

SG No. 53  $D_{2h}^7$   $Pmna$  [ orthorhombic ]

\* plus set: + [0, 0, 0]

Table 1: Wyckoff site: 2a, site symmetry: 2/m..

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

Table 2: Wyckoff site: 2b, site symmetry: 2/m..

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

Table 3: Wyckoff site: 2c, site symmetry: 2/m..

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

Table 4: Wyckoff site: 2d, site symmetry: 2/m..

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

Table 5: Wyckoff site: 4e, site symmetry: 2..

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

Table 6: Wyckoff site: 4f, site symmetry: 2..

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

Table 7: Wyckoff site: 4g, site symmetry: .2.

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

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

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

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

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