

MSG No. 11.56 P_b2_1/m [Type IV, monoclinic]

Table 1: Wyckoff site: 2a, site symmetry: $2'/\text{m}$

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

Table 2: Wyckoff site: 2b, site symmetry: $2'/\text{m}'$

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

Table 3: Wyckoff site: 2c, site symmetry: $2'/\text{m}$

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

Table 4: Wyckoff site: 2d, site symmetry: $2'/\text{m}$

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

Table 5: Wyckoff site: 2e, site symmetry: $2'/\text{m}'$

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

Table 6: Wyckoff site: 2f, site symmetry: $2'/\text{m}'$

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

Table 7: Wyckoff site: 2g, site symmetry: $2'/\mathbf{m}$

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

Table 8: Wyckoff site: 2h, site symmetry: $2'/\mathbf{m}'$

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

Table 9: Wyckoff site: 4i, site symmetry: $2'$

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

Table 10: Wyckoff site: 4j, site symmetry: $2'$

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

Table 11: Wyckoff site: 4k, site symmetry: $2'$

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

Table 12: Wyckoff site: 4l, site symmetry: 2'

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

Table 13: Wyckoff site: 4m, site symmetry: m

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

Table 14: Wyckoff site: 4n, site symmetry: m'

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

Table 15: Wyckoff site: 8o, site symmetry: 1

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