

MSG No. 102.189 $P4'_2n'm$ [Type III, tetragonal]

Table 1: Wyckoff site: 2a, site symmetry: 2..mm

No.	position	mapping
1	[0, 0, z]	[1,2,3,4]
2	[\frac{1}{2}, \frac{1}{2}, z + \frac{1}{2}]	[5,6,7,8]

Table 2: Wyckoff site: 4b, site symmetry: 2..

No.	position	mapping
1	[0, \frac{1}{2}, z]	[1,2]
2	[\frac{1}{2}, 0, z]	[3,4]
3	[0, \frac{1}{2}, z + \frac{1}{2}]	[5,6]
4	[\frac{1}{2}, 0, z + \frac{1}{2}]	[7,8]

Table 3: Wyckoff site: 4c, site symmetry: ...m

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

Table 4: Wyckoff site: 8d, site symmetry: 1

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