27	$[\frac{1}{4}, \frac{3}{4} - y, \frac{1}{2} - y]$	[51, 58]
28	$[\frac{1}{4} - y, y + \frac{3}{4}, \frac{1}{2}]$	[52, 69]
29	$[y, y + \frac{3}{4}, \frac{3}{4}]$	[53, 71]
30	$[-y, \frac{3}{4}, \frac{3}{4} - y]$	[54, 70]
31	$[y + \frac{1}{4}, \frac{1}{2}, \frac{3}{4} - y]$	[55, 72]
32	$[0, \frac{3}{4} - y, y + \frac{3}{4}]$	[56, 61]
33	$[y + \frac{1}{4}, \frac{3}{4}, y + \frac{1}{2}]$	[59, 68]
34	$[-y, \frac{1}{2}, y + \frac{1}{2}]$	[60, 65]
35	$[\frac{1}{4} - y, \frac{1}{2} - y, \frac{3}{4}]$	[63, 67]
36	$[y, \frac{1}{2} - y, \frac{1}{2}]$	[64, 66]
37	$[0, \frac{1}{2} - y, y + \frac{1}{2}]$	[73, 86]
38	$[\frac{1}{4}, \frac{1}{2} - y, \frac{3}{4} - y]$	[74, 81]
39	$[\frac{1}{4}, y + \frac{3}{4}, y + \frac{1}{2}]$	[75, 82]
40	$[y + \frac{1}{4}, \frac{3}{4} - y, \frac{1}{2}]$	[76, 93]
41	$[-y, \frac{3}{4} - y, \frac{3}{4}]$	[77, 95]
42	$[y, \frac{3}{4}, y + \frac{3}{4}]$	[78, 94]
43	$[\frac{1}{4} - y, \frac{1}{2}, y + \frac{3}{4}]$	[79, 96]
44	$[0, y + \frac{3}{4}, \frac{3}{4} - y]$	[80, 85]
45	$[\frac{1}{4} - y, \frac{3}{4}, \frac{1}{2} - y]$	[83, 92]
46	$[y, \frac{1}{2}, \frac{1}{2} - y]$	[84, 89]
47	$[y + \frac{1}{4}, y + \frac{1}{2}, \frac{3}{4}]$	[87, 91]
48	$[-y, y + \frac{1}{2}, \frac{1}{2}]$	[88, 90]
49	$[\frac{1}{2}, y, \frac{1}{2} - y]$	[97, 110]
50	$[\frac{3}{4}, y, y + \frac{3}{4}]$	[98, 105]
51	$[\frac{3}{4}, \frac{1}{4} - y, \frac{1}{2} - y]$	[99, 106]
52	$[\frac{3}{4} - y, y + \frac{1}{4}, \frac{1}{2}]$	[100, 117]
53	$[y + \frac{1}{2}, y + \frac{1}{4}, \frac{3}{4}]$	[101, 119]
54	$[\frac{1}{2} - y, \frac{1}{4}, \frac{3}{4} - y]$	[102, 118]
55	$[y + \frac{3}{4}, 0, \frac{3}{4} - y]$	[103, 120]

continued ...

