

SG No. 86 C_{4h}^4 $P4_2/n$ [tetragonal]

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

Table 1: Wyckoff site: 2a, site symmetry: -4..

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

Table 2: Wyckoff site: 2b, site symmetry: -4..

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

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

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

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

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

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

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

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

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

Table 7: Wyckoff site: 8g, site symmetry: 1

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