

MSG No. 105.213  $P4_2m'c$  [ Type III, tetragonal ]

Table 1: Wyckoff site: **2a**, site symmetry:  $2\mathfrak{m}'\mathfrak{m}'$ .

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

Table 2: Wyckoff site: **2b**, site symmetry:  $2\mathfrak{m}'\mathfrak{m}'$ .

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

Table 3: Wyckoff site: **2c**, site symmetry:  $2\mathfrak{m}'\mathfrak{m}'$ .

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

Table 4: Wyckoff site: **4d**, site symmetry:  $\mathfrak{m}'$ .

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

Table 5: Wyckoff site: **4e**, site symmetry:  $\mathfrak{m}'$ .

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

Table 6: Wyckoff site:  $8f$ , site symmetry:  $1$ 

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