

MPG No. 27.6.105 $6/mm'm'$ [Type III, hexagonal]

Table 1: Wyckoff site: 1o, site symmetry: $6/mm'm'$

No.	position	mapping
1	[0, 0, 0]	[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24]

Table 2: Wyckoff site: 2a, site symmetry: $6m'm'$

No.	position	mapping
1	[0, 0, z]	[1,2,3,4,5,6,19,20,21,22,23,24]
2	[0, 0, -z]	[7,8,9,10,11,12,13,14,15,16,17,18]

Table 3: Wyckoff site: 6b, site symmetry: $m2'm$

No.	position	mapping
1	[x, 0, 0]	[1,10,13,22]
2	[0, x, 0]	[3,12,15,24]
3	[-x, -x, 0]	[5,8,17,20]
4	[-x, 0, 0]	[4,7,16,19]
5	[0, -x, 0]	[6,9,18,21]
6	[x, x, 0]	[2,11,14,23]

Table 4: Wyckoff site: 6c, site symmetry: $mm'2$

No.	position	mapping
1	[x, 2x, 0]	[1,10,16,19]
2	[-2x, -x, 0]	[3,12,18,21]
3	[x, -x, 0]	[5,8,14,23]
4	[-x, -2x, 0]	[4,7,13,22]
5	[2x, x, 0]	[6,9,15,24]
6	[-x, x, 0]	[2,11,17,20]

Table 5: Wyckoff site: 12d, site symmetry: $\dots m$

No.	position	mapping
1	[x, 0, z]	[1,22]
2	[0, x, z]	[3,24]
3	[-x, -x, z]	[5,20]

continued ...

Table 5

No.	position	mapping
4	$[-x, 0, z]$	[4,19]
5	$[0, -x, z]$	[6,21]
6	$[x, x, z]$	[2,23]
7	$[0, x, -z]$	[12,15]
8	$[x, 0, -z]$	[10,13]
9	$[-x, -x, -z]$	[8,17]
10	$[0, -x, -z]$	[9,18]
11	$[-x, 0, -z]$	[7,16]
12	$[x, x, -z]$	[11,14]

Table 6: Wyckoff site: 12e, site symmetry: .m'.

No.	position	mapping
1	$[x, 2x, z]$	[1,19]
2	$[-2x, -x, z]$	[3,21]
3	$[x, -x, z]$	[5,23]
4	$[-x, -2x, z]$	[4,22]
5	$[2x, x, z]$	[6,24]
6	$[-x, x, z]$	[2,20]
7	$[2x, x, -z]$	[9,15]
8	$[-x, -2x, -z]$	[7,13]
9	$[-x, x, -z]$	[11,17]
10	$[-2x, -x, -z]$	[12,18]
11	$[x, 2x, -z]$	[10,16]
12	$[x, -x, -z]$	[8,14]

Table 7: Wyckoff site: 12f, site symmetry: m..

No.	position	mapping
1	$[x, y, 0]$	[1,10]
2	$[-y, x - y, 0]$	[3,12]
3	$[-x + y, -x, 0]$	[5,8]
4	$[-x, -y, 0]$	[4,7]
5	$[y, -x + y, 0]$	[6,9]
6	$[x - y, x, 0]$	[2,11]
7	$[y, x, 0]$	[15,24]
8	$[x - y, -y, 0]$	[13,22]
9	$[-x, -x + y, 0]$	[17,20]
10	$[-y, -x, 0]$	[18,21]
11	$[-x + y, y, 0]$	[16,19]
12	$[x, x - y, 0]$	[14,23]

Table 8: Wyckoff site: 24g, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1]
2	$[-y, x - y, z]$	[3]
3	$[-x + y, -x, z]$	[5]
4	$[-x, -y, z]$	[4]
5	$[y, -x + y, z]$	[6]
6	$[x - y, x, z]$	[2]
7	$[y, x, -z]$	[15]
8	$[x - y, -y, -z]$	[13]
9	$[-x, -x + y, -z]$	[17]
10	$[-y, -x, -z]$	[18]
11	$[-x + y, y, -z]$	[16]
12	$[x, x - y, -z]$	[14]
13	$[-x, -y, -z]$	[7]
14	$[y, -x + y, -z]$	[9]
15	$[x - y, x, -z]$	[11]
16	$[x, y, -z]$	[10]
17	$[-y, x - y, -z]$	[12]
18	$[-x + y, -x, -z]$	[8]
19	$[-y, -x, z]$	[21]
20	$[-x + y, y, z]$	[19]
21	$[x, x - y, z]$	[23]
22	$[y, x, z]$	[24]
23	$[x - y, -y, z]$	[22]
24	$[-x, -x + y, z]$	[20]