

MSG No. 227.130 $Fd\bar{3}m$ [Type III, cubic]

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

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

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

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

Table 3: Wyckoff site: 16c, site symmetry: $.-3^2m$

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

continued ...

Table 3

No.	position	mapping
16	$[\frac{3}{4}, \frac{3}{4}, 0]$	[148, 152, 153, 158, 159, 163, 170, 171, 175, 184, 188, 189]

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

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

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

No.	position	mapping
1	$[x, x, x]$	[1, 5, 6, 20, 22, 24]
2	$[x, \frac{1}{4} - x, \frac{1}{4} - x]$	[2, 10, 11, 16, 17, 21]
3	$[\frac{1}{4} - x, x, \frac{1}{4} - x]$	[3, 7, 12, 13, 18, 23]
4	$[\frac{1}{4} - x, \frac{1}{4} - x, x]$	[4, 8, 9, 14, 15, 19]
5	$[x + \frac{1}{4}, -x, x + \frac{1}{4}]$	[25, 30, 35, 39, 43, 48]
6	$[x + \frac{1}{4}, x + \frac{1}{4}, -x]$	[26, 27, 31, 40, 44, 45]
7	$[-x, x + \frac{1}{4}, x + \frac{1}{4}]$	[28, 29, 33, 38, 46, 47]
8	$[-x, -x, -x]$	[32, 34, 36, 37, 41, 42]
9	$[x, x + \frac{1}{2}, x + \frac{1}{2}]$	[49, 53, 54, 68, 70, 72]
10	$[x, \frac{3}{4} - x, \frac{3}{4} - x]$	[50, 58, 59, 64, 65, 69]
11	$[\frac{1}{4} - x, x + \frac{1}{2}, \frac{3}{4} - x]$	[51, 55, 60, 61, 66, 71]
12	$[\frac{1}{4} - x, \frac{3}{4} - x, x + \frac{1}{2}]$	[52, 56, 57, 62, 63, 67]
13	$[x + \frac{1}{4}, \frac{1}{2} - x, x + \frac{3}{4}]$	[73, 78, 83, 87, 91, 96]
14	$[x + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - x]$	[74, 75, 79, 88, 92, 93]
15	$[-x, x + \frac{3}{4}, x + \frac{3}{4}]$	[76, 77, 81, 86, 94, 95]
16	$[-x, \frac{1}{2} - x, \frac{1}{2} - x]$	[80, 82, 84, 85, 89, 90]
17	$[x + \frac{1}{2}, x, x + \frac{1}{2}]$	[97, 101, 102, 116, 118, 120]

continued ...

Table 5

No.	position	mapping
18	$[x + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - x]$	[98, 106, 107, 112, 113, 117]
19	$[\frac{3}{4} - x, x, \frac{3}{4} - x]$	[99, 103, 108, 109, 114, 119]
20	$[\frac{3}{4} - x, \frac{1}{4} - x, x + \frac{1}{2}]$	[100, 104, 105, 110, 111, 115]
21	$[x + \frac{3}{4}, -x, x + \frac{3}{4}]$	[121, 126, 131, 135, 139, 144]
22	$[x + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - x]$	[122, 123, 127, 136, 140, 141]
23	$[\frac{1}{2} - x, x + \frac{1}{4}, x + \frac{3}{4}]$	[124, 125, 129, 134, 142, 143]
24	$[\frac{1}{2} - x, -x, \frac{1}{2} - x]$	[128, 130, 132, 133, 137, 138]
25	$[x + \frac{1}{2}, x + \frac{1}{2}, x]$	[145, 149, 150, 164, 166, 168]
26	$[x + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - x]$	[146, 154, 155, 160, 161, 165]
27	$[\frac{3}{4} - x, x + \frac{1}{2}, \frac{1}{4} - x]$	[147, 151, 156, 157, 162, 167]
28	$[\frac{3}{4} - x, \frac{3}{4} - x, x]$	[148, 152, 153, 158, 159, 163]
29	$[x + \frac{3}{4}, \frac{1}{2} - x, x + \frac{1}{4}]$	[169, 174, 179, 183, 187, 192]
30	$[x + \frac{3}{4}, x + \frac{3}{4}, -x]$	[170, 171, 175, 184, 188, 189]
31	$[\frac{1}{2} - x, x + \frac{3}{4}, x + \frac{1}{4}]$	[172, 173, 177, 182, 190, 191]
32	$[\frac{1}{2} - x, \frac{1}{2} - x, -x]$	[176, 178, 180, 181, 185, 186]

