MSG No. 228.136 $Fd'\bar{3}'c$ [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	$\left[\frac{1}{8},\frac{5}{8},\frac{1}{8}\right]$	[13,18,23,62,63,67,116,118,120,160,161,165]
3	$\left[\frac{1}{8},\frac{1}{8},\frac{5}{8}\right]$	[14,15,19,61,66,71,112,113,117,164,166,168]
4	$\left[\frac{5}{8},\frac{1}{8},\frac{1}{8}\right]$	[16,17,21,68,70,72,110,111,115,157,162,167]
5	$\left[\frac{5}{8},\frac{5}{8},\frac{5}{8}\right]$	[20,22,24,64,65,69,109,114,119,158,159,163]
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	$\left[\frac{7}{8},\frac{7}{8},\frac{7}{8}\right]$	[37,41,42,86,94,95,135,139,144,184,188,189]
8	$\left[\frac{7}{8},\frac{3}{8},\frac{3}{8}\right]$	[38,46,47,85,89,90,136,140,141,183,187,192]
9	$\left[\frac{3}{8},\frac{7}{8},\frac{3}{8}\right]$	[39,43,48,88,92,93,133,137,138,182,190,191]
10	$\left[\frac{3}{8},\frac{3}{8},\frac{7}{8}\right]$	[40,44,45,87,91,96,134,142,143,181,185,186]
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	$\left[0,\frac{3}{4},0\right]$	[13,18,23,135,139,144]
6	$\left[0,0,\frac{3}{4}\right]$	[14,15,19,184,188,189]
7	$\left[\frac{3}{4},0,0\right]$	[16,17,21,86,94,95]
8	$\left[\frac{3}{4},\frac{3}{4},\frac{3}{4}\right]$	[20,22,24,37,41,42]
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	$\left[\frac{3}{4},\frac{1}{2},\frac{1}{2}\right]$	[38,46,47,64,65,69]
13	$\left[\frac{1}{2},\frac{3}{4},\frac{1}{2}\right]$	[39,43,48,109,114,119]
14	$\left[\frac{1}{2},\frac{1}{2},\frac{3}{4}\right]$	[40,44,45,158,159,163]
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	$\left[0,\frac{1}{4},\frac{1}{2}\right]$	[61,66,71,183,187,192]
19	$\left[0,\frac{1}{2},\frac{1}{4}\right]$	[62,63,67,136,140,141]
20	$\left[\frac{3}{4},\frac{1}{4},\frac{1}{4}\right]$	[68,70,72,85,89,90]
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	$\left[\frac{1}{2}, \frac{1}{4}, 0\right]$	[87,91,96,157,162,167]
24	$\left[\frac{1}{2}, 0, \frac{1}{4}\right]$	[88,92,93,110,111,115]
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	$\left[\frac{1}{4}, 0, \frac{1}{2}\right]$	[112,113,117,182,190,191]
28	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[116,118,120,133,137,138]
29	$\left[\frac{3}{4}, \frac{1}{2}, 0\right]$	[124,125,129,146,154,155]
30	$\left[\frac{1}{4}, \frac{1}{2}, 0\right]$	[134,142,143,160,161,165]
31	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{4}\right]$	[145,149,150,176,178,180]
32	$\left[\frac{1}{4}, \frac{1}{4}, \frac{3}{4}\right]$	[164,166,168,181,185,186]

