MSG No. 228.137 $Fd\bar{3}c'$ [Type III, cubic]

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

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

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

No.	position	mapping
1	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[1,5,6,32,34,36]
2	$\left[\frac{1}{4}, 0, 0\right]$	[2,10,11,76,77,81]
3	$\left[0, \frac{1}{4}, 0\right]$	[3,7,12,121,126,131]
4	$\left[0, 0, \frac{1}{4}\right]$	[4,8,9,170,171,175]
5	$\left[\frac{3}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[13,17,18,44,46,48]
6	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{2}\right]$	[14,22,23,88,89,93]
7	$\left[\frac{1}{2}, \frac{3}{4}, \frac{1}{2}\right]$	[15,19,24,133,138,143]
8	$\left[\frac{1}{2}, \frac{1}{2}, \frac{3}{4}\right]$	[16,20,21,182,183,187]
9	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{2}\right]$	[25,30,35,99,103,108]
10	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{4}\right]$	[26,27,31,148,152,153]
11	$\left[\frac{1}{4}, \frac{1}{2}, \frac{1}{2}\right]$	[28,29,33,50,58,59]
12	$\left[0, \frac{3}{4}, 0\right]$	[37,42,47,111,115,120]
13	$\left[0, 0, \frac{3}{4}\right]$	[38,39,43,160,164,165]
14	$\left[\frac{3}{4}, 0, 0\right]$	[40,41,45,62,70,71]
15	$\left[\frac{1}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[49,53,54,80,82,84]
16	$\left[0, \frac{3}{4}, \frac{1}{2}\right]$	[51,55,60,169,174,179]
17	$\left[0, \frac{1}{2}, \frac{3}{4}\right]$	[52,56,57,122,123,127]
18	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[61,65,66,92,94,96]
19	$\left[\frac{1}{2}, \frac{1}{4}, 0\right]$	[63,67,72,181,186,191]
20	$\left[\frac{1}{2}, 0, \frac{1}{4}\right]$	[64,68,69,134,135,139]
21	$\left[\frac{1}{2}, \frac{3}{4}, 0\right]$	[73,78,83,147,151,156]

continued ...

Table 2

No.	position	mapping
22	$\left[\frac{1}{2}, 0, \frac{3}{4}\right]$	[74,75,79,100,104,105]
23	$\left[0, \frac{1}{4}, \frac{1}{2}\right]$	[85,90,95,159,163,168]
24	$\left[0, \frac{1}{2}, \frac{1}{4}\right]$	[86,87,91,112,116,117]
25	$\left[\frac{3}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[97,101,102,128,130,132]
26	$\left[\frac{3}{4}, 0, \frac{1}{2}\right]$	[98,106,107,172,173,177]
27	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[109,113,114,140,142,144]
28	$\left[\frac{1}{4}, \frac{1}{2}, 0\right]$	[110,118,119,184,185,189]
29	$\left[\frac{3}{4}, \frac{1}{2}, 0\right]$	[124,125,129,146,154,155]
30	$\left[\frac{1}{4}, 0, \frac{1}{2}\right]$	[136,137,141,158,166,167]
31	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[145,149,150,176,178,180]
32	$\left[\frac{1}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[157,161,162,188,190,192]

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

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

continued ...

Table 3

No.	position	mapping
30	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[170,171,175,182,183,187]
31	$\left[0, \frac{3}{4}, \frac{1}{4}\right]$	[172,173,177,184,185,189]
32	$\left[0, 0, \frac{1}{2}\right]$	[176,178,180,188,190,192]

