MSG No. 90.98 $P42_1'2'$ [Type III, tetragonal]

Table 1: Wyckoff site: `2a`, site symmetry: `2.2'2'`

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

Table 2: Wyckoff site: `2b`, site symmetry: `2.2'2'`

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

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

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

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

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

Table 5: Wyckoff site: `4e`, site symmetry: `..2'`

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

Table 6: Wyckoff site: `4f`, site symmetry: `..2'`

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

Table 7: Wyckoff site: `8g`, site symmetry: `1`

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