

SG No. 196 T^2 $F23$ [cubic]

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

Table 1: Wyckoff site: 4a, site symmetry: 23.

No.	position	mapping
1	$[0, 0, 0]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]$

Table 2: Wyckoff site: 4b, site symmetry: 23.

No.	position	mapping
1	$[\frac{1}{2}, \frac{1}{2}, \frac{1}{2}]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]$

Table 3: Wyckoff site: 4c, site symmetry: 23.

No.	position	mapping
1	$[\frac{1}{4}, \frac{1}{4}, \frac{1}{4}]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]$

Table 4: Wyckoff site: 4d, site symmetry: 23.

No.	position	mapping
1	$[\frac{3}{4}, \frac{3}{4}, \frac{3}{4}]$	$[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]$

Table 5: Wyckoff site: 16e, site symmetry: .3.

No.	position	mapping
1	$[x, x, x]$	$[1, 5, 9]$
2	$[-x, -x, x]$	$[2, 7, 12]$
3	$[-x, x, -x]$	$[3, 8, 10]$
4	$[x, -x, -x]$	$[4, 6, 11]$

Table 6: Wyckoff site: 24f, site symmetry: 2..

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

continued ...

Table 6

No.	position	mapping
4	[0, -x, 0]	[6, 7]
5	[0, 0, x]	[9, 12]
6	[0, 0, -x]	[10, 11]

Table 7: Wyckoff site: 24g, site symmetry: 2..

No.	position	mapping
1	[x, $\frac{1}{4}$, $\frac{1}{4}$]	[1, 4]
2	[-x, $\frac{3}{4}$, $\frac{1}{4}$]	[2, 3]
3	[$\frac{1}{4}$, x, $\frac{1}{4}$]	[5, 8]
4	[$\frac{1}{4}$, -x, $\frac{3}{4}$]	[6, 7]
5	[$\frac{1}{4}$, $\frac{1}{4}$, x]	[9, 12]
6	[$\frac{3}{4}$, $\frac{1}{4}$, -x]	[10, 11]

Table 8: Wyckoff site: 48h, site symmetry: 1

No.	position	mapping
1	[x, y, z]	[1]
2	[-x, -y, z]	[2]
3	[-x, y, -z]	[3]
4	[x, -y, -z]	[4]
5	[z, x, y]	[5]
6	[z, -x, -y]	[6]
7	[-z, -x, y]	[7]
8	[-z, x, -y]	[8]
9	[y, z, x]	[9]
10	[-y, z, -x]	[10]
11	[y, -z, -x]	[11]
12	[-y, -z, x]	[12]