# MPG No. 36.5.148 $\bar{3}m'$ (-31m' setting) [ Type III, trigonal ]

Table 1: Wyckoff site: `1o`, site symmetry: `-31m'`

| No. | position | mapping |
|---|---|---|
| 1 | [0, 0, 0] | `[1,2,3,4,5,6,7,8,9,10,11,12]` |

Table 2: Wyckoff site: `2a`, site symmetry: `3.m'`

| No. | position | mapping |
|---|---|---|
| 1 | $[0, 0, z]$ | `[1,2,3,10,11,12]` |
| 2 | $[0, 0, -z]$ | `[4,5,6,7,8,9]` |

Table 3: Wyckoff site: `6b`, site symmetry: `..2`

| No. | position | mapping |
|---|---|---|
| 1 | $[x, -x, 0]$ | `[1,7]` |
| 2 | $[x, 2x, 0]$ | `[2,9]` |
| 3 | $[-2x, -x, 0]$ | `[3,8]` |
| 4 | $[-x, x, 0]$ | `[4,10]` |
| 5 | $[-x, -2x, 0]$ | `[5,12]` |
| 6 | $[2x, x, 0]$ | `[6,11]` |

Table 4: Wyckoff site: `6c`, site symmetry: `..m`

| No. | position | mapping |
|---|---|---|
| 1 | $[x, 0, z]$ | `[1,11]` |
| 2 | $[0, x, z]$ | `[2,10]` |
| 3 | $[-x, -x, z]$ | `[3,12]` |
| 4 | $[0, -x, -z]$ | `[5,7]` |
| 5 | $[-x, 0, -z]$ | `[4,8]` |
| 6 | $[x, x, -z]$ | `[6,9]` |

Table 5: Wyckoff site: `12d`, site symmetry: `1`

| No. | position | mapping |
|---|---|---|
| 1 | $[x, y, z]$ | `[1]` |
| 2 | $[-y, x-y, z]$ | `[2]` |
| 3 | $[-x+y, -x, z]$ | `[3]` |

*continued ...*

Table 5

| No. | position | mapping |
|---|---|---|
| 4 | $[-y, -x, -z]$ | [7] |
| 5 | $[-x+y, y, -z]$ | [8] |
| 6 | $[x, x-y, -z]$ | [9] |
| 7 | $[-x, -y, -z]$ | [4] |
| 8 | $[y, -x+y, -z]$ | [5] |
| 9 | $[x-y, x, -z]$ | [6] |
| 10 | $[y, x, z]$ | [10] |
| 11 | $[x-y, -y, z]$ | [11] |
| 12 | $[-x, -x+y, z]$ | [12] |