

MSG No. 40.208  $A_a ma2$  [ Type IV, orthorhombic ]

Table 1: Wyckoff site: 4a, site symmetry:  $\text{mm}'2'$

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

Table 2: Wyckoff site: 4b, site symmetry:  $\text{m}'\text{m}'2$

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

Table 3: Wyckoff site: 8c, site symmetry:  $.\text{m}'.$

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

Table 4: Wyckoff site: 8d, site symmetry:  $\text{m}.$

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

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

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

Table 6: Wyckoff site: **16f**, site symmetry: **1**

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