MSG No. 203.29 $F_S d\bar{3}$ [Type IV, cubic]

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

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

Table 2: Wyckoff site: 32b, site symmetry: .-3.

No.	position	mapping
1	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}\right]$	[1,5,6,13,17,18]
2	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{4}\right]$	[2,10,11,38,46,47]
3	$\left[\frac{1}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[3,7,12,63,67,72]
4	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}\right]$	[4,8,9,88,92,93]
5	$\left[\frac{1}{2}, \frac{3}{4}, \frac{3}{4}\right]$	[14,22,23,26,34,35]
6	$\left[\frac{3}{4}, \frac{1}{2}, \frac{3}{4}\right]$	[15,19,24,51,55,60]
7	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[16,20,21,76,80,81]
8	$\left[\frac{1}{2}, 0, 0\right]$	[25,29,30,37,41,42]
9	$\left[\frac{1}{4}, 0, \frac{3}{4}\right]$	[27,31,36,87,91,96]
10	$\left[\frac{1}{4}, \frac{3}{4}, 0\right]$	[28,32,33,64,68,69]
11	$\left[\frac{3}{4}, 0, \frac{1}{4}\right]$	[39,43,48,75,79,84]
12	$\left[\frac{3}{4}, \frac{1}{4}, 0\right]$	[40,44,45,52,56,57]
13	$\left[0, \frac{1}{2}, 0\right]$	[49,53,54,61,65,66]
14	$\left[0, \frac{1}{4}, \frac{3}{4}\right]$	[50,58,59,86,94,95]
15	$\left[0, \frac{3}{4}, \frac{1}{4}\right]$	[62,70,71,74,82,83]
16	$\left[0, 0, \frac{1}{2}\right]$	[73,77,78,85,89,90]
17	$\left[\frac{1}{2}, \frac{1}{2}, 0\right]$	[97,101,102,109,113,114]
18	$\left[\frac{1}{2}, \frac{1}{4}, \frac{3}{4}\right]$	[98,106,107,134,142,143]
19	$\left[\frac{1}{4}, \frac{1}{2}, \frac{3}{4}\right]$	[99,103,108,159,163,168]
20	$\left[\frac{1}{4}, \frac{1}{4}, 0\right]$	[100,104,105,184,188,189]
21	$\left[\frac{1}{2}, \frac{3}{4}, \frac{1}{4}\right]$	[110,118,119,122,130,131]

continued ...

Table 2

No.	position	mapping
22	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[111,115,120,147,151,156]
23	$\left[\frac{3}{4}, \frac{3}{4}, 0\right]$	[112,116,117,172,176,177]
24	$\left[\frac{1}{2}, 0, \frac{1}{2}\right]$	[121,125,126,133,137,138]
25	$\left[\frac{1}{4}, 0, \frac{1}{4}\right]$	[123,127,132,183,187,192]
26	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[124,128,129,160,164,165]
27	$\left[\frac{3}{4}, 0, \frac{3}{4}\right]$	[135,139,144,171,175,180]
28	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}\right]$	[136,140,141,148,152,153]
29	$\left[0, \frac{1}{2}, \frac{1}{2}\right]$	[145,149,150,157,161,162]
30	$\left[0, \frac{1}{4}, \frac{1}{4}\right]$	[146,154,155,182,190,191]
31	$\left[0, \frac{3}{4}, \frac{3}{4}\right]$	[158,166,167,170,178,179]
32	$[0, 0, 0]$	[169,173,174,181,185,186]

