

# SG No. 143 $C_3^1$ $P3$ [ trigonal ]

\* plus set:  $+ [0, 0, 0]$

\* Wyckoff site: **1a**, site symmetry: **3** . .

Table 1: Wyckoff bond: **1a@1a**

No.	vector	center	mapping
1	$[0, 0, Z]$	$[0, 0, z]$	$[1, 2, 3]$

Table 2: Wyckoff bond: **3b@1a**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[0, 0, z]$	$[1]$
2	$[-Y, X - Y, Z]$	$[0, 0, z]$	$[2]$
3	$[-X + Y, -X, Z]$	$[0, 0, z]$	$[3]$

\* Wyckoff site: **1b**, site symmetry: **3** . .

Table 3: Wyckoff bond: **1a@1b**

No.	vector	center	mapping
1	$[0, 0, Z]$	$[\frac{1}{3}, \frac{2}{3}, z]$	$[1, 2, 3]$

Table 4: Wyckoff bond: **3b@1b**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[\frac{1}{3}, \frac{2}{3}, z]$	$[1]$
2	$[-Y, X - Y, Z]$	$[\frac{1}{3}, \frac{2}{3}, z]$	$[2]$
3	$[-X + Y, -X, Z]$	$[\frac{1}{3}, \frac{2}{3}, z]$	$[3]$

\* Wyckoff site: **1c**, site symmetry: **3** . .

Table 5: Wyckoff bond: **1a@1c**

No.	vector	center	mapping
1	$[0, 0, Z]$	$[\frac{2}{3}, \frac{1}{3}, z]$	$[1, 2, 3]$

Table 6: Wyckoff bond: **3b@1c**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[\frac{2}{3}, \frac{1}{3}, z]$	[1]
2	$[-Y, X - Y, Z]$	$[\frac{2}{3}, \frac{1}{3}, z]$	[2]
3	$[-X + Y, -X, Z]$	$[\frac{2}{3}, \frac{1}{3}, z]$	[3]

\* Wyckoff site: **3d**, site symmetry: **1**

Table 7: Wyckoff bond: **3a@3d**

No.	vector	center	mapping
1	$[X, Y, Z]$	$[x, y, z]$	[1]
2	$[-Y, X - Y, Z]$	$[-y, x - y, z]$	[2]
3	$[-X + Y, -X, Z]$	$[-x + y, -x, z]$	[3]