

MSG No. 38.192  $A_a mm2$  [ Type IV, orthorhombic ]

Table 1: Wyckoff site: 4a, site symmetry:  $mm2$

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

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

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

Table 3: Wyckoff site: 8c, site symmetry:  $.m.$

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

Table 4: Wyckoff site: 8d, site symmetry:  $m..$

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

Table 5: Wyckoff site: **8e**, site symmetry: **m'..**

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

Table 6: Wyckoff site: **16f**, 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	$[x, y + \frac{1}{2}, z + \frac{1}{2}]$	[5]
6	$[-x, \frac{1}{2} - y, z + \frac{1}{2}]$	[6]
7	$[-x, y + \frac{1}{2}, z + \frac{1}{2}]$	[7]
8	$[x, \frac{1}{2} - y, z + \frac{1}{2}]$	[8]
9	$[x + \frac{1}{2}, y, z]$	[9]
10	$[\frac{1}{2} - x, -y, z]$	[10]
11	$[\frac{1}{2} - x, y, z]$	[11]
12	$[x + \frac{1}{2}, -y, z]$	[12]
13	$[x + \frac{1}{2}, y + \frac{1}{2}, z + \frac{1}{2}]$	[13]
14	$[\frac{1}{2} - x, \frac{1}{2} - y, z + \frac{1}{2}]$	[14]
15	$[\frac{1}{2} - x, y + \frac{1}{2}, z + \frac{1}{2}]$	[15]
16	$[x + \frac{1}{2}, \frac{1}{2} - y, z + \frac{1}{2}]$	[16]