

MSG No. 60.427 $P_b b c n$ [Type IV, orthorhombic]

Table 1: Wyckoff site: 8a, site symmetry: -1

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

Table 2: Wyckoff site: 8b, site symmetry: $-1'$

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

Table 3: Wyckoff site: 8c, site symmetry: $.2.$

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

Table 4: Wyckoff site: **8d**, site symmetry: $\mathbf{m}' \dots$

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

Table 5: Wyckoff site: **16e**, site symmetry: $\mathbf{1}$

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