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

No.	position	mapping
1	$[0, 0, 0]$	[1,5,6,37,41,42]
2	$\left[0, \frac{1}{4}, \frac{1}{4}\right]$	[2,10,11,38,46,47]
3	$\left[\frac{1}{4}, 0, \frac{1}{4}\right]$	[3,7,12,39,43,48]
4	$\left[\frac{1}{4}, \frac{1}{4}, 0\right]$	[4,8,9,40,44,45]
5	$\left[\frac{1}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[13,18,23,25,30,35]
6	$\left[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}\right]$	[14,15,19,26,27,31]
7	$\left[\frac{1}{2}, \frac{1}{4}, \frac{1}{4}\right]$	[16,17,21,28,29,33]
8	$\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}\right]$	[20,22,24,32,34,36]
9	$\left[0, \frac{1}{2}, \frac{1}{2}\right]$	[49,53,54,85,89,90]
10	$\left[0, \frac{3}{4}, \frac{3}{4}\right]$	[50,58,59,86,94,95]
11	$\left[\frac{1}{4}, \frac{1}{2}, \frac{3}{4}\right]$	[51,55,60,87,91,96]
12	$\left[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[52,56,57,88,92,93]
13	$\left[\frac{1}{4}, 0, \frac{3}{4}\right]$	[61,66,71,73,78,83]
14	$\left[\frac{1}{4}, \frac{3}{4}, 0\right]$	[62,63,67,74,75,79]
15	$\left[\frac{1}{2}, \frac{3}{4}, \frac{3}{4}\right]$	[64,65,69,76,77,81]
16	$\left[\frac{1}{2}, 0, 0\right]$	[68,70,72,80,82,84]
17	$\left[\frac{1}{2}, 0, \frac{1}{2}\right]$	[97,101,102,133,137,138]
18	$\left[\frac{1}{2}, \frac{1}{4}, \frac{3}{4}\right]$	[98,106,107,134,142,143]
19	$\left[\frac{3}{4}, 0, \frac{3}{4}\right]$	[99,103,108,135,139,144]
20	$\left[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}\right]$	[100,104,105,136,140,141]
21	$\left[\frac{3}{4}, \frac{1}{2}, \frac{3}{4}\right]$	[109,114,119,121,126,131]
22	$\left[\frac{3}{4}, \frac{1}{4}, 0\right]$	[110,111,115,122,123,127]
23	$\left[0, \frac{1}{4}, \frac{3}{4}\right]$	[112,113,117,124,125,129]
24	$\left[0, \frac{1}{2}, 0\right]$	[116,118,120,128,130,132]
25	$\left[\frac{1}{2}, \frac{1}{2}, 0\right]$	[145,149,150,181,185,186]
26	$\left[\frac{1}{2}, \frac{3}{4}, \frac{1}{4}\right]$	[146,154,155,182,190,191]
27	$\left[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}\right]$	[147,151,156,183,187,192]
28	$\left[\frac{3}{4}, \frac{3}{4}, 0\right]$	[148,152,153,184,188,189]
29	$\left[\frac{3}{4}, 0, \frac{1}{4}\right]$	[157,162,167,169,174,179]

Table 3

No.	position	mapping
30	$\left[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}\right]$	[158,159,163,170,171,175]
31	$\left[0, \frac{3}{4}, \frac{1}{4}\right]$	[160,161,165,172,173,177]
32	$\left[0, 0, \frac{1}{2}\right]$	[164,166,168,176,178,180]