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

No.	position	mapping
1	$\left[\frac{7}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[1,2,134,181]
2	$\left[\frac{3}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[3,4,45,94]
3	$\left[\frac{1}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[5,12,91,185]
4	$\left[\frac{1}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[6,9,95,136]
5	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[7,11,39,192]
6	$\left[\frac{1}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[8,10,42,140]
7	$\left[\frac{1}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[13,62,73,74]
8	$\left[\frac{1}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[14,25,26,61]
9	$\left[\frac{1}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[15,64,177,178]
10	$\left[\frac{1}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[16,63,129,130]
11	$\left[\frac{7}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[17,120,125,127]
12	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[18,165,172,179]
13	$\left[\frac{3}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[19,75,84,167]
14	$\left[\frac{3}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[20,78,80,118]
15	$\left[\frac{3}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[21,28,35,162]
16	$\left[\frac{7}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[22,116,174,176]
17	$\left[\frac{7}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[23,123,132,163]
18	$\left[\frac{3}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[24,29,31,113]
19	$\left[\frac{3}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[27,36,67,119]
20	$\left[\frac{3}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[30,32,68,166]
21	$\left[\frac{5}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[33,34,112,159]
22	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[37,86,145,146]
23	$\left[\frac{3}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[38,85,97,98]
24	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[40,102,105,191]
25	$\left[\frac{5}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[41,139,149,156]
26	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[43,53,60,137]
27	$\left[\frac{5}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[44,104,106,138]
28	$\left[\frac{3}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[46,51,52,93]
29	$\left[\frac{1}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[47,54,57,184]
30	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[48,151,155,183]
31	$\left[\frac{7}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[49,50,133,182]
32	$\left[\frac{1}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[55,59,87,144]
33	$\left[\frac{1}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[56,58,90,188]
34	$\left[\frac{7}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[65,168,173,175]
35	$\left[\frac{7}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[66,117,124,131]
36	$\left[\frac{3}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[69,76,83,114]
37	$\left[\frac{7}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[70,126,128,164]

continued ...

Table 4

No.	position	mapping
38	$\left[\frac{7}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[71,115,171,180]
39	$\left[\frac{3}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[72,77,79,161]
40	$\left[\frac{5}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[81,82,111,160]
41	$\left[\frac{5}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[88,143,150,153]
42	$\left[\frac{5}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[89,101,108,187]
43	$\left[\frac{5}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[92,152,154,186]
44	$\left[\frac{5}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[96,103,107,135]
45	$\left[\frac{7}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[99,100,141,190]
46	$\left[\frac{5}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[109,158,169,170]
47	$\left[\frac{5}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[110,121,122,157]
48	$\left[\frac{7}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[142,147,148,189]

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

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

continued ...

