# MSG No. 14.81 $P_b2_1/c$ [ Type IV, monoclinic ]

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

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

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

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

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

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

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

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

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

| No. | position | mapping |
|---|---|---|
| 1 | $\left[0,\ y,\ \frac{1}{4}\right]$ | `[1,6]` |
| 2 | $\left[0,\ y+\frac{1}{2},\ \frac{1}{4}\right]$ | `[2,5]` |

*continued ...*

Table 5

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

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

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

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

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