MSG No. 92.116 $P_c4_12_12$ [Type IV, tetragonal]

Table 1: Wyckoff site: `4a`, site symmetry: `2.22`

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

Table 2: Wyckoff site: `4b`, site symmetry: `2.22`

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

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

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

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

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

Table 5: Wyckoff site: `8e`, site symmetry: `..2'`

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

Table 6: Wyckoff site: `8f`, site symmetry: `..2`

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

Table 7: Wyckoff site: `16g`, 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	$\left[x, y, z + \frac{1}{2}\right]$	[9]
10	$\left[\frac{1}{2} - y, x + \frac{1}{2}, z + \frac{3}{4}\right]$	[10]
11	$\left[y + \frac{1}{2}, \frac{1}{2} - x, z + \frac{1}{4}\right]$	[11]
12	$\left[x + \frac{1}{2}, \frac{1}{2} - y, \frac{1}{4} - z\right]$	[12]
13	$\left[\frac{1}{2} - x, y + \frac{1}{2}, \frac{3}{4} - z\right]$	[13]
14	$[-x, -y, z]$	[14]
15	$\left[y, x, \frac{1}{2} - z\right]$	[15]
16	$[-y, -x, -z]$	[16]