Table 5

No.	position	mapping
30	$\left[\frac{1}{4}-x,\ \frac{3}{4}-x,\ x\right]$	[86,87,91]
31	$\left[x+\frac{1}{2},\ \frac{3}{4}-x,\ \frac{3}{4}-x\right]$	[88,89,93]
32	$\left[x+\frac{1}{2},\ x,\ x\right]$	[92,94,96]
33	$\left[x+\frac{1}{2},\ x,\ x+\frac{1}{2}\right]$	[97,101,102]
34	$\left[x+\frac{1}{2},\ \frac{1}{4}-x,\ \frac{3}{4}-x\right]$	[98,106,107]
35	$\left[\frac{3}{4}-x,\ x,\ \frac{3}{4}-x\right]$	[99,103,108]
36	$\left[\frac{3}{4}-x,\ \frac{1}{4}-x,\ x+\frac{1}{2}\right]$	[100,104,105]
37	$\left[\frac{1}{2}-x,\ -x,\ \frac{1}{2}-x\right]$	[109,113,114]
38	$\left[\frac{1}{2}-x,\ x+\frac{1}{4},\ x+\frac{3}{4}\right]$	[110,118,119]
39	$\left[x+\frac{3}{4},\ -x,\ x+\frac{3}{4}\right]$	[111,115,120]
40	$\left[x+\frac{3}{4},\ x+\frac{1}{4},\ \frac{1}{2}-x\right]$	[112,116,117]
41	$\left[x+\frac{3}{4},\ \frac{1}{2}-x,\ x+\frac{3}{4}\right]$	[121,126,131]
42	$\left[x+\frac{3}{4},\ x+\frac{1}{4},\ -x\right]$	[122,123,127]
43	$\left[-x,\ x+\frac{1}{4},\ x+\frac{3}{4}\right]$	[124,125,129]
44	$\left[-x,\ \frac{1}{2}-x,\ -x\right]$	[128,130,132]
45	$\left[\frac{3}{4}-x,\ x+\frac{1}{2},\ \frac{3}{4}-x\right]$	[133,138,143]
46	$\left[\frac{3}{4}-x,\ \frac{1}{4}-x,\ x\right]$	[134,135,139]
47	$\left[x,\ \frac{1}{4}-x,\ \frac{3}{4}-x\right]$	[136,137,141]
48	$\left[x,\ x+\frac{1}{2},\ x\right]$	[140,142,144]
49	$\left[x+\frac{1}{2},\ x+\frac{1}{2},\ x\right]$	[145,149,150]
50	$\left[x+\frac{1}{2},\ \frac{3}{4}-x,\ \frac{1}{4}-x\right]$	[146,154,155]
51	$\left[\frac{3}{4}-x,\ x+\frac{1}{2},\ \frac{1}{4}-x\right]$	[147,151,156]
52	$\left[\frac{3}{4}-x,\ \frac{3}{4}-x,\ x\right]$	[148,152,153]
53	$\left[\frac{1}{2}-x,\ \frac{1}{2}-x,\ -x\right]$	[157,161,162]
54	$\left[\frac{1}{2}-x,\ x+\frac{3}{4},\ x+\frac{1}{4}\right]$	[158,166,167]
55	$\left[x+\frac{3}{4},\ \frac{1}{2}-x,\ x+\frac{1}{4}\right]$	[159,163,168]
56	$\left[x+\frac{3}{4},\ x+\frac{3}{4},\ -x\right]$	[160,164,165]
57	$\left[x+\frac{3}{4},\ -x,\ x+\frac{1}{4}\right]$	[169,174,179]
58	$\left[x+\frac{3}{4},\ x+\frac{3}{4},\ \frac{1}{2}-x\right]$	[170,171,175]
59	$\left[-x,\ x+\frac{3}{4},\ x+\frac{1}{4}\right]$	[172,173,177]
60	$\left[-x,\ -x,\ \frac{1}{2}-x\right]$	[176,178,180]
61	$\left[\frac{3}{4}-x,\ x,\ \frac{1}{4}-x\right]$	[181,186,191]
62	$\left[\frac{3}{4}-x,\ \frac{3}{4}-x,\ x+\frac{1}{2}\right]$	[182,183,187]
63	$\left[x,\ \frac{3}{4}-x,\ \frac{1}{4}-x\right]$	[184,185,189]
64	$\left[x,\ x,\ x+\frac{1}{2}\right]$	[188,190,192]

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

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

continued ...

