# MSG No. 171.124 $P_c6_2$ [ Type IV, hexagonal ]

Table 1: Wyckoff site: `6a`, site symmetry: `2..`

| No. | position | mapping |
|---|---|---|
| 1 | $[0,\ 0,\ z]$ | `[1,4]` |
| 2 | $\left[0,\ 0,\ z+\frac{1}{3}\right]$ | `[2,5]` |
| 3 | $\left[0,\ 0,\ z+\frac{2}{3}\right]$ | `[3,6]` |
| 4 | $\left[0,\ 0,\ z+\frac{1}{2}\right]$ | `[7,10]` |
| 5 | $\left[0,\ 0,\ z+\frac{5}{6}\right]$ | `[8,11]` |
| 6 | $\left[0,\ 0,\ z+\frac{1}{6}\right]$ | `[9,12]` |

Table 2: Wyckoff site: `6b`, site symmetry: `2..`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{2},\ \frac{1}{2},\ z\right]$ | `[1,4]` |
| 2 | $\left[0,\ \frac{1}{2},\ z+\frac{1}{3}\right]$ | `[2,5]` |
| 3 | $\left[\frac{1}{2},\ 0,\ z+\frac{2}{3}\right]$ | `[3,6]` |
| 4 | $\left[\frac{1}{2},\ \frac{1}{2},\ z+\frac{1}{2}\right]$ | `[7,10]` |
| 5 | $\left[0,\ \frac{1}{2},\ z+\frac{5}{6}\right]$ | `[8,11]` |
| 6 | $\left[\frac{1}{2},\ 0,\ z+\frac{1}{6}\right]$ | `[9,12]` |

Table 3: Wyckoff site: `12c`, site symmetry: `1`

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\ y,\ z]$ | `[1]` |
| 2 | $\left[x-y,\ x,\ z+\frac{1}{3}\right]$ | `[2]` |
| 3 | $\left[-y,\ x-y,\ z+\frac{2}{3}\right]$ | `[3]` |
| 4 | $[-x,\ -y,\ z]$ | `[4]` |
| 5 | $\left[-x+y,\ -x,\ z+\frac{1}{3}\right]$ | `[5]` |
| 6 | $\left[y,\ -x+y,\ z+\frac{2}{3}\right]$ | `[6]` |
| 7 | $\left[x,\ y,\ z+\frac{1}{2}\right]$ | `[7]` |
| 8 | $\left[x-y,\ x,\ z+\frac{5}{6}\right]$ | `[8]` |
| 9 | $\left[-y,\ x-y,\ z+\frac{1}{6}\right]$ | `[9]` |
| 10 | $\left[-x,\ -y,\ z+\frac{1}{2}\right]$ | `[10]` |
| 11 | $\left[-x+y,\ -x,\ z+\frac{5}{6}\right]$ | `[11]` |
| 12 | $\left[y,\ -x+y,\ z+\frac{1}{6}\right]$ | `[12]` |