MSG No. 178.159 $P6_12'2'$ [Type III, hexagonal]

Table 1: Wyckoff site: `6a`, site symmetry: `.2'.`

No.	position	mapping
1	$[x,\ 0,\ 0]$	`[1,7]`
2	$\left[x,\ x,\ \frac{1}{6}\right]$	`[2,10]`
3	$\left[0,\ x,\ \frac{1}{3}\right]$	`[3,8]`
4	$\left[-x,\ 0,\ \frac{1}{2}\right]$	`[4,11]`
5	$\left[-x,\ -x,\ \frac{2}{3}\right]$	`[5,9]`
6	$\left[0,\ -x,\ \frac{5}{6}\right]$	`[6,12]`

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

No.	position	mapping
1	$\left[x,\ 2x,\ \frac{1}{4}\right]$	`[1,11]`
2	$\left[-x,\ x,\ \frac{5}{12}\right]$	`[2,9]`
3	$\left[-2x,\ -x,\ \frac{7}{12}\right]$	`[3,12]`
4	$\left[-x,\ -2x,\ \frac{3}{4}\right]$	`[4,7]`
5	$\left[x,\ -x,\ \frac{11}{12}\right]$	`[5,10]`
6	$\left[2x,\ x,\ \frac{1}{12}\right]$	`[6,8]`

Table 3: Wyckoff site: `12c`, site symmetry: `1`

No.	position	mapping
1	$[x,\ y,\ z]$	`[1]`
2	$\left[x-y,\ x,\ z+\frac{1}{6}\right]$	`[2]`
3	$\left[-y,\ x-y,\ z+\frac{1}{3}\right]$	`[3]`
4	$\left[-x,\ -y,\ z+\frac{1}{2}\right]$	`[4]`
5	$\left[-x+y,\ -x,\ z+\frac{2}{3}\right]$	`[5]`
6	$\left[y,\ -x+y,\ z+\frac{5}{6}\right]$	`[6]`
7	$[x-y,\ -y,\ -z]$	`[7]`
8	$\left[y,\ x,\ \frac{1}{3}-z\right]$	`[8]`
9	$\left[-x,\ -x+y,\ \frac{2}{3}-z\right]$	`[9]`
10	$\left[x,\ x-y,\ \frac{1}{6}-z\right]$	`[10]`
11	$\left[-x+y,\ y,\ \frac{1}{2}-z\right]$	`[11]`
12	$\left[-y,\ -x,\ \frac{5}{6}-z\right]$	`[12]`