SG No. 186 C_{6v}^4 $P6_3mc$ [hexagonal]

Table 1: Wyckoff site: 2a, site symmetry: 3m.

No.	position	mapping
1	$[0, 0, z]$	[1,2,3,7,8,9]
2	$\left[0, 0, z + \frac{1}{2}\right]$	[4,5,6,10,11,12]

Table 2: Wyckoff site: 2b, site symmetry: 3m.

No.	position	mapping
1	$\left[\frac{1}{3}, \frac{2}{3}, z\right]$	[1,2,3,7,8,9]
2	$\left[\frac{2}{3}, \frac{1}{3}, z + \frac{1}{2}\right]$	[4,5,6,10,11,12]

Table 3: Wyckoff site: 6c, site symmetry: .m.

No.	position	mapping
1	$[x, -x, z]$	[1,7]
2	$[x, 2x, z]$	[2,9]
3	$[-2x, -x, z]$	[3,8]
4	$\left[-x, x, z + \frac{1}{2}\right]$	[4,10]
5	$\left[-x, -2x, z + \frac{1}{2}\right]$	[5,12]
6	$\left[2x, x, z + \frac{1}{2}\right]$	[6,11]

Table 4: Wyckoff site: 12d, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1]
2	$[-y, x - y, z]$	[2]
3	$[-x + y, -x, z]$	[3]
4	$\left[-x, -y, z + \frac{1}{2}\right]$	[4]
5	$\left[y, -x + y, z + \frac{1}{2}\right]$	[5]
6	$\left[x - y, x, z + \frac{1}{2}\right]$	[6]
7	$[-y, -x, z]$	[7]
8	$[-x + y, y, z]$	[8]
9	$[x, x - y, z]$	[9]
10	$\left[y, x, z + \frac{1}{2}\right]$	[10]
11	$\left[x - y, -y, z + \frac{1}{2}\right]$	[11]
12	$\left[-x, -x + y, z + \frac{1}{2}\right]$	[12]