MSG No. 228.134 $Fd\bar{3}c$ [Type I, cubic]

Table 1: Wyckoff site: 16a, site symmetry: 23.

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

Table 2: Wyckoff site: 32b, site symmetry: .32

No.	position	mapping
1	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[1,12,14,16,17,18]
2	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{2}\right]$	[2,7,15,105,115,120]
3	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{4}\right]$	[3,4,11,154,164,165]
4	$\left[\frac{1}{4}, \frac{1}{2}, \frac{1}{2}\right]$	[5,6,13,56,70,71]
5	$\left[\frac{1}{4}, 0, 0\right]$	[8,22,23,53,54,61]
6	$\left[0, \frac{1}{4}, 0\right]$	[9,19,24,98,103,111]
7	$\left[0, 0, \frac{1}{4}\right]$	[10,20,21,147,148,155]
8	$\left[\frac{3}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[25,36,38,40,41,42]
9	$\left[0, \frac{3}{4}, 0\right]$	[26,31,39,129,139,144]
10	$\left[0, 0, \frac{3}{4}\right]$	[27,28,35,178,188,189]
11	$\left[\frac{3}{4}, 0, 0\right]$	[29,30,37,80,94,95]
12	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{2}\right]$	[32,46,47,77,78,85]
13	$\left[\frac{1}{2}, \frac{3}{4}, \frac{1}{2}\right]$	[33,43,48,122,127,135]
14	$\left[\frac{1}{2}, \frac{1}{2}, \frac{3}{4}\right]$	[34,44,45,171,172,179]
15	$\left[\frac{1}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[49,60,62,64,65,66]
16	$\left[\frac{1}{2}, \frac{3}{4}, 0\right]$	[50,55,63,153,163,168]
17	$\left[\frac{1}{2}, 0, \frac{3}{4}\right]$	[51,52,59,106,116,117]
18	$\left[0, \frac{3}{4}, \frac{1}{2}\right]$	[57,67,72,146,151,159]
19	$\left[0, \frac{1}{2}, \frac{3}{4}\right]$	[58,68,69,99,100,107]
20	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[73,84,86,88,89,90]
21	$\left[0, \frac{1}{4}, \frac{1}{2}\right]$	[74,79,87,177,187,192]

continued ...

Table 2

No.	position	mapping
22	$\left[0, \frac{1}{2}, \frac{1}{4}\right]$	[75,76,83,130,140,141]
23	$\left[\frac{1}{2}, \frac{1}{4}, 0\right]$	[81,91,96,170,175,183]
24	$\left[\frac{1}{2}, 0, \frac{1}{4}\right]$	[82,92,93,123,124,131]
25	$\left[\frac{3}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[97,108,110,112,113,114]
26	$\left[\frac{3}{4}, \frac{1}{2}, 0\right]$	[101,102,109,152,166,167]
27	$\left[\frac{3}{4}, 0, \frac{1}{2}\right]$	[104,118,119,149,150,157]
28	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[121,132,134,136,137,138]
29	$\left[\frac{1}{4}, 0, \frac{1}{2}\right]$	[125,126,133,176,190,191]
30	$\left[\frac{1}{4}, \frac{1}{2}, 0\right]$	[128,142,143,173,174,181]
31	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[145,156,158,160,161,162]
32	$\left[\frac{1}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[169,180,182,184,185,186]

Table 3: Wyckoff site: 32c, site symmetry: .-3.

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

continued ...

Table 3

No.	position	mapping
30	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[153,163,168,177,187,192]
31	$\left[\frac{3}{4}, \frac{3}{4}, 0\right]$	[154,164,165,178,188,189]
32	$\left[0, 0, \frac{1}{2}\right]$	[156,158,160,180,182,184]

Table 4: Wyckoff site: 48d, site symmetry: -4..

No.	position	mapping
1	$\left[\frac{7}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[1,8,123,170]
2	$\left[\frac{1}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[2,3,32,73]
3	$\left[\frac{3}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[4,16,91,143]
4	$\left[\frac{3}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[5,15,45,186]
5	$\left[\frac{3}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[6,11,48,137]
6	$\left[\frac{3}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[7,12,92,190]
7	$\left[\frac{3}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[9,10,37,86]
8	$\left[\frac{5}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[13,14,130,177]
9	$\left[\frac{1}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[17,24,83,174]
10	$\left[\frac{1}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[18,21,87,125]
11	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[19,23,28,184]
12	$\left[\frac{1}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[20,22,31,132]
13	$\left[\frac{1}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[25,50,51,80]
14	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[26,75,145,152]
15	$\left[\frac{3}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[27,74,97,104]
16	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[29,114,117,183]
17	$\left[\frac{5}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[30,131,161,168]
18	$\left[\frac{1}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[33,82,157,158]
19	$\left[\frac{1}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[34,81,109,110]
20	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[35,65,72,126]
21	$\left[\frac{5}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[36,116,118,127]
22	$\left[\frac{3}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[38,57,58,85]
23	$\left[\frac{1}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[39,66,69,173]
24	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[40,163,167,172]
25	$\left[\frac{7}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[41,102,107,144]
26	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[42,149,159,189]
27	$\left[\frac{3}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[43,52,64,191]
28	$\left[\frac{3}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[44,55,60,142]
29	$\left[\frac{7}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[46,140,151,156]
30	$\left[\frac{7}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[47,100,112,187]
31	$\left[\frac{7}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[49,56,122,171]
32	$\left[\frac{3}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[53,63,93,138]
33	$\left[\frac{3}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[54,59,96,185]
34	$\left[\frac{5}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[61,62,129,178]
35	$\left[\frac{1}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[67,71,76,136]
36	$\left[\frac{1}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[68,70,79,180]
37	$\left[\frac{5}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[77,135,162,165]

continued ...

Table 4

No.	position	mapping
38	$\left[\frac{5}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[78,113,120,179]
39	$\left[\frac{5}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[84,164,166,175]
40	$\left[\frac{5}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[88,115,119,124]
41	$\left[\frac{7}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[89,150,155,192]
42	$\left[\frac{7}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[90,101,111,141]
43	$\left[\frac{7}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[94,103,108,188]
44	$\left[\frac{7}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[95,139,148,160]
45	$\left[\frac{5}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[98,99,128,169]
46	$\left[\frac{7}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[105,106,133,182]
47	$\left[\frac{5}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[121,146,147,176]
48	$\left[\frac{7}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[134,153,154,181]

Table 5: Wyckoff site: 64e, site symmetry: .3.

