SG No. 115 D_{2d}^{5} $P\bar{4}m2$ [tetragonal]

* plus set: $+[0, 0, 0]$

Table 1: Wyckoff site: `1a`, site symmetry: `-4m2`

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

Table 2: Wyckoff site: `1b`, site symmetry: `-4m2`

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

Table 3: Wyckoff site: `1c`, site symmetry: `-4m2`

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

Table 4: Wyckoff site: `1d`, site symmetry: `-4m2`

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

Table 5: Wyckoff site: `2e`, site symmetry: `2mm.`

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

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

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

Table 7: Wyckoff site: `2g`, site symmetry: `2mm.`

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

Table 8: Wyckoff site: `4h`, 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 9: Wyckoff site: `4i`, site symmetry: `..2`

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

Table 10: Wyckoff site: `4j`, site symmetry: `.m.`

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

Table 11: Wyckoff site: `4k`, site symmetry: `.m.`

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

Table 12: Wyckoff site: 8l, 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]