MSG No. 155.47 $R32'$ [Type III, trigonal]

Table 1: Wyckoff site: `3a`, site symmetry: `32'.`

No.	position	mapping
1	$[0,\ 0,\ 0]$	`[1,2,3,4,5,6]`
2	$\left[\frac{2}{3},\ \frac{1}{3},\ \frac{1}{3}\right]$	`[7,8,9,10,11,12]`
3	$\left[\frac{1}{3},\ \frac{2}{3},\ \frac{2}{3}\right]$	`[13,14,15,16,17,18]`

Table 2: Wyckoff site: `3b`, site symmetry: `32'.`

No.	position	mapping
1	$\left[0,\ 0,\ \frac{1}{2}\right]$	`[1,2,3,4,5,6]`
2	$\left[\frac{2}{3},\ \frac{1}{3},\ \frac{5}{6}\right]$	`[7,8,9,10,11,12]`
3	$\left[\frac{1}{3},\ \frac{2}{3},\ \frac{1}{6}\right]$	`[13,14,15,16,17,18]`

Table 3: Wyckoff site: `6c`, site symmetry: `3..`

No.	position	mapping
1	$[0,\ 0,\ z]$	`[1,2,3]`
2	$[0,\ 0,\ -z]$	`[4,5,6]`
3	$\left[\frac{2}{3},\ \frac{1}{3},\ z+\frac{1}{3}\right]$	`[7,8,9]`
4	$\left[\frac{2}{3},\ \frac{1}{3},\ \frac{1}{3}-z\right]$	`[10,11,12]`
5	$\left[\frac{1}{3},\ \frac{2}{3},\ z+\frac{2}{3}\right]$	`[13,14,15]`
6	$\left[\frac{1}{3},\ \frac{2}{3},\ \frac{2}{3}-z\right]$	`[16,17,18]`

Table 4: Wyckoff site: `9d`, site symmetry: `.2'.`

No.	position	mapping
1	$[x,\ 0,\ 0]$	`[1,4]`
2	$[0,\ x,\ 0]$	`[2,5]`
3	$[-x,\ -x,\ 0]$	`[3,6]`
4	$\left[x+\frac{2}{3},\ \frac{1}{3},\ \frac{1}{3}\right]$	`[7,10]`
5	$\left[\frac{2}{3},\ x+\frac{1}{3},\ \frac{1}{3}\right]$	`[8,11]`
6	$\left[\frac{2}{3}-x,\ \frac{1}{3}-x,\ \frac{1}{3}\right]$	`[9,12]`
7	$\left[x+\frac{1}{3},\ \frac{2}{3},\ \frac{2}{3}\right]$	`[13,16]`
8	$\left[\frac{1}{3},\ x+\frac{2}{3},\ \frac{2}{3}\right]$	`[14,17]`
9	$\left[\frac{1}{3}-x,\ \frac{2}{3}-x,\ \frac{2}{3}\right]$	`[15,18]`

Table 5: Wyckoff site: `9e`, site symmetry: `.2'.`

No.	position	mapping
1	$\left[x,\ 0,\ \frac{1}{2}\right]$	`[1,4]`
2	$\left[0,\ x,\ \frac{1}{2}\right]$	`[2,5]`
3	$\left[-x,\ -x,\ \frac{1}{2}\right]$	`[3,6]`
4	$\left[x+\frac{2}{3},\ \frac{1}{3},\ \frac{5}{6}\right]$	`[7,10]`
5	$\left[\frac{2}{3},\ x+\frac{1}{3},\ \frac{5}{6}\right]$	`[8,11]`
6	$\left[\frac{2}{3}-x,\ \frac{1}{3}-x,\ \frac{5}{6}\right]$	`[9,12]`
7	$\left[x+\frac{1}{3},\ \frac{2}{3},\ \frac{1}{6}\right]$	`[13,16]`
8	$\left[\frac{1}{3},\ x+\frac{2}{3},\ \frac{1}{6}\right]$	`[14,17]`
9	$\left[\frac{1}{3}-x,\ \frac{2}{3}-x,\ \frac{1}{6}\right]$	`[15,18]`

Table 6: Wyckoff site: `18f`, site symmetry: `1`

No.	position	mapping
1	$[x,\ y,\ z]$	`[1]`
2	$[-y,\ x-y,\ z]$	`[2]`
3	$[-x+y,\ -x,\ z]$	`[3]`
4	$[x-y,\ -y,\ -z]$	`[4]`
5	$[y,\ x,\ -z]$	`[5]`
6	$[-x,\ -x+y,\ -z]$	`[6]`
7	$\left[x+\frac{2}{3},\ y+\frac{1}{3},\ z+\frac{1}{3}\right]$	`[7]`
8	$\left[\frac{2}{3}-y,\ x-y+\frac{1}{3},\ z+\frac{1}{3}\right]$	`[8]`
9	$\left[-x+y+\frac{2}{3},\ \frac{1}{3}-x,\ z+\frac{1}{3}\right]$	`[9]`
10	$\left[x-y+\frac{2}{3},\ \frac{1}{3}-y,\ \frac{1}{3}-z\right]$	`[10]`
11	$\left[y+\frac{2}{3},\ x+\frac{1}{3},\ \frac{1}{3}-z\right]$	`[11]`
12	$\left[\frac{2}{3}-x,\ -x+y+\frac{1}{3},\ \frac{1}{3}-z\right]$	`[12]`
13	$\left[x+\frac{1}{3},\ y+\frac{2}{3},\ z+\frac{2}{3}\right]$	`[13]`
14	$\left[\frac{1}{3}-y,\ x-y+\frac{2}{3},\ z+\frac{2}{3}\right]$	`[14]`
15	$\left[-x+y+\frac{1}{3},\ \frac{2}{3}-x,\ z+\frac{2}{3}\right]$	`[15]`
16	$\left[x-y+\frac{1}{3},\ \frac{2}{3}-y,\ \frac{2}{3}-z\right]$	`[16]`
17	$\left[y+\frac{1}{3},\ x+\frac{2}{3},\ \frac{2}{3}-z\right]$	`[17]`
18	$\left[\frac{1}{3}-x,\ -x+y+\frac{2}{3},\ \frac{2}{3}-z\right]$	`[18]`