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

continued ...

Table 5

No.	position	mapping
30	$\left[x+\frac{1}{4},\ \frac{1}{2}-x,\ x+\frac{3}{4}\right]$	[81,91,96]
31	$\left[x+\frac{1}{4},\ x+\frac{3}{4},\ \frac{1}{2}-x\right]$	[82,92,93]
32	$\left[x+\frac{1}{2},\ x,\ x\right]$	[84,86,88]
33	$\left[x+\frac{1}{2},\ x,\ x+\frac{1}{2}\right]$	[97,113,114]
34	$\left[x+\frac{3}{4},\ \frac{1}{2}-x,\ x+\frac{3}{4}\right]$	[98,103,111]
35	$\left[x+\frac{3}{4},\ x+\frac{1}{4},\ -x\right]$	[99,100,107]
36	$\left[-x,\ x+\frac{1}{4},\ x+\frac{3}{4}\right]$	[101,102,109]
37	$\left[x+\frac{1}{2},\ \frac{1}{4}-x,\ \frac{3}{4}-x\right]$	[104,118,119]
38	$\left[\frac{3}{4}-x,\ x,\ \frac{3}{4}-x\right]$	[105,115,120]
39	$\left[\frac{3}{4}-x,\ \frac{1}{4}-x,\ x+\frac{1}{2}\right]$	[106,116,117]
40	$\left[-x,\ \frac{1}{2}-x,\ -x\right]$	[108,110,112]
41	$\left[\frac{1}{2}-x,\ -x,\ \frac{1}{2}-x\right]$	[121,137,138]
42	$\left[\frac{3}{4}-x,\ x+\frac{1}{2},\ \frac{3}{4}-x\right]$	[122,127,135]
43	$\left[\frac{3}{4}-x,\ \frac{1}{4}-x,\ x\right]$	[123,124,131]
44	$\left[x,\ \frac{1}{4}-x,\ \frac{3}{4}-x\right]$	[125,126,133]
45	$\left[\frac{1}{2}-x,\ x+\frac{1}{4},\ x+\frac{3}{4}\right]$	[128,142,143]
46	$\left[x+\frac{3}{4},\ -x,\ x+\frac{3}{4}\right]$	[129,139,144]
47	$\left[x+\frac{3}{4},\ x+\frac{1}{4},\ \frac{1}{2}-x\right]$	[130,140,141]
48	$\left[x,\ x+\frac{1}{2},\ x\right]$	[132,134,136]
49	$\left[x+\frac{1}{2},\ x+\frac{1}{2},\ x\right]$	[145,161,162]
50	$\left[x+\frac{3}{4},\ -x,\ x+\frac{1}{4}\right]$	[146,151,159]
51	$\left[x+\frac{3}{4},\ x+\frac{3}{4},\ \frac{1}{2}-x\right]$	[147,148,155]
52	$\left[-x,\ x+\frac{3}{4},\ x+\frac{1}{4}\right]$	[149,150,157]
53	$\left[x+\frac{1}{2},\ \frac{3}{4}-x,\ \frac{1}{4}-x\right]$	[152,166,167]
54	$\left[\frac{3}{4}-x,\ x+\frac{1}{2},\ \frac{1}{4}-x\right]$	[153,163,168]
55	$\left[\frac{3}{4}-x,\ \frac{3}{4}-x,\ x\right]$	[154,164,165]
56	$\left[-x,\ -x,\ \frac{1}{2}-x\right]$	[156,158,160]
57	$\left[\frac{1}{2}-x,\ \frac{1}{2}-x,\ -x\right]$	[169,185,186]
58	$\left[\frac{3}{4}-x,\ x,\ \frac{1}{4}-x\right]$	[170,175,183]
59	$\left[\frac{3}{4}-x,\ \frac{3}{4}-x,\ x+\frac{1}{2}\right]$	[171,172,179]
60	$\left[x,\ \frac{3}{4}-x,\ \frac{1}{4}-x\right]$	[173,174,181]
61	$\left[\frac{1}{2}-x,\ x+\frac{3}{4},\ x+\frac{1}{4}\right]$	[176,190,191]
62	$\left[x+\frac{3}{4},\ \frac{1}{2}-x,\ x+\frac{1}{4}\right]$	[177,187,192]
63	$\left[x+\frac{3}{4},\ x+\frac{3}{4},\ -x\right]$	[178,188,189]
64	$\left[x,\ x,\ x+\frac{1}{2}\right]$	[180,182,184]

Table 6: Wyckoff site: 96f, site symmetry: 2..

No.	position	mapping
1	$\left[x,\ \frac{1}{8},\ \frac{1}{8}\right]$	[1,8]
2	$\left[x+\frac{1}{4},\ \frac{3}{8},\ \frac{3}{8}\right]$	[2,3]
3	$\left[\frac{3}{8},\ \frac{3}{8},\ \frac{1}{2}-x\right]$	[4,16]
4	$\left[\frac{3}{8},\ \frac{3}{8},\ x+\frac{1}{4}\right]$	[5,15]
5	$\left[\frac{3}{8},\ x+\frac{1}{4},\ \frac{3}{8}\right]$	[6,11]

continued ...