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

No.	position	mapping
1	$[x, \frac{1}{8}, \frac{1}{8}]$	[1, 2, 21, 22]
2	$[\frac{1}{4} - x, \frac{1}{8}, \frac{1}{8}]$	[3, 4, 13, 14]
3	$[\frac{1}{8}, x, \frac{1}{8}]$	[5, 12, 18, 20]
4	$[\frac{1}{8}, \frac{1}{8}, x]$	[6, 9, 15, 24]
5	$[\frac{1}{8}, \frac{1}{8}, \frac{1}{4} - x]$	[7, 11, 16, 23]
6	$[\frac{1}{8}, \frac{1}{4} - x, \frac{1}{8}]$	[8, 10, 17, 19]
7	$[x + \frac{1}{4}, \frac{7}{8}, \frac{3}{8}]$	[25, 39, 74, 88]
8	$[x + \frac{1}{4}, \frac{3}{8}, \frac{7}{8}]$	[26, 40, 73, 87]
9	$[\frac{3}{8}, \frac{3}{8}, -x]$	[27, 45, 180, 186]
10	$[\frac{7}{8}, \frac{3}{8}, x + \frac{1}{4}]$	[28, 47, 179, 187]
11	$[\frac{7}{8}, x + \frac{1}{4}, \frac{3}{8}]$	[29, 46, 127, 140]
12	$[\frac{3}{8}, -x, \frac{3}{8}]$	[30, 48, 128, 137]
13	$[\frac{3}{8}, x + \frac{1}{4}, \frac{7}{8}]$	[31, 44, 125, 142]
14	$[\frac{7}{8}, -x, \frac{7}{8}]$	[32, 41, 126, 144]
15	$[-x, \frac{3}{8}, \frac{3}{8}]$	[33, 38, 82, 85]
16	$[-x, \frac{7}{8}, \frac{7}{8}]$	[34, 37, 81, 86]
17	$[\frac{3}{8}, \frac{7}{8}, x + \frac{1}{4}]$	[35, 43, 172, 191]
18	$[\frac{7}{8}, \frac{7}{8}, -x]$	[36, 42, 171, 189]
19	$[x, \frac{5}{8}, \frac{5}{8}]$	[49, 50, 69, 70]
20	$[\frac{1}{4} - x, \frac{5}{8}, \frac{5}{8}]$	[51, 52, 61, 62]
21	$[\frac{1}{8}, x + \frac{1}{2}, \frac{5}{8}]$	[53, 60, 66, 68]
22	$[\frac{1}{8}, \frac{5}{8}, x + \frac{1}{2}]$	[54, 57, 63, 72]
23	$[\frac{1}{8}, \frac{5}{8}, \frac{3}{4} - x]$	[55, 59, 64, 71]
24	$[\frac{1}{8}, \frac{3}{4} - x, \frac{5}{8}]$	[56, 58, 65, 67]
25	$[\frac{3}{8}, \frac{7}{8}, \frac{1}{2} - x]$	[75, 93, 132, 138]

continued ...

