

# MSG No. 202.22 $Fm\bar{3}$ [ Type I, cubic ]

Table 1: Wyckoff site: 4a, site symmetry:  $m-3$ .

No.	position	mapping
1	$[0, 0, 0]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24]$
2	$[0, \frac{1}{2}, \frac{1}{2}]$	$[25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48]$
3	$[\frac{1}{2}, 0, \frac{1}{2}]$	$[49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72]$
4	$[\frac{1}{2}, \frac{1}{2}, 0]$	$[73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96]$

Table 2: Wyckoff site: 4b, site symmetry:  $m-3$ .

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24]$
2	$[\frac{1}{2}, 0, 0]$	$[25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48]$
3	$[0, \frac{1}{2}, 0]$	$[49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72]$
4	$[0, 0, \frac{1}{2}]$	$[73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96]$

Table 3: Wyckoff site: 8c, site symmetry:  $23$ .

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

Table 4: Wyckoff site: 24d, site symmetry:  $2/m$ .

No.	position	mapping
1	$[0, \frac{1}{4}, \frac{1}{4}]$	$[1, 14, 26, 37]$
2	$[0, \frac{3}{4}, \frac{3}{4}]$	$[2, 13, 25, 38]$
3	$[0, \frac{1}{4}, \frac{3}{4}]$	$[3, 16, 28, 39]$
4	$[0, \frac{3}{4}, \frac{1}{4}]$	$[4, 15, 27, 40]$
5	$[\frac{1}{4}, 0, \frac{1}{4}]$	$[5, 24, 60, 65]$
6	$[\frac{1}{4}, \frac{1}{4}, 0]$	$[6, 21, 81, 90]$
7	$[\frac{3}{4}, \frac{1}{4}, 0]$	$[7, 23, 83, 91]$
8	$[\frac{3}{4}, 0, \frac{1}{4}]$	$[8, 22, 58, 68]$
9	$[\frac{3}{4}, \frac{3}{4}, 0]$	$[9, 18, 78, 93]$

*continued ...*

Table 4

No.	position	mapping
10	$[\frac{1}{4}, 0, \frac{3}{4}]$	[10, 20, 56, 70]
11	$[\frac{1}{4}, \frac{3}{4}, 0]$	[11, 19, 79, 95]
12	$[\frac{3}{4}, 0, \frac{3}{4}]$	[12, 17, 53, 72]
13	$[\frac{1}{4}, \frac{1}{2}, \frac{3}{4}]$	[29, 48, 84, 89]
14	$[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}]$	[30, 45, 57, 66]
15	$[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}]$	[31, 47, 59, 67]
16	$[\frac{3}{4}, \frac{1}{2}, \frac{3}{4}]$	[32, 46, 82, 92]
17	$[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}]$	[33, 42, 54, 69]
18	$[\frac{1}{4}, \frac{1}{2}, \frac{1}{4}]$	[34, 44, 80, 94]
19	$[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}]$	[35, 43, 55, 71]
20	$[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}]$	[36, 41, 77, 96]
21	$[\frac{1}{2}, \frac{1}{4}, \frac{3}{4}]$	[49, 62, 74, 85]
22	$[\frac{1}{2}, \frac{3}{4}, \frac{1}{4}]$	[50, 61, 73, 86]
23	$[\frac{1}{2}, \frac{1}{4}, \frac{1}{4}]$	[51, 64, 76, 87]
24	$[\frac{1}{2}, \frac{3}{4}, \frac{3}{4}]$	[52, 63, 75, 88]

Table 5: Wyckoff site: **24e**, site symmetry: **2mm** . .

