SG No. 168 C_6^1 $P6$ [hexagonal]

* plus set: $+[0,\ 0,\ 0]$
* Wyckoff site: `1a`, site symmetry: `6..`

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

No.	vector	center	mapping
1	$[0,\ 0,\ Z]$	$[0,\ 0,\ z]$	`[1,2,3,4,5,6]`

Table 2: Wyckoff bond: `3b@1a`

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]`

Table 3: Wyckoff bond: `6c@1a`

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]`

* Wyckoff site: `2b`, site symmetry: `3..`

Table 4: Wyckoff bond: `2a@2b`

No.	vector	center	mapping
1	$[0,\ 0,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z\right]$	`[1,2,3]`
2	$[0,\ 0,\ Z]$	$\left[\frac{2}{3},\ \frac{1}{3},\ z\right]$	`[4,5,6]`

Table 5: Wyckoff bond: `6b@2b`

No.	vector	center	mapping
1	$[X,\ Y,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z\right]$	`[1]`
2	$[-Y,\ X-Y,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z\right]$	`[2]`
3	$[-X+Y,\ -X,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z\right]$	`[3]`

continued ...

Table 5

No.	vector	center	mapping
4	$[-X, -Y, Z]$	$\left[\frac{2}{3}, \frac{1}{3}, z\right]$	`[4]`
5	$[Y, -X+Y, Z]$	$\left[\frac{2}{3}, \frac{1}{3}, z\right]$	`[5]`
6	$[X-Y, X, Z]$	$\left[\frac{2}{3}, \frac{1}{3}, z\right]$	`[6]`

* Wyckoff site: `3c`, site symmetry: `2..`

Table 6: Wyckoff bond: `3a@3c`

No.	vector	center	mapping
1	$[X, Y, 0]$	$\left[\frac{1}{2}, 0, z\right]$	`[1,-4]`
2	$[-Y, X-Y, 0]$	$\left[0, \frac{1}{2}, z\right]$	`[2,-5]`
3	$[-X+Y, -X, 0]$	$\left[\frac{1}{2}, \frac{1}{2}, z\right]$	`[3,-6]`

Table 7: Wyckoff bond: `3b@3c`

No.	vector	center	mapping
1	$[0, 0, Z]$	$\left[\frac{1}{2}, 0, z\right]$	`[1,4]`
2	$[0, 0, Z]$	$\left[0, \frac{1}{2}, z\right]$	`[2,5]`
3	$[0, 0, Z]$	$\left[\frac{1}{2}, \frac{1}{2}, z\right]$	`[3,6]`

Table 8: Wyckoff bond: `6c@3c`

No.	vector	center	mapping
1	$[X, Y, Z]$	$\left[\frac{1}{2}, 0, z\right]$	`[1]`
2	$[-Y, X-Y, Z]$	$\left[0, \frac{1}{2}, z\right]$	`[2]`
3	$[-X+Y, -X, Z]$	$\left[\frac{1}{2}, \frac{1}{2}, z\right]$	`[3]`
4	$[-X, -Y, Z]$	$\left[\frac{1}{2}, 0, z\right]$	`[4]`
5	$[Y, -X+Y, Z]$	$\left[0, \frac{1}{2}, z\right]$	`[5]`
6	$[X-Y, X, Z]$	$\left[\frac{1}{2}, \frac{1}{2}, z\right]$	`[6]`

* Wyckoff site: `6d`, site symmetry: `1`

Table 9: Wyckoff bond: `6a@6d`

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]`

continued ...

Table 9

No.	vector	center	mapping
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]`