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

No.	position	mapping
1	$\left[\frac{7}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[1,2,110,157]
2	$\left[\frac{3}{8}, \frac{1}{8}, \frac{1}{8}\right]$	[3,4,21,70]
3	$\left[\frac{1}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[5,12,67,161]
4	$\left[\frac{1}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[6,9,71,112]
5	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[7,11,15,168]
6	$\left[\frac{1}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[8,10,18,116]
7	$\left[\frac{3}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[13,62,145,146]
8	$\left[\frac{3}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[14,61,97,98]
9	$\left[\frac{5}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[16,102,105,167]
10	$\left[\frac{5}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[17,115,149,156]
11	$\left[\frac{1}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[19,53,60,113]
12	$\left[\frac{5}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[20,104,106,114]
13	$\left[\frac{3}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[22,51,52,69]
14	$\left[\frac{1}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[23,54,57,160]
15	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[24,151,155,159]
16	$\left[\frac{1}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[25,26,38,85]
17	$\left[\frac{3}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[27,36,91,143]
18	$\left[\frac{3}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[28,35,45,186]
19	$\left[\frac{3}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[29,31,48,137]
20	$\left[\frac{3}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[30,32,92,190]
21	$\left[\frac{5}{8}, \frac{3}{8}, \frac{3}{8}\right]$	[33,34,136,183]
22	$\left[\frac{1}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[37,73,74,86]
23	$\left[\frac{1}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[39,88,177,178]
24	$\left[\frac{1}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[40,87,129,130]
25	$\left[\frac{7}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[41,125,127,144]
26	$\left[\frac{7}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[42,172,179,189]
27	$\left[\frac{3}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[43,75,84,191]
28	$\left[\frac{3}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[44,78,80,142]
29	$\left[\frac{7}{8}, \frac{1}{8}, \frac{3}{8}\right]$	[46,140,174,176]
30	$\left[\frac{7}{8}, \frac{3}{8}, \frac{1}{8}\right]$	[47,123,132,187]
31	$\left[\frac{7}{8}, \frac{5}{8}, \frac{5}{8}\right]$	[49,50,109,158]
32	$\left[\frac{1}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[55,59,63,120]
33	$\left[\frac{1}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[56,58,66,164]
34	$\left[\frac{5}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[64,119,150,153]
35	$\left[\frac{5}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[65,101,108,163]
36	$\left[\frac{5}{8}, \frac{7}{8}, \frac{1}{8}\right]$	[68,152,154,162]
37	$\left[\frac{5}{8}, \frac{1}{8}, \frac{7}{8}\right]$	[72,103,107,111]

continued …

Table 4

No.	position	mapping
38	$\left[\frac{3}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[76,83,93,138]
39	$\left[\frac{3}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[77,79,96,185]
40	$\left[\frac{5}{8}, \frac{7}{8}, \frac{7}{8}\right]$	[81,82,135,184]
41	$\left[\frac{7}{8}, \frac{5}{8}, \frac{3}{8}\right]$	[89,173,175,192]
42	$\left[\frac{7}{8}, \frac{3}{8}, \frac{5}{8}\right]$	[90,124,131,141]
43	$\left[\frac{7}{8}, \frac{5}{8}, \frac{7}{8}\right]$	[94,126,128,188]
44	$\left[\frac{7}{8}, \frac{7}{8}, \frac{5}{8}\right]$	[95,139,171,180]
45	$\left[\frac{7}{8}, \frac{1}{8}, \frac{5}{8}\right]$	[99,100,117,166]
46	$\left[\frac{7}{8}, \frac{5}{8}, \frac{1}{8}\right]$	[118,147,148,165]
47	$\left[\frac{5}{8}, \frac{3}{8}, \frac{7}{8}\right]$	[121,122,134,181]
48	$\left[\frac{5}{8}, \frac{7}{8}, \frac{3}{8}\right]$	[133,169,170,182]

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	$\left[\frac{1}{4} - x, x + \frac{1}{2}, \frac{1}{4} - x\right]$	[13,18,23]
6	$\left[\frac{1}{4} - x, \frac{1}{4} - x, x + \frac{1}{2}\right]$	[14,15,19]
7	$\left[x + \frac{1}{2}, \frac{1}{4} - x, \frac{1}{4} - x\right]$	[16,17,21]
8	$\left[x + \frac{1}{2}, x + \frac{1}{2}, x + \frac{1}{2}\right]$	[20,22,24]
9	$\left[x + \frac{1}{4}, \frac{1}{2} - x, x + \frac{1}{4}\right]$	[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	$[-x, -x, -x]$	[37,41,42]
14	$\left[-x, x + \frac{1}{4}, x + \frac{1}{4}\right]$	[38,46,47]
15	$\left[x + \frac{1}{4}, -x, x + \frac{1}{4}\right]$	[39,43,48]
16	$\left[x + \frac{1}{4}, x + \frac{1}{4}, -x\right]$	[40,44,45]
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	$\left[\frac{1}{4} - x, x, \frac{3}{4} - x\right]$	[61,66,71]
22	$\left[\frac{1}{4} - x, \frac{3}{4} - x, x\right]$	[62,63,67]
23	$\left[x + \frac{1}{2}, \frac{3}{4} - x, \frac{3}{4} - x\right]$	[64,65,69]
24	$\left[x + \frac{1}{2}, x, x\right]$	[68,70,72]
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	$\left[-x, \frac{1}{2} - x, \frac{1}{2} - x\right]$	[85,89,90]

