

# SG No. 107 $C_{4v}^9$ $I4mm$ [ tetragonal ]

\* plus set:  $+ [0, 0, 0], \quad + [\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$

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

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

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

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

Table 3: Wyckoff site: 8c, site symmetry:  $\dots m$

No.	position	mapping
1	$[x, x, z]$	$[1, 8]$
2	$[-x, -x, z]$	$[2, 7]$
3	$[-x, x, z]$	$[3, 6]$
4	$[x, -x, z]$	$[4, 5]$

Table 4: Wyckoff site: 8d, site symmetry:  $\dots m$ .

No.	position	mapping
1	$[x, 0, z]$	$[1, 5]$
2	$[-x, 0, z]$	$[2, 6]$
3	$[0, x, z]$	$[3, 8]$
4	$[0, -x, z]$	$[4, 7]$

Table 5: Wyckoff site: 16e, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	$[1]$
2	$[-x, -y, z]$	$[2]$
3	$[-y, x, z]$	$[3]$
4	$[y, -x, z]$	$[4]$
5	$[x, -y, z]$	$[5]$
6	$[-x, y, z]$	$[6]$

*continued ...*

Table 5

No.	position	mapping
7	$[-y, -x, z]$	[7]
8	$[y, x, z]$	[8]