Table 6

No.	position	mapping
26	$[\frac{7}{8}, \frac{7}{8}, x + \frac{3}{4}]$	[76, 95, 131, 139]
27	$[\frac{7}{8}, x + \frac{3}{4}, \frac{7}{8}]$	[77, 94, 175, 188]
28	$[\frac{3}{8}, \frac{1}{2} - x, \frac{7}{8}]$	[78, 96, 176, 185]
29	$[\frac{3}{8}, x + \frac{3}{4}, \frac{3}{8}]$	[79, 92, 173, 190]
30	$[\frac{7}{8}, \frac{1}{2} - x, \frac{3}{8}]$	[80, 89, 174, 192]
31	$[\frac{3}{8}, \frac{3}{8}, x + \frac{3}{4}]$	[83, 91, 124, 143]
32	$[\frac{7}{8}, \frac{3}{8}, \frac{1}{2} - x]$	[84, 90, 123, 141]
33	$[x + \frac{1}{2}, \frac{1}{8}, \frac{5}{8}]$	[97, 98, 117, 118]
34	$[\frac{3}{4} - x, \frac{1}{8}, \frac{5}{8}]$	[99, 100, 109, 110]
35	$[\frac{5}{8}, x, \frac{5}{8}]$	[101, 108, 114, 116]
36	$[\frac{5}{8}, \frac{1}{8}, x + \frac{1}{2}]$	[102, 105, 111, 120]
37	$[\frac{5}{8}, \frac{1}{8}, \frac{3}{4} - x]$	[103, 107, 112, 119]
38	$[\frac{5}{8}, \frac{1}{4} - x, \frac{5}{8}]$	[104, 106, 113, 115]
39	$[x + \frac{3}{4}, \frac{7}{8}, \frac{7}{8}]$	[121, 135, 170, 184]
40	$[x + \frac{3}{4}, \frac{3}{8}, \frac{3}{8}]$	[122, 136, 169, 183]
41	$[\frac{1}{2} - x, \frac{3}{8}, \frac{7}{8}]$	[129, 134, 178, 181]
42	$[\frac{1}{2} - x, \frac{7}{8}, \frac{3}{8}]$	[130, 133, 177, 182]
43	$[x + \frac{1}{2}, \frac{5}{8}, \frac{1}{8}]$	[145, 146, 165, 166]
44	$[\frac{3}{4} - x, \frac{5}{8}, \frac{1}{8}]$	[147, 148, 157, 158]
45	$[\frac{5}{8}, x + \frac{1}{2}, \frac{1}{8}]$	[149, 156, 162, 164]
46	$[\frac{5}{8}, \frac{5}{8}, x]$	[150, 153, 159, 168]
47	$[\frac{5}{8}, \frac{5}{8}, \frac{1}{4} - x]$	[151, 155, 160, 167]
48	$[\frac{5}{8}, \frac{3}{4} - x, \frac{1}{8}]$	[152, 154, 161, 163]

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

No.	position	mapping
1	$[x, x, z]$	[1, 20]
2	$[x, \frac{1}{4} - x, \frac{1}{4} - z]$	[2, 17]
3	$[\frac{1}{4} - x, x, \frac{1}{4} - z]$	[3, 18]
4	$[\frac{1}{4} - x, \frac{1}{4} - x, z]$	[4, 19]
5	$[z, x, x]$	[5, 24]
6	$[x, z, x]$	[6, 22]
7	$[\frac{1}{4} - x, z, \frac{1}{4} - x]$	[7, 13]
8	$[\frac{1}{4} - z, \frac{1}{4} - x, x]$	[8, 15]
9	$[\frac{1}{4} - x, \frac{1}{4} - z, x]$	[9, 14]
10	$[z, \frac{1}{4} - x, \frac{1}{4} - x]$	[10, 16]
11	$[x, \frac{1}{4} - z, \frac{1}{4} - x]$	[11, 21]
12	$[\frac{1}{4} - z, x, \frac{1}{4} - x]$	[12, 23]
13	$[x + \frac{1}{4}, -z, x + \frac{1}{4}]$	[25, 43]
14	$[x + \frac{1}{4}, z + \frac{1}{4}, -x]$	[26, 45]
15	$[z + \frac{1}{4}, x + \frac{1}{4}, -x]$	[27, 44]
16	$[-z, x + \frac{1}{4}, x + \frac{1}{4}]$	[28, 46]
17	$[-x, x + \frac{1}{4}, z + \frac{1}{4}]$	[29, 38]

continued ...

