

MSG No. 216.75 $F\bar{4}3m1'$ [Type II, cubic]

Table 1: Wyckoff site: 4a, site symmetry: $-43m1'$

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

Table 2: Wyckoff site: 4b, site symmetry: $-43m1'$

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

Table 3: Wyckoff site: 4c, site symmetry: $-43m1'$

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

Table 4: Wyckoff site: 4d, site symmetry: -43m1'

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

Table 5: Wyckoff site: 16e, site symmetry: .3m1'

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

Table 6: Wyckoff site: 24f, site symmetry: 2.mmm'

No.	position	mapping
1	$[x, 0, 0]$	[1, 2, 21, 22, 97, 98, 117, 118]
2	$[-x, 0, 0]$	[3, 4, 13, 14, 99, 100, 109, 110]
3	$[0, x, 0]$	[5, 12, 18, 20, 101, 108, 114, 116]
4	$[0, 0, x]$	[6, 9, 15, 24, 102, 105, 111, 120]
5	$[0, 0, -x]$	[7, 11, 16, 23, 103, 107, 112, 119]
6	$[0, -x, 0]$	[8, 10, 17, 19, 104, 106, 113, 115]
7	$[x, \frac{1}{2}, \frac{1}{2}]$	[25, 26, 45, 46, 121, 122, 141, 142]
8	$[-x, \frac{1}{2}, \frac{1}{2}]$	[27, 28, 37, 38, 123, 124, 133, 134]
9	$[0, x + \frac{1}{2}, \frac{1}{2}]$	[29, 36, 42, 44, 125, 132, 138, 140]

continued ...

Table 6

No.	position	mapping
10	$[0, \frac{1}{2}, x + \frac{1}{2}]$	[30,33,39,48,126,129,135,144]
11	$[0, \frac{1}{2}, \frac{1}{2} - x]$	[31,35,40,47,127,131,136,143]
12	$[0, \frac{1}{2} - x, \frac{1}{2}]$	[32,34,41,43,128,130,137,139]
13	$[x + \frac{1}{2}, 0, \frac{1}{2}]$	[49,50,69,70,145,146,165,166]
14	$[\frac{1}{2} - x, 0, \frac{1}{2}]$	[51,52,61,62,147,148,157,158]
15	$[\frac{1}{2}, x, \frac{1}{2}]$	[53,60,66,68,149,156,162,164]
16	$[\frac{1}{2}, 0, x + \frac{1}{2}]$	[54,57,63,72,150,153,159,168]
17	$[\frac{1}{2}, 0, \frac{1}{2} - x]$	[55,59,64,71,151,155,160,167]
18	$[\frac{1}{2}, -x, \frac{1}{2}]$	[56,58,65,67,152,154,161,163]
19	$[x + \frac{1}{2}, \frac{1}{2}, 0]$	[73,74,93,94,169,170,189,190]
20	$[\frac{1}{2} - x, \frac{1}{2}, 0]$	[75,76,85,86,171,172,181,182]
21	$[\frac{1}{2}, x + \frac{1}{2}, 0]$	[77,84,90,92,173,180,186,188]
22	$[\frac{1}{2}, \frac{1}{2}, x]$	[78,81,87,96,174,177,183,192]
23	$[\frac{1}{2}, \frac{1}{2}, -x]$	[79,83,88,95,175,179,184,191]
24	$[\frac{1}{2}, \frac{1}{2} - x, 0]$	[80,82,89,91,176,178,185,187]

Table 7: Wyckoff site: 24g, site symmetry: 2.mmm1'

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

Table 8: Wyckoff site: 48h, site symmetry: ..m1'

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

continued ...

