PG No. 15 D_{4h} $4/mmm$ [tetragonal]

Table 1: Wyckoff site: `1o`, site symmetry: `4/mmm`

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]	`[1,2,3,4,13,14,15,16]`
2	[0, 0, $-z$]	`[5,6,7,8,9,10,11,12]`

Table 3: Wyckoff site: `4b`, site symmetry: `m.m2`

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

Table 4: Wyckoff site: `4c`, site symmetry: `m2m.`

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

continued ...

Table 5

No.	position	mapping
8	$[-y, -x, 0]$	`[8,15]`

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

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

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

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

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	$[-x, y, -z]$	`[5]`
6	$[x, -y, -z]$	`[6]`
7	$[y, x, -z]$	`[7]`
8	$[-y, -x, -z]$	`[8]`
9	$[-x, -y, -z]$	`[9]`
10	$[x, y, -z]$	`[10]`

continued ...

Table 8

No.	position	mapping
11	$[y, -x, -z]$	`[11]`
12	$[-y, x, -z]$	`[12]`
13	$[x, -y, z]$	`[13]`
14	$[-x, y, z]$	`[14]`
15	$[-y, -x, z]$	`[15]`
16	$[y, x, z]$	`[16]`