Table 8

No.	position	mapping
56	$[\frac{1}{2}, \frac{1}{4} - y, y + \frac{3}{4}]$	[104,109]
57	$[y + \frac{3}{4}, \frac{1}{4}, y + \frac{1}{2}]$	[107,116]
58	$[\frac{1}{2} - y, 0, y + \frac{1}{2}]$	[108,113]
59	$[\frac{3}{4} - y, -y, \frac{3}{4}]$	[111,115]
60	$[y + \frac{1}{2}, -y, \frac{1}{2}]$	[112,114]
61	$[\frac{1}{2}, -y, y + \frac{1}{2}]$	[121,134]
62	$[\frac{3}{4}, -y, \frac{3}{4} - y]$	[122,129]
63	$[\frac{3}{4}, y + \frac{1}{4}, y + \frac{1}{2}]$	[123,130]
64	$[y + \frac{3}{4}, \frac{1}{4} - y, \frac{1}{2}]$	[124,141]
65	$[\frac{1}{2} - y, \frac{1}{4} - y, \frac{3}{4}]$	[125,143]
66	$[y + \frac{1}{2}, \frac{1}{4}, y + \frac{3}{4}]$	[126,142]
67	$[\frac{3}{4} - y, 0, y + \frac{3}{4}]$	[127,144]
68	$[\frac{1}{2}, y + \frac{1}{4}, \frac{3}{4} - y]$	[128,133]
69	$[\frac{3}{4} - y, \frac{1}{4}, \frac{1}{2} - y]$	[131,140]
70	$[y + \frac{1}{2}, 0, \frac{1}{2} - y]$	[132,137]
71	$[y + \frac{3}{4}, y, \frac{3}{4}]$	[135,139]
72	$[\frac{1}{2} - y, y, \frac{1}{2}]$	[136,138]
73	$[\frac{1}{2}, y + \frac{1}{2}, -y]$	[145,158]
74	$[\frac{3}{4}, y + \frac{1}{2}, y + \frac{1}{4}]$	[146,153]
75	$[\frac{3}{4}, \frac{3}{4} - y, -y]$	[147,154]
76	$[\frac{3}{4} - y, y + \frac{3}{4}, 0]$	[148,165]
77	$[y + \frac{1}{2}, y + \frac{3}{4}, \frac{1}{4}]$	[149,167]
78	$[\frac{1}{2} - y, \frac{3}{4}, \frac{1}{4} - y]$	[150,166]
79	$[y + \frac{3}{4}, \frac{1}{2}, \frac{1}{4} - y]$	[151,168]
80	$[\frac{1}{2}, \frac{3}{4} - y, y + \frac{1}{4}]$	[152,157]
81	$[y + \frac{3}{4}, \frac{3}{4}, y]$	[155,164]
82	$[\frac{1}{2} - y, \frac{1}{2}, y]$	[156,161]
83	$[\frac{3}{4} - y, \frac{1}{2} - y, \frac{1}{4}]$	[159,163]
84	$[y + \frac{1}{2}, \frac{1}{2} - y, 0]$	[160,162]
85	$[\frac{1}{2}, \frac{1}{2} - y, y]$	[169,182]
86	$[\frac{3}{4}, \frac{1}{2} - y, \frac{1}{4} - y]$	[170,177]
87	$[\frac{3}{4}, y + \frac{3}{4}, y]$	[171,178]
88	$[y + \frac{3}{4}, \frac{3}{4} - y, 0]$	[172,189]
89	$[\frac{1}{2} - y, \frac{3}{4} - y, \frac{1}{4}]$	[173,191]
90	$[y + \frac{1}{2}, \frac{3}{4}, y + \frac{1}{4}]$	[174,190]
91	$[\frac{3}{4} - y, \frac{1}{2}, y + \frac{1}{4}]$	[175,192]
92	$[\frac{1}{2}, y + \frac{3}{4}, \frac{1}{4} - y]$	[176,181]
93	$[\frac{3}{4} - y, \frac{3}{4}, -y]$	[179,188]
94	$[y + \frac{1}{2}, \frac{1}{2}, -y]$	[180,185]
95	$[y + \frac{3}{4}, y + \frac{1}{2}, \frac{1}{4}]$	[183,187]
96	$[\frac{1}{2} - y, y + \frac{1}{2}, 0]$	[184,186]