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

No.	position	mapping
1	$\left[\frac{3}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[1,5,6,181,185,186]
2	$\left[\frac{3}{4}, 0, 0\right]$	[2,10,11,158,166,167]
3	$\left[0, \frac{3}{4}, 0\right]$	[3,7,12,135,139,144]
4	$\left[0, 0, \frac{3}{4}\right]$	[4,8,9,112,116,117]
5	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[13,17,18,169,173,174]
6	$\left[\frac{1}{4}, 0, 0\right]$	[14,22,23,146,154,155]
7	$\left[0, \frac{1}{4}, 0\right]$	[15,19,24,123,127,132]
8	$\left[0, 0, \frac{1}{4}\right]$	[16,20,21,100,104,105]
9	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{4}\right]$	[25,29,30,157,161,162]
10	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{2}\right]$	[26,34,35,182,190,191]
11	$\left[0, \frac{1}{4}, \frac{1}{2}\right]$	[27,31,36,111,115,120]
12	$\left[0, \frac{1}{2}, \frac{1}{4}\right]$	[28,32,33,136,140,141]
13	$\left[\frac{1}{4}, \frac{3}{4}, \frac{3}{4}\right]$	[37,41,42,145,149,150]
14	$\left[\frac{1}{4}, \frac{1}{2}, \frac{1}{2}\right]$	[38,46,47,170,178,179]
15	$\left[0, \frac{3}{4}, \frac{1}{2}\right]$	[39,43,48,99,103,108]
16	$\left[0, \frac{1}{2}, \frac{3}{4}\right]$	[40,44,45,124,128,129]
17	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[49,53,54,133,137,138]
18	$\left[\frac{1}{4}, 0, \frac{1}{2}\right]$	[50,58,59,110,118,119]
19	$\left[\frac{1}{2}, \frac{3}{4}, \frac{1}{2}\right]$	[51,55,60,183,187,192]
20	$\left[\frac{1}{2}, 0, \frac{1}{4}\right]$	[52,56,57,160,164,165]
21	$\left[\frac{3}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[61,65,66,121,125,126]
22	$\left[\frac{3}{4}, 0, \frac{1}{2}\right]$	[62,70,71,98,106,107]
23	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{2}\right]$	[63,67,72,171,175,180]
24	$\left[\frac{1}{2}, 0, \frac{3}{4}\right]$	[64,68,69,148,152,153]
25	$\left[\frac{1}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[73,77,78,109,113,114]
26	$\left[\frac{1}{4}, \frac{1}{2}, 0\right]$	[74,82,83,134,142,143]
27	$\left[\frac{1}{2}, \frac{1}{4}, 0\right]$	[75,79,84,159,163,168]
28	$\left[\frac{1}{2}, \frac{1}{2}, \frac{3}{4}\right]$	[76,80,81,184,188,189]
29	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[85,89,90,97,101,102]

continued ...

Table 3

No.	position	mapping
30	$\left[\frac{3}{4}, \frac{1}{2}, 0\right]$	[86,94,95,122,130,131]
31	$\left[\frac{1}{2}, \frac{3}{4}, 0\right]$	[87,91,96,147,151,156]
32	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{4}\right]$	[88,92,93,172,176,177]

Table 4: Wyckoff site: 48d, site symmetry: 22'2'..

No.	position	mapping
1	$\left[\frac{5}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[1,2,147,148]
2	$\left[\frac{1}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[3,4,145,146]
3	$\left[\frac{7}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[5,12,128,130]
4	$\left[\frac{7}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[6,9,103,107]
5	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[7,11,102,105]
6	$\left[\frac{7}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[8,10,125,132]
7	$\left[\frac{3}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[13,14,159,160]
8	$\left[\frac{7}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[15,16,157,158]
9	$\left[\frac{1}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[17,24,140,142]
10	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[18,21,115,119]
11	$\left[\frac{1}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[19,23,114,117]
12	$\left[\frac{1}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[20,22,137,144]
13	$\left[\frac{5}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[25,26,171,172]
14	$\left[\frac{1}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[27,28,169,170]
15	$\left[\frac{7}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[29,36,104,106]
16	$\left[\frac{7}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[30,33,127,131]
17	$\left[\frac{7}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[31,35,126,129]
18	$\left[\frac{7}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[32,34,101,108]
19	$\left[\frac{3}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[37,38,183,184]
20	$\left[\frac{7}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[39,40,181,182]
21	$\left[\frac{1}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[41,48,116,118]
22	$\left[\frac{1}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[42,45,139,143]
23	$\left[\frac{1}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[43,47,138,141]
24	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[44,46,113,120]
25	$\left[\frac{1}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[49,50,99,100]
26	$\left[\frac{5}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[51,52,97,98]
27	$\left[\frac{3}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[53,60,176,178]
28	$\left[\frac{3}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[54,57,151,155]
29	$\left[\frac{3}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[55,59,150,153]
30	$\left[\frac{3}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[56,58,173,180]
31	$\left[\frac{7}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[61,62,111,112]
32	$\left[\frac{3}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[63,64,109,110]
33	$\left[\frac{5}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[65,72,188,190]
34	$\left[\frac{5}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[66,69,163,167]
35	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[67,71,162,165]
36	$\left[\frac{5}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[68,70,185,192]
37	$\left[\frac{1}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[73,74,123,124]

continued ...

Table 4

No.	position	mapping
38	$\left[\frac{5}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[75,76,121,122]
39	$\left[\frac{3}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[77,84,152,154]
40	$\left[\frac{3}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[78,81,175,179]
41	$\left[\frac{3}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[79,83,174,177]
42	$\left[\frac{3}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[80,82,149,156]
43	$\left[\frac{7}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[85,86,135,136]
44	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[87,88,133,134]
45	$\left[\frac{5}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[89,96,164,166]
46	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[90,93,187,191]
47	$\left[\frac{5}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[91,95,186,189]
48	$\left[\frac{5}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[92,94,161,168]

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

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

continued ...