Table 6

No.	position	mapping
6	$\left[\frac{1}{8},\ \frac{1}{4}-x,\ \frac{1}{8}\right]$	[8,10]
7	$\left[-x,\ \frac{7}{8},\ \frac{7}{8}\right]$	[13,62]
8	$\left[-x,\ \frac{3}{8},\ \frac{3}{8}\right]$	[14,61]
9	$\left[x+\frac{1}{4},\ \frac{7}{8},\ \frac{3}{8}\right]$	[15,64]
10	$\left[x+\frac{1}{4},\ \frac{3}{8},\ \frac{7}{8}\right]$	[16,63]
11	$\left[\frac{7}{8},\ -x,\ \frac{7}{8}\right]$	[17,120]
12	$\left[\frac{7}{8},\ \frac{7}{8},\ -x\right]$	[18,165]
13	$\left[\frac{3}{8},\ \frac{7}{8},\ x+\frac{1}{4}\right]$	[19,167]
14	$\left[\frac{3}{8},\ x+\frac{1}{4},\ \frac{7}{8}\right]$	[20,118]
15	$\left[\frac{3}{8},\ \frac{3}{8},\ -x\right]$	[21,162]
16	$\left[\frac{7}{8},\ x+\frac{1}{4},\ \frac{3}{8}\right]$	[22,116]
17	$\left[\frac{7}{8},\ \frac{3}{8},\ x+\frac{1}{4}\right]$	[23,163]
18	$\left[\frac{3}{8},\ -x,\ \frac{3}{8}\right]$	[24,113]
19	$\left[x+\frac{1}{4},\ \frac{3}{8},\ \frac{3}{8}\right]$	[25,26]
20	$\left[\frac{3}{8},\ \frac{3}{8},\ \frac{1}{2}-x\right]$	[27,36]
21	$\left[\frac{3}{8},\ \frac{3}{8},\ x+\frac{1}{4}\right]$	[28,35]
22	$\left[\frac{3}{8},\ x+\frac{1}{4},\ \frac{3}{8}\right]$	[29,31]
23	$\left[\frac{3}{8},\ \frac{1}{2}-x,\ \frac{3}{8}\right]$	[30,32]
24	$\left[\frac{1}{2}-x,\ \frac{3}{8},\ \frac{3}{8}\right]$	[33,34]
25	$\left[\frac{1}{4}-x,\ \frac{5}{8},\ \frac{1}{8}\right]$	[37,86]
26	$\left[\frac{1}{4}-x,\ \frac{1}{8},\ \frac{5}{8}\right]$	[38,85]
27	$\left[\frac{1}{8},\ \frac{1}{8},\ x+\frac{1}{2}\right]$	[39,192]
28	$\left[\frac{5}{8},\ \frac{1}{8},\ \frac{1}{4}-x\right]$	[40,191]
29	$\left[\frac{5}{8},\ \frac{1}{4}-x,\ \frac{1}{8}\right]$	[41,139]
30	$\left[\frac{1}{8},\ x+\frac{1}{2},\ \frac{1}{8}\right]$	[42,140]
31	$\left[\frac{1}{8},\ \frac{1}{4}-x,\ \frac{5}{8}\right]$	[43,137]
32	$\left[\frac{5}{8},\ x+\frac{1}{2},\ \frac{5}{8}\right]$	[44,138]
33	$\left[x+\frac{1}{2},\ \frac{1}{8},\ \frac{1}{8}\right]$	[45,94]
34	$\left[x+\frac{1}{2},\ \frac{5}{8},\ \frac{5}{8}\right]$	[46,93]
35	$\left[\frac{1}{8},\ \frac{5}{8},\ \frac{1}{4}-x\right]$	[47,184]
36	$\left[\frac{5}{8},\ \frac{5}{8},\ x+\frac{1}{2}\right]$	[48,183]
37	$\left[x,\ \frac{5}{8},\ \frac{5}{8}\right]$	[49,50]
38	$\left[\frac{1}{4}-x,\ \frac{5}{8},\ \frac{5}{8}\right]$	[51,52]
39	$\left[\frac{1}{8},\ x+\frac{1}{2},\ \frac{5}{8}\right]$	[53,60]
40	$\left[\frac{1}{8},\ \frac{5}{8},\ x+\frac{1}{2}\right]$	[54,57]
41	$\left[\frac{1}{8},\ \frac{5}{8},\ \frac{3}{4}-x\right]$	[55,59]
42	$\left[\frac{1}{8},\ \frac{3}{4}-x,\ \frac{5}{8}\right]$	[56,58]
43	$\left[\frac{7}{8},\ \frac{1}{2}-x,\ \frac{3}{8}\right]$	[65,168]
44	$\left[\frac{7}{8},\ \frac{3}{8},\ \frac{1}{2}-x\right]$	[66,117]
45	$\left[\frac{3}{8},\ \frac{3}{8},\ x+\frac{3}{4}\right]$	[67,119]
46	$\left[\frac{3}{8},\ x+\frac{3}{4},\ \frac{3}{8}\right]$	[68,166]
47	$\left[\frac{3}{8},\ \frac{7}{8},\ \frac{1}{2}-x\right]$	[69,114]
48	$\left[\frac{7}{8},\ x+\frac{3}{4},\ \frac{7}{8}\right]$	[70,164]
49	$\left[\frac{7}{8},\ \frac{7}{8},\ x+\frac{3}{4}\right]$	[71,115]
50	$\left[\frac{3}{8},\ \frac{1}{2}-x,\ \frac{7}{8}\right]$	[72,161]
51	$\left[x+\frac{1}{4},\ \frac{7}{8},\ \frac{7}{8}\right]$	[73,74]
52	$\left[\frac{3}{8},\ \frac{7}{8},\ -x\right]$	[75,84]

continued ...

