# MSG No. 193.262 $P_c6_3/mcm$ [ Type IV, hexagonal ]

Table 1: Wyckoff site: 2a, site symmetry: 6'/mm'm

| No. | position | mapping |
|---|---|---|
| 1 | $\left[0,\ 0,\ \frac{3}{4}\right]$ | [1,3,5,7,8,9,14,16,18,22,23,24,26,28,30,34,35,36,37,39,41,43,44,45] |
| 2 | $\left[0,\ 0,\ \frac{1}{4}\right]$ | [2,4,6,10,11,12,13,15,17,19,20,21,25,27,29,31,32,33,38,40,42,46,47,48] |

Table 2: Wyckoff site: 2b, site symmetry: 6'/m'm'm

| No. | position | mapping |
|---|---|---|
| 1 | $[0,\ 0,\ 0]$ | [1,3,5,10,11,12,13,15,17,22,23,24,26,28,30,31,32,33,38,40,42,43,44,45] |
| 2 | $\left[0,\ 0,\ \frac{1}{2}\right]$ | [2,4,6,7,8,9,14,16,18,19,20,21,25,27,29,34,35,36,37,39,41,46,47,48] |

Table 3: Wyckoff site: 4c, site symmetry: -6m'2'

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{3},\ \frac{2}{3},\ \frac{3}{4}\right]$ | [1,3,5,14,16,18,34,35,36,43,44,45] |
| 2 | $\left[\frac{2}{3},\ \frac{1}{3},\ \frac{1}{4}\right]$ | [2,4,6,13,15,17,31,32,33,46,47,48] |
| 3 | $\left[\frac{2}{3},\ \frac{1}{3},\ \frac{3}{4}\right]$ | [7,8,9,22,23,24,26,28,30,37,39,41] |
| 4 | $\left[\frac{1}{3},\ \frac{2}{3},\ \frac{1}{4}\right]$ | [10,11,12,19,20,21,25,27,29,38,40,42] |

Table 4: Wyckoff site: 4d, site symmetry: -6'm'2

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{3},\ \frac{2}{3},\ 0\right]$ | [1,3,5,10,11,12,38,40,42,43,44,45] |
| 2 | $\left[\frac{2}{3},\ \frac{1}{3},\ \frac{1}{2}\right]$ | [2,4,6,7,8,9,37,39,41,46,47,48] |
| 3 | $\left[\frac{2}{3},\ \frac{1}{3},\ 0\right]$ | [13,15,17,22,23,24,26,28,30,31,32,33] |
| 4 | $\left[\frac{1}{3},\ \frac{2}{3},\ \frac{1}{2}\right]$ | [14,16,18,19,20,21,25,27,29,34,35,36] |

Table 5: Wyckoff site: 4e, site symmetry: 6'm'm

| No. | position | mapping |
|---|---|---|
| 1 | $[0,\ 0,\ z]$ | [1,3,5,22,23,24,26,28,30,43,44,45] |
| 2 | $\left[0,\ 0,\ z+\frac{1}{2}\right]$ | [2,4,6,19,20,21,25,27,29,46,47,48] |
| 3 | $\left[0,\ 0,\ \frac{1}{2}-z\right]$ | [7,8,9,14,16,18,34,35,36,37,39,41] |
| 4 | $[0,\ 0,\ -z]$ | [10,11,12,13,15,17,31,32,33,38,40,42] |

Table 6: Wyckoff site: `6f`, site symmetry: `mm'm`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{2}, 0, \frac{3}{4}\right]$ | `[1,7,16,23,28,35,37,43]` |
| 2 | $\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{4}\right]$ | `[2,10,17,21,29,33,38,46]` |
| 3 | $\left[0, \frac{1}{2}, \frac{3}{4}\right]$ | `[3,8,18,24,30,36,39,44]` |
| 4 | $\left[\frac{1}{2}, 0, \frac{1}{4}\right]$ | `[4,11,13,19,25,31,40,47]` |
| 5 | $\left[\frac{1}{2}, \frac{1}{2}, \frac{3}{4}\right]$ | `[5,9,14,22,26,34,41,45]` |
| 6 | $\left[0, \frac{1}{2}, \frac{1}{4}\right]$ | `[6,12,15,20,27,32,42,48]` |

