

MSG No. 102.188  $P4_2nm1'$  [ Type II, tetragonal ]

Table 1: Wyckoff site: 2a, site symmetry: 2.mmm1'

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

Table 2: Wyckoff site: 4b, site symmetry: 2..1'

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

Table 3: Wyckoff site: 4c, site symmetry: ..m1'

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

Table 4: Wyckoff site: 8d, site symmetry: 11'

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