Table 5

No.	position	mapping
30	$\left[\frac{1}{2}-x,\ x+\frac{3}{4},\ x+\frac{1}{4}\right]$	[86,94,95]
31	$\left[x+\frac{3}{4},\ \frac{1}{2}-x,\ x+\frac{1}{4}\right]$	[87,91,96]
32	$\left[x+\frac{3}{4},\ x+\frac{3}{4},\ -x\right]$	[88,92,93]
33	$\left[x,\ x,\ x+\frac{1}{2}\right]$	[97,101,102]
34	$\left[x,\ \frac{3}{4}-x,\ \frac{1}{4}-x\right]$	[98,106,107]
35	$\left[\frac{3}{4}-x,\ x,\ \frac{1}{4}-x\right]$	[99,103,108]
36	$\left[\frac{3}{4}-x,\ \frac{3}{4}-x,\ x+\frac{1}{2}\right]$	[100,104,105]
37	$\left[-x,\ -x,\ \frac{1}{2}-x\right]$	[109,113,114]
38	$\left[-x,\ x+\frac{1}{4},\ x+\frac{3}{4}\right]$	[110,118,119]
39	$\left[x+\frac{1}{4},\ -x,\ x+\frac{3}{4}\right]$	[111,115,120]
40	$\left[x+\frac{1}{4},\ x+\frac{1}{4},\ \frac{1}{2}-x\right]$	[112,116,117]
41	$\left[x,\ x+\frac{1}{2},\ x\right]$	[121,125,126]
42	$\left[x,\ \frac{1}{4}-x,\ \frac{3}{4}-x\right]$	[122,130,131]
43	$\left[\frac{3}{4}-x,\ x+\frac{1}{2},\ \frac{3}{4}-x\right]$	[123,127,132]
44	$\left[\frac{3}{4}-x,\ \frac{1}{4}-x,\ x\right]$	[124,128,129]
45	$\left[-x,\ \frac{1}{2}-x,\ -x\right]$	[133,137,138]
46	$\left[-x,\ x+\frac{3}{4},\ x+\frac{1}{4}\right]$	[134,142,143]
47	$\left[x+\frac{1}{4},\ \frac{1}{2}-x,\ x+\frac{1}{4}\right]$	[135,139,144]
48	$\left[x+\frac{1}{4},\ x+\frac{3}{4},\ -x\right]$	[136,140,141]
49	$\left[x+\frac{1}{2},\ x,\ x\right]$	[145,149,150]
50	$\left[x+\frac{1}{2},\ \frac{3}{4}-x,\ \frac{3}{4}-x\right]$	[146,154,155]
51	$\left[\frac{1}{4}-x,\ x,\ \frac{3}{4}-x\right]$	[147,151,156]
52	$\left[\frac{1}{4}-x,\ \frac{3}{4}-x,\ x\right]$	[148,152,153]
53	$\left[\frac{1}{2}-x,\ -x,\ -x\right]$	[157,161,162]
54	$\left[\frac{1}{2}-x,\ x+\frac{1}{4},\ x+\frac{1}{4}\right]$	[158,166,167]
55	$\left[x+\frac{3}{4},\ -x,\ x+\frac{1}{4}\right]$	[159,163,168]
56	$\left[x+\frac{3}{4},\ x+\frac{1}{4},\ -x\right]$	[160,164,165]
57	$\left[x+\frac{1}{2},\ x+\frac{1}{2},\ x+\frac{1}{2}\right]$	[169,173,174]
58	$\left[x+\frac{1}{2},\ \frac{1}{4}-x,\ \frac{1}{4}-x\right]$	[170,178,179]
59	$\left[\frac{1}{4}-x,\ x+\frac{1}{2},\ \frac{1}{4}-x\right]$	[171,175,180]
60	$\left[\frac{1}{4}-x,\ \frac{1}{4}-x,\ x+\frac{1}{2}\right]$	[172,176,177]
61	$\left[\frac{1}{2}-x,\ \frac{1}{2}-x,\ \frac{1}{2}-x\right]$	[181,185,186]
62	$\left[\frac{1}{2}-x,\ x+\frac{3}{4},\ x+\frac{3}{4}\right]$	[182,190,191]
63	$\left[x+\frac{3}{4},\ \frac{1}{2}-x,\ x+\frac{3}{4}\right]$	[183,187,192]
64	$\left[x+\frac{3}{4},\ x+\frac{3}{4},\ \frac{1}{2}-x\right]$	[184,188,189]

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

No.	position	mapping
1	$\left[x,\ \frac{5}{8},\ \frac{5}{8}\right]$	[1,26]
2	$\left[x,\ \frac{1}{8},\ \frac{1}{8}\right]$	[2,25]
3	$\left[\frac{3}{4}-x,\ \frac{5}{8},\ \frac{1}{8}\right]$	[3,28]
4	$\left[\frac{3}{4}-x,\ \frac{1}{8},\ \frac{5}{8}\right]$	[4,27]
5	$\left[\frac{5}{8},\ x,\ \frac{5}{8}\right]$	[5,60]

continued ...

