MSG No. 116.292 $P\bar{4}c21'$ [Type II, tetragonal]

Table 1: Wyckoff site: `2a`, site symmetry: `2.221'`

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

Table 2: Wyckoff site: `2b`, site symmetry: `2.221'`

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

Table 3: Wyckoff site: `2c`, site symmetry: `-4..1'`

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

Table 4: Wyckoff site: `2d`, site symmetry: `-4..1'`

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

Table 5: Wyckoff site: `4e`, site symmetry: `..21'`

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

Table 6: Wyckoff site: `4f`, site symmetry: `..21'`

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

Table 7: Wyckoff site: `4g`, site symmetry: `2..1'`

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

Table 8: Wyckoff site: `4h`, site symmetry: `2..1'`

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

Table 9: Wyckoff site: `4i`, site symmetry: `2..1'`

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

Table 10: Wyckoff site: `8j`, site symmetry: `11'`

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

continued ...

Table 10

No.	position	mapping
5	$[y,\,-x,\,-z]$	[5,13]
6	$[-y,\,x,\,-z]$	[6,14]
7	$\left[-x,\,y,\,z+\frac{1}{2}\right]$	[7,15]
8	$\left[x,\,-y,\,z+\frac{1}{2}\right]$	[8,16]

5	$[y,\,-x,\,-z]$	[5,13]
6	$[-y,\,x,\,-z]$	[6,14]
7	$\left[-x,\,y,\,z+\frac{1}{2}\right]$	[7,15]
8	$\left[x,\,-y,\,z+\frac{1}{2}\right]$	[8,16]