

MSG No. 58.394  $Pnnm1'$  [ Type II, orthorhombic ]

Table 1: Wyckoff site: 2a, site symmetry:  $\dots 2/m1'$

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

Table 2: Wyckoff site: 2b, site symmetry:  $\dots 2/m1'$

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

Table 3: Wyckoff site: 2c, site symmetry:  $\dots 2/m1'$

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

Table 4: Wyckoff site: 2d, site symmetry:  $\dots 2/m1'$

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

Table 5: Wyckoff site: 4e, site symmetry:  $\dots 21'$

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

Table 6: Wyckoff site: **4f**, site symmetry:  $\dots 21'$ 

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

Table 7: Wyckoff site: **4g**, site symmetry:  $\dots m1'$ 

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

Table 8: Wyckoff site: **8h**, site symmetry:  $11'$ 

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