SG No. 152 D_3^4 $P3_121$ [trigonal]

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

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

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

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

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

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

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

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

Table 4: Wyckoff bond: `3a@3b`

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

Table 5: Wyckoff bond: `3b@3b`

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

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

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

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

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

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