continued …

4

Table 5

No.	position	mapping
30	$\left[-x,\, x+\frac{3}{4},\, x+\frac{3}{4}\right]$	[86,94,95]
31	$\left[x+\frac{1}{4},\, \frac{1}{2}-x,\, x+\frac{3}{4}\right]$	[87,91,96]
32	$\left[x+\frac{1}{4},\, x+\frac{3}{4},\, \frac{1}{2}-x\right]$	[88,92,93]
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	$\left[\frac{3}{4}-x,\, x+\frac{1}{2},\, \frac{3}{4}-x\right]$	[109,114,119]
38	$\left[\frac{3}{4}-x,\, \frac{1}{4}-x,\, x\right]$	[110,111,115]
39	$\left[x,\, \frac{1}{4}-x,\, \frac{3}{4}-x\right]$	[112,113,117]
40	$\left[x,\, x+\frac{1}{2},\, x\right]$	[116,118,120]
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	$\left[\frac{1}{2}-x,\, -x,\, \frac{1}{2}-x\right]$	[133,137,138]
46	$\left[\frac{1}{2}-x,\, x+\frac{1}{4},\, x+\frac{3}{4}\right]$	[134,142,143]
47	$\left[x+\frac{3}{4},\, -x,\, x+\frac{3}{4}\right]$	[135,139,144]
48	$\left[x+\frac{3}{4},\, x+\frac{1}{4},\, \frac{1}{2}-x\right]$	[136,140,141]
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	$\left[\frac{3}{4}-x,\, x,\, \frac{1}{4}-x\right]$	[157,162,167]
54	$\left[\frac{3}{4}-x,\, \frac{3}{4}-x,\, x+\frac{1}{2}\right]$	[158,159,163]
55	$\left[x,\, \frac{3}{4}-x,\, \frac{1}{4}-x\right]$	[160,161,165]
56	$\left[x,\, x,\, x+\frac{1}{2}\right]$	[164,166,168]
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	$\left[\frac{1}{2}-x,\, \frac{1}{2}-x,\, -x\right]$	[181,185,186]
62	$\left[\frac{1}{2}-x,\, x+\frac{3}{4},\, x+\frac{1}{4}\right]$	[182,190,191]
63	$\left[x+\frac{3}{4},\, \frac{1}{2}-x,\, x+\frac{1}{4}\right]$	[183,187,192]
64	$\left[x+\frac{3}{4},\, x+\frac{3}{4},\, -x\right]$	[184,188,189]