No.	position	mapping
1	$[x, 0, 0]$	[1, 2, 15, 16]
2	$[-x, 0, 0]$	[3, 4, 13, 14]
3	$[0, x, 0]$	[5, 12, 20, 22]
4	$[0, 0, x]$	[6, 9, 19, 23]
5	$[0, 0, -x]$	[7, 11, 18, 21]
6	$[0, -x, 0]$	[8, 10, 17, 24]
7	$[x, \frac{1}{2}, \frac{1}{2}]$	[25, 26, 39, 40]
8	$[-x, \frac{1}{2}, \frac{1}{2}]$	[27, 28, 37, 38]
9	$[0, x + \frac{1}{2}, \frac{1}{2}]$	[29, 36, 44, 46]
10	$[0, \frac{1}{2}, x + \frac{1}{2}]$	[30, 33, 43, 47]
11	$[0, \frac{1}{2}, \frac{1}{2} - x]$	[31, 35, 42, 45]
12	$[0, \frac{1}{2} - x, \frac{1}{2}]$	[32, 34, 41, 48]
13	$[x + \frac{1}{2}, 0, \frac{1}{2}]$	[49, 50, 63, 64]
14	$[\frac{1}{2} - x, 0, \frac{1}{2}]$	[51, 52, 61, 62]
15	$[\frac{1}{2}, x, \frac{1}{2}]$	[53, 60, 68, 70]
16	$[\frac{1}{2}, 0, x + \frac{1}{2}]$	[54, 57, 67, 71]
17	$[\frac{1}{2}, 0, \frac{1}{2} - x]$	[55, 59, 66, 69]
18	$[\frac{1}{2}, -x, \frac{1}{2}]$	[56, 58, 65, 72]
19	$[x + \frac{1}{2}, \frac{1}{2}, 0]$	[73, 74, 87, 88]
20	$[\frac{1}{2} - x, \frac{1}{2}, 0]$	[75, 76, 85, 86]
21	$[\frac{1}{2}, x + \frac{1}{2}, 0]$	[77, 84, 92, 94]
22	$[\frac{1}{2}, \frac{1}{2}, x]$	[78, 81, 91, 95]
23	$[\frac{1}{2}, \frac{1}{2}, -x]$	[79, 83, 90, 93]
24	$[\frac{1}{2}, \frac{1}{2} - x, 0]$	[80, 82, 89, 96]

Table 6: Wyckoff site: **32f**, site symmetry:  $\bar{3}$ .

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

Table 7: Wyckoff site: **48g**, site symmetry:  $2\bar{1}$ .

No.	position	mapping
1	$[x, \frac{1}{4}, \frac{1}{4}]$	$[1, 26]$
2	$[x, \frac{3}{4}, \frac{3}{4}]$	$[2, 25]$
3	$[-x, \frac{1}{4}, \frac{3}{4}]$	$[3, 28]$
4	$[-x, \frac{3}{4}, \frac{1}{4}]$	$[4, 27]$
5	$[\frac{1}{4}, x, \frac{1}{4}]$	$[5, 60]$
6	$[\frac{1}{4}, \frac{1}{4}, x]$	$[6, 81]$
7	$[\frac{3}{4}, \frac{1}{4}, -x]$	$[7, 83]$