Table 9: Wyckoff site: 192i, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1]
2	$[x + \frac{1}{4}, -z, y + \frac{1}{4}]$	[2]
3	$[x + \frac{1}{4}, z + \frac{1}{4}, -y]$	[3]
4	$[z + \frac{1}{4}, y + \frac{1}{4}, -x]$	[4]
5	$[-z, y + \frac{1}{4}, x + \frac{1}{4}]$	[5]
6	$[-y, x + \frac{1}{4}, z + \frac{1}{4}]$	[6]
7	$[y + \frac{1}{4}, -x, z + \frac{1}{4}]$	[7]
8	$[x, \frac{1}{4} - y, \frac{1}{4} - z]$	[8]
9	$[\frac{1}{4} - x, y, \frac{1}{4} - z]$	[9]
10	$[\frac{1}{4} - x, \frac{1}{4} - y, z]$	[10]
11	$[y + \frac{1}{4}, x + \frac{1}{4}, -z]$	[11]
12	$[-y, -x, -z]$	[12]
13	$[-x, z + \frac{1}{4}, y + \frac{1}{4}]$	[13]
14	$[-x, -z, -y]$	[14]
15	$[z + \frac{1}{4}, -y, x + \frac{1}{4}]$	[15]
16	$[-z, -y, -x]$	[16]
17	$[z, x, y]$	[17]
18	$[y, z, x]$	[18]
19	$[\frac{1}{4} - y, z, \frac{1}{4} - x]$	[19]
20	$[\frac{1}{4} - z, \frac{1}{4} - x, y]$	[20]
21	$[\frac{1}{4} - y, \frac{1}{4} - z, x]$	[21]
22	$[z, \frac{1}{4} - x, \frac{1}{4} - y]$	[22]
23	$[y, \frac{1}{4} - z, \frac{1}{4} - x]$	[23]
24	$[\frac{1}{4} - z, x, \frac{1}{4} - y]$	[24]
25	$[-x, -y, -z]$	[25]
26	$[\frac{1}{4} - x, z, \frac{1}{4} - y]$	[26]
27	$[\frac{1}{4} - x, \frac{1}{4} - z, y]$	[27]
28	$[\frac{1}{4} - z, \frac{1}{4} - y, x]$	[28]
29	$[z, \frac{1}{4} - y, \frac{1}{4} - x]$	[29]
30	$[y, \frac{1}{4} - x, \frac{1}{4} - z]$	[30]
31	$[\frac{1}{4} - y, x, \frac{1}{4} - z]$	[31]
32	$[-x, y + \frac{1}{4}, z + \frac{1}{4}]$	[32]
33	$[x + \frac{1}{4}, -y, z + \frac{1}{4}]$	[33]
34	$[x + \frac{1}{4}, y + \frac{1}{4}, -z]$	[34]
35	$[\frac{1}{4} - y, \frac{1}{4} - x, z]$	[35]
36	$[y, x, z]$	[36]
37	$[x, \frac{1}{4} - z, \frac{1}{4} - y]$	[37]
38	$[x, z, y]$	[38]
39	$[\frac{1}{4} - z, y, \frac{1}{4} - x]$	[39]
40	$[z, y, x]$	[40]
41	$[-z, -x, -y]$	[41]
42	$[-y, -z, -x]$	[42]
43	$[y + \frac{1}{4}, -z, x + \frac{1}{4}]$	[43]
44	$[z + \frac{1}{4}, x + \frac{1}{4}, -y]$	[44]
45	$[y + \frac{1}{4}, z + \frac{1}{4}, -x]$	[45]
46	$[-z, x + \frac{1}{4}, y + \frac{1}{4}]$	[46]

continued ...

