MSG No. 230.148 $Ia\bar{3}d'$ [Type III, cubic]

Table 1: Wyckoff site: `16a`, site symmetry: `.-3.`

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

Table 2: Wyckoff site: `16b`, site symmetry: `.32'`

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

Table 3: Wyckoff site: `24c`, site symmetry: `2.2'2'`

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

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

No.	position	mapping
1	$\left[\frac{3}{8}, 0, \frac{1}{4}\right]$	`[1,2,38,85]`
2	$\left[\frac{1}{8}, 0, \frac{3}{4}\right]$	`[3,52,93,94]`
3	$\left[\frac{5}{8}, \frac{1}{2}, \frac{1}{4}\right]$	`[4,45,46,51]`
4	$\left[\frac{1}{4}, \frac{3}{8}, 0\right]$	`[5,12,41,91]`
5	$\left[0, \frac{1}{4}, \frac{3}{8}\right]$	`[6,9,47,88]`
6	$\left[\frac{1}{2}, \frac{1}{4}, \frac{5}{8}\right]$	`[7,39,48,59]`
7	$\left[\frac{3}{4}, \frac{1}{8}, 0\right]$	`[8,58,90,92]`
8	$\left[\frac{1}{4}, \frac{5}{8}, \frac{1}{2}\right]$	`[10,42,44,56]`
9	$\left[0, \frac{3}{4}, \frac{1}{8}\right]$	`[11,55,87,96]`
10	$\left[\frac{5}{8}, 0, \frac{3}{4}\right]$	`[13,14,25,74]`
11	$\left[\frac{7}{8}, 0, \frac{1}{4}\right]$	`[15,33,34,64]`
12	$\left[\frac{3}{8}, \frac{1}{2}, \frac{3}{4}\right]$	`[16,63,81,82]`
13	$\left[\frac{3}{4}, \frac{5}{8}, 0\right]$	`[17,24,31,77]`
14	$\left[0, \frac{3}{4}, \frac{5}{8}\right]$	`[18,21,28,83]`
15	$\left[\frac{1}{2}, \frac{3}{4}, \frac{3}{8}\right]$	`[19,71,75,84]`

continued ...

Table 4

No.	position	mapping
16	$\left[\frac{1}{4}, \frac{7}{8}, 0\right]$	[20,30,32,70]
17	$\left[\frac{3}{4}, \frac{3}{8}, \frac{1}{2}\right]$	[22,68,78,80]
18	$\left[0, \frac{1}{4}, \frac{7}{8}\right]$	[23,27,36,67]
19	$\left[\frac{1}{8}, \frac{1}{2}, \frac{1}{4}\right]$	[26,61,62,73]
20	$\left[\frac{1}{4}, \frac{1}{8}, \frac{1}{2}\right]$	[29,65,72,79]
21	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{8}\right]$	[35,66,69,76]
22	$\left[\frac{7}{8}, \frac{1}{2}, \frac{3}{4}\right]$	[37,49,50,86]
23	$\left[\frac{1}{2}, \frac{3}{4}, \frac{7}{8}\right]$	[40,54,57,95]
24	$\left[\frac{3}{4}, \frac{7}{8}, \frac{1}{2}\right]$	[43,53,60,89]

Table 5: Wyckoff site: 32e, site symmetry: .3.

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

continued ...

Table 5

No.	position	mapping
32	$\left[x+\frac{3}{4}, x+\frac{3}{4}, x+\frac{3}{4}\right]$	[92,94,96]

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

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

continued ...

Table 6

No.	position	mapping
40	$\left[\frac{1}{2}-x,\ \frac{1}{2},\ \frac{1}{4}\right]$	[61,62]
41	$\left[\frac{1}{4},\ \frac{1}{2}-x,\ \frac{1}{2}\right]$	[65,72]
42	$\left[\frac{1}{2},\ \frac{1}{4},\ \frac{1}{2}-x\right]$	[66,69]
43	$\left[\frac{1}{2},\ \frac{3}{4},\ \frac{3}{4}-x\right]$	[75,84]
44	$\left[\frac{3}{4},\ \frac{3}{4}-x,\ \frac{1}{2}\right]$	[78,80]
45	$\left[\frac{3}{4}-x,\ \frac{1}{2},\ \frac{3}{4}\right]$	[81,82]
46	$\left[0,\ \frac{3}{4},\ x+\frac{3}{4}\right]$	[87,96]
47	$\left[\frac{3}{4},\ x+\frac{3}{4},\ 0\right]$	[90,92]
48	$\left[x+\frac{3}{4},\ 0,\ \frac{3}{4}\right]$	[93,94]

