SG No. 104 C_{4v}^{6} $P4nc$ [tetragonal]

* plus set: $+[0,\ 0,\ 0]$
* Wyckoff site: `2a`, site symmetry: `4..`

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

No.	vector	center	mapping
1	$[0,\ 0,\ Z]$	$[0,\ 0,\ z]$	`[1,2,3,4]`
2	$[0,\ 0,\ Z]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[5,6,7,8]`

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

No.	vector	center	mapping
1	$[X,\ Y,\ 0]$	$[0,\ 0,\ z]$	`[1,-2]`
2	$[-Y,\ X,\ 0]$	$[0,\ 0,\ z]$	`[3,-4]`
3	$[X,\ -Y,\ 0]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[5,-6]`
4	$[-Y,\ -X,\ 0]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[7,-8]`

Table 3: Wyckoff bond: `8c@2a`

No.	vector	center	mapping
1	$[X,\ Y,\ Z]$	$[0,\ 0,\ z]$	`[1]`
2	$[-X,\ -Y,\ Z]$	$[0,\ 0,\ z]$	`[2]`
3	$[-Y,\ X,\ Z]$	$[0,\ 0,\ z]$	`[3]`
4	$[Y,\ -X,\ Z]$	$[0,\ 0,\ z]$	`[4]`
5	$[X,\ -Y,\ Z]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[5]`
6	$[-X,\ Y,\ Z]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[6]`
7	$[-Y,\ -X,\ Z]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[7]`
8	$[Y,\ X,\ Z]$	$\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[8]`

* Wyckoff site: `4b`, site symmetry: `2..`

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

No.	vector	center	mapping
1	$[X,\ Y,\ 0]$	$\left[0,\ \frac{1}{2},\ z\right]$	`[1,-2]`
2	$[-Y,\ X,\ 0]$	$\left[\frac{1}{2},\ 0,\ z\right]$	`[3,-4]`
3	$[X,\ -Y,\ 0]$	$\left[\frac{1}{2},\ 0,\ z+\frac{1}{2}\right]$	`[5,-6]`
4	$[-Y,\ -X,\ 0]$	$\left[0,\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[7,-8]`

Table 5: Wyckoff bond: `4b@4b`

No.	vector	center	mapping
1	$[0,\ 0,\ Z]$	$\left[0,\ \frac{1}{2},\ z\right]$	`[1,2]`
2	$[0,\ 0,\ Z]$	$\left[\frac{1}{2},\ 0,\ z\right]$	`[3,4]`
3	$[0,\ 0,\ Z]$	$\left[\frac{1}{2},\ 0,\ z+\frac{1}{2}\right]$	`[5,6]`
4	$[0,\ 0,\ Z]$	$\left[0,\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[7,8]`

Table 6: Wyckoff bond: `8c@4b`

No.	vector	center	mapping
1	$[X,\ Y,\ Z]$	$\left[0,\ \frac{1}{2},\ z\right]$	`[1]`
2	$[-X,\ -Y,\ Z]$	$\left[0,\ \frac{1}{2},\ z\right]$	`[2]`
3	$[-Y,\ X,\ Z]$	$\left[\frac{1}{2},\ 0,\ z\right]$	`[3]`
4	$[Y,\ -X,\ Z]$	$\left[\frac{1}{2},\ 0,\ z\right]$	`[4]`
5	$[X,\ -Y,\ Z]$	$\left[\frac{1}{2},\ 0,\ z+\frac{1}{2}\right]$	`[5]`
6	$[-X,\ Y,\ Z]$	$\left[\frac{1}{2},\ 0,\ z+\frac{1}{2}\right]$	`[6]`
7	$[-Y,\ -X,\ Z]$	$\left[0,\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[7]`
8	$[Y,\ X,\ Z]$	$\left[0,\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[8]`

* Wyckoff site: `8c`, site symmetry: `1`

Table 7: Wyckoff bond: `8a@8c`

No.	vector	center	mapping
1	$[X,\ Y,\ Z]$	$[x,\ y,\ z]$	`[1]`
2	$[-X,\ -Y,\ Z]$	$[-x,\ -y,\ z]$	`[2]`
3	$[-Y,\ X,\ Z]$	$[-y,\ x,\ z]$	`[3]`
4	$[Y,\ -X,\ Z]$	$[y,\ -x,\ z]$	`[4]`
5	$[X,\ -Y,\ Z]$	$\left[x+\frac{1}{2},\ \frac{1}{2}-y,\ z+\frac{1}{2}\right]$	`[5]`
6	$[-X,\ Y,\ Z]$	$\left[\frac{1}{2}-x,\ y+\frac{1}{2},\ z+\frac{1}{2}\right]$	`[6]`
7	$[-Y,\ -X,\ Z]$	$\left[\frac{1}{2}-y,\ \frac{1}{2}-x,\ z+\frac{1}{2}\right]$	`[7]`
8	$[Y,\ X,\ Z]$	$\left[y+\frac{1}{2},\ x+\frac{1}{2},\ z+\frac{1}{2}\right]$	`[8]`