

MSG No. 219.86 $F\bar{4}3c1'$ [Type II, cubic]

Table 1: Wyckoff site: 8a, site symmetry: $23.1'$

No.	position	mapping
1	$[0, 0, 0]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108]$
2	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$	$[13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120]$
3	$[0, \frac{1}{2}, \frac{1}{2}]$	$[25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132]$
4	$[\frac{1}{2}, 0, 0]$	$[37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144]$
5	$[\frac{1}{2}, 0, \frac{1}{2}]$	$[49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156]$
6	$[0, \frac{1}{2}, 0]$	$[61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168]$
7	$[\frac{1}{2}, \frac{1}{2}, 0]$	$[73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180]$
8	$[0, 0, \frac{1}{2}]$	$[85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192]$

Table 2: Wyckoff site: 8b, site symmetry: $23.1'$

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

Table 3: Wyckoff site: 24c, site symmetry: $-4..1'$

No.	position	mapping
1	$[0, \frac{1}{4}, \frac{1}{4}]$	$[1, 26, 62, 85, 97, 122, 158, 181]$
2	$[0, \frac{3}{4}, \frac{3}{4}]$	$[2, 25, 61, 86, 98, 121, 157, 182]$
3	$[0, \frac{1}{4}, \frac{3}{4}]$	$[3, 28, 69, 94, 99, 124, 165, 190]$
4	$[0, \frac{3}{4}, \frac{1}{4}]$	$[4, 27, 70, 93, 100, 123, 166, 189]$
5	$[\frac{1}{4}, 0, \frac{1}{4}]$	$[5, 43, 60, 89, 101, 139, 156, 185]$
6	$[\frac{1}{4}, \frac{1}{4}, 0]$	$[6, 47, 64, 81, 102, 143, 160, 177]$
7	$[\frac{3}{4}, \frac{1}{4}, 0]$	$[7, 48, 63, 83, 103, 144, 159, 179]$
8	$[\frac{3}{4}, 0, \frac{1}{4}]$	$[8, 44, 58, 90, 104, 140, 154, 186]$
9	$[\frac{3}{4}, \frac{3}{4}, 0]$	$[9, 40, 71, 78, 105, 136, 167, 174]$
10	$[\frac{1}{4}, 0, \frac{3}{4}]$	$[10, 42, 56, 92, 106, 138, 152, 188]$
11	$[\frac{1}{4}, \frac{3}{4}, 0]$	$[11, 39, 72, 79, 107, 135, 168, 175]$
12	$[\frac{3}{4}, 0, \frac{3}{4}]$	$[12, 41, 53, 91, 108, 137, 149, 187]$
13	$[\frac{1}{2}, \frac{3}{4}, \frac{1}{4}]$	$[13, 38, 50, 73, 109, 134, 146, 169]$
14	$[\frac{1}{2}, \frac{1}{4}, \frac{3}{4}]$	$[14, 37, 49, 74, 110, 133, 145, 170]$
15	$[\frac{1}{4}, \frac{1}{4}, \frac{1}{2}]$	$[15, 35, 55, 96, 111, 131, 151, 192]$

continued ...

Table 3

No.	position	mapping
16	$[\frac{3}{4}, \frac{1}{4}, \frac{1}{2}]$	[16, 33, 54, 95, 112, 129, 150, 191]
17	$[\frac{3}{4}, \frac{1}{2}, \frac{1}{4}]$	[17, 36, 67, 77, 113, 132, 163, 173]
18	$[\frac{1}{4}, \frac{1}{2}, \frac{1}{4}]$	[18, 34, 68, 80, 114, 130, 164, 176]
19	$[\frac{1}{4}, \frac{1}{2}, \frac{3}{4}]$	[19, 29, 65, 84, 115, 125, 161, 180]
20	$[\frac{3}{4}, \frac{1}{2}, \frac{3}{4}]$	[20, 32, 66, 82, 116, 128, 162, 178]
21	$[\frac{1}{2}, \frac{1}{4}, \frac{1}{4}]$	[21, 46, 51, 76, 117, 142, 147, 172]
22	$[\frac{1}{2}, \frac{3}{4}, \frac{3}{4}]$	[22, 45, 52, 75, 118, 141, 148, 171]
23	$[\frac{1}{4}, \frac{3}{4}, \frac{1}{2}]$	[23, 30, 57, 88, 119, 126, 153, 184]
24	$[\frac{3}{4}, \frac{3}{4}, \frac{1}{2}]$	[24, 31, 59, 87, 120, 127, 155, 183]