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	$\left[\frac{1}{4} - x, \frac{5}{8}, \frac{1}{8}\right]$	[13,62]
8	$\left[\frac{1}{4} - x, \frac{1}{8}, \frac{5}{8}\right]$	[14,61]
9	$\left[\frac{1}{8}, \frac{1}{8}, x + \frac{1}{2}\right]$	[15,168]
10	$\left[\frac{5}{8}, \frac{1}{8}, \frac{1}{4} - x\right]$	[16,167]
11	$\left[\frac{5}{8}, \frac{1}{4} - x, \frac{1}{8}\right]$	[17,115]
12	$\left[\frac{1}{8}, x + \frac{1}{2}, \frac{1}{8}\right]$	[18,116]
13	$\left[\frac{1}{8}, \frac{1}{4} - x, \frac{5}{8}\right]$	[19,113]
14	$\left[\frac{5}{8}, x + \frac{1}{2}, \frac{5}{8}\right]$	[20,114]
15	$\left[x + \frac{1}{2}, \frac{1}{8}, \frac{1}{8}\right]$	[21,70]
16	$\left[x + \frac{1}{2}, \frac{5}{8}, \frac{5}{8}\right]$	[22,69]
17	$\left[\frac{1}{8}, \frac{5}{8}, \frac{1}{4} - x\right]$	[23,160]
18	$\left[\frac{5}{8}, \frac{5}{8}, x + \frac{1}{2}\right]$	[24,159]
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	$\left[-x, \frac{7}{8}, \frac{7}{8}\right]$	[37,86]
26	$\left[-x, \frac{3}{8}, \frac{3}{8}\right]$	[38,85]
27	$\left[x + \frac{1}{4}, \frac{7}{8}, \frac{3}{8}\right]$	[39,88]
28	$\left[x + \frac{1}{4}, \frac{3}{8}, \frac{7}{8}\right]$	[40,87]
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	$\left[x, \frac{5}{8}, \frac{5}{8}\right]$	[49,50]
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	$\left[\frac{1}{8}, \frac{5}{8}, x\right]$	[63,120]
44	$\left[\frac{5}{8}, \frac{5}{8}, \frac{3}{4} - x\right]$	[64,119]
45	$\left[\frac{5}{8}, \frac{3}{4} - x, \frac{5}{8}\right]$	[65,163]
46	$\left[\frac{1}{8}, x, \frac{5}{8}\right]$	[66,164]
47	$\left[\frac{1}{8}, \frac{3}{4} - x, \frac{1}{8}\right]$	[67,161]
48	$\left[\frac{5}{8}, x, \frac{1}{8}\right]$	[68,162]
49	$\left[\frac{1}{8}, \frac{1}{8}, \frac{3}{4} - x\right]$	[71,112]
50	$\left[\frac{5}{8}, \frac{1}{8}, x\right]$	[72,111]
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	$\left[\frac{7}{8}, \frac{1}{2}-x, \frac{3}{8}\right]$	[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	$\left[x+\frac{1}{2}, \frac{1}{8}, \frac{5}{8}\right]$	[97,98]
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	$\left[\frac{3}{4}-x, \frac{5}{8}, \frac{5}{8}\right]$	[109,158]
72	$\left[\frac{3}{4}-x, \frac{1}{8}, \frac{1}{8}\right]$	[110,157]
73	$\left[x, \frac{1}{8}, \frac{5}{8}\right]$	[117,166]
74	$\left[x, \frac{5}{8}, \frac{1}{8}\right]$	[118,165]
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	$\left[\frac{1}{2}-x, \frac{7}{8}, \frac{3}{8}\right]$	[133,182]
82	$\left[\frac{1}{2}-x, \frac{3}{8}, \frac{7}{8}\right]$	[134,181]
83	$\left[x+\frac{3}{4}, \frac{7}{8}, \frac{7}{8}\right]$	[135,184]
84	$\left[x+\frac{3}{4}, \frac{3}{8}, \frac{3}{8}\right]$	[136,183]
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	$\left[0, \frac{1}{2} - y, \frac{1}{4} - y\right]$	[13,183]
14	$\left[0, y + \frac{1}{4}, y + \frac{1}{2}\right]$	[14,136]
15	$\left[y + \frac{1}{4}, \frac{1}{4} - y, \frac{3}{4}\right]$	[15,45]
16	$\left[\frac{1}{2} - y, \frac{1}{4} - y, 0\right]$	[16,143]
17	$\left[y + \frac{1}{2}, 0, y + \frac{1}{4}\right]$	[17,190]
18	$\left[\frac{1}{4} - y, \frac{3}{4}, y + \frac{1}{4}\right]$	[18,48]
19	$\left[\frac{1}{4} - y, 0, \frac{1}{2} - y\right]$	[19,92]
20	$\left[y + \frac{1}{2}, \frac{3}{4}, \frac{1}{2} - y\right]$	[20,137]
21	$\left[\frac{3}{4}, y + \frac{1}{4}, \frac{1}{4} - y\right]$	[21,38]
22	$\left[\frac{3}{4}, \frac{1}{2} - y, y + \frac{1}{2}\right]$	[22,85]
23	$\left[y + \frac{1}{4}, y + \frac{1}{2}, 0\right]$	[23,91]
24	$\left[\frac{1}{2} - y, y + \frac{1}{2}, \frac{3}{4}\right]$	[24,186]
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	$\left[\frac{3}{4}, -y, y\right]$	[37,70]
35	$\left[\frac{1}{2}, -y, \frac{1}{4} - y\right]$	[39,157]
36	$\left[\frac{1}{2}, y + \frac{1}{4}, y\right]$	[40,110]
37	$\left[y, \frac{3}{4}, -y\right]$	[41,116]
38	$\left[-y, y, \frac{3}{4}\right]$	[42,168]
39	$\left[y + \frac{1}{4}, y, \frac{1}{2}\right]$	[43,71]
40	$\left[\frac{1}{4} - y, \frac{1}{2}, -y\right]$	[44,67]
41	$\left[y, \frac{1}{2}, y + \frac{1}{4}\right]$	[46,161]
42	$\left[-y, \frac{1}{4} - y, \frac{1}{2}\right]$	[47,112]
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]