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

No.	position	mapping
1	$\left[\frac{1}{8},\ y,\ \frac{1}{4}-y\right]$	[1,34]
2	$\left[\frac{1}{8},\ -y,\ y+\frac{1}{4}\right]$	[2,33]
3	$\left[\frac{3}{8},\ y,\ y+\frac{3}{4}\right]$	[3,25]
4	$\left[\frac{7}{8},\ \frac{1}{2}-y,\ \frac{1}{4}-y\right]$	[4,26]
5	$\left[\frac{1}{4}-y,\ \frac{1}{8},\ y\right]$	[5,32]
6	$\left[y,\ \frac{1}{4}-y,\ \frac{1}{8}\right]$	[6,36]
7	$\left[\frac{1}{2}-y,\ \frac{1}{4}-y,\ \frac{7}{8}\right]$	[7,35]
8	$\left[y+\frac{3}{4},\ \frac{3}{8},\ y\right]$	[8,31]
9	$\left[-y,\ y+\frac{1}{4},\ \frac{1}{8}\right]$	[9,27]
10	$\left[\frac{1}{4}-y,\ \frac{7}{8},\ \frac{1}{2}-y\right]$	[10,29]
11	$\left[y,\ y+\frac{3}{4},\ \frac{3}{8}\right]$	[11,28]
12	$\left[y+\frac{1}{4},\ \frac{1}{8},\ -y\right]$	[12,30]
13	$\left[\frac{7}{8},\ -y,\ y+\frac{3}{4}\right]$	[13,94]
14	$\left[\frac{7}{8},\ y,\ \frac{3}{4}-y\right]$	[14,93]
15	$\left[\frac{5}{8},\ -y,\ \frac{1}{4}-y\right]$	[15,85]
16	$\left[\frac{1}{8},\ y+\frac{1}{2},\ y+\frac{3}{4}\right]$	[16,86]
17	$\left[y+\frac{3}{4},\ \frac{7}{8},\ -y\right]$	[17,92]
18	$\left[-y,\ y+\frac{3}{4},\ \frac{7}{8}\right]$	[18,96]
19	$\left[y+\frac{1}{2},\ y+\frac{3}{4},\ \frac{1}{8}\right]$	[19,95]
20	$\left[\frac{1}{4}-y,\ \frac{5}{8},\ -y\right]$	[20,91]
21	$\left[y,\ \frac{3}{4}-y,\ \frac{7}{8}\right]$	[21,87]
22	$\left[y+\frac{3}{4},\ \frac{1}{8},\ y+\frac{1}{2}\right]$	[22,89]
23	$\left[-y,\ \frac{1}{4}-y,\ \frac{5}{8}\right]$	[23,88]
24	$\left[\frac{3}{4}-y,\ \frac{7}{8},\ y\right]$	[24,90]
25	$\left[\frac{1}{8},\ \frac{1}{2}-y,\ \frac{3}{4}-y\right]$	[37,63]
26	$\left[\frac{5}{8},\ y,\ y+\frac{1}{4}\right]$	[38,64]
27	$\left[y+\frac{1}{2},\ \frac{1}{4}-y,\ \frac{3}{8}\right]$	[39,69]
28	$\left[\frac{1}{2}-y,\ \frac{3}{4}-y,\ \frac{1}{8}\right]$	[40,71]
29	$\left[y+\frac{1}{4},\ \frac{5}{8},\ y\right]$	[41,70]
30	$\left[\frac{1}{4}-y,\ \frac{3}{8},\ y+\frac{1}{2}\right]$	[42,72]
31	$\left[\frac{3}{4}-y,\ \frac{1}{8},\ \frac{1}{2}-y\right]$	[43,68]

continued ...

