SG No. 102 C_{4v}^4 $P4_2nm$ [tetragonal]

Table 1: Wyckoff site: 2a, site symmetry: 2.mm

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

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

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

Table 3: Wyckoff site: 4c, site symmetry: ..m

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

Table 4: Wyckoff site: 8d, site symmetry: 1

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