

SG No. 39  $C_{2v}^{15}$   $Aem2$  [ orthorhombic ]

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

\* Wyckoff site: **4a**, site symmetry:  $\dots 2$

Table 1: Wyckoff bond: **4a@4a**

No.	vector	center	mapping
1	$[X, Y, 0]$	$[0, 0, z]$	$[1, -2]$
2	$[X, -Y, 0]$	$[0, \frac{1}{2}, z]$	$[3, -4]$

Table 2: Wyckoff bond: **4b@4a**

No.	vector	center	mapping
1	$[0, 0, Z]$	$[0, 0, z]$	$[1, 2]$
2	$[0, 0, Z]$	$[0, \frac{1}{2}, z]$	$[3, 4]$

Table 3: Wyckoff bond: **8c@4a**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[0, 0, z]$	$[1]$
2	$[-X, -Y, Z]$	$[0, 0, z]$	$[2]$
3	$[X, -Y, Z]$	$[0, \frac{1}{2}, z]$	$[3]$
4	$[-X, Y, Z]$	$[0, \frac{1}{2}, z]$	$[4]$

\* Wyckoff site: **4b**, site symmetry:  $\dots 2$

Table 4: Wyckoff bond: **4a@4b**

No.	vector	center	mapping
1	$[X, Y, 0]$	$[\frac{1}{2}, 0, z]$	$[1, -2]$
2	$[X, -Y, 0]$	$[\frac{1}{2}, \frac{1}{2}, z]$	$[3, -4]$

Table 5: Wyckoff bond: **4b@4b**

No.	vector	center	mapping
1	$[0, 0, Z]$	$[\frac{1}{2}, 0, z]$	$[1, 2]$
2	$[0, 0, Z]$	$[\frac{1}{2}, \frac{1}{2}, z]$	$[3, 4]$

Table 6: Wyckoff bond: **8c@4b**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[\frac{1}{2}, 0, z]$	[1]
2	$[-X, -Y, Z]$	$[\frac{1}{2}, 0, z]$	[2]
3	$[X, -Y, Z]$	$[\frac{1}{2}, \frac{1}{2}, z]$	[3]
4	$[-X, Y, Z]$	$[\frac{1}{2}, \frac{1}{2}, z]$	[4]

\* Wyckoff site: **4c**, site symmetry:  $\bar{4}2m$ .

Table 7: Wyckoff bond: **4a@4c**

No.	vector	center	mapping
1	$[X, 0, Z]$	$[x, \frac{1}{4}, z]$	[1, 3]
2	$[-X, 0, Z]$	$[-x, \frac{3}{4}, z]$	[2, 4]

Table 8: Wyckoff bond: **4b@4c**

No.	vector	center	mapping
1	$[0, Y, 0]$	$[x, \frac{1}{4}, z]$	[1, -3]
2	$[0, -Y, 0]$	$[-x, \frac{3}{4}, z]$	[2, -4]

Table 9: Wyckoff bond: **8c@4c**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, \frac{1}{4}, z]$	[1]
2	$[-X, -Y, Z]$	$[-x, \frac{3}{4}, z]$	[2]
3	$[X, -Y, Z]$	$[x, \frac{1}{4}, z]$	[3]
4	$[-X, Y, Z]$	$[-x, \frac{3}{4}, z]$	[4]

\* Wyckoff site: **8d**, site symmetry:  $\bar{4}2m$ .

Table 10: Wyckoff bond: **8a@8d**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, y, z]$	[1]
2	$[-X, -Y, Z]$	$[-x, -y, z]$	[2]
3	$[X, -Y, Z]$	$[x, \frac{1}{2} - y, z]$	[3]
4	$[-X, Y, Z]$	$[-x, y + \frac{1}{2}, z]$	[4]