Table 7: Wyckoff site: `6g`, site symmetry: `m'm'm`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{2}, 0, 0\right]$ | `[1,11,13,23,28,31,40,43]` |
| 2 | $\left[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}\right]$ | `[2,9,14,21,29,34,41,46]` |
| 3 | $\left[0, \frac{1}{2}, 0\right]$ | `[3,12,15,24,30,32,42,44]` |
| 4 | $\left[\frac{1}{2}, 0, \frac{1}{2}\right]$ | `[4,7,16,19,25,35,37,47]` |
| 5 | $\left[\frac{1}{2}, \frac{1}{2}, 0\right]$ | `[5,10,17,22,26,33,38,45]` |
| 6 | $\left[0, \frac{1}{2}, \frac{1}{2}\right]$ | `[6,8,18,20,27,36,39,48]` |

Table 8: Wyckoff site: `8h`, site symmetry: `3m'.`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{3}, \frac{2}{3}, z\right]$ | `[1,3,5,43,44,45]` |
| 2 | $\left[\frac{2}{3}, \frac{1}{3}, z+\frac{1}{2}\right]$ | `[2,4,6,46,47,48]` |
| 3 | $\left[\frac{2}{3}, \frac{1}{3}, \frac{1}{2}-z\right]$ | `[7,8,9,37,39,41]` |
| 4 | $\left[\frac{1}{3}, \frac{2}{3}, -z\right]$ | `[10,11,12,38,40,42]` |
| 5 | $\left[\frac{2}{3}, \frac{1}{3}, -z\right]$ | `[13,15,17,31,32,33]` |
| 6 | $\left[\frac{1}{3}, \frac{2}{3}, \frac{1}{2}-z\right]$ | `[14,16,18,34,35,36]` |
| 7 | $\left[\frac{1}{3}, \frac{2}{3}, z+\frac{1}{2}\right]$ | `[19,20,21,25,27,29]` |
| 8 | $\left[\frac{2}{3}, \frac{1}{3}, z\right]$ | `[22,23,24,26,28,30]` |

Table 9: Wyckoff site: `12i`, site symmetry: `2'm'm`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[\frac{1}{2}, 0, z\right]$ | `[1,23,28,43]` |
| 2 | $\left[\frac{1}{2}, \frac{1}{2}, z+\frac{1}{2}\right]$ | `[2,21,29,46]` |
| 3 | $\left[0, \frac{1}{2}, z\right]$ | `[3,24,30,44]` |
| 4 | $\left[\frac{1}{2}, 0, z+\frac{1}{2}\right]$ | `[4,19,25,47]` |
| 5 | $\left[\frac{1}{2}, \frac{1}{2}, z\right]$ | `[5,22,26,45]` |
| 6 | $\left[0, \frac{1}{2}, z+\frac{1}{2}\right]$ | `[6,20,27,48]` |
| 7 | $\left[\frac{1}{2}, 0, \frac{1}{2}-z\right]$ | `[7,16,35,37]` |

*continued ...*

Table 9

| No. | position | mapping |
|---|---|---|
| 8 | $\left[0,\ \frac{1}{2},\ \frac{1}{2}-z\right]$ | [8,18,36,39] |
| 9 | $\left[\frac{1}{2},\ \frac{1}{2},\ \frac{1}{2}-z\right]$ | [9,14,34,41] |
| 10 | $\left[\frac{1}{2},\ \frac{1}{2},\ -z\right]$ | [10,17,33,38] |
| 11 | $\left[\frac{1}{2},\ 0,\ -z\right]$ | [11,13,31,40] |
| 12 | $\left[0,\ \frac{1}{2},\ -z\right]$ | [12,15,32,42] |