Table 7

No.	position	mapping
32	$\left[y+\frac{1}{4}, \frac{3}{8}, \frac{1}{2}-y\right]$	[44,65]
33	$\left[\frac{3}{8}, y+\frac{1}{2}, \frac{1}{4}-y\right]$	[45,62]
34	$\left[\frac{3}{8}, \frac{1}{2}-y, y+\frac{1}{4}\right]$	[46,61]
35	$\left[y, y+\frac{1}{4}, \frac{5}{8}\right]$	[47,67]
36	$\left[\frac{1}{2}-y, y+\frac{1}{4}, \frac{3}{8}\right]$	[48,66]
37	$\left[\frac{5}{8}, y+\frac{1}{2}, \frac{3}{4}-y\right]$	[49,82]
38	$\left[\frac{5}{8}, \frac{1}{2}-y, y+\frac{3}{4}\right]$	[50,81]
39	$\left[\frac{7}{8}, y+\frac{1}{2}, y+\frac{1}{4}\right]$	[51,73]
40	$\left[\frac{3}{8}, -y, \frac{3}{4}-y\right]$	[52,74]
41	$\left[\frac{3}{4}-y, \frac{5}{8}, y+\frac{1}{2}\right]$	[53,80]
42	$\left[y+\frac{1}{2}, \frac{3}{4}-y, \frac{5}{8}\right]$	[54,84]
43	$\left[-y, \frac{3}{4}-y, \frac{3}{8}\right]$	[55,83]
44	$\left[y+\frac{1}{4}, \frac{7}{8}, y+\frac{1}{2}\right]$	[56,79]
45	$\left[\frac{1}{2}-y, y+\frac{3}{4}, \frac{5}{8}\right]$	[57,75]
46	$\left[\frac{3}{4}-y, \frac{3}{8}, -y\right]$	[58,77]
47	$\left[y+\frac{1}{2}, y+\frac{1}{4}, \frac{7}{8}\right]$	[59,76]
48	$\left[y+\frac{3}{4}, \frac{5}{8}, \frac{1}{2}-y\right]$	[60,78]

Table 8: Wyckoff site: 96h, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1]
2	$\left[x, -y, \frac{1}{2}-z\right]$	[2]
3	$\left[\frac{1}{2}-x, y, -z\right]$	[3]
4	$\left[-x, \frac{1}{2}-y, z\right]$	[4]
5	$[z, x, y]$	[5]
6	$[y, z, x]$	[6]
7	$\left[\frac{1}{2}-y, z, -x\right]$	[7]
8	$\left[-z, \frac{1}{2}-x, y\right]$	[8]
9	$\left[-y, \frac{1}{2}-z, x\right]$	[9]
10	$\left[z, -x, \frac{1}{2}-y\right]$	[10]
11	$\left[y, -z, \frac{1}{2}-x\right]$	[11]
12	$\left[\frac{1}{2}-z, x, -y\right]$	[12]
13	$[-x, -y, -z]$	[13]
14	$\left[-x, y, z+\frac{1}{2}\right]$	[14]
15	$\left[x+\frac{1}{2}, -y, z\right]$	[15]
16	$\left[x, y+\frac{1}{2}, -z\right]$	[16]
17	$[-z, -x, -y]$	[17]
18	$[-y, -z, -x]$	[18]
19	$\left[y+\frac{1}{2}, -z, x\right]$	[19]
20	$\left[z, x+\frac{1}{2}, -y\right]$	[20]
21	$\left[y, z+\frac{1}{2}, -x\right]$	[21]
22	$\left[-z, x, y+\frac{1}{2}\right]$	[22]
23	$\left[-y, z, x+\frac{1}{2}\right]$	[23]

continued ...