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	$\left[0, -y, \frac{3}{4} - y\right]$	[61,135]
53	$\left[0, y + \frac{3}{4}, y\right]$	[62,184]
54	$\left[y + \frac{1}{4}, \frac{3}{4} - y, \frac{1}{4}\right]$	[63,93]
55	$\left[\frac{1}{2} - y, \frac{3}{4} - y, \frac{1}{2}\right]$	[64,191]
56	$\left[y + \frac{1}{2}, \frac{1}{2}, y + \frac{3}{4}\right]$	[65,142]
57	$\left[\frac{1}{4} - y, \frac{1}{4}, y + \frac{3}{4}\right]$	[66,96]
58	$\left[y + \frac{1}{2}, \frac{1}{4}, -y\right]$	[68,185]
59	$\left[\frac{3}{4}, y + \frac{3}{4}, \frac{3}{4} - y\right]$	[69,86]
60	$\left[\frac{1}{2} - y, y, \frac{1}{4}\right]$	[72,138]
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	$\left[\frac{1}{2}, \frac{1}{2} - y, \frac{3}{4} - y\right]$	[87,109]
68	$\left[\frac{1}{2}, y + \frac{3}{4}, y + \frac{1}{2}\right]$	[88,158]
69	$\left[y, \frac{1}{4}, \frac{1}{2} - y\right]$	[89,164]
70	$\left[-y, y + \frac{1}{2}, \frac{1}{4}\right]$	[90,120]
71	$\left[y, 0, y + \frac{3}{4}\right]$	[94,113]
72	$\left[-y, \frac{3}{4} - y, 0\right]$	[95,160]
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	$\left[y + \frac{3}{4}, \frac{1}{4} - y, \frac{1}{4}\right]$	[111,141]
80	$\left[\frac{3}{4} - y, \frac{3}{4}, y + \frac{3}{4}\right]$	[114,144]
81	$\left[\frac{3}{4} - y, 0, -y\right]$	[115,188]
82	$\left[\frac{1}{4}, y + \frac{1}{4}, \frac{3}{4} - y\right]$	[117,134]
83	$\left[\frac{1}{4}, \frac{1}{2} - y, y\right]$	[118,181]
84	$\left[y + \frac{3}{4}, y + \frac{1}{2}, \frac{1}{2}\right]$	[119,187]
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	$\left[\frac{1}{4}, -y, y + \frac{1}{2}\right]$	[133,166]
89	$\left[y + \frac{3}{4}, y, 0\right]$	[139,167]
90	$\left[\frac{3}{4} - y, \frac{1}{2}, \frac{1}{2} - y\right]$	[140,163]
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	$\left[y + \frac{3}{4}, \frac{3}{4} - y, \frac{3}{4}\right]$	[159,189]
95	$\left[\frac{3}{4} - y, \frac{1}{4}, y + \frac{1}{4}\right]$	[162,192]
96	$\left[\frac{1}{4}, y + \frac{3}{4}, \frac{1}{4} - y\right]$	[165,182]