Table 6

No.	position	mapping
6	$\left[\frac{5}{8}, \frac{5}{8}, x\right]$	[6,81]
7	$\left[\frac{1}{8}, \frac{5}{8}, \frac{3}{4} - x\right]$	[7,83]
8	$\left[\frac{1}{8}, \frac{3}{4} - x, \frac{5}{8}\right]$	[8,58]
9	$\left[\frac{1}{8}, \frac{1}{8}, x\right]$	[9,78]
10	$\left[\frac{5}{8}, \frac{3}{4} - x, \frac{1}{8}\right]$	[10,56]
11	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{4} - x\right]$	[11,79]
12	$\left[\frac{1}{8}, x, \frac{1}{8}\right]$	[12,53]
13	$\left[-x, \frac{3}{8}, \frac{3}{8}\right]$	[13,38]
14	$\left[-x, \frac{7}{8}, \frac{7}{8}\right]$	[14,37]
15	$\left[x + \frac{1}{4}, \frac{3}{8}, \frac{7}{8}\right]$	[15,40]
16	$\left[x + \frac{1}{4}, \frac{7}{8}, \frac{3}{8}\right]$	[16,39]
17	$\left[\frac{3}{8}, -x, \frac{3}{8}\right]$	[17,72]
18	$\left[\frac{3}{8}, \frac{3}{8}, -x\right]$	[18,93]
19	$\left[\frac{7}{8}, \frac{3}{8}, x + \frac{1}{4}\right]$	[19,95]
20	$\left[\frac{7}{8}, x + \frac{1}{4}, \frac{3}{8}\right]$	[20,70]
21	$\left[\frac{7}{8}, \frac{7}{8}, -x\right]$	[21,90]
22	$\left[\frac{3}{8}, x + \frac{1}{4}, \frac{7}{8}\right]$	[22,68]
23	$\left[\frac{3}{8}, \frac{7}{8}, x + \frac{1}{4}\right]$	[23,91]
24	$\left[\frac{7}{8}, -x, \frac{7}{8}\right]$	[24,65]
25	$\left[\frac{5}{8}, x + \frac{1}{2}, \frac{1}{8}\right]$	[29,84]
26	$\left[\frac{5}{8}, \frac{1}{8}, x + \frac{1}{2}\right]$	[30,57]
27	$\left[\frac{1}{8}, \frac{1}{8}, \frac{1}{4} - x\right]$	[31,59]
28	$\left[\frac{1}{8}, \frac{1}{4} - x, \frac{1}{8}\right]$	[32,82]
29	$\left[\frac{1}{8}, \frac{5}{8}, x + \frac{1}{2}\right]$	[33,54]
30	$\left[\frac{5}{8}, \frac{1}{4} - x, \frac{5}{8}\right]$	[34,80]
31	$\left[\frac{5}{8}, \frac{5}{8}, \frac{1}{4} - x\right]$	[35,55]
32	$\left[\frac{1}{8}, x + \frac{1}{2}, \frac{5}{8}\right]$	[36,77]
33	$\left[\frac{3}{8}, \frac{1}{2} - x, \frac{7}{8}\right]$	[41,96]
34	$\left[\frac{3}{8}, \frac{7}{8}, \frac{1}{2} - x\right]$	[42,69]
35	$\left[\frac{7}{8}, \frac{7}{8}, x + \frac{3}{4}\right]$	[43,71]
36	$\left[\frac{7}{8}, x + \frac{3}{4}, \frac{7}{8}\right]$	[44,94]
37	$\left[\frac{7}{8}, \frac{3}{8}, \frac{1}{2} - x\right]$	[45,66]
38	$\left[\frac{3}{8}, x + \frac{3}{4}, \frac{3}{8}\right]$	[46,92]
39	$\left[\frac{3}{8}, \frac{3}{8}, x + \frac{3}{4}\right]$	[47,67]
40	$\left[\frac{7}{8}, \frac{1}{2} - x, \frac{3}{8}\right]$	[48,89]
41	$\left[x + \frac{1}{2}, \frac{5}{8}, \frac{1}{8}\right]$	[49,74]
42	$\left[x + \frac{1}{2}, \frac{1}{8}, \frac{5}{8}\right]$	[50,73]
43	$\left[\frac{1}{4} - x, \frac{5}{8}, \frac{5}{8}\right]$	[51,76]
44	$\left[\frac{1}{4} - x, \frac{1}{8}, \frac{1}{8}\right]$	[52,75]
45	$\left[\frac{1}{2} - x, \frac{3}{8}, \frac{7}{8}\right]$	[61,86]
46	$\left[\frac{1}{2} - x, \frac{7}{8}, \frac{3}{8}\right]$	[62,85]
47	$\left[x + \frac{3}{4}, \frac{3}{8}, \frac{3}{8}\right]$	[63,88]
48	$\left[x + \frac{3}{4}, \frac{7}{8}, \frac{7}{8}\right]$	[64,87]
49	$\left[x, \frac{5}{8}, \frac{1}{8}\right]$	[97,122]
50	$\left[x, \frac{1}{8}, \frac{5}{8}\right]$	[98,121]
51	$\left[\frac{3}{4} - x, \frac{5}{8}, \frac{5}{8}\right]$	[99,124]
52	$\left[\frac{3}{4} - x, \frac{1}{8}, \frac{1}{8}\right]$	[100,123]

continued ...