Table 6

No.	position	mapping
53	$\left[\frac{3}{8}, \frac{7}{8}, x+\frac{3}{4}\right]$	[76,83]
54	$\left[\frac{3}{8}, x+\frac{3}{4}, \frac{7}{8}\right]$	[77,79]
55	$\left[\frac{3}{8}, -x, \frac{7}{8}\right]$	[78,80]
56	$\left[\frac{1}{2}-x, \frac{7}{8}, \frac{7}{8}\right]$	[81,82]
57	$\left[\frac{1}{8}, \frac{5}{8}, x\right]$	[87,144]
58	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{4}-x\right]$	[88,143]
59	$\left[\frac{5}{8}, \frac{3}{4}-x, \frac{5}{8}\right]$	[89,187]
60	$\left[\frac{1}{8}, x, \frac{5}{8}\right]$	[90,188]
61	$\left[\frac{1}{8}, \frac{3}{4}-x, \frac{1}{8}\right]$	[91,185]
62	$\left[\frac{5}{8}, x, \frac{1}{8}\right]$	[92,186]
63	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{4}-x\right]$	[95,136]
64	$\left[\frac{5}{8}, \frac{1}{8}, x\right]$	[96,135]
65	$\left[x+\frac{1}{2}, \frac{1}{8}, \frac{5}{8}\right]$	[97,98]
66	$\left[\frac{3}{4}-x, \frac{1}{8}, \frac{5}{8}\right]$	[99,100]
67	$\left[\frac{5}{8}, x, \frac{5}{8}\right]$	[101,108]
68	$\left[\frac{5}{8}, \frac{1}{8}, x+\frac{1}{2}\right]$	[102,105]
69	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{4}-x\right]$	[103,107]
70	$\left[\frac{5}{8}, \frac{1}{4}-x, \frac{5}{8}\right]$	[104,106]
71	$\left[\frac{1}{2}-x, \frac{7}{8}, \frac{3}{8}\right]$	[109,158]
72	$\left[\frac{1}{2}-x, \frac{3}{8}, \frac{7}{8}\right]$	[110,157]
73	$\left[x+\frac{3}{4}, \frac{7}{8}, \frac{7}{8}\right]$	[111,160]
74	$\left[x+\frac{3}{4}, \frac{3}{8}, \frac{3}{8}\right]$	[112,159]
75	$\left[x+\frac{3}{4}, \frac{3}{8}, \frac{7}{8}\right]$	[121,122]
76	$\left[\frac{7}{8}, \frac{3}{8}, -x\right]$	[123,132]
77	$\left[\frac{7}{8}, \frac{3}{8}, x+\frac{3}{4}\right]$	[124,131]
78	$\left[\frac{7}{8}, x+\frac{1}{4}, \frac{7}{8}\right]$	[125,127]
79	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{7}{8}\right]$	[126,128]
80	$\left[-x, \frac{3}{8}, \frac{7}{8}\right]$	[129,130]
81	$\left[\frac{3}{4}-x, \frac{5}{8}, \frac{5}{8}\right]$	[133,182]
82	$\left[\frac{3}{4}-x, \frac{1}{8}, \frac{1}{8}\right]$	[134,181]
83	$\left[x, \frac{1}{8}, \frac{5}{8}\right]$	[141,190]
84	$\left[x, \frac{5}{8}, \frac{1}{8}\right]$	[142,189]
85	$\left[x+\frac{1}{2}, \frac{5}{8}, \frac{1}{8}\right]$	[145,146]
86	$\left[\frac{3}{4}-x, \frac{5}{8}, \frac{1}{8}\right]$	[147,148]
87	$\left[\frac{5}{8}, x+\frac{1}{2}, \frac{1}{8}\right]$	[149,156]
88	$\left[\frac{5}{8}, \frac{5}{8}, x\right]$	[150,153]
89	$\left[\frac{5}{8}, \frac{5}{8}, \frac{1}{4}-x\right]$	[151,155]
90	$\left[\frac{5}{8}, \frac{3}{4}-x, \frac{1}{8}\right]$	[152,154]
91	$\left[x+\frac{3}{4}, \frac{7}{8}, \frac{3}{8}\right]$	[169,170]
92	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{2}-x\right]$	[171,180]
93	$\left[\frac{7}{8}, \frac{7}{8}, x+\frac{1}{4}\right]$	[172,179]
94	$\left[\frac{7}{8}, x+\frac{3}{4}, \frac{3}{8}\right]$	[173,175]
95	$\left[\frac{7}{8}, -x, \frac{3}{8}\right]$	[174,176]
96	$\left[-x, \frac{7}{8}, \frac{3}{8}\right]$	[177,178]

