SG No. 97 D_4^9 $I422$ [tetragonal]

* plus set: $+[0,\ 0,\ 0]$, $+\left[\frac{1}{2},\ \frac{1}{2},\ \frac{1}{2}\right]$

Table 1: Wyckoff site: `2a`, site symmetry: `422`

No.	position	mapping
1	$[0,\ 0,\ 0]$	`[1,2,3,4,5,6,7,8]`

Table 2: Wyckoff site: `2b`, site symmetry: `422`

No.	position	mapping
1	$\left[0,\ 0,\ \frac{1}{2}\right]$	`[1,2,3,4,5,6,7,8]`

Table 3: Wyckoff site: `4c`, site symmetry: `222.`

No.	position	mapping
1	$\left[0,\ \frac{1}{2},\ 0\right]$	`[1,2,5,6]`
2	$\left[\frac{1}{2},\ 0,\ 0\right]$	`[3,4,7,8]`

Table 4: Wyckoff site: `4d`, site symmetry: `2.22`

No.	position	mapping
1	$\left[0,\ \frac{1}{2},\ \frac{1}{4}\right]$	`[1,2,7,8]`
2	$\left[\frac{1}{2},\ 0,\ \frac{1}{4}\right]$	`[3,4,5,6]`

Table 5: Wyckoff site: `4e`, site symmetry: `4..`

No.	position	mapping
1	$[0,\ 0,\ z]$	`[1,2,3,4]`
2	$[0,\ 0,\ -z]$	`[5,6,7,8]`

Table 6: Wyckoff site: `8f`, site symmetry: `2..`

No.	position	mapping
1	$\left[0,\ \frac{1}{2},\ z\right]$	`[1,2]`
2	$\left[\frac{1}{2},\ 0,\ z\right]$	`[3,4]`
3	$\left[0,\ \frac{1}{2},\ -z\right]$	`[5,6]`

continued ...

Table 6

No.	position	mapping
4	$\left[\frac{1}{2}, 0, -z\right]$	[7,8]

Table 7: Wyckoff site: 8g, site symmetry: ..2

No.	position	mapping
1	$[x, x, 0]$	[1,7]
2	$[-x, -x, 0]$	[2,8]
3	$[-x, x, 0]$	[3,5]
4	$[x, -x, 0]$	[4,6]

Table 8: Wyckoff site: 8h, site symmetry: .2.

No.	position	mapping
1	$[x, 0, 0]$	[1,6]
2	$[-x, 0, 0]$	[2,5]
3	$[0, x, 0]$	[3,7]
4	$[0, -x, 0]$	[4,8]

Table 9: Wyckoff site: 8i, site symmetry: .2.

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

Table 10: Wyckoff site: 8j, site symmetry: ..2

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

Table 11: Wyckoff site: `16k`, site symmetry: `1`

No.	position	mapping
1	$[x,\ y,\ z]$	`[1]`
2	$[-x,\ -y,\ z]$	`[2]`
3	$[-y,\ x,\ z]$	`[3]`
4	$[y,\ -x,\ z]$	`[4]`
5	$[-x,\ y,\ -z]$	`[5]`
6	$[x,\ -y,\ -z]$	`[6]`
7	$[y,\ x,\ -z]$	`[7]`
8	$[-y,\ -x,\ -z]$	`[8]`