

MPG No. 31.1.115 $\bar{4}3m$ [Type I, cubic]

Table 1: Wyckoff site: 1o, site symmetry: $-43m$

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: 4a, site symmetry: $.3m$

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

Table 3: Wyckoff site: 6b, site symmetry: $2.mm$

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

Table 4: Wyckoff site: 12c, site symmetry: $.m$

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

Table 5: Wyckoff site: 24d, site symmetry: 1

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