Table 10: Wyckoff site: 12j, site symmetry: m2m

| No. | position | mapping |
|---|---|---|
| 1 | $\left[x,\ 0,\ \frac{3}{4}\right]$ | [1,7,16,23] |
| 2 | $\left[x,\ x,\ \frac{1}{4}\right]$ | [2,10,17,21] |
| 3 | $\left[0,\ x,\ \frac{3}{4}\right]$ | [3,8,18,24] |
| 4 | $\left[-x,\ 0,\ \frac{1}{4}\right]$ | [4,11,13,19] |
| 5 | $\left[-x,\ -x,\ \frac{3}{4}\right]$ | [5,9,14,22] |
| 6 | $\left[0,\ -x,\ \frac{1}{4}\right]$ | [6,12,15,20] |
| 7 | $\left[x,\ 0,\ \frac{1}{4}\right]$ | [25,31,40,47] |
| 8 | $\left[x,\ x,\ \frac{3}{4}\right]$ | [26,34,41,45] |
| 9 | $\left[0,\ x,\ \frac{1}{4}\right]$ | [27,32,42,48] |
| 10 | $\left[-x,\ 0,\ \frac{3}{4}\right]$ | [28,35,37,43] |
| 11 | $\left[-x,\ -x,\ \frac{1}{4}\right]$ | [29,33,38,46] |
| 12 | $\left[0,\ -x,\ \frac{3}{4}\right]$ | [30,36,39,44] |

Table 11: Wyckoff site: 12k, site symmetry: m'2'm

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\ 0,\ 0]$ | [1,23,31,40] |
| 2 | $\left[x,\ x,\ \frac{1}{2}\right]$ | [2,21,34,41] |
| 3 | $[0,\ x,\ 0]$ | [3,24,32,42] |
| 4 | $\left[-x,\ 0,\ \frac{1}{2}\right]$ | [4,19,35,37] |
| 5 | $[-x,\ -x,\ 0]$ | [5,22,33,38] |
| 6 | $\left[0,\ -x,\ \frac{1}{2}\right]$ | [6,20,36,39] |
| 7 | $\left[x,\ 0,\ \frac{1}{2}\right]$ | [7,16,25,47] |
| 8 | $\left[0,\ x,\ \frac{1}{2}\right]$ | [8,18,27,48] |
| 9 | $\left[-x,\ -x,\ \frac{1}{2}\right]$ | [9,14,29,46] |
| 10 | $[x,\ x,\ 0]$ | [10,17,26,45] |
| 11 | $[-x,\ 0,\ 0]$ | [11,13,28,43] |
| 12 | $[0,\ -x,\ 0]$ | [12,15,30,44] |

Table 12: Wyckoff site: `12l`, site symmetry: `mm'2'`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[x,\ 2x,\ \frac{3}{4}\right]$ | `[1,16,35,43]` |
| 2 | $\left[-x,\ x,\ \frac{1}{4}\right]$ | `[2,17,33,46]` |
| 3 | $\left[-2x,\ -x,\ \frac{3}{4}\right]$ | `[3,18,36,44]` |
| 4 | $\left[-x,\ -2x,\ \frac{1}{4}\right]$ | `[4,13,31,47]` |
| 5 | $\left[x,\ -x,\ \frac{3}{4}\right]$ | `[5,14,34,45]` |
| 6 | $\left[2x,\ x,\ \frac{1}{4}\right]$ | `[6,15,32,48]` |
| 7 | $\left[-x,\ -2x,\ \frac{3}{4}\right]$ | `[7,23,28,37]` |
| 8 | $\left[2x,\ x,\ \frac{3}{4}\right]$ | `[8,24,30,39]` |
| 9 | $\left[-x,\ x,\ \frac{3}{4}\right]$ | `[9,22,26,41]` |
| 10 | $\left[x,\ -x,\ \frac{1}{4}\right]$ | `[10,21,29,38]` |
| 11 | $\left[x,\ 2x,\ \frac{1}{4}\right]$ | `[11,19,25,40]` |
| 12 | $\left[-2x,\ -x,\ \frac{1}{4}\right]$ | `[12,20,27,42]` |

