SG No. 116 D_{2d}^{6} $P\bar{4}c2$ [tetragonal]

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

Table 1: Wyckoff site: `2a`, site symmetry: `2.22`

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

Table 2: Wyckoff site: `2b`, site symmetry: `2.22`

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

Table 3: Wyckoff site: `2c`, site symmetry: `-4..`

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

Table 4: Wyckoff site: `2d`, site symmetry: `-4..`

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

Table 5: Wyckoff site: `4e`, site symmetry: `..2`

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

Table 6: Wyckoff site: `4f`, site symmetry: `..2`

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

Table 7: Wyckoff site: `4g`, site symmetry: `2..`

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

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

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

Table 9: Wyckoff site: `4i`, 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	$\left[0,\ \frac{1}{2},\ z+\frac{1}{2}\right]$	`[5,6]`
4	$\left[\frac{1}{2},\ 0,\ \frac{1}{2}-z\right]$	`[7,8]`

Table 10: Wyckoff site: `8j`, 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]`

continued ...

Table 10

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