

MSG No. 172.127 $P6'_4$ [Type III, hexagonal]

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

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

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

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

Table 3: Wyckoff site: 6c, site symmetry: 1

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