Table 6

No.	position	mapping
53	$\left[\frac{5}{8}, x, \frac{1}{8}\right]$	[101,156]
54	$\left[\frac{5}{8}, \frac{5}{8}, x+\frac{1}{2}\right]$	[102,177]
55	$\left[\frac{1}{8}, \frac{5}{8}, \frac{1}{4}-x\right]$	[103,179]
56	$\left[\frac{1}{8}, \frac{3}{4}-x, \frac{1}{8}\right]$	[104,154]
57	$\left[\frac{1}{8}, \frac{1}{8}, x+\frac{1}{2}\right]$	[105,174]
58	$\left[\frac{5}{8}, \frac{3}{4}-x, \frac{5}{8}\right]$	[106,152]
59	$\left[\frac{5}{8}, \frac{1}{8}, \frac{1}{4}-x\right]$	[107,175]
60	$\left[\frac{1}{8}, x, \frac{5}{8}\right]$	[108,149]
61	$\left[-x, \frac{3}{8}, \frac{7}{8}\right]$	[109,134]
62	$\left[-x, \frac{7}{8}, \frac{3}{8}\right]$	[110,133]
63	$\left[x+\frac{1}{4}, \frac{3}{8}, \frac{3}{8}\right]$	[111,136]
64	$\left[x+\frac{1}{4}, \frac{7}{8}, \frac{7}{8}\right]$	[112,135]
65	$\left[\frac{3}{8}, -x, \frac{7}{8}\right]$	[113,168]
66	$\left[\frac{3}{8}, \frac{3}{8}, \frac{1}{2}-x\right]$	[114,189]
67	$\left[\frac{7}{8}, \frac{3}{8}, x+\frac{3}{4}\right]$	[115,191]
68	$\left[\frac{7}{8}, x+\frac{1}{4}, \frac{7}{8}\right]$	[116,166]
69	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{2}-x\right]$	[117,186]
70	$\left[\frac{3}{8}, x+\frac{1}{4}, \frac{3}{8}\right]$	[118,164]
71	$\left[\frac{3}{8}, \frac{7}{8}, x+\frac{3}{4}\right]$	[119,187]
72	$\left[\frac{7}{8}, -x, \frac{3}{8}\right]$	[120,161]
73	$\left[\frac{5}{8}, x+\frac{1}{2}, \frac{5}{8}\right]$	[125,180]
74	$\left[\frac{5}{8}, \frac{1}{8}, x\right]$	[126,153]
75	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{4}-x\right]$	[127,155]
76	$\left[\frac{1}{8}, \frac{1}{4}-x, \frac{5}{8}\right]$	[128,178]
77	$\left[\frac{1}{8}, \frac{5}{8}, x\right]$	[129,150]
78	$\left[\frac{5}{8}, \frac{1}{4}-x, \frac{1}{8}\right]$	[130,176]
79	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{4}-x\right]$	[131,151]
80	$\left[\frac{1}{8}, x+\frac{1}{2}, \frac{1}{8}\right]$	[132,173]
81	$\left[\frac{3}{8}, \frac{1}{2}-x, \frac{3}{8}\right]$	[137,192]
82	$\left[\frac{3}{8}, \frac{7}{8}, -x\right]$	[138,165]
83	$\left[\frac{7}{8}, \frac{7}{8}, x+\frac{1}{4}\right]$	[139,167]
84	$\left[\frac{7}{8}, x+\frac{3}{4}, \frac{3}{8}\right]$	[140,190]
85	$\left[\frac{7}{8}, \frac{3}{8}, -x\right]$	[141,162]
86	$\left[\frac{3}{8}, x+\frac{3}{4}, \frac{7}{8}\right]$	[142,188]
87	$\left[\frac{3}{8}, \frac{3}{8}, x+\frac{1}{4}\right]$	[143,163]
88	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{7}{8}\right]$	[144,185]
89	$\left[x+\frac{1}{2}, \frac{5}{8}, \frac{5}{8}\right]$	[145,170]
90	$\left[x+\frac{1}{2}, \frac{1}{8}, \frac{1}{8}\right]$	[146,169]
91	$\left[\frac{1}{4}-x, \frac{5}{8}, \frac{1}{8}\right]$	[147,172]
92	$\left[\frac{1}{4}-x, \frac{1}{8}, \frac{5}{8}\right]$	[148,171]
93	$\left[\frac{1}{2}-x, \frac{3}{8}, \frac{3}{8}\right]$	[157,182]
94	$\left[\frac{1}{2}-x, \frac{7}{8}, \frac{7}{8}\right]$	[158,181]
95	$\left[x+\frac{3}{4}, \frac{3}{8}, \frac{7}{8}\right]$	[159,184]
96	$\left[x+\frac{3}{4}, \frac{7}{8}, \frac{3}{8}\right]$	[160,183]

