SG No. 160 C_{3v}^{5} $R3m$ [trigonal]

* plus set: $+[0,\ 0,\ 0]$, $+\left[\frac{2}{3},\ \frac{1}{3},\ \frac{1}{3}\right]$, $+\left[\frac{1}{3},\ \frac{2}{3},\ \frac{2}{3}\right]$
* Wyckoff site: `3a`, site symmetry: `3m`

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

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

Table 2: Wyckoff bond: `9b@3a`

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

Table 3: Wyckoff bond: `9c@3a`

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

Table 4: Wyckoff bond: `18d@3a`

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	$[-Y,\ -X,\ Z]$	$[0,\ 0,\ z]$	`[4]`
5	$[-X+Y,\ Y,\ Z]$	$[0,\ 0,\ z]$	`[5]`
6	$[X,\ X-Y,\ Z]$	$[0,\ 0,\ z]$	`[6]`

* Wyckoff site: `9b`, site symmetry: `.m`

Table 5: Wyckoff bond: `9a@9b`

No.	vector	center	mapping
1	$[X,\ -X,\ Z]$	$[x,\ -x,\ z]$	`[1,4]`
2	$[X,\ 2X,\ Z]$	$[x,\ 2x,\ z]$	`[2,6]`

continued ...

Table 5

No.	vector	center	mapping
3	$[-2X, -X, Z]$	$[-2x, -x, z]$	`[3,5]`

Table 6: Wyckoff bond: `9b@9b`

No.	vector	center	mapping
1	$[X, X, 0]$	$[x, -x, z]$	`[1,-4]`
2	$[-X, 0, 0]$	$[x, 2x, z]$	`[2,-6]`
3	$[0, -X, 0]$	$[-2x, -x, z]$	`[3,-5]`

Table 7: Wyckoff bond: `18c@9b`

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

* Wyckoff site: `18c`, site symmetry: `1`

Table 8: Wyckoff bond: `18a@18c`

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	$[-Y, -X, Z]$	$[-y, -x, z]$	`[4]`
5	$[-X+Y, Y, Z]$	$[-x+y, y, z]$	`[5]`
6	$[X, X-Y, Z]$	$[x, x-y, z]$	`[6]`