Table 6

No.	position	mapping
6	$\left[\frac{3}{8},\ \frac{1}{2}-x,\ \frac{3}{8}\right]$	[7,12]
7	$\left[\frac{1}{4}-x,\ \frac{1}{8},\ \frac{1}{8}\right]$	[9,10]
8	$\left[\frac{1}{2}-x,\ \frac{3}{8},\ \frac{3}{8}\right]$	[13,14]
9	$\left[\frac{1}{8},\ x,\ \frac{1}{8}\right]$	[17,24]
10	$\left[\frac{1}{8},\ \frac{1}{8},\ x\right]$	[18,21]
11	$\left[\frac{1}{8},\ \frac{1}{8},\ \frac{1}{4}-x\right]$	[19,23]
12	$\left[\frac{1}{8},\ \frac{1}{4}-x,\ \frac{1}{8}\right]$	[20,22]
13	$\left[-x,\ \frac{7}{8},\ \frac{7}{8}\right]$	[25,80]
14	$\left[\frac{1}{4}-x,\ \frac{5}{8},\ \frac{1}{8}\right]$	[26,75]
15	$\left[\frac{1}{4}-x,\ \frac{1}{8},\ \frac{5}{8}\right]$	[27,74]
16	$\left[\frac{1}{8},\ \frac{1}{8},\ x+\frac{1}{2}\right]$	[28,184]
17	$\left[\frac{5}{8},\ \frac{1}{8},\ \frac{1}{4}-x\right]$	[29,183]
18	$\left[\frac{5}{8},\ \frac{1}{4}-x,\ \frac{1}{8}\right]$	[30,131]
19	$\left[\frac{1}{8},\ x+\frac{1}{2},\ \frac{1}{8}\right]$	[31,132]
20	$\left[-x,\ \frac{3}{8},\ \frac{3}{8}\right]$	[32,73]
21	$\left[x+\frac{1}{4},\ \frac{7}{8},\ \frac{3}{8}\right]$	[33,82]
22	$\left[x+\frac{1}{4},\ \frac{3}{8},\ \frac{7}{8}\right]$	[34,81]
23	$\left[\frac{1}{8},\ \frac{1}{4}-x,\ \frac{5}{8}\right]$	[35,126]
24	$\left[\frac{5}{8},\ x+\frac{1}{2},\ \frac{5}{8}\right]$	[36,127]
25	$\left[x+\frac{1}{2},\ \frac{1}{8},\ \frac{1}{8}\right]$	[37,86]
26	$\left[x+\frac{1}{2},\ \frac{5}{8},\ \frac{5}{8}\right]$	[38,85]
27	$\left[\frac{1}{8},\ \frac{5}{8},\ \frac{1}{4}-x\right]$	[39,173]
28	$\left[\frac{5}{8},\ \frac{5}{8},\ x+\frac{1}{2}\right]$	[40,172]
29	$\left[\frac{7}{8},\ -x,\ \frac{7}{8}\right]$	[41,144]
30	$\left[\frac{7}{8},\ \frac{7}{8},\ -x\right]$	[42,189]
31	$\left[\frac{3}{8},\ \frac{7}{8},\ x+\frac{1}{4}\right]$	[43,191]
32	$\left[\frac{3}{8},\ x+\frac{1}{4},\ \frac{7}{8}\right]$	[44,142]
33	$\left[\frac{3}{8},\ \frac{3}{8},\ -x\right]$	[45,186]
34	$\left[\frac{7}{8},\ x+\frac{1}{4},\ \frac{3}{8}\right]$	[46,140]
35	$\left[\frac{7}{8},\ \frac{3}{8},\ x+\frac{1}{4}\right]$	[47,187]
36	$\left[\frac{3}{8},\ -x,\ \frac{3}{8}\right]$	[48,137]
37	$\left[x,\ \frac{5}{8},\ \frac{5}{8}\right]$	[49,56]
38	$\left[x+\frac{1}{4},\ \frac{7}{8},\ \frac{7}{8}\right]$	[50,51]
39	$\left[\frac{3}{8},\ \frac{7}{8},\ -x\right]$	[52,64]
40	$\left[\frac{3}{8},\ \frac{7}{8},\ x+\frac{3}{4}\right]$	[53,63]
41	$\left[\frac{3}{8},\ x+\frac{3}{4},\ \frac{7}{8}\right]$	[54,59]
42	$\left[\frac{3}{8},\ -x,\ \frac{7}{8}\right]$	[55,60]
43	$\left[\frac{1}{4}-x,\ \frac{5}{8},\ \frac{5}{8}\right]$	[57,58]
44	$\left[\frac{1}{2}-x,\ \frac{7}{8},\ \frac{7}{8}\right]$	[61,62]
45	$\left[\frac{1}{8},\ x+\frac{1}{2},\ \frac{5}{8}\right]$	[65,72]
46	$\left[\frac{1}{8},\ \frac{5}{8},\ x+\frac{1}{2}\right]$	[66,69]
47	$\left[\frac{1}{8},\ \frac{5}{8},\ \frac{3}{4}-x\right]$	[67,71]
48	$\left[\frac{1}{8},\ \frac{3}{4}-x,\ \frac{5}{8}\right]$	[68,70]
49	$\left[\frac{1}{8},\ \frac{5}{8},\ x\right]$	[76,136]
50	$\left[\frac{5}{8},\ \frac{5}{8},\ \frac{3}{4}-x\right]$	[77,135]
51	$\left[\frac{5}{8},\ \frac{3}{4}-x,\ \frac{5}{8}\right]$	[78,179]
52	$\left[\frac{1}{8},\ x,\ \frac{5}{8}\right]$	[79,180]

continued ...