Table 9

No.	position	mapping
47	$[-y, z + \frac{1}{4}, x + \frac{1}{4}]$	[47]
48	$[z + \frac{1}{4}, -x, y + \frac{1}{4}]$	[48]
49	$[x, y + \frac{1}{2}, z + \frac{1}{2}]$	[49]
50	$[x + \frac{1}{4}, \frac{1}{2} - z, y + \frac{3}{4}]$	[50]
51	$[x + \frac{1}{4}, z + \frac{3}{4}, \frac{1}{2} - y]$	[51]
52	$[z + \frac{1}{4}, y + \frac{3}{4}, \frac{1}{2} - x]$	[52]
53	$[-z, y + \frac{3}{4}, x + \frac{3}{4}]$	[53]
54	$[-y, x + \frac{3}{4}, z + \frac{3}{4}]$	[54]
55	$[y + \frac{1}{4}, \frac{1}{2} - x, z + \frac{3}{4}]$	[55]
56	$[x, \frac{3}{4} - y, \frac{3}{4} - z]$	[56]
57	$[\frac{1}{4} - x, y + \frac{1}{2}, \frac{3}{4} - z]$	[57]
58	$[\frac{1}{4} - x, \frac{3}{4} - y, z + \frac{1}{2}]$	[58]
59	$[y + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - z]$	[59]
60	$[-y, \frac{1}{2} - x, \frac{1}{2} - z]$	[60]
61	$[-x, z + \frac{3}{4}, y + \frac{3}{4}]$	[61]
62	$[-x, \frac{1}{2} - z, \frac{1}{2} - y]$	[62]
63	$[z + \frac{1}{4}, \frac{1}{2} - y, x + \frac{3}{4}]$	[63]
64	$[-z, \frac{1}{2} - y, \frac{1}{2} - x]$	[64]
65	$[z, x + \frac{1}{2}, y + \frac{1}{2}]$	[65]
66	$[y, z + \frac{1}{2}, x + \frac{1}{2}]$	[66]
67	$[\frac{1}{4} - y, z + \frac{1}{2}, \frac{3}{4} - x]$	[67]
68	$[\frac{1}{4} - z, \frac{3}{4} - x, y + \frac{1}{2}]$	[68]
69	$[\frac{1}{4} - y, \frac{3}{4} - z, x + \frac{1}{2}]$	[69]
70	$[z, \frac{3}{4} - x, \frac{3}{4} - y]$	[70]
71	$[y, \frac{3}{4} - z, \frac{3}{4} - x]$	[71]
72	$[\frac{1}{4} - z, x + \frac{1}{2}, \frac{3}{4} - y]$	[72]
73	$[-x, \frac{1}{2} - y, \frac{1}{2} - z]$	[73]
74	$[\frac{1}{4} - x, z + \frac{1}{2}, \frac{3}{4} - y]$	[74]
75	$[\frac{1}{4} - x, \frac{3}{4} - z, y + \frac{1}{2}]$	[75]
76	$[\frac{1}{4} - z, \frac{3}{4} - y, x + \frac{1}{2}]$	[76]
77	$[z, \frac{3}{4} - y, \frac{3}{4} - x]$	[77]
78	$[y, \frac{3}{4} - x, \frac{3}{4} - z]$	[78]
79	$[\frac{1}{4} - y, x + \frac{1}{2}, \frac{3}{4} - z]$	[79]
80	$[-x, y + \frac{3}{4}, z + \frac{3}{4}]$	[80]
81	$[x + \frac{1}{4}, \frac{1}{2} - y, z + \frac{3}{4}]$	[81]
82	$[x + \frac{1}{4}, y + \frac{3}{4}, \frac{1}{2} - z]$	[82]
83	$[\frac{1}{4} - y, \frac{3}{4} - x, z + \frac{1}{2}]$	[83]
84	$[y, x + \frac{1}{2}, z + \frac{1}{2}]$	[84]
85	$[x, \frac{3}{4} - z, \frac{3}{4} - y]$	[85]
86	$[x, z + \frac{1}{2}, y + \frac{1}{2}]$	[86]
87	$[\frac{1}{4} - z, y + \frac{1}{2}, \frac{3}{4} - x]$	[87]
88	$[z, y + \frac{1}{2}, x + \frac{1}{2}]$	[88]
89	$[-z, \frac{1}{2} - x, \frac{1}{2} - y]$	[89]
90	$[-y, \frac{1}{2} - z, \frac{1}{2} - x]$	[90]
91	$[y + \frac{1}{4}, \frac{1}{2} - z, x + \frac{3}{4}]$	[91]
92	$[z + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - y]$	[92]
93	$[y + \frac{1}{4}, z + \frac{3}{4}, \frac{1}{2} - x]$	[93]

continued ...