Table 7

No.	position	mapping
18	$[x + \frac{1}{4}, -x, z + \frac{1}{4}]$	[30, 39]
19	$[x + \frac{1}{4}, x + \frac{1}{4}, -z]$	[31, 40]
20	$[-x, -x, -z]$	[32, 37]
21	$[-x, z + \frac{1}{4}, x + \frac{1}{4}]$	[33, 47]
22	$[-x, -z, -x]$	[34, 42]
23	$[z + \frac{1}{4}, -x, x + \frac{1}{4}]$	[35, 48]
24	$[-z, -x, -x]$	[36, 41]
25	$[x, x + \frac{1}{2}, z + \frac{1}{2}]$	[49, 68]
26	$[x, \frac{3}{4} - x, \frac{3}{4} - z]$	[50, 65]
27	$[\frac{1}{4} - x, x + \frac{1}{2}, \frac{3}{4} - z]$	[51, 66]
28	$[\frac{1}{4} - x, \frac{3}{4} - x, z + \frac{1}{2}]$	[52, 67]
29	$[z, x + \frac{1}{2}, x + \frac{1}{2}]$	[53, 72]
30	$[x, z + \frac{1}{2}, x + \frac{1}{2}]$	[54, 70]
31	$[\frac{1}{4} - x, z + \frac{1}{2}, \frac{3}{4} - x]$	[55, 61]
32	$[\frac{1}{4} - z, \frac{3}{4} - x, x + \frac{1}{2}]$	[56, 63]
33	$[\frac{1}{4} - x, \frac{3}{4} - z, x + \frac{1}{2}]$	[57, 62]
34	$[z, \frac{3}{4} - x, \frac{3}{4} - x]$	[58, 64]
35	$[x, \frac{3}{4} - z, \frac{3}{4} - x]$	[59, 69]
36	$[\frac{1}{4} - z, x + \frac{1}{2}, \frac{3}{4} - x]$	[60, 71]
37	$[x + \frac{1}{4}, \frac{1}{2} - z, x + \frac{3}{4}]$	[73, 91]
38	$[x + \frac{1}{4}, z + \frac{3}{4}, \frac{1}{2} - x]$	[74, 93]
39	$[z + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - x]$	[75, 92]
40	$[-z, x + \frac{3}{4}, x + \frac{3}{4}]$	[76, 94]
41	$[-x, x + \frac{3}{4}, z + \frac{3}{4}]$	[77, 86]
42	$[x + \frac{1}{4}, \frac{1}{2} - x, z + \frac{3}{4}]$	[78, 87]
43	$[x + \frac{1}{4}, x + \frac{3}{4}, \frac{1}{2} - z]$	[79, 88]
44	$[-x, \frac{1}{2} - x, \frac{1}{2} - z]$	[80, 85]
45	$[-x, z + \frac{3}{4}, x + \frac{3}{4}]$	[81, 95]
46	$[-x, \frac{1}{2} - z, \frac{1}{2} - x]$	[82, 90]
47	$[z + \frac{1}{4}, \frac{1}{2} - x, x + \frac{3}{4}]$	[83, 96]
48	$[-z, \frac{1}{2} - x, \frac{1}{2} - x]$	[84, 89]
49	$[x + \frac{1}{2}, x, z + \frac{1}{2}]$	[97, 116]
50	$[x + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - z]$	[98, 113]
51	$[\frac{3}{4} - x, x, \frac{3}{4} - z]$	[99, 114]
52	$[\frac{3}{4} - x, \frac{1}{4} - x, z + \frac{1}{2}]$	[100, 115]
53	$[z + \frac{1}{2}, x, x + \frac{1}{2}]$	[101, 120]
54	$[x + \frac{1}{2}, z, x + \frac{1}{2}]$	[102, 118]
55	$[\frac{3}{4} - x, z, \frac{3}{4} - x]$	[103, 109]
56	$[\frac{3}{4} - z, \frac{1}{4} - x, x + \frac{1}{2}]$	[104, 111]
57	$[\frac{3}{4} - x, \frac{1}{4} - z, x + \frac{1}{2}]$	[105, 110]
58	$[z + \frac{1}{2}, \frac{1}{4} - x, \frac{3}{4} - x]$	[106, 112]
59	$[x + \frac{1}{2}, \frac{1}{4} - z, \frac{3}{4} - x]$	[107, 117]
60	$[\frac{3}{4} - z, x, \frac{3}{4} - x]$	[108, 119]
61	$[x + \frac{3}{4}, -z, x + \frac{3}{4}]$	[121, 139]
62	$[x + \frac{3}{4}, z + \frac{1}{4}, \frac{1}{2} - x]$	[122, 141]
63	$[z + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - x]$	[123, 140]
64	$[\frac{1}{2} - z, x + \frac{1}{4}, x + \frac{3}{4}]$	[124, 142]

continued ...