Table 4: Wyckoff site: 24d, site symmetry: $-4..1'$

No.	position	mapping
1	$[\frac{1}{4}, 0, 0]$	[1, 2, 37, 38, 97, 98, 133, 134]
2	$[\frac{3}{4}, 0, 0]$	[3, 4, 45, 46, 99, 100, 141, 142]
3	$[0, \frac{1}{4}, 0]$	[5, 12, 65, 67, 101, 108, 161, 163]
4	$[0, 0, \frac{1}{4}]$	[6, 9, 88, 95, 102, 105, 184, 191]
5	$[0, 0, \frac{3}{4}]$	[7, 11, 87, 96, 103, 107, 183, 192]
6	$[0, \frac{3}{4}, 0]$	[8, 10, 66, 68, 104, 106, 162, 164]
7	$[\frac{1}{4}, \frac{1}{2}, \frac{1}{2}]$	[13, 14, 25, 26, 109, 110, 121, 122]
8	$[\frac{1}{2}, \frac{1}{2}, \frac{3}{4}]$	[15, 24, 79, 83, 111, 120, 175, 179]
9	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{4}]$	[16, 23, 78, 81, 112, 119, 174, 177]
10	$[\frac{1}{2}, \frac{1}{4}, \frac{1}{2}]$	[17, 19, 53, 60, 113, 115, 149, 156]
11	$[\frac{1}{2}, \frac{3}{4}, \frac{1}{2}]$	[18, 20, 56, 58, 114, 116, 152, 154]
12	$[\frac{3}{4}, \frac{1}{2}, \frac{1}{2}]$	[21, 22, 27, 28, 117, 118, 123, 124]
13	$[0, \frac{3}{4}, \frac{1}{2}]$	[29, 36, 89, 91, 125, 132, 185, 187]
14	$[0, \frac{1}{2}, \frac{3}{4}]$	[30, 33, 64, 71, 126, 129, 160, 167]
15	$[0, \frac{1}{2}, \frac{1}{4}]$	[31, 35, 63, 72, 127, 131, 159, 168]
16	$[0, \frac{1}{4}, \frac{1}{2}]$	[32, 34, 90, 92, 128, 130, 186, 188]
17	$[\frac{1}{2}, 0, \frac{1}{4}]$	[39, 48, 55, 59, 135, 144, 151, 155]
18	$[\frac{1}{2}, 0, \frac{3}{4}]$	[40, 47, 54, 57, 136, 143, 150, 153]
19	$[\frac{1}{2}, \frac{3}{4}, 0]$	[41, 43, 77, 84, 137, 139, 173, 180]
20	$[\frac{1}{2}, \frac{1}{4}, 0]$	[42, 44, 80, 82, 138, 140, 176, 178]
21	$[\frac{3}{4}, 0, \frac{1}{2}]$	[49, 50, 85, 86, 145, 146, 181, 182]
22	$[\frac{1}{4}, 0, \frac{1}{2}]$	[51, 52, 93, 94, 147, 148, 189, 190]
23	$[\frac{3}{4}, \frac{1}{2}, 0]$	[61, 62, 73, 74, 157, 158, 169, 170]
24	$[\frac{1}{4}, \frac{1}{2}, 0]$	[69, 70, 75, 76, 165, 166, 171, 172]

Table 5: Wyckoff site: 32e, site symmetry: $.3.1'$

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

Table 6: Wyckoff site: 48f, site symmetry: $2..1'$

No.	position	mapping
1	$[x, 0, 0]$	$[1, 2, 97, 98]$
2	$[-x, 0, 0]$	$[3, 4, 99, 100]$
3	$[0, x, 0]$	$[5, 12, 101, 108]$
4	$[0, 0, x]$	$[6, 9, 102, 105]$
5	$[0, 0, -x]$	$[7, 11, 103, 107]$
6	$[0, -x, 0]$	$[8, 10, 104, 106]$
7	$[\frac{1}{2} - x, \frac{1}{2}, \frac{1}{2}]$	$[13, 14, 109, 110]$

continued ...