Table 8

No.	position	mapping
24	$\left[z+\frac{1}{2},\,-x,\,y\right]$	[24]
25	$\left[x+\frac{1}{4},\,\frac{1}{4}-z,\,y+\frac{3}{4}\right]$	[25]
26	$\left[x+\frac{3}{4},\,z+\frac{1}{4},\,\frac{1}{4}-y\right]$	[26]
27	$\left[z+\frac{3}{4},\,y+\frac{1}{4},\,\frac{1}{4}-x\right]$	[27]
28	$\left[\frac{1}{4}-z,\,y+\frac{3}{4},\,x+\frac{1}{4}\right]$	[28]
29	$\left[\frac{1}{4}-y,\,x+\frac{3}{4},\,z+\frac{1}{4}\right]$	[29]
30	$\left[y+\frac{1}{4},\,\frac{1}{4}-x,\,z+\frac{3}{4}\right]$	[30]
31	$\left[y+\frac{3}{4},\,x+\frac{1}{4},\,\frac{1}{4}-z\right]$	[31]
32	$\left[\frac{1}{4}-y,\,\frac{1}{4}-x,\,\frac{1}{4}-z\right]$	[32]
33	$\left[\frac{1}{4}-x,\,z+\frac{3}{4},\,y+\frac{1}{4}\right]$	[33]
34	$\left[\frac{1}{4}-x,\,\frac{1}{4}-z,\,\frac{1}{4}-y\right]$	[34]
35	$\left[z+\frac{1}{4},\,\frac{1}{4}-y,\,x+\frac{3}{4}\right]$	[35]
36	$\left[\frac{1}{4}-z,\,\frac{1}{4}-y,\,\frac{1}{4}-x\right]$	[36]
37	$\left[\frac{1}{4}-x,\,z+\frac{1}{4},\,\frac{3}{4}-y\right]$	[37]
38	$\left[\frac{3}{4}-x,\,\frac{1}{4}-z,\,y+\frac{1}{4}\right]$	[38]
39	$\left[\frac{3}{4}-z,\,\frac{1}{4}-y,\,x+\frac{1}{4}\right]$	[39]
40	$\left[z+\frac{1}{4},\,\frac{3}{4}-y,\,\frac{1}{4}-x\right]$	[40]
41	$\left[y+\frac{1}{4},\,\frac{3}{4}-x,\,\frac{1}{4}-z\right]$	[41]
42	$\left[\frac{1}{4}-y,\,x+\frac{1}{4},\,\frac{3}{4}-z\right]$	[42]
43	$\left[\frac{3}{4}-y,\,\frac{1}{4}-x,\,z+\frac{1}{4}\right]$	[43]
44	$\left[y+\frac{1}{4},\,x+\frac{1}{4},\,z+\frac{1}{4}\right]$	[44]
45	$\left[x+\frac{1}{4},\,\frac{3}{4}-z,\,\frac{1}{4}-y\right]$	[45]
46	$\left[x+\frac{1}{4},\,z+\frac{1}{4},\,y+\frac{1}{4}\right]$	[46]
47	$\left[\frac{1}{4}-z,\,y+\frac{1}{4},\,\frac{3}{4}-x\right]$	[47]
48	$\left[z+\frac{1}{4},\,y+\frac{1}{4},\,x+\frac{1}{4}\right]$	[48]
49	$\left[x+\frac{1}{2},\,y+\frac{1}{2},\,z+\frac{1}{2}\right]$	[49]
50	$\left[x+\frac{1}{2},\,\frac{1}{2}-y,\,-z\right]$	[50]
51	$\left[-x,\,y+\frac{1}{2},\,\frac{1}{2}-z\right]$	[51]
52	$\left[\frac{1}{2}-x,\,-y,\,z+\frac{1}{2}\right]$	[52]
53	$\left[z+\frac{1}{2},\,x+\frac{1}{2},\,y+\frac{1}{2}\right]$	[53]
54	$\left[y+\frac{1}{2},\,z+\frac{1}{2},\,x+\frac{1}{2}\right]$	[54]
55	$\left[-y,\,z+\frac{1}{2},\,\frac{1}{2}-x\right]$	[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	$\left[z+\frac{1}{2},\,\frac{1}{2}-x,\,-y\right]$	[58]
59	$\left[y+\frac{1}{2},\,\frac{1}{2}-z,\,-x\right]$	[59]
60	$\left[-z,\,x+\frac{1}{2},\,\frac{1}{2}-y\right]$	[60]
61	$\left[\frac{1}{2}-x,\,\frac{1}{2}-y,\,\frac{1}{2}-z\right]$	[61]
62	$\left[\frac{1}{2}-x,\,y+\frac{1}{2},\,z\right]$	[62]
63	$\left[x,\,\frac{1}{2}-y,\,z+\frac{1}{2}\right]$	[63]
64	$\left[x+\frac{1}{2},\,y,\,\frac{1}{2}-z\right]$	[64]
65	$\left[\frac{1}{2}-z,\,\frac{1}{2}-x,\,\frac{1}{2}-y\right]$	[65]
66	$\left[\frac{1}{2}-y,\,\frac{1}{2}-z,\,\frac{1}{2}-x\right]$	[66]
67	$\left[y,\,\frac{1}{2}-z,\,x+\frac{1}{2}\right]$	[67]
68	$\left[z+\frac{1}{2},\,x,\,\frac{1}{2}-y\right]$	[68]
69	$\left[y+\frac{1}{2},\,z,\,\frac{1}{2}-x\right]$	[69]
70	$\left[\frac{1}{2}-z,\,x+\frac{1}{2},\,y\right]$	[70]

