MSG No. 219.87 $F\bar{4}'3c'$ [Type III, cubic]

Table 1: Wyckoff site: 8a, site symmetry: 23.

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

Table 2: Wyckoff site: 8b, site symmetry: 23.

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

Table 3: Wyckoff site: 24c, site symmetry: -4'..

No.	position	mapping
1	$\left[0, \frac{1}{4}, \frac{1}{4}\right]$	[1,26,62,85]
2	$\left[0, \frac{3}{4}, \frac{3}{4}\right]$	[2,25,61,86]
3	$\left[0, \frac{1}{4}, \frac{3}{4}\right]$	[3,28,69,94]
4	$\left[0, \frac{3}{4}, \frac{1}{4}\right]$	[4,27,70,93]
5	$\left[\frac{1}{4}, 0, \frac{1}{4}\right]$	[5,43,60,89]
6	$\left[\frac{1}{4}, \frac{1}{4}, 0\right]$	[6,47,64,81]
7	$\left[\frac{3}{4}, \frac{1}{4}, 0\right]$	[7,48,63,83]
8	$\left[\frac{3}{4}, 0, \frac{1}{4}\right]$	[8,44,58,90]
9	$\left[\frac{3}{4}, \frac{3}{4}, 0\right]$	[9,40,71,78]
10	$\left[\frac{1}{4}, 0, \frac{3}{4}\right]$	[10,42,56,92]
11	$\left[\frac{1}{4}, \frac{3}{4}, 0\right]$	[11,39,72,79]
12	$\left[\frac{3}{4}, 0, \frac{3}{4}\right]$	[12,41,53,91]
13	$\left[\frac{1}{2}, \frac{3}{4}, \frac{1}{4}\right]$	[13,38,50,73]
14	$\left[\frac{1}{2}, \frac{1}{4}, \frac{3}{4}\right]$	[14,37,49,74]
15	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}\right]$	[15,35,55,96]

continued ...

Table 3

No.	position	mapping
16	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}\right]$	[16,33,54,95]
17	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[17,36,67,77]
18	$\left[\frac{1}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[18,34,68,80]
19	$\left[\frac{1}{4}, \frac{1}{2}, \frac{3}{4}\right]$	[19,29,65,84]
20	$\left[\frac{3}{4}, \frac{1}{2}, \frac{3}{4}\right]$	[20,32,66,82]
21	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{4}\right]$	[21,46,51,76]
22	$\left[\frac{1}{2}, \frac{3}{4}, \frac{3}{4}\right]$	[22,45,52,75]
23	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[23,30,57,88]
24	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[24,31,59,87]

Table 4: Wyckoff site: 24d, site symmetry: -4'..

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

Table 5: Wyckoff site: `32e`, site symmetry: `.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	$\left[\frac{1}{2}-x,\ x+\frac{1}{2},\ \frac{1}{2}-x\right]$	`[13,18,23]`
6	$\left[\frac{1}{2}-x,\ \frac{1}{2}-x,\ x+\frac{1}{2}\right]$	`[14,15,19]`
7	$\left[x+\frac{1}{2},\ \frac{1}{2}-x,\ \frac{1}{2}-x\right]$	`[16,17,21]`
8	$\left[x+\frac{1}{2},\ x+\frac{1}{2},\ x+\frac{1}{2}\right]$	`[20,22,24]`
9	$\left[x,\ x+\frac{1}{2},\ x+\frac{1}{2}\right]$	`[25,29,30]`
10	$\left[x,\ \frac{1}{2}-x,\ \frac{1}{2}-x\right]$	`[26,34,35]`
11	$\left[-x,\ x+\frac{1}{2},\ \frac{1}{2}-x\right]$	`[27,31,36]`
12	$\left[-x,\ \frac{1}{2}-x,\ x+\frac{1}{2}\right]$	`[28,32,33]`
13	$\left[\frac{1}{2}-x,\ x,\ -x\right]$	`[37,42,47]`
14	$\left[\frac{1}{2}-x,\ -x,\ x\right]$	`[38,39,43]`
15	$\left[x+\frac{1}{2},\ -x,\ -x\right]$	`[40,41,45]`
16	$\left[x+\frac{1}{2},\ x,\ x\right]$	`[44,46,48]`
17	$\left[x+\frac{1}{2},\ x,\ x+\frac{1}{2}\right]$	`[49,53,54]`
18	$\left[x+\frac{1}{2},\ -x,\ \frac{1}{2}-x\right]$	`[50,58,59]`
19	$\left[\frac{1}{2}-x,\ x,\ \frac{1}{2}-x\right]$	`[51,55,60]`
20	$\left[\frac{1}{2}-x,\ -x,\ x+\frac{1}{2}\right]$	`[52,56,57]`
21	$\left[-x,\ x+\frac{1}{2},\ -x\right]$	`[61,66,71]`
22	$\left[-x,\ \frac{1}{2}-x,\ x\right]$	`[62,63,67]`
23	$\left[x,\ \frac{1}{2}-x,\ -x\right]$	`[64,65,69]`
24	$\left[x,\ x+\frac{1}{2},\ x\right]$	`[68,70,72]`
25	$\left[x+\frac{1}{2},\ x+\frac{1}{2},\ x\right]$	`[73,77,78]`
26	$\left[x+\frac{1}{2},\ \frac{1}{2}-x,\ -x\right]$	`[74,82,83]`
27	$\left[\frac{1}{2}-x,\ x+\frac{1}{2},\ -x\right]$	`[75,79,84]`
28	$\left[\frac{1}{2}-x,\ \frac{1}{2}-x,\ x\right]$	`[76,80,81]`
29	$\left[-x,\ x,\ \frac{1}{2}-x\right]$	`[85,90,95]`
30	$\left[-x,\ -x,\ x+\frac{1}{2}\right]$	`[86,87,91]`
31	$\left[x,\ -x,\ \frac{1}{2}-x\right]$	`[88,89,93]`
32	$\left[x,\ x,\ x+\frac{1}{2}\right]$	`[92,94,96]`

