

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

===== PiLib Variable =====
hop.hop_mat(2)(:,:,5), @a-sp, hop_mat between site-2 and its 5-th neighbor
ORDER= 1, SIZE=[ 9, 3], TYPE=SPARSE

1 2 3

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

===== PiLib Variable =====
hop.hop_mat(2)(:,:,6), @a-sp, hop_mat between site-2 and its 6-th neighbor
ORDER= 1, SIZE=[ 7, 3], TYPE=SPARSE

1 2 3

16 16 0.000000 0.000000
11 4 0.173205 0.000000
11 5 -0.100000 0.000000
13 3 0.100000 0.000000
14 9 0.173205 0.000000
14 10 -0.100000 0.000000
16 8 0.100000 0.000000
```