MSG No. 150.27 $P32'1$ [Type III, trigonal]

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

No.	position	mapping
1	$[0, 0, 0]$	`[1,2,3,4,5,6]`

Table 2: Wyckoff site: `1b`, site symmetry: `32'.`

No.	position	mapping
1	$\left[0, 0, \frac{1}{2}\right]$	`[1,2,3,4,5,6]`

Table 3: Wyckoff site: `2c`, site symmetry: `3..`

No.	position	mapping
1	$[0, 0, z]$	`[1,2,3]`
2	$[0, 0, -z]$	`[4,5,6]`

Table 4: Wyckoff site: `2d`, site symmetry: `3..`

No.	position	mapping
1	$\left[\frac{1}{3}, \frac{2}{3}, z\right]$	`[1,2,3]`
2	$\left[\frac{2}{3}, \frac{1}{3}, -z\right]$	`[4,5,6]`

Table 5: Wyckoff site: `3e`, site symmetry: `.2'.`

No.	position	mapping
1	$[x, 0, 0]$	`[1,4]`
2	$[0, x, 0]$	`[2,5]`
3	$[-x, -x, 0]$	`[3,6]`

Table 6: Wyckoff site: `3f`, 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]`

Table 7: Wyckoff site: 6g, 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]