Table 9

No.	position	mapping
94	$[-z, x + \frac{3}{4}, y + \frac{3}{4}]$	[94]
95	$[-y, z + \frac{3}{4}, x + \frac{3}{4}]$	[95]
96	$[z + \frac{1}{4}, \frac{1}{2} - x, y + \frac{3}{4}]$	[96]
97	$[x + \frac{1}{2}, y, z + \frac{1}{2}]$	[97]
98	$[x + \frac{3}{4}, -z, y + \frac{3}{4}]$	[98]
99	$[x + \frac{3}{4}, z + \frac{1}{4}, \frac{1}{2} - y]$	[99]
100	$[z + \frac{3}{4}, y + \frac{1}{4}, \frac{1}{2} - x]$	[100]
101	$[\frac{1}{2} - z, y + \frac{1}{4}, x + \frac{3}{4}]$	[101]
102	$[\frac{1}{2} - y, x + \frac{1}{4}, z + \frac{3}{4}]$	[102]
103	$[y + \frac{3}{4}, -x, z + \frac{3}{4}]$	[103]
104	$[x + \frac{1}{2}, \frac{1}{4} - y, \frac{3}{4} - z]$	[104]
105	$[\frac{3}{4} - x, y, \frac{3}{4} - z]$	[105]
106	$[\frac{3}{4} - x, \frac{1}{4} - y, z + \frac{1}{2}]$	[106]
107	$[y + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - z]$	[107]
108	$[\frac{1}{2} - y, -x, \frac{1}{2} - z]$	[108]
109	$[\frac{1}{2} - x, z + \frac{1}{4}, y + \frac{3}{4}]$	[109]
110	$[\frac{1}{2} - x, -z, \frac{1}{2} - y]$	[110]
111	$[z + \frac{3}{4}, -y, x + \frac{3}{4}]$	[111]
112	$[\frac{1}{2} - z, -y, \frac{1}{2} - x]$	[112]
113	$[z + \frac{1}{2}, x, y + \frac{1}{2}]$	[113]
114	$[y + \frac{1}{2}, z, x + \frac{1}{2}]$	[114]
115	$[\frac{3}{4} - y, z, \frac{3}{4} - x]$	[115]
116	$[\frac{3}{4} - z, \frac{1}{4} - x, y + \frac{1}{2}]$	[116]
117	$[\frac{3}{4} - y, \frac{1}{4} - z, x + \frac{1}{2}]$	[117]
118	$[z + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - y]$	[118]
119	$[y + \frac{1}{2}, \frac{1}{4} - z, \frac{3}{4} - x]$	[119]
120	$[\frac{3}{4} - z, x, \frac{3}{4} - y]$	[120]
121	$[\frac{1}{2} - x, -y, \frac{1}{2} - z]$	[121]
122	$[\frac{3}{4} - x, z, \frac{3}{4} - y]$	[122]
123	$[\frac{3}{4} - x, \frac{1}{4} - z, y + \frac{1}{2}]$	[123]
124	$[\frac{3}{4} - z, \frac{1}{4} - y, x + \frac{1}{2}]$	[124]
125	$[z + \frac{1}{2}, \frac{1}{4} - y, \frac{3}{4} - x]$	[125]
126	$[y + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - z]$	[126]
127	$[\frac{3}{4} - y, x, \frac{3}{4} - z]$	[127]
128	$[\frac{1}{2} - x, y + \frac{1}{4}, z + \frac{3}{4}]$	[128]
129	$[x + \frac{3}{4}, -y, z + \frac{3}{4}]$	[129]
130	$[x + \frac{3}{4}, y + \frac{1}{4}, \frac{1}{2} - z]$	[130]
131	$[\frac{3}{4} - y, \frac{1}{4} - x, z + \frac{1}{2}]$	[131]
132	$[y + \frac{1}{2}, x, z + \frac{1}{2}]$	[132]
133	$[x + \frac{1}{2}, \frac{1}{4} - z, \frac{3}{4} - y]$	[133]
134	$[x + \frac{1}{2}, z, y + \frac{1}{2}]$	[134]
135	$[\frac{3}{4} - z, y, \frac{3}{4} - x]$	[135]
136	$[z + \frac{1}{2}, y, x + \frac{1}{2}]$	[136]
137	$[\frac{1}{2} - z, -x, \frac{1}{2} - y]$	[137]
138	$[\frac{1}{2} - y, -z, \frac{1}{2} - x]$	[138]
139	$[y + \frac{3}{4}, -z, x + \frac{3}{4}]$	[139]
140	$[z + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - y]$	[140]

continued ...