Table 7

No.	position	mapping
65	$[\frac{1}{2} - x, x + \frac{1}{4}, z + \frac{3}{4}]$	[125, 134]
66	$[x + \frac{3}{4}, -x, z + \frac{3}{4}]$	[126, 135]
67	$[x + \frac{3}{4}, x + \frac{1}{4}, \frac{1}{2} - z]$	[127, 136]
68	$[\frac{1}{2} - x, -x, \frac{1}{2} - z]$	[128, 133]
69	$[\frac{1}{2} - x, z + \frac{1}{4}, x + \frac{3}{4}]$	[129, 143]
70	$[\frac{1}{2} - x, -z, \frac{1}{2} - x]$	[130, 138]
71	$[z + \frac{3}{4}, -x, x + \frac{3}{4}]$	[131, 144]
72	$[\frac{1}{2} - z, -x, \frac{1}{2} - x]$	[132, 137]
73	$[x + \frac{1}{2}, x + \frac{1}{2}, z]$	[145, 164]
74	$[x + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - z]$	[146, 161]
75	$[\frac{3}{4} - x, x + \frac{1}{2}, \frac{1}{4} - z]$	[147, 162]
76	$[\frac{3}{4} - x, \frac{3}{4} - x, z]$	[148, 163]
77	$[z + \frac{1}{2}, x + \frac{1}{2}, x]$	[149, 168]
78	$[x + \frac{1}{2}, z + \frac{1}{2}, x]$	[150, 166]
79	$[\frac{3}{4} - x, z + \frac{1}{2}, \frac{1}{4} - x]$	[151, 157]
80	$[\frac{3}{4} - z, \frac{3}{4} - x, x]$	[152, 159]
81	$[\frac{3}{4} - x, \frac{3}{4} - z, x]$	[153, 158]
82	$[z + \frac{1}{2}, \frac{3}{4} - x, \frac{1}{4} - x]$	[154, 160]
83	$[x + \frac{1}{2}, \frac{3}{4} - z, \frac{1}{4} - x]$	[155, 165]
84	$[\frac{3}{4} - z, x + \frac{1}{2}, \frac{1}{4} - x]$	[156, 167]
85	$[x + \frac{3}{4}, \frac{1}{2} - z, x + \frac{1}{4}]$	[169, 187]
86	$[x + \frac{3}{4}, z + \frac{3}{4}, -x]$	[170, 189]
87	$[z + \frac{3}{4}, x + \frac{3}{4}, -x]$	[171, 188]
88	$[\frac{1}{2} - z, x + \frac{3}{4}, x + \frac{1}{4}]$	[172, 190]
89	$[\frac{1}{2} - x, x + \frac{3}{4}, z + \frac{1}{4}]$	[173, 182]
90	$[x + \frac{3}{4}, \frac{1}{2} - x, z + \frac{1}{4}]$	[174, 183]
91	$[x + \frac{3}{4}, x + \frac{3}{4}, -z]$	[175, 184]
92	$[\frac{1}{2} - x, \frac{1}{2} - x, -z]$	[176, 181]
93	$[\frac{1}{2} - x, z + \frac{3}{4}, x + \frac{1}{4}]$	[177, 191]
94	$[\frac{1}{2} - x, \frac{1}{2} - z, -x]$	[178, 186]
95	$[z + \frac{3}{4}, \frac{1}{2} - x, x + \frac{1}{4}]$	[179, 192]
96	$[\frac{1}{2} - z, \frac{1}{2} - x, -x]$	[180, 185]

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

No.	position	mapping
1	$[0, y, -y]$	[1, 34]
2	$[0, \frac{1}{4} - y, y + \frac{1}{4}]$	[2, 33]
3	$[\frac{1}{4}, y, y + \frac{1}{4}]$	[3, 25]
4	$[\frac{1}{4}, \frac{1}{4} - y, -y]$	[4, 26]
5	$[-y, 0, y]$	[5, 32]
6	$[y, -y, 0]$	[6, 36]
7	$[\frac{1}{4} - y, -y, \frac{1}{4}]$	[7, 35]
8	$[y + \frac{1}{4}, \frac{1}{4}, y]$	[8, 31]

continued ...