Table 6

No.	position	mapping
8	$[\frac{1}{2}, \frac{1}{2}, x + \frac{1}{2}]$	[15, 24, 111, 120]
9	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2} - x]$	[16, 23, 112, 119]
10	$[\frac{1}{2}, \frac{1}{2} - x, \frac{1}{2}]$	[17, 19, 113, 115]
11	$[\frac{1}{2}, x + \frac{1}{2}, \frac{1}{2}]$	[18, 20, 114, 116]
12	$[x + \frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$	[21, 22, 117, 118]
13	$[x, \frac{1}{2}, \frac{1}{2}]$	[25, 26, 121, 122]
14	$[-x, \frac{1}{2}, \frac{1}{2}]$	[27, 28, 123, 124]
15	$[0, x + \frac{1}{2}, \frac{1}{2}]$	[29, 36, 125, 132]
16	$[0, \frac{1}{2}, x + \frac{1}{2}]$	[30, 33, 126, 129]
17	$[0, \frac{1}{2}, \frac{1}{2} - x]$	[31, 35, 127, 131]
18	$[0, \frac{1}{2} - x, \frac{1}{2}]$	[32, 34, 128, 130]
19	$[\frac{1}{2} - x, 0, 0]$	[37, 38, 133, 134]
20	$[\frac{1}{2}, 0, x]$	[39, 48, 135, 144]
21	$[\frac{1}{2}, 0, -x]$	[40, 47, 136, 143]
22	$[\frac{1}{2}, -x, 0]$	[41, 43, 137, 139]
23	$[\frac{1}{2}, x, 0]$	[42, 44, 138, 140]
24	$[x + \frac{1}{2}, 0, 0]$	[45, 46, 141, 142]
25	$[x + \frac{1}{2}, 0, \frac{1}{2}]$	[49, 50, 145, 146]
26	$[\frac{1}{2} - x, 0, \frac{1}{2}]$	[51, 52, 147, 148]
27	$[\frac{1}{2}, x, \frac{1}{2}]$	[53, 60, 149, 156]
28	$[\frac{1}{2}, 0, x + \frac{1}{2}]$	[54, 57, 150, 153]
29	$[\frac{1}{2}, 0, \frac{1}{2} - x]$	[55, 59, 151, 155]
30	$[\frac{1}{2}, -x, \frac{1}{2}]$	[56, 58, 152, 154]
31	$[-x, \frac{1}{2}, 0]$	[61, 62, 157, 158]
32	$[0, \frac{1}{2}, x]$	[63, 72, 159, 168]
33	$[0, \frac{1}{2}, -x]$	[64, 71, 160, 167]
34	$[0, \frac{1}{2} - x, 0]$	[65, 67, 161, 163]
35	$[0, x + \frac{1}{2}, 0]$	[66, 68, 162, 164]
36	$[x, \frac{1}{2}, 0]$	[69, 70, 165, 166]
37	$[x + \frac{1}{2}, \frac{1}{2}, 0]$	[73, 74, 169, 170]
38	$[\frac{1}{2} - x, \frac{1}{2}, 0]$	[75, 76, 171, 172]
39	$[\frac{1}{2}, x + \frac{1}{2}, 0]$	[77, 84, 173, 180]
40	$[\frac{1}{2}, \frac{1}{2}, x]$	[78, 81, 174, 177]
41	$[\frac{1}{2}, \frac{1}{2}, -x]$	[79, 83, 175, 179]
42	$[\frac{1}{2}, \frac{1}{2} - x, 0]$	[80, 82, 176, 178]
43	$[-x, 0, \frac{1}{2}]$	[85, 86, 181, 182]
44	$[0, 0, x + \frac{1}{2}]$	[87, 96, 183, 192]
45	$[0, 0, \frac{1}{2} - x]$	[88, 95, 184, 191]
46	$[0, -x, \frac{1}{2}]$	[89, 91, 185, 187]
47	$[0, x, \frac{1}{2}]$	[90, 92, 186, 188]
48	$[x, 0, \frac{1}{2}]$	[93, 94, 189, 190]

Table 7: Wyckoff site: 48g, site symmetry: $2..1'$

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

continued ...