Table 6

No.	position	mapping
53	$\left[\frac{1}{8}, \frac{3}{4}-x, \frac{1}{8}\right]$	[83,174]
54	$\left[\frac{5}{8}, x, \frac{1}{8}\right]$	[84,175]
55	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{4}-x\right]$	[87,125]
56	$\left[\frac{5}{8}, \frac{1}{8}, x\right]$	[88,124]
57	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{3}{8}\right]$	[89,192]
58	$\left[\frac{7}{8}, \frac{3}{8}, \frac{1}{2}-x\right]$	[90,141]
59	$\left[\frac{3}{8}, \frac{3}{8}, x+\frac{3}{4}\right]$	[91,143]
60	$\left[\frac{3}{8}, x+\frac{3}{4}, \frac{3}{8}\right]$	[92,190]
61	$\left[\frac{3}{8}, \frac{7}{8}, \frac{1}{2}-x\right]$	[93,138]
62	$\left[\frac{7}{8}, x+\frac{3}{4}, \frac{7}{8}\right]$	[94,188]
63	$\left[\frac{7}{8}, \frac{7}{8}, x+\frac{3}{4}\right]$	[95,139]
64	$\left[\frac{3}{8}, \frac{1}{2}-x, \frac{7}{8}\right]$	[96,185]
65	$\left[x+\frac{1}{2}, \frac{1}{8}, \frac{5}{8}\right]$	[97,104]
66	$\left[x+\frac{3}{4}, \frac{3}{8}, \frac{7}{8}\right]$	[98,99]
67	$\left[\frac{7}{8}, \frac{3}{8}, -x\right]$	[100,112]
68	$\left[\frac{7}{8}, \frac{3}{8}, x+\frac{3}{4}\right]$	[101,111]
69	$\left[\frac{7}{8}, x+\frac{1}{4}, \frac{7}{8}\right]$	[102,107]
70	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{7}{8}\right]$	[103,108]
71	$\left[\frac{3}{4}-x, \frac{1}{8}, \frac{5}{8}\right]$	[105,106]
72	$\left[-x, \frac{3}{8}, \frac{7}{8}\right]$	[109,110]
73	$\left[\frac{5}{8}, x, \frac{5}{8}\right]$	[113,120]
74	$\left[\frac{5}{8}, \frac{1}{8}, x+\frac{1}{2}\right]$	[114,117]
75	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{4}-x\right]$	[115,119]
76	$\left[\frac{5}{8}, \frac{1}{4}-x, \frac{5}{8}\right]$	[116,118]
77	$\left[\frac{1}{2}-x, \frac{7}{8}, \frac{3}{8}\right]$	[121,176]
78	$\left[\frac{3}{4}-x, \frac{5}{8}, \frac{5}{8}\right]$	[122,171]
79	$\left[\frac{3}{4}-x, \frac{1}{8}, \frac{1}{8}\right]$	[123,170]
80	$\left[\frac{1}{2}-x, \frac{3}{8}, \frac{7}{8}\right]$	[128,169]
81	$\left[x+\frac{3}{4}, \frac{7}{8}, \frac{7}{8}\right]$	[129,178]
82	$\left[x+\frac{3}{4}, \frac{3}{8}, \frac{3}{8}\right]$	[130,177]
83	$\left[x, \frac{1}{8}, \frac{5}{8}\right]$	[133,182]
84	$\left[x, \frac{5}{8}, \frac{1}{8}\right]$	[134,181]
85	$\left[x+\frac{1}{2}, \frac{5}{8}, \frac{1}{8}\right]$	[145,152]
86	$\left[x+\frac{3}{4}, \frac{7}{8}, \frac{3}{8}\right]$	[146,147]
87	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{2}-x\right]$	[148,160]
88	$\left[\frac{7}{8}, \frac{7}{8}, x+\frac{1}{4}\right]$	[149,159]
89	$\left[\frac{7}{8}, x+\frac{3}{4}, \frac{3}{8}\right]$	[150,155]
90	$\left[\frac{7}{8}, -x, \frac{3}{8}\right]$	[151,156]
91	$\left[\frac{3}{4}-x, \frac{5}{8}, \frac{1}{8}\right]$	[153,154]
92	$\left[-x, \frac{7}{8}, \frac{3}{8}\right]$	[157,158]
93	$\left[\frac{5}{8}, x+\frac{1}{2}, \frac{1}{8}\right]$	[161,168]
94	$\left[\frac{5}{8}, \frac{5}{8}, x\right]$	[162,165]
95	$\left[\frac{5}{8}, \frac{5}{8}, \frac{1}{4}-x\right]$	[163,167]
96	$\left[\frac{5}{8}, \frac{3}{4}-x, \frac{1}{8}\right]$	[164,166]

Table 7: Wyckoff site: `96g`, site symmetry: `..2`

No.	position	mapping
1	$\left[\frac{1}{4},\ y,\ -y\right]$	[1,62]
2	$\left[\frac{1}{2},\ y+\frac{1}{2},\ y+\frac{1}{4}\right]$	[2,153]
3	$\left[\frac{1}{2},\ \frac{1}{4}-y,\ \frac{1}{2}-y\right]$	[3,106]
4	$\left[\frac{1}{4}-y,\ y+\frac{1}{4},\ \frac{1}{4}\right]$	[4,21]
5	$\left[y+\frac{1}{2},\ y+\frac{1}{4},\ \frac{1}{2}\right]$	[5,119]
6	$\left[\frac{1}{2}-y,\ \frac{1}{2},\ \frac{1}{4}-y\right]$	[6,166]
7	$\left[y+\frac{1}{4},\ \frac{1}{4},\ \frac{1}{4}-y\right]$	[7,24]
8	$\left[\frac{1}{4},\ \frac{1}{4}-y,\ y+\frac{1}{4}\right]$	[8,13]
9	$\left[0,\ y,\ y+\frac{1}{4}\right]$	[9,146]
10	$\left[0,\ \frac{1}{4}-y,\ -y\right]$	[10,99]
11	$\left[y+\frac{1}{4},\ \frac{1}{2},\ y+\frac{1}{2}\right]$	[11,68]
12	$\left[\frac{1}{2}-y,\ \frac{1}{4},\ y+\frac{1}{2}\right]$	[12,113]
13	$\left[\frac{1}{4},\ y+\frac{1}{2},\ \frac{1}{2}-y\right]$	[14,49]
14	$\left[\frac{1}{4}-y,\ \frac{1}{2}-y,\ \frac{1}{2}\right]$	[15,67]
15	$\left[y+\frac{1}{2},\ \frac{1}{2}-y,\ \frac{1}{4}\right]$	[16,162]
16	$\left[-y,\ \frac{1}{4},\ y\right]$	[17,108]
17	$\left[y,\ -y,\ \frac{1}{4}\right]$	[18,160]
18	$\left[\frac{1}{4}-y,\ -y,\ 0\right]$	[19,63]
19	$\left[y+\frac{1}{4},\ 0,\ y\right]$	[20,59]
20	$\left[-y,\ 0,\ \frac{1}{4}-y\right]$	[22,150]
21	$\left[y,\ y+\frac{1}{4},\ 0\right]$	[23,101]
22	$\left[\frac{3}{4},\ -y,\ y\right]$	[25,86]
23	$\left[0,\ \frac{1}{2}-y,\ \frac{1}{4}-y\right]$	[26,177]
24	$\left[0,\ y+\frac{1}{4},\ y+\frac{1}{2}\right]$	[27,130]
25	$\left[y+\frac{1}{4},\ \frac{1}{4}-y,\ \frac{3}{4}\right]$	[28,45]
26	$\left[\frac{1}{2}-y,\ \frac{1}{4}-y,\ 0\right]$	[29,143]
27	$\left[y+\frac{1}{2},\ 0,\ y+\frac{1}{4}\right]$	[30,190]
28	$\left[\frac{1}{4}-y,\ \frac{3}{4},\ y+\frac{1}{4}\right]$	[31,48]
29	$\left[\frac{3}{4},\ y+\frac{1}{4},\ \frac{1}{4}-y\right]$	[32,37]
30	$\left[\frac{1}{2},\ -y,\ \frac{1}{4}-y\right]$	[33,170]
31	$\left[\frac{1}{2},\ y+\frac{1}{4},\ y\right]$	[34,123]
32	$\left[\frac{1}{4}-y,\ 0,\ \frac{1}{2}-y\right]$	[35,92]
33	$\left[y+\frac{1}{2},\ \frac{3}{4},\ \frac{1}{2}-y\right]$	[36,137]
34	$\left[\frac{3}{4},\ \frac{1}{2}-y,\ y+\frac{1}{2}\right]$	[38,73]
35	$\left[y+\frac{1}{4},\ y+\frac{1}{2},\ 0\right]$	[39,91]
36	$\left[\frac{1}{2}-y,\ y+\frac{1}{2},\ \frac{3}{4}\right]$	[40,186]
37	$\left[y,\ \frac{3}{4},\ -y\right]$	[41,132]
38	$\left[-y,\ y,\ \frac{3}{4}\right]$	[42,184]
39	$\left[y+\frac{1}{4},\ y,\ \frac{1}{2}\right]$	[43,87]
40	$\left[\frac{1}{4}-y,\ \frac{1}{2},\ -y\right]$	[44,83]
41	$\left[y,\ \frac{1}{2},\ y+\frac{1}{4}\right]$	[46,174]
42	$\left[-y,\ \frac{1}{4}-y,\ \frac{1}{2}\right]$	[47,125]
43	$\left[\frac{1}{2},\ y,\ y+\frac{3}{4}\right]$	[50,105]
44	$\left[\frac{1}{2},\ \frac{3}{4}-y,\ -y\right]$	[51,154]
45	$\left[\frac{1}{4}-y,\ y+\frac{3}{4},\ \frac{3}{4}\right]$	[52,69]
46	$\left[y+\frac{1}{2},\ y+\frac{3}{4},\ 0\right]$	[53,167]