Table 8

No.	position	mapping
9	$[\frac{1}{4} - y, y + \frac{1}{4}, 0]$	[9,27]
10	$[-y, \frac{1}{4}, \frac{1}{4} - y]$	[10,29]
11	$[y, y + \frac{1}{4}, \frac{1}{4}]$	[11,28]
12	$[y + \frac{1}{4}, 0, \frac{1}{4} - y]$	[12,30]
13	$[\frac{1}{4}, -y, \frac{1}{4} - y]$	[13,39]
14	$[\frac{1}{4}, y + \frac{1}{4}, y]$	[14,40]
15	$[y + \frac{1}{4}, \frac{1}{4} - y, 0]$	[15,45]
16	$[-y, \frac{1}{4} - y, \frac{1}{4}]$	[16,47]
17	$[y, \frac{1}{4}, y + \frac{1}{4}]$	[17,46]
18	$[\frac{1}{4} - y, 0, y + \frac{1}{4}]$	[18,48]
19	$[\frac{1}{4} - y, \frac{1}{4}, -y]$	[19,44]
20	$[y, 0, -y]$	[20,41]
21	$[0, y + \frac{1}{4}, \frac{1}{4} - y]$	[21,38]
22	$[0, -y, y]$	[22,37]
23	$[y + \frac{1}{4}, y, \frac{1}{4}]$	[23,43]
24	$[-y, y, 0]$	[24,42]
25	$[0, y + \frac{1}{2}, \frac{1}{2} - y]$	[49,82]
26	$[0, \frac{3}{4} - y, y + \frac{3}{4}]$	[50,81]
27	$[\frac{1}{4}, y + \frac{1}{2}, y + \frac{3}{4}]$	[51,73]
28	$[\frac{1}{4}, \frac{3}{4} - y, \frac{1}{2} - y]$	[52,74]
29	$[-y, \frac{1}{2}, y + \frac{1}{2}]$	[53,80]
30	$[y, \frac{1}{2} - y, \frac{1}{2}]$	[54,84]
31	$[\frac{1}{4} - y, \frac{1}{2} - y, \frac{3}{4}]$	[55,83]
32	$[y + \frac{1}{4}, \frac{3}{4}, y + \frac{1}{2}]$	[56,79]
33	$[\frac{1}{4} - y, y + \frac{3}{4}, \frac{1}{2}]$	[57,75]
34	$[-y, \frac{3}{4}, \frac{3}{4} - y]$	[58,77]
35	$[y, y + \frac{3}{4}, \frac{3}{4}]$	[59,76]
36	$[y + \frac{1}{4}, \frac{1}{2}, \frac{3}{4} - y]$	[60,78]
37	$[\frac{1}{4}, \frac{1}{2} - y, \frac{3}{4} - y]$	[61,87]
38	$[\frac{1}{4}, y + \frac{3}{4}, y + \frac{1}{2}]$	[62,88]
39	$[y + \frac{1}{4}, \frac{3}{4} - y, \frac{1}{2}]$	[63,93]
40	$[-y, \frac{3}{4} - y, \frac{3}{4}]$	[64,95]
41	$[y, \frac{3}{4}, y + \frac{3}{4}]$	[65,94]
42	$[\frac{1}{4} - y, \frac{1}{2}, y + \frac{3}{4}]$	[66,96]
43	$[\frac{1}{4} - y, \frac{3}{4}, \frac{1}{2} - y]$	[67,92]
44	$[y, \frac{1}{2}, \frac{1}{2} - y]$	[68,89]
45	$[0, y + \frac{3}{4}, \frac{3}{4} - y]$	[69,86]
46	$[0, \frac{1}{2} - y, y + \frac{1}{2}]$	[70,85]
47	$[y + \frac{1}{4}, y + \frac{1}{2}, \frac{3}{4}]$	[71,91]
48	$[-y, y + \frac{1}{2}, \frac{1}{2}]$	[72,90]
49	$[\frac{1}{2}, y, \frac{1}{2} - y]$	[97,130]
50	$[\frac{1}{2}, \frac{1}{4} - y, y + \frac{3}{4}]$	[98,129]
51	$[\frac{3}{4}, y, y + \frac{3}{4}]$	[99,121]
52	$[\frac{3}{4}, \frac{1}{4} - y, \frac{1}{2} - y]$	[100,122]
53	$[\frac{1}{2} - y, 0, y + \frac{1}{2}]$	[101,128]
54	$[y + \frac{1}{2}, -y, \frac{1}{2}]$	[102,132]
55	$[\frac{3}{4} - y, -y, \frac{3}{4}]$	[103,131]

continued ...