continued ...

Table 8

No.	position	mapping
71	$\left[\frac{1}{2}-y,\, z+\frac{1}{2},\, x\right]$	[71]
72	$\left[z,\, \frac{1}{2}-x,\, y+\frac{1}{2}\right]$	[72]
73	$\left[x+\frac{3}{4},\, \frac{3}{4}-z,\, y+\frac{1}{4}\right]$	[73]
74	$\left[x+\frac{1}{4},\, z+\frac{3}{4},\, \frac{3}{4}-y\right]$	[74]
75	$\left[z+\frac{1}{4},\, y+\frac{3}{4},\, \frac{3}{4}-x\right]$	[75]
76	$\left[\frac{3}{4}-z,\, y+\frac{1}{4},\, x+\frac{3}{4}\right]$	[76]
77	$\left[\frac{3}{4}-y,\, x+\frac{1}{4},\, z+\frac{3}{4}\right]$	[77]
78	$\left[y+\frac{3}{4},\, \frac{3}{4}-x,\, z+\frac{1}{4}\right]$	[78]
79	$\left[y+\frac{1}{4},\, x+\frac{3}{4},\, \frac{3}{4}-z\right]$	[79]
80	$\left[\frac{3}{4}-y,\, \frac{3}{4}-x,\, \frac{3}{4}-z\right]$	[80]
81	$\left[\frac{3}{4}-x,\, z+\frac{1}{4},\, y+\frac{3}{4}\right]$	[81]
82	$\left[\frac{3}{4}-x,\, \frac{3}{4}-z,\, \frac{3}{4}-y\right]$	[82]
83	$\left[z+\frac{3}{4},\, \frac{3}{4}-y,\, x+\frac{1}{4}\right]$	[83]
84	$\left[\frac{3}{4}-z,\, \frac{3}{4}-y,\, \frac{3}{4}-x\right]$	[84]
85	$\left[\frac{3}{4}-x,\, z+\frac{3}{4},\, \frac{1}{4}-y\right]$	[85]
86	$\left[\frac{1}{4}-x,\, \frac{3}{4}-z,\, y+\frac{3}{4}\right]$	[86]
87	$\left[\frac{1}{4}-z,\, \frac{3}{4}-y,\, x+\frac{3}{4}\right]$	[87]
88	$\left[z+\frac{3}{4},\, \frac{1}{4}-y,\, \frac{3}{4}-x\right]$	[88]
89	$\left[y+\frac{3}{4},\, \frac{1}{4}-x,\, \frac{3}{4}-z\right]$	[89]
90	$\left[\frac{3}{4}-y,\, x+\frac{3}{4},\, \frac{1}{4}-z\right]$	[90]
91	$\left[\frac{1}{4}-y,\, \frac{3}{4}-x,\, z+\frac{3}{4}\right]$	[91]
92	$\left[y+\frac{3}{4},\, x+\frac{3}{4},\, z+\frac{3}{4}\right]$	[92]
93	$\left[x+\frac{3}{4},\, \frac{1}{4}-z,\, \frac{3}{4}-y\right]$	[93]
94	$\left[x+\frac{3}{4},\, z+\frac{3}{4},\, y+\frac{3}{4}\right]$	[94]
95	$\left[\frac{3}{4}-z,\, y+\frac{3}{4},\, \frac{1}{4}-x\right]$	[95]
96	$\left[z+\frac{3}{4},\, y+\frac{3}{4},\, x+\frac{3}{4}\right]$	[96]