continued ...

Table 7

No.	position	mapping
47	$\left[\frac{1}{2}-y,\ 0,\ \frac{3}{4}-y\right]$	[54,118]
48	$\left[y+\frac{1}{4},\ \frac{3}{4},\ \frac{3}{4}-y\right]$	[55,72]
49	$\left[\frac{1}{4},\ \frac{3}{4}-y,\ y+\frac{3}{4}\right]$	[56,61]
50	$\left[0,\ y+\frac{1}{2},\ y+\frac{3}{4}\right]$	[57,98]
51	$\left[0,\ \frac{3}{4}-y,\ \frac{1}{2}-y\right]$	[58,147]
52	$\left[\frac{1}{2}-y,\ \frac{3}{4},\ y\right]$	[60,161]
53	$\left[y+\frac{1}{2},\ -y,\ \frac{3}{4}\right]$	[64,114]
54	$\left[-y,\ \frac{3}{4},\ y+\frac{1}{2}\right]$	[65,156]
55	$\left[y,\ \frac{1}{2}-y,\ \frac{3}{4}\right]$	[66,112]
56	$\left[-y,\ \frac{1}{2},\ \frac{3}{4}-y\right]$	[70,102]
57	$\left[y,\ y+\frac{3}{4},\ \frac{1}{2}\right]$	[71,149]
58	$\left[0,\ -y,\ \frac{3}{4}-y\right]$	[74,129]
59	$\left[0,\ y+\frac{3}{4},\ y\right]$	[75,178]
60	$\left[y+\frac{1}{4},\ \frac{3}{4}-y,\ \frac{1}{4}\right]$	[76,93]
61	$\left[\frac{1}{2}-y,\ \frac{3}{4}-y,\ \frac{1}{2}\right]$	[77,191]
62	$\left[y+\frac{1}{2},\ \frac{1}{2},\ y+\frac{3}{4}\right]$	[78,142]
63	$\left[\frac{1}{4}-y,\ \frac{1}{4},\ y+\frac{3}{4}\right]$	[79,96]
64	$\left[\frac{3}{4},\ y+\frac{3}{4},\ \frac{3}{4}-y\right]$	[80,85]
65	$\left[\frac{1}{2},\ \frac{1}{2}-y,\ \frac{3}{4}-y\right]$	[81,122]
66	$\left[\frac{1}{2},\ y+\frac{3}{4},\ y+\frac{1}{2}\right]$	[82,171]
67	$\left[y+\frac{1}{2},\ \frac{1}{4},\ -y\right]$	[84,185]
68	$\left[\frac{1}{2}-y,\ y,\ \frac{1}{4}\right]$	[88,138]
69	$\left[y,\ \frac{1}{4},\ \frac{1}{2}-y\right]$	[89,180]
70	$\left[-y,\ y+\frac{1}{2},\ \frac{1}{4}\right]$	[90,136]
71	$\left[y,\ 0,\ y+\frac{3}{4}\right]$	[94,126]
72	$\left[-y,\ \frac{3}{4}-y,\ 0\right]$	[95,173]
73	$\left[\frac{3}{4},\ y,\ \frac{1}{2}-y\right]$	[97,158]
74	$\left[\frac{3}{4}-y,\ y+\frac{1}{4},\ \frac{3}{4}\right]$	[100,117]
75	$\left[y+\frac{3}{4},\ \frac{1}{4},\ \frac{3}{4}-y\right]$	[103,120]
76	$\left[\frac{3}{4},\ \frac{1}{4}-y,\ y+\frac{3}{4}\right]$	[104,109]
77	$\left[y+\frac{3}{4},\ \frac{1}{2},\ y\right]$	[107,164]
78	$\left[\frac{3}{4},\ y+\frac{1}{2},\ -y\right]$	[110,145]
79	$\left[\frac{3}{4}-y,\ \frac{1}{2}-y,\ 0\right]$	[111,163]
80	$\left[\frac{3}{4}-y,\ -y,\ \frac{1}{2}\right]$	[115,159]
81	$\left[y+\frac{3}{4},\ 0,\ y+\frac{1}{2}\right]$	[116,155]
82	$\left[\frac{1}{4},\ -y,\ y+\frac{1}{2}\right]$	[121,182]
83	$\left[y+\frac{3}{4},\ \frac{1}{4}-y,\ \frac{1}{4}\right]$	[124,141]
84	$\left[\frac{3}{4}-y,\ \frac{3}{4},\ y+\frac{3}{4}\right]$	[127,144]
85	$\left[\frac{1}{4},\ y+\frac{1}{4},\ \frac{3}{4}-y\right]$	[128,133]
86	$\left[\frac{3}{4}-y,\ 0,\ -y\right]$	[131,188]
87	$\left[\frac{1}{4},\ \frac{1}{2}-y,\ y\right]$	[134,169]
88	$\left[y+\frac{3}{4},\ y+\frac{1}{2},\ \frac{1}{2}\right]$	[135,187]
89	$\left[y+\frac{3}{4},\ y,\ 0\right]$	[139,183]
90	$\left[\frac{3}{4}-y,\ \frac{1}{2},\ \frac{1}{2}-y\right]$	[140,179]
91	$\left[\frac{3}{4}-y,\ y+\frac{3}{4},\ \frac{1}{4}\right]$	[148,165]
92	$\left[y+\frac{3}{4},\ \frac{3}{4},\ \frac{1}{4}-y\right]$	[151,168]
93	$\left[\frac{3}{4},\ \frac{3}{4}-y,\ y+\frac{1}{4}\right]$	[152,157]

continued ...

