

MSG No. 100.175 $P4b'm'$ [Type III, tetragonal]

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

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

Table 2: Wyckoff site: 2b, site symmetry: $2.m'm'$

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

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

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

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

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