Table 8

No.	position	mapping
47	$[x + \frac{1}{2}, \frac{1}{2} - z, -x]$	[83,93,179,189]
48	$[\frac{1}{2} - z, x + \frac{1}{2}, -x]$	[84,95,180,191]

Table 9: Wyckoff site: 96i, site symmetry: 11'

No.	position	mapping
1	$[x, y, z]$	[1,97]
2	$[x, -y, -z]$	[2,98]
3	$[-x, y, -z]$	[3,99]
4	$[-x, -y, z]$	[4,100]
5	$[z, x, y]$	[5,101]
6	$[y, z, x]$	[6,102]
7	$[-y, z, -x]$	[7,103]
8	$[-z, -x, y]$	[8,104]
9	$[-y, -z, x]$	[9,105]
10	$[z, -x, -y]$	[10,106]
11	$[y, -z, -x]$	[11,107]
12	$[-z, x, -y]$	[12,108]
13	$[-x, z, -y]$	[13,109]
14	$[-x, -z, y]$	[14,110]
15	$[-z, -y, x]$	[15,111]
16	$[z, -y, -x]$	[16,112]
17	$[y, -x, -z]$	[17,113]
18	$[-y, x, -z]$	[18,114]
19	$[-y, -x, z]$	[19,115]
20	$[y, x, z]$	[20,116]
21	$[x, -z, -y]$	[21,117]
22	$[x, z, y]$	[22,118]
23	$[-z, y, -x]$	[23,119]
24	$[z, y, x]$	[24,120]
25	$[x, y + \frac{1}{2}, z + \frac{1}{2}]$	[25,121]
26	$[x, \frac{1}{2} - y, \frac{1}{2} - z]$	[26,122]
27	$[-x, y + \frac{1}{2}, \frac{1}{2} - z]$	[27,123]
28	$[-x, \frac{1}{2} - y, z + \frac{1}{2}]$	[28,124]
29	$[z, x + \frac{1}{2}, y + \frac{1}{2}]$	[29,125]
30	$[y, z + \frac{1}{2}, x + \frac{1}{2}]$	[30,126]
31	$[-y, z + \frac{1}{2}, \frac{1}{2} - x]$	[31,127]
32	$[-z, \frac{1}{2} - x, y + \frac{1}{2}]$	[32,128]
33	$[-y, \frac{1}{2} - z, x + \frac{1}{2}]$	[33,129]
34	$[z, \frac{1}{2} - x, \frac{1}{2} - y]$	[34,130]
35	$[y, \frac{1}{2} - z, \frac{1}{2} - x]$	[35,131]
36	$[-z, x + \frac{1}{2}, \frac{1}{2} - y]$	[36,132]
37	$[-x, z + \frac{1}{2}, \frac{1}{2} - y]$	[37,133]
38	$[-x, \frac{1}{2} - z, y + \frac{1}{2}]$	[38,134]

continued ...