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	$\left[\frac{1}{4} - x,\, z + \frac{1}{2},\, \frac{1}{4} - y\right]$	[13]
14	$\left[\frac{1}{4} - x,\, \frac{1}{4} - z,\, y + \frac{1}{2}\right]$	[14]
15	$\left[\frac{1}{4} - z,\, \frac{1}{4} - y,\, x + \frac{1}{2}\right]$	[15]
16	$\left[z + \frac{1}{2},\, \frac{1}{4} - y,\, \frac{1}{4} - x\right]$	[16]
17	$\left[y + \frac{1}{2},\, \frac{1}{4} - x,\, \frac{1}{4} - z\right]$	[17]
18	$\left[\frac{1}{4} - y,\, x + \frac{1}{2},\, \frac{1}{4} - z\right]$	[18]
19	$\left[\frac{1}{4} - y,\, \frac{1}{4} - x,\, z + \frac{1}{2}\right]$	[19]
20	$\left[y + \frac{1}{2},\, x + \frac{1}{2},\, z + \frac{1}{2}\right]$	[20]
21	$\left[x + \frac{1}{2},\, \frac{1}{4} - z,\, \frac{1}{4} - y\right]$	[21]
22	$\left[x + \frac{1}{2},\, z + \frac{1}{2},\, y + \frac{1}{2}\right]$	[22]
23	$\left[\frac{1}{4} - z,\, y + \frac{1}{2},\, \frac{1}{4} - x\right]$	[23]
24	$\left[z + \frac{1}{2},\, y + \frac{1}{2},\, x + \frac{1}{2}\right]$	[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	$[-x,\, -y,\, -z]$	[37]

continued ...

Table 8

No.	position	mapping
38	$\left[-x,\, y+\frac{1}{4},\, z+\frac{1}{4}\right]$	[38]
39	$\left[x+\frac{1}{4},\, -y,\, z+\frac{1}{4}\right]$	[39]
40	$\left[x+\frac{1}{4},\, y+\frac{1}{4},\, -z\right]$	[40]
41	$\left[-z,\, -x,\, -y\right]$	[41]
42	$\left[-y,\, -z,\, -x\right]$	[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	$\left[x,\, \frac{3}{4}-y,\, \frac{3}{4}-z\right]$	[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	$\left[\frac{1}{4}-x,\, z,\, \frac{3}{4}-y\right]$	[61]
62	$\left[\frac{1}{4}-x,\, \frac{3}{4}-z,\, y\right]$	[62]
63	$\left[\frac{1}{4}-z,\, \frac{3}{4}-y,\, x\right]$	[63]
64	$\left[z+\frac{1}{2},\, \frac{3}{4}-y,\, \frac{3}{4}-x\right]$	[64]
65	$\left[y+\frac{1}{2},\, \frac{3}{4}-x,\, \frac{3}{4}-z\right]$	[65]
66	$\left[\frac{1}{4}-y,\, x,\, \frac{3}{4}-z\right]$	[66]
67	$\left[\frac{1}{4}-y,\, \frac{3}{4}-x,\, z\right]$	[67]
68	$\left[y+\frac{1}{2},\, x,\, z\right]$	[68]
69	$\left[x+\frac{1}{2},\, \frac{3}{4}-z,\, \frac{3}{4}-y\right]$	[69]
70	$\left[x+\frac{1}{2},\, z,\, y\right]$	[70]
71	$\left[\frac{1}{4}-z,\, y,\, \frac{3}{4}-x\right]$	[71]
72	$\left[z+\frac{1}{2},\, y,\, x\right]$	[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	$\left[-x,\,\frac{1}{2}-y,\,\frac{1}{2}-z\right]$	[85]
86	$\left[-x,\,y+\frac{3}{4},\,z+\frac{3}{4}\right]$	[86]
87	$\left[x+\frac{1}{4},\,\frac{1}{2}-y,\,z+\frac{3}{4}\right]$	[87]
88	$\left[x+\frac{1}{4},\,y+\frac{3}{4},\,\frac{1}{2}-z\right]$	[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	$\left[x+\frac{1}{2},\,\frac{1}{4}-y,\,\frac{3}{4}-z\right]$	[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	$\left[\frac{3}{4}-x,\,z+\frac{1}{2},\,\frac{3}{4}-y\right]$	[109]
110	$\left[\frac{3}{4}-x,\,\frac{1}{4}-z,\,y\right]$	[110]
111	$\left[\frac{3}{4}-z,\,\frac{1}{4}-y,\,x\right]$	[111]
112	$\left[z,\,\frac{1}{4}-y,\,\frac{3}{4}-x\right]$	[112]
113	$\left[y,\,\frac{1}{4}-x,\,\frac{3}{4}-z\right]$	[113]
114	$\left[\frac{3}{4}-y,\,x+\frac{1}{2},\,\frac{3}{4}-z\right]$	[114]
115	$\left[\frac{3}{4}-y,\,\frac{1}{4}-x,\,z\right]$	[115]
116	$\left[y,\,x+\frac{1}{2},\,z\right]$	[116]
117	$\left[x,\,\frac{1}{4}-z,\,\frac{3}{4}-y\right]$	[117]
118	$\left[x,\,z+\frac{1}{2},\,y\right]$	[118]
119	$\left[\frac{3}{4}-z,\,y+\frac{1}{2},\,\frac{3}{4}-x\right]$	[119]
120	$\left[z,\,y+\frac{1}{2},\,x\right]$	[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]

