SG No. 158 C_{3v}^{3} $P3c1$ [trigonal]

* plus set: $+[0,\ 0,\ 0]$
* Wyckoff site: `2a`, site symmetry: `3..`

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

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

Table 2: Wyckoff bond: `6b@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	$[-Y,\ -X,\ Z]$	$\left[0,\ 0,\ z+\frac{1}{2}\right]$	`[4]`
5	$[-X+Y,\ Y,\ Z]$	$\left[0,\ 0,\ z+\frac{1}{2}\right]$	`[5]`
6	$[X,\ X-Y,\ Z]$	$\left[0,\ 0,\ z+\frac{1}{2}\right]$	`[6]`

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

Table 3: 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	$[0,\ 0,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z+\frac{1}{2}\right]$	`[4,5,6]`

Table 4: 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]`
4	$[-Y,\ -X,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z+\frac{1}{2}\right]$	`[4]`
5	$[-X+Y,\ Y,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z+\frac{1}{2}\right]$	`[5]`
6	$[X,\ X-Y,\ Z]$	$\left[\frac{1}{3},\ \frac{2}{3},\ z+\frac{1}{2}\right]$	`[6]`

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

Table 5: Wyckoff bond: `2a@2c`

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

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

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

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

Table 7: 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]`
4	$[-Y,\ -X,\ Z]$	$\left[-y,\ -x,\ z+\frac{1}{2}\right]$	`[4]`
5	$[-X+Y,\ Y,\ Z]$	$\left[-x+y,\ y,\ z+\frac{1}{2}\right]$	`[5]`
6	$[X,\ X-Y,\ Z]$	$\left[x,\ x-y,\ z+\frac{1}{2}\right]$	`[6]`