

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]