

MSG No. 45.240 $I_a ba2$ [Type IV, orthorhombic]

Table 1: Wyckoff site: **8a**, site symmetry: $\dots 2$

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

Table 2: Wyckoff site: **8b**, site symmetry: $\dots 2'$

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

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

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

Table 4: Wyckoff site: 16d, site symmetry: 1

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