

MSG No. 49.268 $Pccm'$ [Type III, orthorhombic]

Table 1: Wyckoff site: 2a, site symmetry: $\dots 2/m'$

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

Table 2: Wyckoff site: 2b, site symmetry: $\dots 2/m'$

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

Table 3: Wyckoff site: 2c, site symmetry: $\dots 2/m'$

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

Table 4: Wyckoff site: 2d, site symmetry: $\dots 2/m'$

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

Table 5: Wyckoff site: 2e, site symmetry: $2'2'2$

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

Table 6: Wyckoff site: 2f, site symmetry: $2'2'2$

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

Table 7: Wyckoff site: 2g, site symmetry: 2'2'2

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

Table 8: Wyckoff site: 2h, site symmetry: 2'2'2

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

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

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

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

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

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

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

Table 12: Wyckoff site: $4\mathbf{1}$, site symmetry: $.2'$.

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

Table 13: Wyckoff site: $4\mathbf{m}$, site symmetry: $. . 2$

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

Table 14: Wyckoff site: $4\mathbf{n}$, site symmetry: $. . 2$

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

Table 15: Wyckoff site: $4\mathbf{o}$, site symmetry: $. . 2$

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

Table 16: Wyckoff site: $4\mathbf{p}$, site symmetry: $. . 2$

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

Table 17: Wyckoff site: $4q$, site symmetry: $\dots m'$

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

Table 18: Wyckoff site: $8r$, site symmetry: 1

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