*continued ...*

Table 7

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

Table 8: Wyckoff site: 48h, site symmetry:  $m..$ 

No.	position	mapping
1	$[0, y, z]$	$[1, 14]$
2	$[0, -y, -z]$	$[2, 13]$
3	$[0, y, -z]$	$[3, 16]$
4	$[0, -y, z]$	$[4, 15]$
5	$[z, 0, y]$	$[5, 24]$
6	$[y, z, 0]$	$[6, 21]$
7	$[-y, z, 0]$	$[7, 23]$
8	$[-z, 0, y]$	$[8, 22]$
9	$[-y, -z, 0]$	$[9, 18]$
10	$[z, 0, -y]$	$[10, 20]$
11	$[y, -z, 0]$	$[11, 19]$
12	$[-z, 0, -y]$	$[12, 17]$
13	$[0, y + \frac{1}{2}, z + \frac{1}{2}]$	$[25, 38]$
14	$[0, \frac{1}{2} - y, \frac{1}{2} - z]$	$[26, 37]$
15	$[0, y + \frac{1}{2}, \frac{1}{2} - z]$	$[27, 40]$
16	$[0, \frac{1}{2} - y, z + \frac{1}{2}]$	$[28, 39]$
17	$[z, \frac{1}{2}, y + \frac{1}{2}]$	$[29, 48]$
18	$[y, z + \frac{1}{2}, \frac{1}{2}]$	$[30, 45]$
19	$[-y, z + \frac{1}{2}, \frac{1}{2}]$	$[31, 47]$
20	$[-z, \frac{1}{2}, y + \frac{1}{2}]$	$[32, 46]$
21	$[-y, \frac{1}{2} - z, \frac{1}{2}]$	$[33, 42]$
22	$[z, \frac{1}{2}, \frac{1}{2} - y]$	$[34, 44]$
23	$[y, \frac{1}{2} - z, \frac{1}{2}]$	$[35, 43]$
24	$[-z, \frac{1}{2}, \frac{1}{2} - y]$	$[36, 41]$
25	$[\frac{1}{2}, y, z + \frac{1}{2}]$	$[49, 62]$
26	$[\frac{1}{2}, -y, \frac{1}{2} - z]$	$[50, 61]$
27	$[\frac{1}{2}, y, \frac{1}{2} - z]$	$[51, 64]$
28	$[\frac{1}{2}, -y, z + \frac{1}{2}]$	$[52, 63]$
29	$[z + \frac{1}{2}, 0, y + \frac{1}{2}]$	$[53, 72]$
30	$[y + \frac{1}{2}, z, \frac{1}{2}]$	$[54, 69]$
31	$[\frac{1}{2} - y, z, \frac{1}{2}]$	$[55, 71]$
32	$[\frac{1}{2} - z, 0, y + \frac{1}{2}]$	$[56, 70]$
33	$[\frac{1}{2} - y, -z, \frac{1}{2}]$	$[57, 66]$
34	$[z + \frac{1}{2}, 0, \frac{1}{2} - y]$	$[58, 68]$
35	$[y + \frac{1}{2}, -z, \frac{1}{2}]$	$[59, 67]$
36	$[\frac{1}{2} - z, 0, \frac{1}{2} - y]$	$[60, 65]$
37	$[\frac{1}{2}, y + \frac{1}{2}, z]$	$[73, 86]$
38	$[\frac{1}{2}, \frac{1}{2} - y, -z]$	$[74, 85]$
39	$[\frac{1}{2}, y + \frac{1}{2}, -z]$	$[75, 88]$
40	$[\frac{1}{2}, \frac{1}{2} - y, z]$	$[76, 87]$
41	$[z + \frac{1}{2}, \frac{1}{2}, y]$	$[77, 96]$
42	$[y + \frac{1}{2}, z + \frac{1}{2}, 0]$	$[78, 93]$
43	$[\frac{1}{2} - y, z + \frac{1}{2}, 0]$	$[79, 95]$
44	$[\frac{1}{2} - z, \frac{1}{2}, y]$	$[80, 94]$
45	$[\frac{1}{2} - y, \frac{1}{2} - z, 0]$	$[81, 90]$
46	$[z + \frac{1}{2}, \frac{1}{2}, -y]$	$[82, 92]$

*continued ...*

Table 8

No.	position	mapping
47	$[y + \frac{1}{2}, \frac{1}{2} - z, 0]$	[83, 91]
48	$[\frac{1}{2} - z, \frac{1}{2}, -y]$	[84, 89]

Table 9: Wyckoff site: **96i**, site symmetry: 1

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

continued ...