Table 8

No.	position	mapping
132	$\left[-z, \frac{1}{2}-y, -x\right]$	[132]
133	$\left[\frac{1}{2}-x, -y, \frac{1}{2}-z\right]$	[133]
134	$\left[\frac{1}{2}-x, y+\frac{1}{4}, z+\frac{3}{4}\right]$	[134]
135	$\left[x+\frac{3}{4}, -y, z+\frac{3}{4}\right]$	[135]
136	$\left[x+\frac{3}{4}, y+\frac{1}{4}, \frac{1}{2}-z\right]$	[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	$\left[x+\frac{1}{2}, \frac{3}{4}-y, \frac{1}{4}-z\right]$	[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	$\left[\frac{3}{4}-x, z, \frac{1}{4}-y\right]$	[157]
158	$\left[\frac{3}{4}-x, \frac{3}{4}-z, y+\frac{1}{2}\right]$	[158]
159	$\left[\frac{3}{4}-z, \frac{3}{4}-y, x+\frac{1}{2}\right]$	[159]
160	$\left[z, \frac{3}{4}-y, \frac{1}{4}-x\right]$	[160]
161	$\left[y, \frac{3}{4}-x, \frac{1}{4}-z\right]$	[161]
162	$\left[\frac{3}{4}-y, x, \frac{1}{4}-z\right]$	[162]
163	$\left[\frac{3}{4}-y, \frac{3}{4}-x, z+\frac{1}{2}\right]$	[163]
164	$\left[y, x, z+\frac{1}{2}\right]$	[164]
165	$\left[x, \frac{3}{4}-z, \frac{1}{4}-y\right]$	[165]
166	$\left[x, z, y+\frac{1}{2}\right]$	[166]
167	$\left[\frac{3}{4}-z, y, \frac{1}{4}-x\right]$	[167]
168	$\left[z, y, x+\frac{1}{2}\right]$	[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 ...

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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	$\left[\frac{1}{2} - x,\, \frac{1}{2} - y,\, -z\right]$	[181]
182	$\left[\frac{1}{2} - x,\, y + \frac{3}{4},\, z + \frac{1}{4}\right]$	[182]
183	$\left[x + \frac{3}{4},\, \frac{1}{2} - y,\, z + \frac{1}{4}\right]$	[183]
184	$\left[x + \frac{3}{4},\, y + \frac{3}{4},\, -z\right]$	[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]