

MSG No. 179.162 $P6_5221'$ [Type II, hexagonal]

Table 1: Wyckoff site: 6a, site symmetry: .2.1'

No.	position	mapping
1	$[x, 0, 0]$	[1,7,13,19]
2	$[x, x, \frac{5}{6}]$	[2,10,14,22]
3	$[0, x, \frac{2}{3}]$	[3,8,15,20]
4	$[-x, 0, \frac{1}{2}]$	[4,11,16,23]
5	$[-x, -x, \frac{1}{3}]$	[5,9,17,21]
6	$[0, -x, \frac{1}{6}]$	[6,12,18,24]

Table 2: Wyckoff site: 6b, site symmetry: ..21'

No.	position	mapping
1	$[x, 2x, \frac{3}{4}]$	[1,11,13,23]
2	$[-x, x, \frac{7}{12}]$	[2,9,14,21]
3	$[-2x, -x, \frac{5}{12}]$	[3,12,15,24]
4	$[-x, -2x, \frac{1}{4}]$	[4,7,16,19]
5	$[x, -x, \frac{1}{12}]$	[5,10,17,22]
6	$[2x, x, \frac{11}{12}]$	[6,8,18,20]

Table 3: Wyckoff site: 12c, site symmetry: 11'

No.	position	mapping
1	$[x, y, z]$	[1,13]
2	$[x-y, x, z + \frac{5}{6}]$	[2,14]
3	$[-y, x-y, z + \frac{2}{3}]$	[3,15]
4	$[-x, -y, z + \frac{1}{2}]$	[4,16]
5	$[-x+y, -x, z + \frac{1}{3}]$	[5,17]
6	$[y, -x+y, z + \frac{1}{6}]$	[6,18]
7	$[x-y, -y, -z]$	[7,19]
8	$[y, x, \frac{2}{3}-z]$	[8,20]
9	$[-x, -x+y, \frac{1}{3}-z]$	[9,21]
10	$[x, x-y, \frac{5}{6}-z]$	[10,22]
11	$[-x+y, y, \frac{1}{2}-z]$	[11,23]
12	$[-y, -x, \frac{1}{6}-z]$	[12,24]