Table 9

No.	position	mapping
39	$[-z, \frac{1}{2} - y, x + \frac{1}{2}]$	[39,135]
40	$[z, \frac{1}{2} - y, \frac{1}{2} - x]$	[40,136]
41	$[y, \frac{1}{2} - x, \frac{1}{2} - z]$	[41,137]
42	$[-y, x + \frac{1}{2}, \frac{1}{2} - z]$	[42,138]
43	$[-y, \frac{1}{2} - x, z + \frac{1}{2}]$	[43,139]
44	$[y, x + \frac{1}{2}, z + \frac{1}{2}]$	[44,140]
45	$[x, \frac{1}{2} - z, \frac{1}{2} - y]$	[45,141]
46	$[x, z + \frac{1}{2}, y + \frac{1}{2}]$	[46,142]
47	$[-z, y + \frac{1}{2}, \frac{1}{2} - x]$	[47,143]
48	$[z, y + \frac{1}{2}, x + \frac{1}{2}]$	[48,144]
49	$[x + \frac{1}{2}, y, z + \frac{1}{2}]$	[49,145]
50	$[x + \frac{1}{2}, -y, \frac{1}{2} - z]$	[50,146]
51	$[\frac{1}{2} - x, y, \frac{1}{2} - z]$	[51,147]
52	$[\frac{1}{2} - x, -y, z + \frac{1}{2}]$	[52,148]
53	$[z + \frac{1}{2}, x, y + \frac{1}{2}]$	[53,149]
54	$[y + \frac{1}{2}, z, x + \frac{1}{2}]$	[54,150]
55	$[\frac{1}{2} - y, z, \frac{1}{2} - x]$	[55,151]
56	$[\frac{1}{2} - z, -x, y + \frac{1}{2}]$	[56,152]
57	$[\frac{1}{2} - y, -z, x + \frac{1}{2}]$	[57,153]
58	$[z + \frac{1}{2}, -x, \frac{1}{2} - y]$	[58,154]
59	$[y + \frac{1}{2}, -z, \frac{1}{2} - x]$	[59,155]
60	$[\frac{1}{2} - z, x, \frac{1}{2} - y]$	[60,156]
61	$[\frac{1}{2} - x, z, \frac{1}{2} - y]$	[61,157]
62	$[\frac{1}{2} - x, -z, y + \frac{1}{2}]$	[62,158]
63	$[\frac{1}{2} - z, -y, x + \frac{1}{2}]$	[63,159]
64	$[z + \frac{1}{2}, -y, \frac{1}{2} - x]$	[64,160]
65	$[y + \frac{1}{2}, -x, \frac{1}{2} - z]$	[65,161]
66	$[\frac{1}{2} - y, x, \frac{1}{2} - z]$	[66,162]
67	$[\frac{1}{2} - y, -x, z + \frac{1}{2}]$	[67,163]
68	$[y + \frac{1}{2}, x, z + \frac{1}{2}]$	[68,164]
69	$[x + \frac{1}{2}, -z, \frac{1}{2} - y]$	[69,165]
70	$[x + \frac{1}{2}, z, y + \frac{1}{2}]$	[70,166]
71	$[\frac{1}{2} - z, y, \frac{1}{2} - x]$	[71,167]
72	$[z + \frac{1}{2}, y, x + \frac{1}{2}]$	[72,168]
73	$[x + \frac{1}{2}, y + \frac{1}{2}, z]$	[73,169]
74	$[x + \frac{1}{2}, \frac{1}{2} - y, -z]$	[74,170]
75	$[\frac{1}{2} - x, y + \frac{1}{2}, -z]$	[75,171]
76	$[\frac{1}{2} - x, \frac{1}{2} - y, z]$	[76,172]
77	$[z + \frac{1}{2}, x + \frac{1}{2}, y]$	[77,173]
78	$[y + \frac{1}{2}, z + \frac{1}{2}, x]$	[78,174]
79	$[\frac{1}{2} - y, z + \frac{1}{2}, -x]$	[79,175]
80	$[\frac{1}{2} - z, \frac{1}{2} - x, y]$	[80,176]
81	$[\frac{1}{2} - y, \frac{1}{2} - z, x]$	[81,177]
82	$[z + \frac{1}{2}, \frac{1}{2} - x, -y]$	[82,178]
83	$[y + \frac{1}{2}, \frac{1}{2} - z, -x]$	[83,179]
84	$[\frac{1}{2} - z, x + \frac{1}{2}, -y]$	[84,180]
85	$[\frac{1}{2} - x, z + \frac{1}{2}, -y]$	[85,181]

continued ...

Table 9

No.	position	mapping
86	$[\frac{1}{2} - x, \frac{1}{2} - z, y]$	[86,182]
87	$[\frac{1}{2} - z, \frac{1}{2} - y, x]$	[87,183]
88	$[z + \frac{1}{2}, \frac{1}{2} - y, -x]$	[88,184]
89	$[y + \frac{1}{2}, \frac{1}{2} - x, -z]$	[89,185]
90	$[\frac{1}{2} - y, x + \frac{1}{2}, -z]$	[90,186]
91	$[\frac{1}{2} - y, \frac{1}{2} - x, z]$	[91,187]
92	$[y + \frac{1}{2}, x + \frac{1}{2}, z]$	[92,188]
93	$[x + \frac{1}{2}, \frac{1}{2} - z, -y]$	[93,189]
94	$[x + \frac{1}{2}, z + \frac{1}{2}, y]$	[94,190]
95	$[\frac{1}{2} - z, y + \frac{1}{2}, -x]$	[95,191]
96	$[z + \frac{1}{2}, y + \frac{1}{2}, x]$	[96,192]