SG No. 96 D_4^8 $P4_32_12$ [tetragonal]

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

Table 1: Wyckoff bond: `4a@4a`

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

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

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

Table 3: Wyckoff bond: `8c@4a`

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

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

Table 4: Wyckoff bond: `8a@8b`

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

continued ...

Table 4

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