Table 7

No.	position	mapping
94	$\left[y+\frac{3}{4}, \frac{3}{4}-y, \frac{3}{4}\right]$	[172,189]
95	$\left[\frac{3}{4}-y, \frac{1}{4}, y+\frac{1}{4}\right]$	[175,192]
96	$\left[\frac{1}{4}, y+\frac{3}{4}, \frac{1}{4}-y\right]$	[176,181]

Table 8: Wyckoff site: 192h, site symmetry: 1

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

continued ...

Table 8

No.	position	mapping
38	$\left[x+\frac{1}{2},\, z+\frac{1}{2},\, y+\frac{1}{2}\right]$	[38]
39	$\left[\frac{1}{4}-z,\, y+\frac{1}{2},\, \frac{1}{4}-x\right]$	[39]
40	$\left[z+\frac{1}{2},\, y+\frac{1}{2},\, x+\frac{1}{2}\right]$	[40]
41	$[-z,\, -x,\, -y]$	[41]
42	$[-y,\, -z,\, -x]$	[42]
43	$\left[y+\frac{1}{4},\, -z,\, x+\frac{1}{4}\right]$	[43]
44	$\left[z+\frac{1}{4},\, x+\frac{1}{4},\, -y\right]$	[44]
45	$\left[y+\frac{1}{4},\, z+\frac{1}{4},\, -x\right]$	[45]
46	$\left[-z,\, x+\frac{1}{4},\, y+\frac{1}{4}\right]$	[46]
47	$\left[-y,\, z+\frac{1}{4},\, x+\frac{1}{4}\right]$	[47]
48	$\left[z+\frac{1}{4},\, -x,\, y+\frac{1}{4}\right]$	[48]
49	$\left[x,\, y+\frac{1}{2},\, z+\frac{1}{2}\right]$	[49]
50	$\left[x+\frac{1}{4},\, -z,\, y+\frac{3}{4}\right]$	[50]
51	$\left[x+\frac{1}{4},\, z+\frac{3}{4},\, -y\right]$	[51]
52	$\left[z+\frac{1}{4},\, y+\frac{3}{4},\, -x\right]$	[52]
53	$\left[\frac{1}{2}-z,\, y+\frac{3}{4},\, x+\frac{3}{4}\right]$	[53]
54	$\left[\frac{1}{2}-y,\, x+\frac{3}{4},\, z+\frac{3}{4}\right]$	[54]
55	$\left[y+\frac{1}{4},\, -x,\, z+\frac{3}{4}\right]$	[55]
56	$\left[x,\, \frac{3}{4}-y,\, \frac{3}{4}-z\right]$	[56]
57	$\left[\frac{1}{4}-x,\, y+\frac{1}{2},\, \frac{3}{4}-z\right]$	[57]
58	$\left[\frac{1}{4}-x,\, \frac{3}{4}-y,\, z+\frac{1}{2}\right]$	[58]
59	$\left[y+\frac{1}{4},\, x+\frac{3}{4},\, -z\right]$	[59]
60	$\left[\frac{1}{2}-y,\, -x,\, -z\right]$	[60]
61	$\left[\frac{1}{2}-x,\, z+\frac{3}{4},\, y+\frac{3}{4}\right]$	[61]
62	$\left[\frac{1}{2}-x,\, -z,\, -y\right]$	[62]
63	$\left[z+\frac{1}{4},\, -y,\, x+\frac{3}{4}\right]$	[63]
64	$\left[\frac{1}{2}-z,\, -y,\, -x\right]$	[64]
65	$\left[z,\, x+\frac{1}{2},\, y+\frac{1}{2}\right]$	[65]
66	$\left[y,\, z+\frac{1}{2},\, x+\frac{1}{2}\right]$	[66]
67	$\left[\frac{1}{4}-y,\, z+\frac{1}{2},\, \frac{3}{4}-x\right]$	[67]
68	$\left[\frac{1}{4}-z,\, \frac{3}{4}-x,\, y+\frac{1}{2}\right]$	[68]
69	$\left[\frac{1}{4}-y,\, \frac{3}{4}-z,\, x+\frac{1}{2}\right]$	[69]
70	$\left[z,\, \frac{3}{4}-x,\, \frac{3}{4}-y\right]$	[70]
71	$\left[y,\, \frac{3}{4}-z,\, \frac{3}{4}-x\right]$	[71]
72	$\left[\frac{1}{4}-z,\, x+\frac{1}{2},\, \frac{3}{4}-y\right]$	[72]
73	$\left[-x,\, \frac{1}{2}-y,\, \frac{1}{2}-z\right]$	[73]
74	$\left[\frac{1}{4}-x,\, z,\, \frac{3}{4}-y\right]$	[74]
75	$\left[\frac{1}{4}-x,\, \frac{3}{4}-z,\, y\right]$	[75]
76	$\left[\frac{1}{4}-z,\, \frac{3}{4}-y,\, x\right]$	[76]
77	$\left[z+\frac{1}{2},\, \frac{3}{4}-y,\, \frac{3}{4}-x\right]$	[77]
78	$\left[y+\frac{1}{2},\, \frac{3}{4}-x,\, \frac{3}{4}-z\right]$	[78]
79	$\left[\frac{1}{4}-y,\, x,\, \frac{3}{4}-z\right]$	[79]
80	$\left[-x,\, y+\frac{3}{4},\, z+\frac{3}{4}\right]$	[80]
81	$\left[x+\frac{1}{4},\, \frac{1}{2}-y,\, z+\frac{3}{4}\right]$	[81]
82	$\left[x+\frac{1}{4},\, y+\frac{3}{4},\, \frac{1}{2}-z\right]$	[82]
83	$\left[\frac{1}{4}-y,\, \frac{3}{4}-x,\, z\right]$	[83]
84	$\left[y+\frac{1}{2},\, x,\, z\right]$	[84]

continued ...

