

SG No. 74  $D_{2h}^{28}$  *Imma* [ orthorhombic ]

\* plus set:  $+ [0, 0, 0], \quad + [\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$

Table 1: Wyckoff site: 4a, site symmetry:  $2/m..$

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

Table 2: Wyckoff site: 4b, site symmetry:  $2/m..$

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

Table 3: Wyckoff site: 4c, site symmetry:  $.2/m.$

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

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

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

Table 5: Wyckoff site: 4e, site symmetry:  $mm2$

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

Table 6: Wyckoff site: **8f**, site symmetry:  $2..$ 

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

Table 7: Wyckoff site: **8g**, site symmetry:  $.2.$ 

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

Table 8: Wyckoff site: **8h**, site symmetry:  $m..$ 

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

Table 9: Wyckoff site: **8i**, site symmetry:  $.m.$ 

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

Table 10: Wyckoff site: **16j**, site symmetry:  $1$ 

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

*continued ...*

Table 10

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