

MSG No. 85.61  $P4'/n$  [ Type III, tetragonal ]

Table 1: Wyckoff site: 2a, site symmetry:  $-4'..$

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

Table 2: Wyckoff site: 2b, site symmetry:  $-4'..$

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

Table 3: Wyckoff site: 2c, site symmetry:  $4'..$

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

Table 4: Wyckoff site: 4d, site symmetry:  $-1$

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

Table 5: Wyckoff site: 4e, site symmetry:  $-1$

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

Table 6: Wyckoff site:  $4f$ , site symmetry:  $2..$ 

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

Table 7: Wyckoff site:  $8g$ , site symmetry:  $1$ 

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