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

No.	position	mapping
1	$[x,\ 0,\ 0]$	`[1,2]`
2	$[-x,\ 0,\ 0]$	`[3,4]`
3	$[0,\ x,\ 0]$	`[5,12]`
4	$[0,\ 0,\ x]$	`[6,9]`
5	$[0,\ 0,\ -x]$	`[7,11]`
6	$[0,\ -x,\ 0]$	`[8,10]`
7	$\left[\frac{1}{2}-x,\ \frac{1}{2},\ \frac{1}{2}\right]$	`[13,14]`

continued ...

Table 6

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

Table 7: Wyckoff site: `48g`, site symmetry: `2..`

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

continued ...

Table 7

No.	position	mapping
47	$\left[x,\ \frac{1}{4},\ \frac{3}{4}\right]$	[69,94]
48	$\left[x,\ \frac{3}{4},\ \frac{1}{4}\right]$	[70,93]

Table 8: Wyckoff site: 96h, 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	$\left[\frac{1}{2}-x,\ z+\frac{1}{2},\ \frac{1}{2}-y\right]$	[13]
14	$\left[\frac{1}{2}-x,\ \frac{1}{2}-z,\ y+\frac{1}{2}\right]$	[14]
15	$\left[\frac{1}{2}-z,\ \frac{1}{2}-y,\ x+\frac{1}{2}\right]$	[15]
16	$\left[z+\frac{1}{2},\ \frac{1}{2}-y,\ \frac{1}{2}-x\right]$	[16]
17	$\left[y+\frac{1}{2},\ \frac{1}{2}-x,\ \frac{1}{2}-z\right]$	[17]
18	$\left[\frac{1}{2}-y,\ x+\frac{1}{2},\ \frac{1}{2}-z\right]$	[18]
19	$\left[\frac{1}{2}-y,\ \frac{1}{2}-x,\ z+\frac{1}{2}\right]$	[19]
20	$\left[y+\frac{1}{2},\ x+\frac{1}{2},\ z+\frac{1}{2}\right]$	[20]
21	$\left[x+\frac{1}{2},\ \frac{1}{2}-z,\ \frac{1}{2}-y\right]$	[21]
22	$\left[x+\frac{1}{2},\ z+\frac{1}{2},\ y+\frac{1}{2}\right]$	[22]
23	$\left[\frac{1}{2}-z,\ y+\frac{1}{2},\ \frac{1}{2}-x\right]$	[23]
24	$\left[z+\frac{1}{2},\ y+\frac{1}{2},\ x+\frac{1}{2}\right]$	[24]
25	$\left[x,\ y+\frac{1}{2},\ z+\frac{1}{2}\right]$	[25]
26	$\left[x,\ \frac{1}{2}-y,\ \frac{1}{2}-z\right]$	[26]
27	$\left[-x,\ y+\frac{1}{2},\ \frac{1}{2}-z\right]$	[27]
28	$\left[-x,\ \frac{1}{2}-y,\ z+\frac{1}{2}\right]$	[28]
29	$\left[z,\ x+\frac{1}{2},\ y+\frac{1}{2}\right]$	[29]
30	$\left[y,\ z+\frac{1}{2},\ x+\frac{1}{2}\right]$	[30]
31	$\left[-y,\ z+\frac{1}{2},\ \frac{1}{2}-x\right]$	[31]
32	$\left[-z,\ \frac{1}{2}-x,\ y+\frac{1}{2}\right]$	[32]
33	$\left[-y,\ \frac{1}{2}-z,\ x+\frac{1}{2}\right]$	[33]
34	$\left[z,\ \frac{1}{2}-x,\ \frac{1}{2}-y\right]$	[34]
35	$\left[y,\ \frac{1}{2}-z,\ \frac{1}{2}-x\right]$	[35]
36	$\left[-z,\ x+\frac{1}{2},\ \frac{1}{2}-y\right]$	[36]
37	$\left[\frac{1}{2}-x,\ z,\ -y\right]$	[37]
38	$\left[\frac{1}{2}-x,\ -z,\ y\right]$	[38]

continued ...

Table 8

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

continued ...

Table 8

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