PG No. 24 D_6 622 [hexagonal]

* Wyckoff site: `2a`, site symmetry: `6..`

Table 1: Wyckoff bond: `2a@2a`

No.	vector	center	mapping
1	$[0, 0, Z]$	$[0, 0, z]$	`[1,2,3,4,5,6]`
2	$[0, 0, -Z]$	$[0, 0, -z]$	`[7,8,9,10,11,12]`

Table 2: Wyckoff bond: `6b@2a`

No.	vector	center	mapping
1	$[X, Y, 0]$	$[0, 0, z]$	`[1,-4]`
2	$[-Y, X-Y, 0]$	$[0, 0, z]$	`[2,-5]`
3	$[-X+Y, -X, 0]$	$[0, 0, z]$	`[3,-6]`
4	$[Y, X, 0]$	$[0, 0, -z]$	`[7,-10]`
5	$[X-Y, -Y, 0]$	$[0, 0, -z]$	`[8,-11]`
6	$[-X, -X+Y, 0]$	$[0, 0, -z]$	`[9,-12]`

Table 3: Wyckoff bond: `12c@2a`

No.	vector	center	mapping
1	$[X, Y, Z]$	$[0, 0, z]$	`[1]`
2	$[-Y, X-Y, Z]$	$[0, 0, z]$	`[2]`
3	$[-X+Y, -X, Z]$	$[0, 0, z]$	`[3]`
4	$[-X, -Y, Z]$	$[0, 0, z]$	`[4]`
5	$[Y, -X+Y, Z]$	$[0, 0, z]$	`[5]`
6	$[X-Y, X, Z]$	$[0, 0, z]$	`[6]`
7	$[Y, X, -Z]$	$[0, 0, -z]$	`[7]`
8	$[X-Y, -Y, -Z]$	$[0, 0, -z]$	`[8]`
9	$[-X, -X+Y, -Z]$	$[0, 0, -z]$	`[9]`
10	$[-Y, -X, -Z]$	$[0, 0, -z]$	`[10]`
11	$[-X+Y, Y, -Z]$	$[0, 0, -z]$	`[11]`
12	$[X, X-Y, -Z]$	$[0, 0, -z]$	`[12]`

* Wyckoff site: `6b`, site symmetry: `.2.`

Table 4: Wyckoff bond: `6a@6b`

No.	vector	center	mapping
1	$[X, 2X, Z]$	$[x, 0, 0]$	`[1,-8]`
2	$[-2X, -X, Z]$	$[0, x, 0]$	`[2,-7]`

continued ...

Table 4

No.	vector	center	mapping
3	$[X, -X, Z]$	$[-x, -x, 0]$	`[3,-9]`
4	$[-X, -2X, Z]$	$[-x, 0, 0]$	`[4,-11]`
5	$[2X, X, Z]$	$[0, -x, 0]$	`[5,-10]`
6	$[-X, X, Z]$	$[x, x, 0]$	`[6,-12]`

Table 5: Wyckoff bond: `6b@6b`

No.	vector	center	mapping
1	$[X, 0, 0]$	$[x, 0, 0]$	`[1,8]`
2	$[0, X, 0]$	$[0, x, 0]$	`[2,7]`
3	$[-X, -X, 0]$	$[-x, -x, 0]$	`[3,9]`
4	$[-X, 0, 0]$	$[-x, 0, 0]$	`[4,11]`
5	$[0, -X, 0]$	$[0, -x, 0]$	`[5,10]`
6	$[X, X, 0]$	$[x, x, 0]$	`[6,12]`

Table 6: Wyckoff bond: `12c@6b`

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, 0, 0]$	`[1]`
2	$[-Y, X-Y, Z]$	$[0, x, 0]$	`[2]`
3	$[-X+Y, -X, Z]$	$[-x, -x, 0]$	`[3]`
4	$[-X, -Y, Z]$	$[-x, 0, 0]$	`[4]`
5	$[Y, -X+Y, Z]$	$[0, -x, 0]$	`[5]`
6	$[X-Y, X, Z]$	$[x, x, 0]$	`[6]`
7	$[Y, X, -Z]$	$[0, x, 0]$	`[7]`
8	$[X-Y, -Y, -Z]$	$[x, 0, 0]$	`[8]`
9	$[-X, -X+Y, -Z]$	$[-x, -x, 0]$	`[9]`
10	$[-Y, -X, -Z]$	$[0, -x, 0]$	`[10]`
11	$[-X+Y, Y, -Z]$	$[-x, 0, 0]$	`[11]`
12	$[X, X-Y, -Z]$	$[x, x, 0]$	`[12]`

