

MSG No. 28.92  $P_a ma2$  [ Type IV, orthorhombic ]

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

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

Table 2: Wyckoff site: 2b, site symmetry:  $m'm'2$

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

Table 3: Wyckoff site: 2c, site symmetry:  $mm'2'$

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

Table 4: Wyckoff site: 2d, site symmetry:  $mm'2'$

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

Table 5: Wyckoff site: 4e, site symmetry:  $.m'$

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

Table 6: Wyckoff site: **4f**, site symmetry:  $\bar{4}m'$ .

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

Table 7: Wyckoff site: **4g**, site symmetry:  $m'$ .

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

Table 8: Wyckoff site: **4h**, site symmetry:  $m$ .

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

Table 9: Wyckoff site: **8i**, site symmetry: 1

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