

# MSG No. 16.2 $P2221'$ [ Type II, orthorhombic ]

Table 1: Wyckoff site:  $1a$ , site symmetry:  $2221'$

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

Table 2: Wyckoff site:  $1b$ , site symmetry:  $2221'$

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

Table 3: Wyckoff site:  $1c$ , site symmetry:  $2221'$

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

Table 4: Wyckoff site:  $1d$ , site symmetry:  $2221'$

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

Table 5: Wyckoff site:  $1e$ , site symmetry:  $2221'$

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

Table 6: Wyckoff site:  $1f$ , site symmetry:  $2221'$

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

Table 7: Wyckoff site:  $1g$ , site symmetry:  $2221'$ 

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

Table 8: Wyckoff site:  $1h$ , site symmetry:  $2221'$ 

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

Table 9: Wyckoff site:  $2i$ , site symmetry:  $2..1'$ 

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

Table 10: Wyckoff site:  $2j$ , site symmetry:  $2..1'$ 

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

Table 11: Wyckoff site:  $2k$ , site symmetry:  $2..1'$ 

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

Table 12: Wyckoff site:  $2l$ , site symmetry:  $2..1'$ 

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

Table 13: Wyckoff site:  $2\mathbf{m}$ , site symmetry:  $.2.1'$ 

No.	position	mapping
1	$[0, y, 0]$	$[1, 3, 5, 7]$
2	$[0, -y, 0]$	$[2, 4, 6, 8]$

Table 14: Wyckoff site:  $2\mathbf{n}$ , site symmetry:  $.2.1'$ 

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

Table 15: Wyckoff site:  $2\mathbf{o}$ , site symmetry:  $.2.1'$ 

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

Table 16: Wyckoff site:  $2\mathbf{p}$ , site symmetry:  $.2.1'$ 

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

Table 17: Wyckoff site:  $2\mathbf{q}$ , site symmetry:  $..21'$ 

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

Table 18: Wyckoff site:  $2\mathbf{r}$ , site symmetry:  $..21'$ 

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

Table 19: Wyckoff site:  $2s$ , site symmetry:  $\bar{3}21'$ 

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

Table 20: Wyckoff site:  $2t$ , site symmetry:  $\bar{3}21'$ 

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

Table 21: Wyckoff site:  $4u$ , site symmetry:  $11'$ 

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