

MPG No. 15.3.55  $4/m'mm$  [ Type III, tetragonal ]

Table 1: Wyckoff site: **1o**, site symmetry:  $4/m'mm$

No.	position	mapping
1	[0, 0, 0]	[1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16]

Table 2: Wyckoff site: **2a**, site symmetry:  $4mm$

No.	position	mapping
1	[0, 0, z]	[1,2,3,4,5,6,7,8]
2	[0, 0, -z]	[9,10,11,12,13,14,15,16]

Table 3: Wyckoff site: **4b**, site symmetry:  $m'.m2'$

No.	position	mapping
1	[x, x, 0]	[1,7,12,14]
2	[-x, -x, 0]	[2,8,11,13]
3	[-x, x, 0]	[3,5,10,16]
4	[x, -x, 0]	[4,6,9,15]

Table 4: Wyckoff site: **4c**, site symmetry:  $m'2'm.$

No.	position	mapping
1	[x, 0, 0]	[1,6,9,14]
2	[-x, 0, 0]	[2,5,10,13]
3	[0, x, 0]	[3,7,12,16]
4	[0, -x, 0]	[4,8,11,15]

Table 5: Wyckoff site: **8d**, site symmetry:  $m'..$

No.	position	mapping
1	[x, y, 0]	[1,14]
2	[-x, -y, 0]	[2,13]
3	[-y, x, 0]	[3,16]
4	[y, -x, 0]	[4,15]
5	[-x, y, 0]	[5,10]
6	[x, -y, 0]	[6,9]
7	[y, x, 0]	[7,12]

*continued ...*

Table 5

No.	position	mapping
8	$[-y, -x, 0]$	[8,11]

Table 6: Wyckoff site: 8e, site symmetry: . .m

No.	position	mapping
1	$[x, x, z]$	[1,7]
2	$[-x, -x, z]$	[2,8]
3	$[-x, x, z]$	[3,5]
4	$[x, -x, z]$	[4,6]
5	$[-x, x, -z]$	[10,16]
6	$[x, -x, -z]$	[9,15]
7	$[x, x, -z]$	[12,14]
8	$[-x, -x, -z]$	[11,13]

Table 7: Wyckoff site: 8f, site symmetry: .m.

No.	position	mapping
1	$[x, 0, z]$	[1,6]
2	$[-x, 0, z]$	[2,5]
3	$[0, x, z]$	[3,7]
4	$[0, -x, z]$	[4,8]
5	$[-x, 0, -z]$	[10,13]
6	$[x, 0, -z]$	[9,14]
7	$[0, x, -z]$	[12,16]
8	$[0, -x, -z]$	[11,15]

Table 8: Wyckoff site: 16g, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1]
2	$[-x, -y, z]$	[2]
3	$[-y, x, z]$	[3]
4	$[y, -x, z]$	[4]
5	$[-x, y, -z]$	[10]
6	$[x, -y, -z]$	[9]
7	$[y, x, -z]$	[12]
8	$[-y, -x, -z]$	[11]
9	$[-x, -y, -z]$	[13]
10	$[x, y, -z]$	[14]

continued ...

Table 8

No.	position	mapping
11	$[y, -x, -z]$	[15]
12	$[-y, x, -z]$	[16]
13	$[x, -y, z]$	[6]
14	$[-x, y, z]$	[5]
15	$[-y, -x, z]$	[8]
16	$[y, x, z]$	[7]