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

No.	position	mapping
1	$\left[\frac{1}{4},\ y,\ -y\right]$	[1,82]
2	$\left[\frac{1}{4},\ \frac{1}{4}-y,\ y+\frac{1}{4}\right]$	[2,33]
3	$\left[0,\ y,\ y+\frac{1}{4}\right]$	[3,169]
4	$\left[0,\ \frac{1}{4}-y,\ -y\right]$	[4,122]
5	$\left[-y,\ \frac{1}{4},\ y\right]$	[5,128]
6	$\left[y,\ -y,\ \frac{1}{4}\right]$	[6,180]
7	$\left[\frac{1}{4}-y,\ -y,\ 0\right]$	[7,83]
8	$\left[y+\frac{1}{4},\ 0,\ y\right]$	[8,79]
9	$\left[\frac{1}{4}-y,\ y+\frac{1}{4},\ \frac{1}{4}\right]$	[9,27]
10	$\left[-y,\ 0,\ \frac{1}{4}-y\right]$	[10,173]
11	$\left[y,\ y+\frac{1}{4},\ 0\right]$	[11,124]
12	$\left[y+\frac{1}{4},\ \frac{1}{4},\ \frac{1}{4}-y\right]$	[12,30]
13	$\left[\frac{3}{4},\ -y,\ y\right]$	[13,94]
14	$\left[\frac{3}{4},\ y+\frac{1}{4},\ \frac{1}{4}-y\right]$	[14,45]
15	$\left[\frac{1}{2},\ -y,\ \frac{1}{4}-y\right]$	[15,181]
16	$\left[\frac{1}{2},\ y+\frac{1}{4},\ y\right]$	[16,134]
17	$\left[y,\ \frac{3}{4},\ -y\right]$	[17,140]
18	$\left[-y,\ y,\ \frac{3}{4}\right]$	[18,192]
19	$\left[y+\frac{1}{4},\ y,\ \frac{1}{2}\right]$	[19,95]
20	$\left[\frac{1}{4}-y,\ \frac{1}{2},\ -y\right]$	[20,91]
21	$\left[y+\frac{1}{4},\ \frac{1}{4}-y,\ \frac{3}{4}\right]$	[21,39]
22	$\left[y,\ \frac{1}{2},\ y+\frac{1}{4}\right]$	[22,185]
23	$\left[-y,\ \frac{1}{4}-y,\ \frac{1}{2}\right]$	[23,136]
24	$\left[\frac{1}{4}-y,\ \frac{3}{4},\ y+\frac{1}{4}\right]$	[24,42]
25	$\left[\frac{1}{2},\ y+\frac{1}{2},\ y+\frac{1}{4}\right]$	[25,147]
26	$\left[\frac{1}{2},\ \frac{1}{4}-y,\ \frac{1}{2}-y\right]$	[26,100]
27	$\left[y+\frac{1}{2},\ y+\frac{1}{4},\ \frac{1}{2}\right]$	[28,107]
28	$\left[\frac{1}{2}-y,\ \frac{1}{2},\ \frac{1}{4}-y\right]$	[29,154]
29	$\left[y+\frac{1}{4},\ \frac{1}{2},\ y+\frac{1}{2}\right]$	[31,56]
30	$\left[\frac{1}{2}-y,\ \frac{1}{4},\ y+\frac{1}{2}\right]$	[32,101]
31	$\left[\frac{1}{4},\ y+\frac{1}{2},\ \frac{1}{2}-y\right]$	[34,49]
32	$\left[\frac{1}{4}-y,\ \frac{1}{2}-y,\ \frac{1}{2}\right]$	[35,55]
33	$\left[y+\frac{1}{2},\ \frac{1}{2}-y,\ \frac{1}{4}\right]$	[36,150]
34	$\left[0,\ \frac{1}{2}-y,\ \frac{1}{4}-y\right]$	[37,159]
35	$\left[0,\ y+\frac{1}{4},\ y+\frac{1}{2}\right]$	[38,112]
36	$\left[\frac{1}{2}-y,\ \frac{1}{4}-y,\ 0\right]$	[40,119]
37	$\left[y+\frac{1}{2},\ 0,\ y+\frac{1}{4}\right]$	[41,166]
38	$\left[\frac{1}{4}-y,\ 0,\ \frac{1}{2}-y\right]$	[43,68]
39	$\left[y+\frac{1}{2},\ \frac{3}{4},\ \frac{1}{2}-y\right]$	[44,113]
40	$\left[\frac{3}{4},\ \frac{1}{2}-y,\ y+\frac{1}{2}\right]$	[46,61]
41	$\left[y+\frac{1}{4},\ y+\frac{1}{2},\ 0\right]$	[47,67]
42	$\left[\frac{1}{2}-y,\ y+\frac{1}{2},\ \frac{3}{4}\right]$	[48,162]
43	$\left[\frac{1}{4},\ \frac{3}{4}-y,\ y+\frac{3}{4}\right]$	[50,81]
44	$\left[0,\ y+\frac{1}{2},\ y+\frac{3}{4}\right]$	[51,121]
45	$\left[0,\ \frac{3}{4}-y,\ \frac{1}{2}-y\right]$	[52,170]
46	$\left[-y,\ \frac{3}{4},\ y+\frac{1}{2}\right]$	[53,176]

