

MSG No. 17.11  $P_a222_1$  [ Type IV, orthorhombic ]

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

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

Table 2: Wyckoff site: **4b**, site symmetry:  $2..$

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

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

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

Table 4: Wyckoff site: **4d**, site symmetry:  $.2'$

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

Table 5: Wyckoff site: **8e**, site symmetry:  $1$

No.	position	mapping
1	$[x, y, z]$	$[1]$
2	$[x, -y, -z]$	$[2]$

*continued ...*

Table 5

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