Table 8

No.	position	mapping
56	$[y + \frac{3}{4}, \frac{1}{4}, y + \frac{1}{2}]$	[104,127]
57	$[\frac{3}{4} - y, y + \frac{1}{4}, \frac{1}{2}]$	[105,123]
58	$[\frac{1}{2} - y, \frac{1}{4}, \frac{3}{4} - y]$	[106,125]
59	$[y + \frac{1}{2}, y + \frac{1}{4}, \frac{3}{4}]$	[107,124]
60	$[y + \frac{3}{4}, 0, \frac{3}{4} - y]$	[108,126]
61	$[\frac{3}{4}, -y, \frac{3}{4} - y]$	[109,135]
62	$[\frac{3}{4}, y + \frac{1}{4}, y + \frac{1}{2}]$	[110,136]
63	$[y + \frac{3}{4}, \frac{1}{4} - y, \frac{1}{2}]$	[111,141]
64	$[\frac{1}{2} - y, \frac{1}{4} - y, \frac{3}{4}]$	[112,143]
65	$[y + \frac{1}{2}, \frac{1}{4}, y + \frac{3}{4}]$	[113,142]
66	$[\frac{3}{4} - y, 0, y + \frac{3}{4}]$	[114,144]
67	$[\frac{3}{4} - y, \frac{1}{4}, \frac{1}{2} - y]$	[115,140]
68	$[y + \frac{1}{2}, 0, \frac{1}{2} - y]$	[116,137]
69	$[\frac{1}{2}, y + \frac{1}{4}, \frac{3}{4} - y]$	[117,134]
70	$[\frac{1}{2}, -y, y + \frac{1}{2}]$	[118,133]
71	$[y + \frac{3}{4}, y, \frac{3}{4}]$	[119,139]
72	$[\frac{1}{2} - y, y, \frac{1}{2}]$	[120,138]
73	$[\frac{1}{2}, y + \frac{1}{2}, -y]$	[145,178]
74	$[\frac{1}{2}, \frac{3}{4} - y, y + \frac{1}{4}]$	[146,177]
75	$[\frac{3}{4}, y + \frac{1}{2}, y + \frac{1}{4}]$	[147,169]
76	$[\frac{3}{4}, \frac{3}{4} - y, -y]$	[148,170]
77	$[\frac{1}{2} - y, \frac{1}{2}, y]$	[149,176]
78	$[y + \frac{1}{2}, \frac{1}{2} - y, 0]$	[150,180]
79	$[\frac{3}{4} - y, \frac{1}{2} - y, \frac{1}{4}]$	[151,179]
80	$[y + \frac{3}{4}, \frac{3}{4}, y]$	[152,175]
81	$[\frac{3}{4} - y, y + \frac{3}{4}, 0]$	[153,171]
82	$[\frac{1}{2} - y, \frac{3}{4}, \frac{1}{4} - y]$	[154,173]
83	$[y + \frac{1}{2}, y + \frac{3}{4}, \frac{1}{4}]$	[155,172]
84	$[y + \frac{3}{4}, \frac{1}{2}, \frac{1}{4} - y]$	[156,174]
85	$[\frac{3}{4}, \frac{1}{2} - y, \frac{1}{4} - y]$	[157,183]
86	$[\frac{3}{4}, y + \frac{3}{4}, y]$	[158,184]
87	$[y + \frac{3}{4}, \frac{3}{4} - y, 0]$	[159,189]
88	$[\frac{1}{2} - y, \frac{3}{4} - y, \frac{1}{4}]$	[160,191]
89	$[y + \frac{1}{2}, \frac{3}{4}, y + \frac{1}{4}]$	[161,190]
90	$[\frac{3}{4} - y, \frac{1}{2}, y + \frac{1}{4}]$	[162,192]
91	$[\frac{3}{4} - y, \frac{3}{4}, -y]$	[163,188]
92	$[y + \frac{1}{2}, \frac{1}{2}, -y]$	[164,185]
93	$[\frac{1}{2}, y + \frac{3}{4}, \frac{1}{4} - y]$	[165,182]
94	$[\frac{1}{2}, \frac{1}{2} - y, y]$	[166,181]
95	$[y + \frac{3}{4}, y + \frac{1}{2}, \frac{1}{4}]$	[167,187]
96	$[\frac{1}{2} - y, y + \frac{1}{2}, 0]$	[168,186]

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

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