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

No.	position	mapping
1	$\left[x,\ \frac{7}{8},\ \frac{5}{8}\right]$	[1,98]
2	$\left[x,\ \frac{7}{8},\ \frac{1}{8}\right]$	[2,97]
3	$\left[\frac{3}{4}-x,\ \frac{7}{8},\ \frac{1}{8}\right]$	[3,100]
4	$\left[\frac{3}{4}-x,\ \frac{7}{8},\ \frac{5}{8}\right]$	[4,99]
5	$\left[\frac{5}{8},\ x,\ \frac{7}{8}\right]$	[5,156]
6	$\left[\frac{7}{8},\ \frac{5}{8},\ x\right]$	[6,129]
7	$\left[\frac{7}{8},\ \frac{5}{8},\ \frac{3}{4}-x\right]$	[7,131]
8	$\left[\frac{1}{8},\ \frac{3}{4}-x,\ \frac{7}{8}\right]$	[8,154]
9	$\left[\frac{7}{8},\ \frac{1}{8},\ x\right]$	[9,126]
10	$\left[\frac{5}{8},\ \frac{3}{4}-x,\ \frac{7}{8}\right]$	[10,152]
11	$\left[\frac{7}{8},\ \frac{1}{8},\ \frac{3}{4}-x\right]$	[11,127]
12	$\left[\frac{1}{8},\ x,\ \frac{7}{8}\right]$	[12,149]
13	$\left[-x,\ \frac{1}{8},\ \frac{3}{8}\right]$	[13,110]
14	$\left[-x,\ \frac{1}{8},\ \frac{7}{8}\right]$	[14,109]
15	$\left[x+\frac{1}{4},\ \frac{1}{8},\ \frac{7}{8}\right]$	[15,112]
16	$\left[x+\frac{1}{4},\ \frac{1}{8},\ \frac{3}{8}\right]$	[16,111]
17	$\left[\frac{3}{8},\ -x,\ \frac{1}{8}\right]$	[17,168]
18	$\left[\frac{1}{8},\ \frac{3}{8},\ -x\right]$	[18,141]
19	$\left[\frac{1}{8},\ \frac{3}{8},\ x+\frac{1}{4}\right]$	[19,143]
20	$\left[\frac{7}{8},\ x+\frac{1}{4},\ \frac{1}{8}\right]$	[20,166]
21	$\left[\frac{1}{8},\ \frac{7}{8},\ -x\right]$	[21,138]
22	$\left[\frac{3}{8},\ x+\frac{1}{4},\ \frac{1}{8}\right]$	[22,164]
23	$\left[\frac{1}{8},\ \frac{7}{8},\ x+\frac{1}{4}\right]$	[23,139]
24	$\left[\frac{7}{8},\ -x,\ \frac{1}{8}\right]$	[24,161]
25	$\left[x,\ \frac{3}{8},\ \frac{1}{8}\right]$	[25,122]
26	$\left[x,\ \frac{3}{8},\ \frac{5}{8}\right]$	[26,121]
27	$\left[\frac{3}{4}-x,\ \frac{3}{8},\ \frac{5}{8}\right]$	[27,124]
28	$\left[\frac{3}{4}-x,\ \frac{3}{8},\ \frac{1}{8}\right]$	[28,123]
29	$\left[\frac{5}{8},\ x+\frac{1}{2},\ \frac{3}{8}\right]$	[29,180]
30	$\left[\frac{7}{8},\ \frac{1}{8},\ x+\frac{1}{2}\right]$	[30,105]
31	$\left[\frac{7}{8},\ \frac{1}{8},\ \frac{1}{4}-x\right]$	[31,107]
32	$\left[\frac{1}{8},\ \frac{1}{4}-x,\ \frac{3}{8}\right]$	[32,178]
33	$\left[\frac{7}{8},\ \frac{5}{8},\ x+\frac{1}{2}\right]$	[33,102]
34	$\left[\frac{5}{8},\ \frac{1}{4}-x,\ \frac{3}{8}\right]$	[34,176]
35	$\left[\frac{7}{8},\ \frac{5}{8},\ \frac{1}{4}-x\right]$	[35,103]
36	$\left[\frac{1}{8},\ x+\frac{1}{2},\ \frac{3}{8}\right]$	[36,173]
37	$\left[-x,\ \frac{5}{8},\ \frac{7}{8}\right]$	[37,134]
38	$\left[-x,\ \frac{5}{8},\ \frac{3}{8}\right]$	[38,133]
39	$\left[x+\frac{1}{4},\ \frac{5}{8},\ \frac{3}{8}\right]$	[39,136]
40	$\left[x+\frac{1}{4},\ \frac{5}{8},\ \frac{7}{8}\right]$	[40,135]
41	$\left[\frac{3}{8},\ \frac{1}{2}-x,\ \frac{5}{8}\right]$	[41,192]
42	$\left[\frac{1}{8},\ \frac{7}{8},\ \frac{1}{2}-x\right]$	[42,117]
43	$\left[\frac{1}{8},\ \frac{7}{8},\ x+\frac{3}{4}\right]$	[43,119]
44	$\left[\frac{7}{8},\ x+\frac{3}{4},\ \frac{5}{8}\right]$	[44,190]
45	$\left[\frac{1}{8},\ \frac{3}{8},\ \frac{1}{2}-x\right]$	[45,114]
46	$\left[\frac{3}{8},\ x+\frac{3}{4},\ \frac{5}{8}\right]$	[46,188]

