

MSG No. 115.286 $P\bar{4}'m2'$ [Type III, tetragonal]

Table 1: Wyckoff site: 1a, site symmetry: $-4'm2'$

No.	position	mapping
1	[0, 0, 0]	[1, 2, 3, 4, 5, 6, 7, 8]

Table 2: Wyckoff site: 1b, site symmetry: $-4'm2'$

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

Table 3: Wyckoff site: 1c, site symmetry: $-4'm2'$

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

Table 4: Wyckoff site: 1d, site symmetry: $-4'm2'$

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

Table 5: Wyckoff site: 2e, site symmetry: $2mm.$

No.	position	mapping
1	[0, 0, z]	[1, 2, 3, 4]
2	[0, 0, $-z$]	[5, 6, 7, 8]

Table 6: Wyckoff site: 2f, site symmetry: $2mm.$

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

Table 7: Wyckoff site: 2g, site symmetry: $2mm$.

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

Table 8: Wyckoff site: 4h, site symmetry: $. . 2'$

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

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

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

Table 10: Wyckoff site: 4j, site symmetry: $.m$.

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

Table 11: Wyckoff site: 4k, site symmetry: $.m$.

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

Table 12: Wyckoff site: 81 , site symmetry: 1

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