Table 9

No.	position	mapping
39	$[x, \frac{1}{2} - y, z + \frac{1}{2}]$	[39]
40	$[x, y + \frac{1}{2}, \frac{1}{2} - z]$	[40]
41	$[-z, \frac{1}{2} - x, \frac{1}{2} - y]$	[41]
42	$[-y, \frac{1}{2} - z, \frac{1}{2} - x]$	[42]
43	$[y, \frac{1}{2} - z, x + \frac{1}{2}]$	[43]
44	$[z, x + \frac{1}{2}, \frac{1}{2} - y]$	[44]
45	$[y, z + \frac{1}{2}, \frac{1}{2} - x]$	[45]
46	$[-z, x + \frac{1}{2}, y + \frac{1}{2}]$	[46]
47	$[-y, z + \frac{1}{2}, x + \frac{1}{2}]$	[47]
48	$[z, \frac{1}{2} - x, y + \frac{1}{2}]$	[48]
49	$[x + \frac{1}{2}, y, z + \frac{1}{2}]$	[49]
50	$[x + \frac{1}{2}, -y, \frac{1}{2} - z]$	[50]
51	$[\frac{1}{2} - x, y, \frac{1}{2} - z]$	[51]
52	$[\frac{1}{2} - x, -y, z + \frac{1}{2}]$	[52]
53	$[z + \frac{1}{2}, x, y + \frac{1}{2}]$	[53]
54	$[y + \frac{1}{2}, z, x + \frac{1}{2}]$	[54]
55	$[\frac{1}{2} - y, z, \frac{1}{2} - x]$	[55]
56	$[\frac{1}{2} - z, -x, y + \frac{1}{2}]$	[56]
57	$[\frac{1}{2} - y, -z, x + \frac{1}{2}]$	[57]
58	$[z + \frac{1}{2}, -x, \frac{1}{2} - y]$	[58]
59	$[y + \frac{1}{2}, -z, \frac{1}{2} - x]$	[59]
60	$[\frac{1}{2} - z, x, \frac{1}{2} - y]$	[60]
61	$[\frac{1}{2} - x, -y, \frac{1}{2} - z]$	[61]
62	$[\frac{1}{2} - x, y, z + \frac{1}{2}]$	[62]
63	$[x + \frac{1}{2}, -y, z + \frac{1}{2}]$	[63]
64	$[x + \frac{1}{2}, y, \frac{1}{2} - z]$	[64]
65	$[\frac{1}{2} - z, -x, \frac{1}{2} - y]$	[65]
66	$[\frac{1}{2} - y, -z, \frac{1}{2} - x]$	[66]
67	$[y + \frac{1}{2}, -z, x + \frac{1}{2}]$	[67]
68	$[z + \frac{1}{2}, x, \frac{1}{2} - y]$	[68]
69	$[y + \frac{1}{2}, z, \frac{1}{2} - x]$	[69]
70	$[\frac{1}{2} - z, x, y + \frac{1}{2}]$	[70]
71	$[\frac{1}{2} - y, z, x + \frac{1}{2}]$	[71]
72	$[z + \frac{1}{2}, -x, y + \frac{1}{2}]$	[72]
73	$[x + \frac{1}{2}, y + \frac{1}{2}, z]$	[73]
74	$[x + \frac{1}{2}, \frac{1}{2} - y, -z]$	[74]
75	$[\frac{1}{2} - x, y + \frac{1}{2}, -z]$	[75]
76	$[\frac{1}{2} - x, \frac{1}{2} - y, z]$	[76]
77	$[z + \frac{1}{2}, x + \frac{1}{2}, y]$	[77]
78	$[y + \frac{1}{2}, z + \frac{1}{2}, x]$	[78]
79	$[\frac{1}{2} - y, z + \frac{1}{2}, -x]$	[79]
80	$[\frac{1}{2} - z, \frac{1}{2} - x, y]$	[80]
81	$[\frac{1}{2} - y, \frac{1}{2} - z, x]$	[81]
82	$[z + \frac{1}{2}, \frac{1}{2} - x, -y]$	[82]
83	$[y + \frac{1}{2}, \frac{1}{2} - z, -x]$	[83]
84	$[\frac{1}{2} - z, x + \frac{1}{2}, -y]$	[84]
85	$[\frac{1}{2} - x, \frac{1}{2} - y, -z]$	[85]

continued ...

Table 9

No.	position	mapping
86	$[\frac{1}{2} - x, y + \frac{1}{2}, z]$	[86]
87	$[x + \frac{1}{2}, \frac{1}{2} - y, z]$	[87]
88	$[x + \frac{1}{2}, y + \frac{1}{2}, -z]$	[88]
89	$[\frac{1}{2} - z, \frac{1}{2} - x, -y]$	[89]
90	$[\frac{1}{2} - y, \frac{1}{2} - z, -x]$	[90]
91	$[y + \frac{1}{2}, \frac{1}{2} - z, x]$	[91]
92	$[z + \frac{1}{2}, x + \frac{1}{2}, -y]$	[92]
93	$[y + \frac{1}{2}, z + \frac{1}{2}, -x]$	[93]
94	$[\frac{1}{2} - z, x + \frac{1}{2}, y]$	[94]
95	$[\frac{1}{2} - y, z + \frac{1}{2}, x]$	[95]
96	$[z + \frac{1}{2}, \frac{1}{2} - x, y]$	[96]