Table 9

No.	position	mapping
141	$[y + \frac{3}{4}, z + \frac{1}{4}, \frac{1}{2} - x]$	[141]
142	$[\frac{1}{2} - z, x + \frac{1}{4}, y + \frac{3}{4}]$	[142]
143	$[\frac{1}{2} - y, z + \frac{1}{4}, x + \frac{3}{4}]$	[143]
144	$[z + \frac{3}{4}, -x, y + \frac{3}{4}]$	[144]
145	$[x + \frac{1}{2}, y + \frac{1}{2}, z]$	[145]
146	$[x + \frac{3}{4}, \frac{1}{2} - z, y + \frac{1}{4}]$	[146]
147	$[x + \frac{3}{4}, z + \frac{3}{4}, -y]$	[147]
148	$[z + \frac{3}{4}, y + \frac{3}{4}, -x]$	[148]
149	$[\frac{1}{2} - z, y + \frac{3}{4}, x + \frac{1}{4}]$	[149]
150	$[\frac{1}{2} - y, x + \frac{3}{4}, z + \frac{1}{4}]$	[150]
151	$[y + \frac{3}{4}, \frac{1}{2} - x, z + \frac{1}{4}]$	[151]
152	$[x + \frac{1}{2}, \frac{3}{4} - y, \frac{1}{4} - z]$	[152]
153	$[\frac{3}{4} - x, y + \frac{1}{2}, \frac{1}{4} - z]$	[153]
154	$[\frac{3}{4} - x, \frac{3}{4} - y, z]$	[154]
155	$[y + \frac{3}{4}, x + \frac{3}{4}, -z]$	[155]
156	$[\frac{1}{2} - y, \frac{1}{2} - x, -z]$	[156]
157	$[\frac{1}{2} - x, z + \frac{3}{4}, y + \frac{1}{4}]$	[157]
158	$[\frac{1}{2} - x, \frac{1}{2} - z, -y]$	[158]
159	$[z + \frac{3}{4}, \frac{1}{2} - y, x + \frac{1}{4}]$	[159]
160	$[\frac{1}{2} - z, \frac{1}{2} - y, -x]$	[160]
161	$[z + \frac{1}{2}, x + \frac{1}{2}, y]$	[161]
162	$[y + \frac{1}{2}, z + \frac{1}{2}, x]$	[162]
163	$[\frac{3}{4} - y, z + \frac{1}{2}, \frac{1}{4} - x]$	[163]
164	$[\frac{3}{4} - z, \frac{3}{4} - x, y]$	[164]
165	$[\frac{3}{4} - y, \frac{3}{4} - z, x]$	[165]
166	$[z + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - y]$	[166]
167	$[y + \frac{1}{2}, \frac{3}{4} - z, \frac{1}{4} - x]$	[167]
168	$[\frac{3}{4} - z, x + \frac{1}{2}, \frac{1}{4} - y]$	[168]
169	$[\frac{1}{2} - x, \frac{1}{2} - y, -z]$	[169]
170	$[\frac{3}{4} - x, z + \frac{1}{2}, \frac{1}{4} - y]$	[170]
171	$[\frac{3}{4} - x, \frac{3}{4} - z, y]$	[171]
172	$[\frac{3}{4} - z, \frac{3}{4} - y, x]$	[172]
173	$[z + \frac{1}{2}, \frac{3}{4} - y, \frac{1}{4} - x]$	[173]
174	$[y + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - z]$	[174]
175	$[\frac{3}{4} - y, x + \frac{1}{2}, \frac{1}{4} - z]$	[175]
176	$[\frac{1}{2} - x, y + \frac{3}{4}, z + \frac{1}{4}]$	[176]
177	$[x + \frac{3}{4}, \frac{1}{2} - y, z + \frac{1}{4}]$	[177]
178	$[x + \frac{3}{4}, y + \frac{3}{4}, -z]$	[178]
179	$[\frac{3}{4} - y, \frac{3}{4} - x, z]$	[179]
180	$[y + \frac{1}{2}, x + \frac{1}{2}, z]$	[180]
181	$[x + \frac{1}{2}, \frac{3}{4} - z, \frac{1}{4} - y]$	[181]
182	$[x + \frac{1}{2}, z + \frac{1}{2}, y]$	[182]
183	$[\frac{3}{4} - z, y + \frac{1}{2}, \frac{1}{4} - x]$	[183]
184	$[z + \frac{1}{2}, y + \frac{1}{2}, x]$	[184]
185	$[\frac{1}{2} - z, \frac{1}{2} - x, -y]$	[185]
186	$[\frac{1}{2} - y, \frac{1}{2} - z, -x]$	[186]
187	$[y + \frac{3}{4}, \frac{1}{2} - z, x + \frac{1}{4}]$	[187]

continued ...

Table 9

No.	position	mapping
188	$[z + \frac{3}{4}, x + \frac{3}{4}, -y]$	[188]
189	$[y + \frac{3}{4}, z + \frac{3}{4}, -x]$	[189]
190	$[\frac{1}{2} - z, x + \frac{3}{4}, y + \frac{1}{4}]$	[190]
191	$[\frac{1}{2} - y, z + \frac{3}{4}, x + \frac{1}{4}]$	[191]
192	$[z + \frac{3}{4}, \frac{1}{2} - x, y + \frac{1}{4}]$	[192]