continued ...

Table 7

No.	position	mapping
47	$\left[\frac{1}{8}, \frac{3}{8}, x+\frac{3}{4}\right]$	[47,115]
48	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{5}{8}\right]$	[48,185]
49	$\left[x+\frac{1}{2}, \frac{7}{8}, \frac{1}{8}\right]$	[49,146]
50	$\left[x+\frac{1}{2}, \frac{7}{8}, \frac{5}{8}\right]$	[50,145]
51	$\left[\frac{1}{4}-x, \frac{7}{8}, \frac{5}{8}\right]$	[51,148]
52	$\left[\frac{1}{4}-x, \frac{7}{8}, \frac{1}{8}\right]$	[52,147]
53	$\left[\frac{1}{8}, x, \frac{3}{8}\right]$	[53,108]
54	$\left[\frac{3}{8}, \frac{5}{8}, x+\frac{1}{2}\right]$	[54,177]
55	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{4}-x\right]$	[55,179]
56	$\left[\frac{5}{8}, \frac{3}{4}-x, \frac{3}{8}\right]$	[56,106]
57	$\left[\frac{3}{8}, \frac{1}{8}, x+\frac{1}{2}\right]$	[57,174]
58	$\left[\frac{1}{8}, \frac{3}{4}-x, \frac{3}{8}\right]$	[58,104]
59	$\left[\frac{3}{8}, \frac{1}{8}, \frac{1}{4}-x\right]$	[59,175]
60	$\left[\frac{5}{8}, x, \frac{3}{8}\right]$	[60,101]
61	$\left[\frac{1}{2}-x, \frac{1}{8}, \frac{7}{8}\right]$	[61,158]
62	$\left[\frac{1}{2}-x, \frac{1}{8}, \frac{3}{8}\right]$	[62,157]
63	$\left[x+\frac{3}{4}, \frac{1}{8}, \frac{3}{8}\right]$	[63,160]
64	$\left[x+\frac{3}{4}, \frac{1}{8}, \frac{7}{8}\right]$	[64,159]
65	$\left[\frac{7}{8}, -x, \frac{5}{8}\right]$	[65,120]
66	$\left[\frac{5}{8}, \frac{3}{8}, \frac{1}{2}-x\right]$	[66,189]
67	$\left[\frac{5}{8}, \frac{3}{8}, x+\frac{3}{4}\right]$	[67,191]
68	$\left[\frac{3}{8}, x+\frac{1}{4}, \frac{5}{8}\right]$	[68,118]
69	$\left[\frac{5}{8}, \frac{7}{8}, \frac{1}{2}-x\right]$	[69,186]
70	$\left[\frac{7}{8}, x+\frac{1}{4}, \frac{5}{8}\right]$	[70,116]
71	$\left[\frac{5}{8}, \frac{7}{8}, x+\frac{3}{4}\right]$	[71,187]
72	$\left[\frac{3}{8}, -x, \frac{5}{8}\right]$	[72,113]
73	$\left[x+\frac{1}{2}, \frac{3}{8}, \frac{5}{8}\right]$	[73,170]
74	$\left[x+\frac{1}{2}, \frac{3}{8}, \frac{1}{8}\right]$	[74,169]
75	$\left[\frac{1}{4}-x, \frac{3}{8}, \frac{1}{8}\right]$	[75,172]
76	$\left[\frac{1}{4}-x, \frac{3}{8}, \frac{5}{8}\right]$	[76,171]
77	$\left[\frac{1}{8}, x+\frac{1}{2}, \frac{7}{8}\right]$	[77,132]
78	$\left[\frac{3}{8}, \frac{1}{8}, x\right]$	[78,153]
79	$\left[\frac{3}{8}, \frac{1}{8}, \frac{3}{4}-x\right]$	[79,155]
80	$\left[\frac{5}{8}, \frac{1}{4}-x, \frac{7}{8}\right]$	[80,130]
81	$\left[\frac{3}{8}, \frac{5}{8}, x\right]$	[81,150]
82	$\left[\frac{1}{8}, \frac{1}{4}-x, \frac{7}{8}\right]$	[82,128]
83	$\left[\frac{3}{8}, \frac{5}{8}, \frac{3}{4}-x\right]$	[83,151]
84	$\left[\frac{5}{8}, x+\frac{1}{2}, \frac{7}{8}\right]$	[84,125]
85	$\left[\frac{1}{2}-x, \frac{5}{8}, \frac{3}{8}\right]$	[85,182]
86	$\left[\frac{1}{2}-x, \frac{5}{8}, \frac{7}{8}\right]$	[86,181]
87	$\left[x+\frac{3}{4}, \frac{5}{8}, \frac{7}{8}\right]$	[87,184]
88	$\left[x+\frac{3}{4}, \frac{5}{8}, \frac{3}{8}\right]$	[88,183]
89	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{1}{8}\right]$	[89,144]
90	$\left[\frac{5}{8}, \frac{7}{8}, -x\right]$	[90,165]
91	$\left[\frac{5}{8}, \frac{7}{8}, x+\frac{1}{4}\right]$	[91,167]
92	$\left[\frac{3}{8}, x+\frac{3}{4}, \frac{1}{8}\right]$	[92,142]
93	$\left[\frac{5}{8}, \frac{3}{8}, -x\right]$	[93,162]