Table 7

No.	position	mapping
47	$[x, \frac{1}{4}, \frac{3}{4}]$	[69, 94, 165, 190]
48	$[x, \frac{3}{4}, \frac{1}{4}]$	[70, 93, 166, 189]

Table 8: Wyckoff site: 96h, site symmetry: 11'

No.	position	mapping
1	$[x, y, z]$	[1, 97]
2	$[x, -y, -z]$	[2, 98]
3	$[-x, y, -z]$	[3, 99]
4	$[-x, -y, z]$	[4, 100]
5	$[z, x, y]$	[5, 101]
6	$[y, z, x]$	[6, 102]
7	$[-y, z, -x]$	[7, 103]
8	$[-z, -x, y]$	[8, 104]
9	$[-y, -z, x]$	[9, 105]
10	$[z, -x, -y]$	[10, 106]
11	$[y, -z, -x]$	[11, 107]
12	$[-z, x, -y]$	[12, 108]
13	$[\frac{1}{2} - x, z + \frac{1}{2}, \frac{1}{2} - y]$	[13, 109]
14	$[\frac{1}{2} - x, \frac{1}{2} - z, y + \frac{1}{2}]$	[14, 110]
15	$[\frac{1}{2} - z, \frac{1}{2} - y, x + \frac{1}{2}]$	[15, 111]
16	$[z + \frac{1}{2}, \frac{1}{2} - y, \frac{1}{2} - x]$	[16, 112]
17	$[y + \frac{1}{2}, \frac{1}{2} - x, \frac{1}{2} - z]$	[17, 113]
18	$[\frac{1}{2} - y, x + \frac{1}{2}, \frac{1}{2} - z]$	[18, 114]
19	$[\frac{1}{2} - y, \frac{1}{2} - x, z + \frac{1}{2}]$	[19, 115]
20	$[y + \frac{1}{2}, x + \frac{1}{2}, z + \frac{1}{2}]$	[20, 116]
21	$[x + \frac{1}{2}, \frac{1}{2} - z, \frac{1}{2} - y]$	[21, 117]
22	$[x + \frac{1}{2}, z + \frac{1}{2}, y + \frac{1}{2}]$	[22, 118]
23	$[\frac{1}{2} - z, y + \frac{1}{2}, \frac{1}{2} - x]$	[23, 119]
24	$[z + \frac{1}{2}, y + \frac{1}{2}, x + \frac{1}{2}]$	[24, 120]
25	$[x, y + \frac{1}{2}, z + \frac{1}{2}]$	[25, 121]
26	$[x, \frac{1}{2} - y, \frac{1}{2} - z]$	[26, 122]
27	$[-x, y + \frac{1}{2}, \frac{1}{2} - z]$	[27, 123]
28	$[-x, \frac{1}{2} - y, z + \frac{1}{2}]$	[28, 124]
29	$[z, x + \frac{1}{2}, y + \frac{1}{2}]$	[29, 125]
30	$[y, z + \frac{1}{2}, x + \frac{1}{2}]$	[30, 126]
31	$[-y, z + \frac{1}{2}, \frac{1}{2} - x]$	[31, 127]
32	$[-z, \frac{1}{2} - x, y + \frac{1}{2}]$	[32, 128]
33	$[-y, \frac{1}{2} - z, x + \frac{1}{2}]$	[33, 129]
34	$[z, \frac{1}{2} - x, \frac{1}{2} - y]$	[34, 130]
35	$[y, \frac{1}{2} - z, \frac{1}{2} - x]$	[35, 131]
36	$[-z, x + \frac{1}{2}, \frac{1}{2} - y]$	[36, 132]
37	$[\frac{1}{2} - x, z, -y]$	[37, 133]
38	$[\frac{1}{2} - x, -z, y]$	[38, 134]

continued ...