Table 8

No.	position	mapping
85	$\left[x+\frac{1}{2},\ \frac{3}{4}-z,\ \frac{3}{4}-y\right]$	[85]
86	$\left[x+\frac{1}{2},\ z,\ y\right]$	[86]
87	$\left[\frac{1}{4}-z,\ y,\ \frac{3}{4}-x\right]$	[87]
88	$\left[z+\frac{1}{2},\ y,\ x\right]$	[88]
89	$\left[-z,\ \frac{1}{2}-x,\ \frac{1}{2}-y\right]$	[89]
90	$\left[-y,\ \frac{1}{2}-z,\ \frac{1}{2}-x\right]$	[90]
91	$\left[y+\frac{1}{4},\ \frac{1}{2}-z,\ x+\frac{3}{4}\right]$	[91]
92	$\left[z+\frac{1}{4},\ x+\frac{3}{4},\ \frac{1}{2}-y\right]$	[92]
93	$\left[y+\frac{1}{4},\ z+\frac{3}{4},\ \frac{1}{2}-x\right]$	[93]
94	$\left[-z,\ x+\frac{3}{4},\ y+\frac{3}{4}\right]$	[94]
95	$\left[-y,\ z+\frac{3}{4},\ x+\frac{3}{4}\right]$	[95]
96	$\left[z+\frac{1}{4},\ \frac{1}{2}-x,\ y+\frac{3}{4}\right]$	[96]
97	$\left[x+\frac{1}{2},\ y,\ z+\frac{1}{2}\right]$	[97]
98	$\left[x+\frac{3}{4},\ \frac{1}{2}-z,\ y+\frac{3}{4}\right]$	[98]
99	$\left[x+\frac{3}{4},\ z+\frac{1}{4},\ -y\right]$	[99]
100	$\left[z+\frac{3}{4},\ y+\frac{1}{4},\ -x\right]$	[100]
101	$\left[-z,\ y+\frac{1}{4},\ x+\frac{3}{4}\right]$	[101]
102	$\left[-y,\ x+\frac{1}{4},\ z+\frac{3}{4}\right]$	[102]
103	$\left[y+\frac{3}{4},\ \frac{1}{2}-x,\ z+\frac{3}{4}\right]$	[103]
104	$\left[x+\frac{1}{2},\ \frac{1}{4}-y,\ \frac{3}{4}-z\right]$	[104]
105	$\left[\frac{3}{4}-x,\ y,\ \frac{3}{4}-z\right]$	[105]
106	$\left[\frac{3}{4}-x,\ \frac{1}{4}-y,\ z+\frac{1}{2}\right]$	[106]
107	$\left[y+\frac{3}{4},\ x+\frac{1}{4},\ -z\right]$	[107]
108	$\left[-y,\ \frac{1}{2}-x,\ -z\right]$	[108]
109	$\left[-x,\ z+\frac{1}{4},\ y+\frac{3}{4}\right]$	[109]
110	$\left[-x,\ \frac{1}{2}-z,\ -y\right]$	[110]
111	$\left[z+\frac{3}{4},\ \frac{1}{2}-y,\ x+\frac{3}{4}\right]$	[111]
112	$\left[-z,\ \frac{1}{2}-y,\ -x\right]$	[112]
113	$\left[z+\frac{1}{2},\ x,\ y+\frac{1}{2}\right]$	[113]
114	$\left[y+\frac{1}{2},\ z,\ x+\frac{1}{2}\right]$	[114]
115	$\left[\frac{3}{4}-y,\ z,\ \frac{3}{4}-x\right]$	[115]
116	$\left[\frac{3}{4}-z,\ \frac{1}{4}-x,\ y+\frac{1}{2}\right]$	[116]
117	$\left[\frac{3}{4}-y,\ \frac{1}{4}-z,\ x+\frac{1}{2}\right]$	[117]
118	$\left[z+\frac{1}{2},\ \frac{1}{4}-x,\ \frac{3}{4}-y\right]$	[118]
119	$\left[y+\frac{1}{2},\ \frac{1}{4}-z,\ \frac{3}{4}-x\right]$	[119]
120	$\left[\frac{3}{4}-z,\ x,\ \frac{3}{4}-y\right]$	[120]
121	$\left[\frac{1}{2}-x,\ -y,\ \frac{1}{2}-z\right]$	[121]
122	$\left[\frac{3}{4}-x,\ z+\frac{1}{2},\ \frac{3}{4}-y\right]$	[122]
123	$\left[\frac{3}{4}-x,\ \frac{1}{4}-z,\ y\right]$	[123]
124	$\left[\frac{3}{4}-z,\ \frac{1}{4}-y,\ x\right]$	[124]
125	$\left[z,\ \frac{1}{4}-y,\ \frac{3}{4}-x\right]$	[125]
126	$\left[y,\ \frac{1}{4}-x,\ \frac{3}{4}-z\right]$	[126]
127	$\left[\frac{3}{4}-y,\ x+\frac{1}{2},\ \frac{3}{4}-z\right]$	[127]
128	$\left[\frac{1}{2}-x,\ y+\frac{1}{4},\ z+\frac{3}{4}\right]$	[128]
129	$\left[x+\frac{3}{4},\ -y,\ z+\frac{3}{4}\right]$	[129]
130	$\left[x+\frac{3}{4},\ y+\frac{1}{4},\ \frac{1}{2}-z\right]$	[130]
131	$\left[\frac{3}{4}-y,\ \frac{1}{4}-x,\ z\right]$	[131]

continued ...

