

SG No. 91     $D_4^3$      $P4_122$     [ tetragonal ]

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

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

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

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

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

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

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

Table 4: Wyckoff site: 8d, site symmetry: 1

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