continued ...

Table 7

No.	position	mapping
47	$\left[y,\ \frac{1}{2}-y,\ \frac{3}{4}\right]$	[54,132]
48	$\left[\frac{1}{4}-y,\ y+\frac{3}{4},\ \frac{3}{4}\right]$	[57,75]
49	$\left[-y,\ \frac{1}{2},\ \frac{3}{4}-y\right]$	[58,125]
50	$\left[y,\ y+\frac{3}{4},\ \frac{1}{2}\right]$	[59,172]
51	$\left[y+\frac{1}{4},\ \frac{3}{4},\ \frac{3}{4}-y\right]$	[60,78]
52	$\left[\frac{3}{4},\ y+\frac{3}{4},\ \frac{3}{4}-y\right]$	[62,93]
53	$\left[\frac{1}{2},\ \frac{1}{2}-y,\ \frac{3}{4}-y\right]$	[63,133]
54	$\left[\frac{1}{2},\ y+\frac{3}{4},\ y+\frac{1}{2}\right]$	[64,182]
55	$\left[y,\ \frac{1}{4},\ \frac{1}{2}-y\right]$	[65,188]
56	$\left[-y,\ y+\frac{1}{2},\ \frac{1}{4}\right]$	[66,144]
57	$\left[y+\frac{1}{4},\ \frac{3}{4}-y,\ \frac{1}{4}\right]$	[69,87]
58	$\left[y,\ 0,\ y+\frac{3}{4}\right]$	[70,137]
59	$\left[-y,\ \frac{3}{4}-y,\ 0\right]$	[71,184]
60	$\left[\frac{1}{4}-y,\ \frac{1}{4},\ y+\frac{3}{4}\right]$	[72,90]
61	$\left[\frac{1}{2},\ y,\ y+\frac{3}{4}\right]$	[73,99]
62	$\left[\frac{1}{2},\ \frac{3}{4}-y,\ -y\right]$	[74,148]
63	$\left[y+\frac{1}{2},\ y+\frac{3}{4},\ 0\right]$	[76,155]
64	$\left[\frac{1}{2}-y,\ 0,\ \frac{3}{4}-y\right]$	[77,106]
65	$\left[\frac{1}{2}-y,\ \frac{3}{4},\ y\right]$	[80,149]
66	$\left[y+\frac{1}{2},\ -y,\ \frac{3}{4}\right]$	[84,102]
67	$\left[0,\ -y,\ \frac{3}{4}-y\right]$	[85,111]
68	$\left[0,\ y+\frac{3}{4},\ y\right]$	[86,160]
69	$\left[\frac{1}{2}-y,\ \frac{3}{4}-y,\ \frac{1}{2}\right]$	[88,167]
70	$\left[y+\frac{1}{2},\ \frac{1}{2},\ y+\frac{3}{4}\right]$	[89,118]
71	$\left[y+\frac{1}{2},\ \frac{1}{4},\ -y\right]$	[92,161]
72	$\left[\frac{1}{2}-y,\ y,\ \frac{1}{4}\right]$	[96,114]
73	$\left[\frac{3}{4},\ y,\ \frac{1}{2}-y\right]$	[97,178]
74	$\left[\frac{3}{4},\ \frac{1}{4}-y,\ y+\frac{3}{4}\right]$	[98,129]
75	$\left[\frac{3}{4}-y,\ -y,\ \frac{1}{2}\right]$	[103,179]