Table 13: Wyckoff site: `12m`, site symmetry: `m'm'2`

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\ 2x,\ 0]$ | `[1,11,40,43]` |
| 2 | $\left[-x,\ x,\ \frac{1}{2}\right]$ | `[2,9,41,46]` |
| 3 | $[-2x,\ -x,\ 0]$ | `[3,12,42,44]` |
| 4 | $\left[-x,\ -2x,\ \frac{1}{2}\right]$ | `[4,7,37,47]` |
| 5 | $[x,\ -x,\ 0]$ | `[5,10,38,45]` |
| 6 | $\left[2x,\ x,\ \frac{1}{2}\right]$ | `[6,8,39,48]` |
| 7 | $[-x,\ -2x,\ 0]$ | `[13,23,28,31]` |
| 8 | $\left[x,\ -x,\ \frac{1}{2}\right]$ | `[14,21,29,34]` |
| 9 | $[2x,\ x,\ 0]$ | `[15,24,30,32]` |
| 10 | $\left[x,\ 2x,\ \frac{1}{2}\right]$ | `[16,19,25,35]` |
| 11 | $[-x,\ x,\ 0]$ | `[17,22,26,33]` |
| 12 | $\left[-2x,\ -x,\ \frac{1}{2}\right]$ | `[18,20,27,36]` |

Table 14: Wyckoff site: `24n`, site symmetry: `..m`

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\ 0,\ z]$ | `[1,23]` |
| 2 | $\left[x,\ x,\ z+\frac{1}{2}\right]$ | `[2,21]` |
| 3 | $[0,\ x,\ z]$ | `[3,24]` |
| 4 | $\left[-x,\ 0,\ z+\frac{1}{2}\right]$ | `[4,19]` |
| 5 | $[-x,\ -x,\ z]$ | `[5,22]` |
| 6 | $\left[0,\ -x,\ z+\frac{1}{2}\right]$ | `[6,20]` |
| 7 | $\left[x,\ 0,\ \frac{1}{2}-z\right]$ | `[7,16]` |
| 8 | $\left[0,\ x,\ \frac{1}{2}-z\right]$ | `[8,18]` |
| 9 | $\left[-x,\ -x,\ \frac{1}{2}-z\right]$ | `[9,14]` |

*continued ...*

Table 14

| No. | position | mapping |
|---|---|---|
| 10 | $[x,\ x,\ -z]$ | [10,17] |
| 11 | $[-x,\ 0,\ -z]$ | [11,13] |
| 12 | $[0,\ -x,\ -z]$ | [12,15] |
| 13 | $\left[x,\ 0,\ z+\frac{1}{2}\right]$ | [25,47] |
| 14 | $[x,\ x,\ z]$ | [26,45] |
| 15 | $\left[0,\ x,\ z+\frac{1}{2}\right]$ | [27,48] |
| 16 | $[-x,\ 0,\ z]$ | [28,43] |
| 17 | $\left[-x,\ -x,\ z+\frac{1}{2}\right]$ | [29,46] |
| 18 | $[0,\ -x,\ z]$ | [30,44] |
| 19 | $[x,\ 0,\ -z]$ | [31,40] |
| 20 | $[0,\ x,\ -z]$ | [32,42] |
| 21 | $[-x,\ -x,\ -z]$ | [33,38] |
| 22 | $\left[x,\ x,\ \frac{1}{2}-z\right]$ | [34,41] |
| 23 | $\left[-x,\ 0,\ \frac{1}{2}-z\right]$ | [35,37] |
| 24 | $\left[0,\ -x,\ \frac{1}{2}-z\right]$ | [36,39] |

Table 15: Wyckoff site: 24o, site symmetry: .m'.

