MPG No. 27.7.106 $6/m'm'm'$ [Type III, hexagonal]

Table 1: Wyckoff site: `1o`, site symmetry: `6/m'm'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: `m'2m`

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

Table 4: Wyckoff site: `6c`, site symmetry: `m'm'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: `..m`

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

continued ...

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Table 5

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

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	$[x, y, 0]$	[1,16]
2	$[-y, x - y, 0]$	[3,18]
3	$[-x + y, -x, 0]$	[5,14]
4	$[-x, -y, 0]$	[4,13]
5	$[y, -x + y, 0]$	[6,15]
6	$[x - y, x, 0]$	[2,17]
7	$[y, x, 0]$	[9,24]
8	$[x - y, -y, 0]$	[7,22]
9	$[-x, -x + y, 0]$	[11,20]
10	$[-y, -x, 0]$	[12,21]
11	$[-x + y, y, 0]$	[10,19]
12	$[x, x - y, 0]$	[8,23]

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	$[y, x, -z]$	[9]
8	$[x - y, -y, -z]$	[7]
9	$[-x, -x + y, -z]$	[11]
10	$[-y, -x, -z]$	[12]
11	$[-x + y, y, -z]$	[10]
12	$[x, x - y, -z]$	[8]
13	$[-x, -y, -z]$	[13]
14	$[y, -x + y, -z]$	[15]
15	$[x - y, x, -z]$	[17]
16	$[x, y, -z]$	[16]
17	$[-y, x - y, -z]$	[18]
18	$[-x + y, -x, -z]$	[14]
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]