Table 8

No.	position	mapping
39	$[\frac{1}{2} - z, -y, x]$	[39, 135]
40	$[z + \frac{1}{2}, -y, -x]$	[40, 136]
41	$[y + \frac{1}{2}, -x, -z]$	[41, 137]
42	$[\frac{1}{2} - y, x, -z]$	[42, 138]
43	$[\frac{1}{2} - y, -x, z]$	[43, 139]
44	$[y + \frac{1}{2}, x, z]$	[44, 140]
45	$[x + \frac{1}{2}, -z, -y]$	[45, 141]
46	$[x + \frac{1}{2}, z, y]$	[46, 142]
47	$[\frac{1}{2} - z, y, -x]$	[47, 143]
48	$[z + \frac{1}{2}, y, x]$	[48, 144]
49	$[x + \frac{1}{2}, y, z + \frac{1}{2}]$	[49, 145]
50	$[x + \frac{1}{2}, -y, \frac{1}{2} - z]$	[50, 146]
51	$[\frac{1}{2} - x, y, \frac{1}{2} - z]$	[51, 147]
52	$[\frac{1}{2} - x, -y, z + \frac{1}{2}]$	[52, 148]
53	$[z + \frac{1}{2}, x, y + \frac{1}{2}]$	[53, 149]
54	$[y + \frac{1}{2}, z, x + \frac{1}{2}]$	[54, 150]
55	$[\frac{1}{2} - y, z, \frac{1}{2} - x]$	[55, 151]
56	$[\frac{1}{2} - z, -x, y + \frac{1}{2}]$	[56, 152]
57	$[\frac{1}{2} - y, -z, x + \frac{1}{2}]$	[57, 153]
58	$[z + \frac{1}{2}, -x, \frac{1}{2} - y]$	[58, 154]
59	$[y + \frac{1}{2}, -z, \frac{1}{2} - x]$	[59, 155]
60	$[\frac{1}{2} - z, x, \frac{1}{2} - y]$	[60, 156]
61	$[-x, z + \frac{1}{2}, -y]$	[61, 157]
62	$[-x, \frac{1}{2} - z, y]$	[62, 158]
63	$[-z, \frac{1}{2} - y, x]$	[63, 159]
64	$[z, \frac{1}{2} - y, -x]$	[64, 160]
65	$[y, \frac{1}{2} - x, -z]$	[65, 161]
66	$[-y, x + \frac{1}{2}, -z]$	[66, 162]
67	$[-y, \frac{1}{2} - x, z]$	[67, 163]
68	$[y, x + \frac{1}{2}, z]$	[68, 164]
69	$[x, \frac{1}{2} - z, -y]$	[69, 165]
70	$[x, z + \frac{1}{2}, y]$	[70, 166]
71	$[-z, y + \frac{1}{2}, -x]$	[71, 167]
72	$[z, y + \frac{1}{2}, x]$	[72, 168]
73	$[x + \frac{1}{2}, y + \frac{1}{2}, z]$	[73, 169]
74	$[x + \frac{1}{2}, \frac{1}{2} - y, -z]$	[74, 170]
75	$[\frac{1}{2} - x, y + \frac{1}{2}, -z]$	[75, 171]
76	$[\frac{1}{2} - x, \frac{1}{2} - y, z]$	[76, 172]
77	$[z + \frac{1}{2}, x + \frac{1}{2}, y]$	[77, 173]
78	$[y + \frac{1}{2}, z + \frac{1}{2}, x]$	[78, 174]
79	$[\frac{1}{2} - y, z + \frac{1}{2}, -x]$	[79, 175]
80	$[\frac{1}{2} - z, \frac{1}{2} - x, y]$	[80, 176]
81	$[\frac{1}{2} - y, \frac{1}{2} - z, x]$	[81, 177]
82	$[z + \frac{1}{2}, \frac{1}{2} - x, -y]$	[82, 178]
83	$[y + \frac{1}{2}, \frac{1}{2} - z, -x]$	[83, 179]
84	$[\frac{1}{2} - z, x + \frac{1}{2}, -y]$	[84, 180]
85	$[-x, z, \frac{1}{2} - y]$	[85, 181]

continued ...

Table 8

No.	position	mapping
86	$[-x, -z, y + \frac{1}{2}]$	[86, 182]
87	$[-z, -y, x + \frac{1}{2}]$	[87, 183]
88	$[z, -y, \frac{1}{2} - x]$	[88, 184]
89	$[y, -x, \frac{1}{2} - z]$	[89, 185]
90	$[-y, x, \frac{1}{2} - z]$	[90, 186]
91	$[-y, -x, z + \frac{1}{2}]$	[91, 187]
92	$[y, x, z + \frac{1}{2}]$	[92, 188]
93	$[x, -z, \frac{1}{2} - y]$	[93, 189]
94	$[x, z, y + \frac{1}{2}]$	[94, 190]
95	$[-z, y, \frac{1}{2} - x]$	[95, 191]
96	$[z, y, x + \frac{1}{2}]$	[96, 192]