4	12	-0.173205	0.000000
5	12	-0.100000	0.000000
6	14	0.100000	0.000000
7	16	0.100000	0.000000
9	15	-0.173205	0.000000
10	15	-0.100000	0.000000

============= PiLib Variable =============
hop.hop_mat(1)(:,:,3), @a-sp, hop_mat between site-1 and its 3-th neighbor
ORDER=   1, SIZE=[7,   3], TYPE=SPARSE

1	2	3
16	16	0.000000	0.000000
2	12	-0.100000	0.000000
3	11	-0.100000	0.000000
5	13	-0.200000	0.000000
7	15	-0.100000	0.000000
8	14	-0.100000	0.000000
10	16	-0.200000	0.000000

============= PiLib Variable =============
hop.hop_mat(1)(:,:,4), @a-sp, hop_mat between site-1 and its 4-th neighbor
ORDER=   1, SIZE=[7,   3], TYPE=SPARSE

1	2	3
16	16	0.000000	0.000000
2	12	0.100000	0.000000
3	11	0.100000	0.000000
5	13	0.200000	0.000000
7	15	0.100000	0.000000
8	14	0.100000	0.000000
10	16	0.200000	0.000000

============= PiLib Variable =============
hop.hop_mat(1)(:,:,5), @a-sp, hop_mat between site-1 and its 5-th neighbor
ORDER=   1, SIZE=[9,   3], TYPE=SPARSE

1	2	3
16	16	0.000000	0.000000
1	11	-0.100000	0.000000
2	13	-0.100000	0.000000
4	12	0.173205	0.000000
5	12	0.100000	0.000000
6	14	-0.100000	0.000000
7	16	-0.100000	0.000000
9	15	0.173205	0.000000
10	15	0.100000	0.000000

============= PiLib Variable =============
hop.hop_mat(1)(:,:,6), @a-sp, hop_mat between site-1 and its 6-th neighbor
ORDER=   1, SIZE=[7,   3], TYPE=SPARSE

1	2	3