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\ 2x,\ z]$ | [1,43] |
| 2 | $\left[-x,\ x,\ z+\frac{1}{2}\right]$ | [2,46] |
| 3 | $[-2x,\ -x,\ z]$ | [3,44] |
| 4 | $\left[-x,\ -2x,\ z+\frac{1}{2}\right]$ | [4,47] |
| 5 | $[x,\ -x,\ z]$ | [5,45] |
| 6 | $\left[2x,\ x,\ z+\frac{1}{2}\right]$ | [6,48] |
| 7 | $\left[-x,\ -2x,\ \frac{1}{2}-z\right]$ | [7,37] |
| 8 | $\left[2x,\ x,\ \frac{1}{2}-z\right]$ | [8,39] |
| 9 | $\left[-x,\ x,\ \frac{1}{2}-z\right]$ | [9,41] |
| 10 | $[x,\ -x,\ -z]$ | [10,38] |
| 11 | $[x,\ 2x,\ -z]$ | [11,40] |
| 12 | $[-2x,\ -x,\ -z]$ | [12,42] |
| 13 | $[-x,\ -2x,\ -z]$ | [13,31] |
| 14 | $\left[x,\ -x,\ \frac{1}{2}-z\right]$ | [14,34] |
| 15 | $[2x,\ x,\ -z]$ | [15,32] |
| 16 | $\left[x,\ 2x,\ \frac{1}{2}-z\right]$ | [16,35] |
| 17 | $[-x,\ x,\ -z]$ | [17,33] |
| 18 | $\left[-2x,\ -x,\ \frac{1}{2}-z\right]$ | [18,36] |
| 19 | $\left[x,\ 2x,\ z+\frac{1}{2}\right]$ | [19,25] |
| 20 | $\left[-2x,\ -x,\ z+\frac{1}{2}\right]$ | [20,27] |
| 21 | $\left[x,\ -x,\ z+\frac{1}{2}\right]$ | [21,29] |
| 22 | $[-x,\ x,\ z]$ | [22,26] |
| 23 | $[-x,\ -2x,\ z]$ | [23,28] |
| 24 | $[2x,\ x,\ z]$ | [24,30] |

Table 16: Wyckoff site: `24p`, site symmetry: `m..`

| No. | position | mapping |
|---|---|---|
| 1 | $\left[x,\ y,\ \frac{3}{4}\right]$ | `[1,16]` |
| 2 | $\left[x-y,\ x,\ \frac{1}{4}\right]$ | `[2,17]` |
| 3 | $\left[-y,\ x-y,\ \frac{3}{4}\right]$ | `[3,18]` |
| 4 | $\left[-x,\ -y,\ \frac{1}{4}\right]$ | `[4,13]` |
| 5 | $\left[-x+y,\ -x,\ \frac{3}{4}\right]$ | `[5,14]` |
| 6 | $\left[y,\ -x+y,\ \frac{1}{4}\right]$ | `[6,15]` |
| 7 | $\left[x-y,\ -y,\ \frac{3}{4}\right]$ | `[7,23]` |
| 8 | $\left[y,\ x,\ \frac{3}{4}\right]$ | `[8,24]` |
| 9 | $\left[-x,\ -x+y,\ \frac{3}{4}\right]$ | `[9,22]` |
| 10 | $\left[x,\ x-y,\ \frac{1}{4}\right]$ | `[10,21]` |
| 11 | $\left[-x+y,\ y,\ \frac{1}{4}\right]$ | `[11,19]` |
| 12 | $\left[-y,\ -x,\ \frac{1}{4}\right]$ | `[12,20]` |
| 13 | $\left[x,\ y,\ \frac{1}{4}\right]$ | `[25,40]` |
| 14 | $\left[x-y,\ x,\ \frac{3}{4}\right]$ | `[26,41]` |
| 15 | $\left[-y,\ x-y,\ \frac{1}{4}\right]$ | `[27,42]` |
| 16 | $\left[-x,\ -y,\ \frac{3}{4}\right]$ | `[28,37]` |
| 17 | $\left[-x+y,\ -x,\ \frac{1}{4}\right]$ | `[29,38]` |
| 18 | $\left[y,\ -x+y,\ \frac{3}{4}\right]$ | `[30,39]` |
| 19 | $\left[x-y,\ -y,\ \frac{1}{4}\right]$ | `[31,47]` |
| 20 | $\left[y,\ x,\ \frac{1}{4}\right]$ | `[32,48]` |
| 21 | $\left[-x,\ -x+y,\ \frac{1}{4}\right]$ | `[33,46]` |
| 22 | $\left[x,\ x-y,\ \frac{3}{4}\right]$ | `[34,45]` |
| 23 | $\left[-x+y,\ y,\ \frac{3}{4}\right]$ | `[35,43]` |
| 24 | $\left[-y,\ -x,\ \frac{3}{4}\right]$ | `[36,44]` |