Table 8

No.	position	mapping
132	$\left[y,\, x+\frac{1}{2},\, z\right]$	[132]
133	$\left[x,\, \frac{1}{4}-z,\, \frac{3}{4}-y\right]$	[133]
134	$\left[x,\, z+\frac{1}{2},\, y\right]$	[134]
135	$\left[\frac{3}{4}-z,\, y+\frac{1}{2},\, \frac{3}{4}-x\right]$	[135]
136	$\left[z,\, y+\frac{1}{2},\, x\right]$	[136]
137	$\left[\frac{1}{2}-z,\, -x,\, \frac{1}{2}-y\right]$	[137]
138	$\left[\frac{1}{2}-y,\, -z,\, \frac{1}{2}-x\right]$	[138]
139	$\left[y+\frac{3}{4},\, -z,\, x+\frac{3}{4}\right]$	[139]
140	$\left[z+\frac{3}{4},\, x+\frac{1}{4},\, \frac{1}{2}-y\right]$	[140]
141	$\left[y+\frac{3}{4},\, z+\frac{1}{4},\, \frac{1}{2}-x\right]$	[141]
142	$\left[\frac{1}{2}-z,\, x+\frac{1}{4},\, y+\frac{3}{4}\right]$	[142]
143	$\left[\frac{1}{2}-y,\, z+\frac{1}{4},\, x+\frac{3}{4}\right]$	[143]
144	$\left[z+\frac{3}{4},\, -x,\, y+\frac{3}{4}\right]$	[144]
145	$\left[x+\frac{1}{2},\, y+\frac{1}{2},\, z\right]$	[145]
146	$\left[x+\frac{3}{4},\, -z,\, y+\frac{1}{4}\right]$	[146]
147	$\left[x+\frac{3}{4},\, z+\frac{3}{4},\, \frac{1}{2}-y\right]$	[147]
148	$\left[z+\frac{3}{4},\, y+\frac{3}{4},\, \frac{1}{2}-x\right]$	[148]
149	$\left[-z,\, y+\frac{3}{4},\, x+\frac{1}{4}\right]$	[149]
150	$\left[-y,\, x+\frac{3}{4},\, z+\frac{1}{4}\right]$	[150]
151	$\left[y+\frac{3}{4},\, -x,\, z+\frac{1}{4}\right]$	[151]
152	$\left[x+\frac{1}{2},\, \frac{3}{4}-y,\, \frac{1}{4}-z\right]$	[152]
153	$\left[\frac{3}{4}-x,\, y+\frac{1}{2},\, \frac{1}{4}-z\right]$	[153]
154	$\left[\frac{3}{4}-x,\, \frac{3}{4}-y,\, z\right]$	[154]
155	$\left[y+\frac{3}{4},\, x+\frac{3}{4},\, \frac{1}{2}-z\right]$	[155]
156	$\left[-y,\, -x,\, \frac{1}{2}-z\right]$	[156]
157	$\left[-x,\, z+\frac{3}{4},\, y+\frac{1}{4}\right]$	[157]
158	$\left[-x,\, -z,\, \frac{1}{2}-y\right]$	[158]
159	$\left[z+\frac{3}{4},\, -y,\, x+\frac{1}{4}\right]$	[159]
160	$\left[-z,\, -y,\, \frac{1}{2}-x\right]$	[160]
161	$\left[z+\frac{1}{2},\, x+\frac{1}{2},\, y\right]$	[161]
162	$\left[y+\frac{1}{2},\, z+\frac{1}{2},\, x\right]$	[162]
163	$\left[\frac{3}{4}-y,\, z+\frac{1}{2},\, \frac{1}{4}-x\right]$	[163]
164	$\left[\frac{3}{4}-z,\, \frac{3}{4}-x,\, y\right]$	[164]
165	$\left[\frac{3}{4}-y,\, \frac{3}{4}-z,\, x\right]$	[165]
166	$\left[z+\frac{1}{2},\, \frac{3}{4}-x,\, \frac{1}{4}-y\right]$	[166]
167	$\left[y+\frac{1}{2},\, \frac{3}{4}-z,\, \frac{1}{4}-x\right]$	[167]
168	$\left[\frac{3}{4}-z,\, x+\frac{1}{2},\, \frac{1}{4}-y\right]$	[168]
169	$\left[\frac{1}{2}-x,\, \frac{1}{2}-y,\, -z\right]$	[169]
170	$\left[\frac{3}{4}-x,\, z,\, \frac{1}{4}-y\right]$	[170]
171	$\left[\frac{3}{4}-x,\, \frac{3}{4}-z,\, y+\frac{1}{2}\right]$	[171]
172	$\left[\frac{3}{4}-z,\, \frac{3}{4}-y,\, x+\frac{1}{2}\right]$	[172]
173	$\left[z,\, \frac{3}{4}-y,\, \frac{1}{4}-x\right]$	[173]
174	$\left[y,\, \frac{3}{4}-x,\, \frac{1}{4}-z\right]$	[174]
175	$\left[\frac{3}{4}-y,\, x,\, \frac{1}{4}-z\right]$	[175]
176	$\left[\frac{1}{2}-x,\, y+\frac{3}{4},\, z+\frac{1}{4}\right]$	[176]
177	$\left[x+\frac{3}{4},\, \frac{1}{2}-y,\, z+\frac{1}{4}\right]$	[177]
178	$\left[x+\frac{3}{4},\, y+\frac{3}{4},\, -z\right]$	[178]

continued ...

Table 8

No.	position	mapping
179	$\left[\frac{3}{4}-y,\ \frac{3}{4}-x,\ z+\frac{1}{2}\right]$	[179]
180	$\left[y,\ x,\ z+\frac{1}{2}\right]$	[180]
181	$\left[x,\ \frac{3}{4}-z,\ \frac{1}{4}-y\right]$	[181]
182	$\left[x,\ z,\ y+\frac{1}{2}\right]$	[182]
183	$\left[\frac{3}{4}-z,\ y,\ \frac{1}{4}-x\right]$	[183]
184	$\left[z,\ y,\ x+\frac{1}{2}\right]$	[184]
185	$\left[\frac{1}{2}-z,\ \frac{1}{2}-x,\ -y\right]$	[185]
186	$\left[\frac{1}{2}-y,\ \frac{1}{2}-z,\ -x\right]$	[186]
187	$\left[y+\frac{3}{4},\ \frac{1}{2}-z,\ x+\frac{1}{4}\right]$	[187]
188	$\left[z+\frac{3}{4},\ x+\frac{3}{4},\ -y\right]$	[188]
189	$\left[y+\frac{3}{4},\ z+\frac{3}{4},\ -x\right]$	[189]
190	$\left[\frac{1}{2}-z,\ x+\frac{3}{4},\ y+\frac{1}{4}\right]$	[190]
191	$\left[\frac{1}{2}-y,\ z+\frac{3}{4},\ x+\frac{1}{4}\right]$	[191]
192	$\left[z+\frac{3}{4},\ \frac{1}{2}-x,\ y+\frac{1}{4}\right]$	[192]