# MSG No. 35.168 $Cm'm'2$ [ Type III, orthorhombic ]

Table 1: Wyckoff site: `2a`, site symmetry: `m'm'2`

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

Table 2: Wyckoff site: `2b`, site symmetry: `m'm'2`

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

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

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

Table 4: Wyckoff site: `4d`, site symmetry: `.m'.`

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

Table 5: Wyckoff site: `4e`, site symmetry: `m'..`

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

Table 6: Wyckoff site: `8f`, site symmetry: `1`

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