* Wyckoff site: `6c`, site symmetry: `..2`

Table 7: Wyckoff bond: `6a@6c`

No.	vector	center	mapping
1	$[X, X, Z]$	$[x, -x, 0]$	`[1,-10]`
2	$[-X, 0, Z]$	$[x, 2x, 0]$	`[2,-12]`
3	$[0, -X, Z]$	$[-2x, -x, 0]$	`[3,-11]`
4	$[-X, -X, Z]$	$[-x, x, 0]$	`[4,-7]`

continued ...

Table 7

No.	vector	center	mapping
5	$[X, 0, Z]$	$[-x, -2x, 0]$	`[5,-9]`
6	$[0, X, Z]$	$[2x, x, 0]$	`[6,-8]`

Table 8: Wyckoff bond: `6b@6c`

No.	vector	center	mapping
1	$[X, -X, 0]$	$[x, -x, 0]$	`[1,10]`
2	$[X, 2X, 0]$	$[x, 2x, 0]$	`[2,12]`
3	$[-2X, -X, 0]$	$[-2x, -x, 0]$	`[3,11]`
4	$[-X, X, 0]$	$[-x, x, 0]$	`[4,7]`
5	$[-X, -2X, 0]$	$[-x, -2x, 0]$	`[5,9]`
6	$[2X, X, 0]$	$[2x, x, 0]$	`[6,8]`

Table 9: Wyckoff bond: `12c@6c`

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, -x, 0]$	`[1]`
2	$[-Y, X-Y, Z]$	$[x, 2x, 0]$	`[2]`
3	$[-X+Y, -X, Z]$	$[-2x, -x, 0]$	`[3]`
4	$[-X, -Y, Z]$	$[-x, x, 0]$	`[4]`
5	$[Y, -X+Y, Z]$	$[-x, -2x, 0]$	`[5]`
6	$[X-Y, X, Z]$	$[2x, x, 0]$	`[6]`
7	$[Y, X, -Z]$	$[-x, x, 0]$	`[7]`
8	$[X-Y, -Y, -Z]$	$[2x, x, 0]$	`[8]`
9	$[-X, -X+Y, -Z]$	$[-x, -2x, 0]$	`[9]`
10	$[-Y, -X, -Z]$	$[x, -x, 0]$	`[10]`
11	$[-X+Y, Y, -Z]$	$[-2x, -x, 0]$	`[11]`
12	$[X, X-Y, -Z]$	$[x, 2x, 0]$	`[12]`

* Wyckoff site: `12d`, site symmetry: `1`

Table 10: Wyckoff bond: `12a@12d`

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, y, z]$	`[1]`
2	$[-Y, X-Y, Z]$	$[-y, x-y, z]$	`[2]`
3	$[-X+Y, -X, Z]$	$[-x+y, -x, z]$	`[3]`
4	$[-X, -Y, Z]$	$[-x, -y, z]$	`[4]`
5	$[Y, -X+Y, Z]$	$[y, -x+y, z]$	`[5]`
6	$[X-Y, X, Z]$	$[x-y, x, z]$	`[6]`

continued ...

Table 10

No.	vector	center	mapping
7	$[Y, X, -Z]$	$[y, x, -z]$	`[7]`
8	$[X - Y, -Y, -Z]$	$[x - y, -y, -z]$	`[8]`
9	$[-X, -X + Y, -Z]$	$[-x, -x + y, -z]$	`[9]`
10	$[-Y, -X, -Z]$	$[-y, -x, -z]$	`[10]`
11	$[-X + Y, Y, -Z]$	$[-x + y, y, -z]$	`[11]`
12	$[X, X - Y, -Z]$	$[x, x - y, -z]$	`[12]`