continued ...

Table 7

No.	position	mapping
94	$\left[\frac{7}{8}, x+\frac{3}{4}, \frac{1}{8}\right]$	[94,140]
95	$\left[\frac{5}{8}, \frac{3}{8}, x+\frac{1}{4}\right]$	[95,163]
96	$\left[\frac{3}{8}, \frac{1}{2}-x, \frac{1}{8}\right]$	[96,137]

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

No.	position	mapping
1	$[x, y, z]$	[1]
2	$\left[x, \frac{3}{4}-y, \frac{3}{4}-z\right]$	[2]
3	$\left[\frac{3}{4}-x, y, \frac{3}{4}-z\right]$	[3]
4	$\left[\frac{3}{4}-x, \frac{3}{4}-y, z\right]$	[4]
5	$[z, x, y]$	[5]
6	$[y, z, x]$	[6]
7	$\left[\frac{3}{4}-y, z, \frac{3}{4}-x\right]$	[7]
8	$\left[\frac{3}{4}-z, \frac{3}{4}-x, y\right]$	[8]
9	$\left[\frac{3}{4}-y, \frac{3}{4}-z, x\right]$	[9]
10	$\left[z, \frac{3}{4}-x, \frac{3}{4}-y\right]$	[10]
11	$\left[y, \frac{3}{4}-z, \frac{3}{4}-x\right]$	[11]
12	$\left[\frac{3}{4}-z, x, \frac{3}{4}-y\right]$	[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	$\left[x, y+\frac{1}{2}, z+\frac{1}{2}\right]$	[25]
26	$\left[x, \frac{1}{4}-y, \frac{1}{4}-z\right]$	[26]
27	$\left[\frac{3}{4}-x, y+\frac{1}{2}, \frac{1}{4}-z\right]$	[27]
28	$\left[\frac{3}{4}-x, \frac{1}{4}-y, z+\frac{1}{2}\right]$	[28]
29	$\left[z, x+\frac{1}{2}, y+\frac{1}{2}\right]$	[29]
30	$\left[y, z+\frac{1}{2}, x+\frac{1}{2}\right]$	[30]
31	$\left[\frac{3}{4}-y, z+\frac{1}{2}, \frac{1}{4}-x\right]$	[31]
32	$\left[\frac{3}{4}-z, \frac{1}{4}-x, y+\frac{1}{2}\right]$	[32]
33	$\left[\frac{3}{4}-y, \frac{1}{4}-z, x+\frac{1}{2}\right]$	[33]
34	$\left[z, \frac{1}{4}-x, \frac{1}{4}-y\right]$	[34]
35	$\left[y, \frac{1}{4}-z, \frac{1}{4}-x\right]$	[35]
36	$\left[\frac{3}{4}-z, x+\frac{1}{2}, \frac{1}{4}-y\right]$	[36]
37	$\left[-x, \frac{1}{2}-y, \frac{1}{2}-z\right]$	[37]

continued ...

Table 8

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

continued ...

Table 8

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

continued ...

Table 8

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

continued ...

Table 8

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