76	$\left[y+\frac{3}{4},\ 0,\ y+\frac{1}{2}\right]$	[104,175]
77	$\left[\frac{3}{4}-y,\ y+\frac{1}{4},\ \frac{3}{4}\right]$	[105,123]
78	$\left[y+\frac{3}{4},\ \frac{1}{4},\ \frac{3}{4}-y\right]$	[108,126]
79	$\left[\frac{1}{4},\ -y,\ y+\frac{1}{2}\right]$	[109,190]
80	$\left[\frac{1}{4},\ y+\frac{1}{4},\ \frac{3}{4}-y\right]$	[110,141]
81	$\left[y+\frac{3}{4},\ y,\ 0\right]$	[115,191]
82	$\left[\frac{3}{4}-y,\ \frac{1}{2},\ \frac{1}{2}-y\right]$	[116,187]
83	$\left[y+\frac{3}{4},\ \frac{1}{4}-y,\ \frac{1}{4}\right]$	[117,135]
84	$\left[\frac{3}{4}-y,\ \frac{3}{4},\ y+\frac{3}{4}\right]$	[120,138]
85	$\left[y+\frac{3}{4},\ \frac{1}{2},\ y\right]$	[127,152]
86	$\left[\frac{3}{4},\ y+\frac{1}{2},\ -y\right]$	[130,145]
87	$\left[\frac{3}{4}-y,\ \frac{1}{2}-y,\ 0\right]$	[131,151]
88	$\left[\frac{3}{4}-y,\ 0,\ -y\right]$	[139,164]
89	$\left[\frac{1}{4},\ \frac{1}{2}-y,\ y\right]$	[142,157]
90	$\left[y+\frac{3}{4},\ y+\frac{1}{2},\ \frac{1}{2}\right]$	[143,163]
91	$\left[\frac{3}{4},\ \frac{3}{4}-y,\ y+\frac{1}{4}\right]$	[146,177]
92	$\left[\frac{3}{4}-y,\ y+\frac{3}{4},\ \frac{1}{4}\right]$	[153,171]
93	$\left[y+\frac{3}{4},\ \frac{3}{4},\ \frac{1}{4}-y\right]$	[156,174]

continued ...

Table 7

No.	position	mapping
94	$\left[\frac{1}{4},\, y+\frac{3}{4},\, \frac{1}{4}-y\right]$	[158,189]
95	$\left[y+\frac{3}{4},\, \frac{3}{4}-y,\, \frac{3}{4}\right]$	[165,183]
96	$\left[\frac{3}{4}-y,\, \frac{1}{4},\, y+\frac{1}{4}\right]$	[168,186]

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

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

continued ...

Table 8

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

continued ...

Table 8

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

continued ...

Table 8

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

continued ...

Table 8

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