

# MPG No. 25.1.91 $6mm$ [ Type I, hexagonal ]

Table 1: Wyckoff site: **1a**, site symmetry:  $6mm$

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

Table 2: Wyckoff site: **6b**, site symmetry:  $\dots m$

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

Table 3: Wyckoff site: **6c**, site symmetry:  $\dots m$ .

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

Table 4: Wyckoff site: **12d**, site symmetry: **1**

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

$$\begin{array}{c} \hline & 12 & [-x,\,-x+y,\,z] & [8] \\ \hline \hline \end{array}$$