Table 17: Wyckoff site: `24q`, site symmetry: `m'..`

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\ y,\ 0]$ | `[1,40]` |
| 2 | $\left[x-y,\ x,\ \frac{1}{2}\right]$ | `[2,41]` |
| 3 | $[-y,\ x-y,\ 0]$ | `[3,42]` |
| 4 | $\left[-x,\ -y,\ \frac{1}{2}\right]$ | `[4,37]` |
| 5 | $[-x+y,\ -x,\ 0]$ | `[5,38]` |
| 6 | $\left[y,\ -x+y,\ \frac{1}{2}\right]$ | `[6,39]` |
| 7 | $\left[x-y,\ -y,\ \frac{1}{2}\right]$ | `[7,47]` |
| 8 | $\left[y,\ x,\ \frac{1}{2}\right]$ | `[8,48]` |
| 9 | $\left[-x,\ -x+y,\ \frac{1}{2}\right]$ | `[9,46]` |
| 10 | $[x,\ x-y,\ 0]$ | `[10,45]` |
| 11 | $[-x+y,\ y,\ 0]$ | `[11,43]` |
| 12 | $[-y,\ -x,\ 0]$ | `[12,44]` |
| 13 | $[-x,\ -y,\ 0]$ | `[13,28]` |
| 14 | $\left[-x+y,\ -x,\ \frac{1}{2}\right]$ | `[14,29]` |
| 15 | $[y,\ -x+y,\ 0]$ | `[15,30]` |

*continued ...*

Table 17

| No. | position | mapping |
|---|---|---|
| 16 | $\left[x,\, y,\, \frac{1}{2}\right]$ | [16,25] |
| 17 | $[x-y,\, x,\, 0]$ | [17,26] |
| 18 | $\left[-y,\, x-y,\, \frac{1}{2}\right]$ | [18,27] |
| 19 | $\left[-x+y,\, y,\, \frac{1}{2}\right]$ | [19,35] |
| 20 | $\left[-y,\, -x,\, \frac{1}{2}\right]$ | [20,36] |
| 21 | $\left[x,\, x-y,\, \frac{1}{2}\right]$ | [21,34] |
| 22 | $[-x,\, -x+y,\, 0]$ | [22,33] |
| 23 | $[x-y,\, -y,\, 0]$ | [23,31] |
| 24 | $[y,\, x,\, 0]$ | [24,32] |

