MSG No. 92.117 $P_C4_12_12$ [Type IV, tetragonal]

Table 1: Wyckoff site: `8a`, site symmetry: `..2`

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

Table 2: Wyckoff site: `8b`, site symmetry: `..2'`

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

Table 3: Wyckoff site: `8c`, site symmetry: `.2'.`

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

Table 4: Wyckoff site: `16d`, site symmetry: `1`

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