

# MPG No. 30.2.113 4321' [ Type II, cubic ]

Table 1: Wyckoff site: 1o, site symmetry: 4321'

No.	position	mapping
1	[0, 0, 0]	[1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48]

Table 2: Wyckoff site: 6a, site symmetry: 4..

No.	position	mapping
1	[x, 0, 0]	[1, 2, 19, 20, 25, 26, 43, 44]
2	[-x, 0, 0]	[3, 4, 17, 18, 27, 28, 41, 42]
3	[0, x, 0]	[9, 11, 14, 16, 33, 35, 38, 40]
4	[0, -x, 0]	[10, 12, 13, 15, 34, 36, 37, 39]
5	[0, 0, x]	[5, 8, 22, 23, 29, 32, 46, 47]
6	[0, 0, -x]	[6, 7, 21, 24, 30, 31, 45, 48]

Table 3: Wyckoff site: 8b, site symmetry: .3.

No.	position	mapping
1	[x, x, x]	[1, 5, 9, 25, 29, 33]
2	[-x, -x, x]	[4, 8, 12, 28, 32, 36]
3	[-x, x, -x]	[3, 7, 11, 27, 31, 35]
4	[x, -x, -x]	[2, 6, 10, 26, 30, 34]
5	[x, x, -x]	[16, 20, 24, 40, 44, 48]
6	[-x, -x, -x]	[13, 17, 21, 37, 41, 45]
7	[x, -x, x]	[15, 19, 23, 39, 43, 47]
8	[-x, x, x]	[14, 18, 22, 38, 42, 46]

Table 4: Wyckoff site: 12c, site symmetry: ..2

No.	position	mapping
1	[0, y, y]	[1, 18, 25, 42]
2	[0, -y, y]	[4, 19, 28, 43]
3	[0, y, -y]	[3, 20, 27, 44]
4	[0, -y, -y]	[2, 17, 26, 41]
5	[y, 0, y]	[9, 15, 33, 39]
6	[y, 0, -y]	[10, 16, 34, 40]
7	[-y, 0, y]	[12, 14, 36, 38]
8	[-y, 0, -y]	[11, 13, 35, 37]
9	[y, y, 0]	[5, 24, 29, 48]

*continued ...*

Table 4

No.	position	mapping
10	$[-y, y, 0]$	[7,22,31,46]
11	$[y, -y, 0]$	[6,23,30,47]
12	$[-y, -y, 0]$	[8,21,32,45]

Table 5: Wyckoff site: 24d, site symmetry: 1

No.	position	mapping
1	$[x, y, z]$	[1,25]
2	$[-x, -y, z]$	[4,28]
3	$[-x, y, -z]$	[3,27]
4	$[x, -y, -z]$	[2,26]
5	$[z, x, y]$	[9,33]
6	$[z, -x, -y]$	[10,34]
7	$[-z, -x, y]$	[12,36]
8	$[-z, x, -y]$	[11,35]
9	$[y, z, x]$	[5,29]
10	$[-y, z, -x]$	[7,31]
11	$[y, -z, -x]$	[6,30]
12	$[-y, -z, x]$	[8,32]
13	$[y, x, -z]$	[16,40]
14	$[-y, -x, -z]$	[13,37]
15	$[y, -x, z]$	[15,39]
16	$[-y, x, z]$	[14,38]
17	$[x, z, -y]$	[20,44]
18	$[-x, z, y]$	[18,42]
19	$[-x, -z, -y]$	[17,41]
20	$[x, -z, y]$	[19,43]
21	$[z, y, -x]$	[24,48]
22	$[z, -y, x]$	[23,47]
23	$[-z, y, x]$	[22,46]
24	$[-z, -y, -x]$	[21,45]