Table 18: Wyckoff site: 48r, site symmetry: 1

| No. | position | mapping |
|---|---|---|
| 1 | $[x,\, y,\, z]$ | [1] |
| 2 | $\left[x-y,\, x,\, z+\frac{1}{2}\right]$ | [2] |
| 3 | $[-y,\, x-y,\, z]$ | [3] |
| 4 | $\left[-x,\, -y,\, z+\frac{1}{2}\right]$ | [4] |
| 5 | $[-x+y,\, -x,\, z]$ | [5] |
| 6 | $\left[y,\, -x+y,\, z+\frac{1}{2}\right]$ | [6] |
| 7 | $\left[x-y,\, -y,\, \frac{1}{2}-z\right]$ | [7] |
| 8 | $\left[y,\, x,\, \frac{1}{2}-z\right]$ | [8] |
| 9 | $\left[-x,\, -x+y,\, \frac{1}{2}-z\right]$ | [9] |
| 10 | $[x,\, x-y,\, -z]$ | [10] |
| 11 | $[-x+y,\, y,\, -z]$ | [11] |
| 12 | $[-y,\, -x,\, -z]$ | [12] |
| 13 | $[-x,\, -y,\, -z]$ | [13] |
| 14 | $\left[-x+y,\, -x,\, \frac{1}{2}-z\right]$ | [14] |
| 15 | $[y,\, -x+y,\, -z]$ | [15] |
| 16 | $\left[x,\, y,\, \frac{1}{2}-z\right]$ | [16] |
| 17 | $[x-y,\, x,\, -z]$ | [17] |
| 18 | $\left[-y,\, x-y,\, \frac{1}{2}-z\right]$ | [18] |
| 19 | $\left[-x+y,\, y,\, z+\frac{1}{2}\right]$ | [19] |
| 20 | $\left[-y,\, -x,\, z+\frac{1}{2}\right]$ | [20] |
| 21 | $\left[x,\, x-y,\, z+\frac{1}{2}\right]$ | [21] |
| 22 | $[-x,\, -x+y,\, z]$ | [22] |
| 23 | $[x-y,\, -y,\, z]$ | [23] |
| 24 | $[y,\, x,\, z]$ | [24] |
| 25 | $\left[x,\, y,\, z+\frac{1}{2}\right]$ | [25] |
| 26 | $[x-y,\, x,\, z]$ | [26] |
| 27 | $\left[-y,\, x-y,\, z+\frac{1}{2}\right]$ | [27] |
| 28 | $[-x,\, -y,\, z]$ | [28] |
| 29 | $\left[-x+y,\, -x,\, z+\frac{1}{2}\right]$ | [29] |
| 30 | $[y,\, -x+y,\, z]$ | [30] |
| 31 | $[x-y,\, -y,\, -z]$ | [31] |

*continued ...*

Table 18

| No. | position | mapping |
|---|---|---|
| 32 | $[y,\, x,\, -z]$ | [32] |
| 33 | $[-x,\, -x+y,\, -z]$ | [33] |
| 34 | $\left[x,\, x-y,\, \frac{1}{2}-z\right]$ | [34] |
| 35 | $\left[-x+y,\, y,\, \frac{1}{2}-z\right]$ | [35] |
| 36 | $\left[-y,\, -x,\, \frac{1}{2}-z\right]$ | [36] |
| 37 | $\left[-x,\, -y,\, \frac{1}{2}-z\right]$ | [37] |
| 38 | $[-x+y,\, -x,\, -z]$ | [38] |
| 39 | $\left[y,\, -x+y,\, \frac{1}{2}-z\right]$ | [39] |
| 40 | $[x,\, y,\, -z]$ | [40] |
| 41 | $\left[x-y,\, x,\, \frac{1}{2}-z\right]$ | [41] |
| 42 | $[-y,\, x-y,\, -z]$ | [42] |
| 43 | $[-x+y,\, y,\, z]$ | [43] |
| 44 | $[-y,\, -x,\, z]$ | [44] |
| 45 | $[x,\, x-y,\, z]$ | [45] |
| 46 | $\left[-x,\, -x+y,\, z+\frac{1}{2}\right]$ | [46] |
| 47 | $\left[x-y,\, -y,\, z+\frac{1}{2}\right]$ | [47] |
| 48 | $\left[y,\, x,\, z+\frac{1}{2}\right]$ | [48] |