```
hop.SiteOrb=[1,2;2,1]        // specify orbital of each site, nx2, [site, l]
hop.Order=[1]                // order of nearest order coupling, 1x1 integer, must <= lat.Order
hop.SKint=[1,2,1,2,1,0,0]        // specify SK parameters, nx7, [Orb1,Orb2,nn_order,ts,tp,td,tf]
hop.LS=[0]                   // strength of LS coupling, 1x1, real
hop.Filiter=[10^-3]              // fliter of small hopping elements, 1x1, real
hop.Basis=['c']              // Basis of the hopping matrix, 'c', 's', 'rc', 'rs'
hop.SelState=[1:16]             // Input state labels to pick states, 1xn, integer
hop.OnsiteE=...              // Onsite energy of picked states, 1xn, real
[-3,-3,-3,0,0,-3,-3,-3,0,0,-3,-3,-3,-3,-3,-3]
```

============ PiLib Variable ============
hop.state_info_text, @full, [state_label, site, identifier, l, SubOrb_text]
ORDER= 0, SIZE=[16,   5], TYPE=STRING

```
1 # 1 # 1 # 2 # 9 D  xy,d #
2 # 1 # 1 # 2 # 10 D  yz,d #
3 # 1 # 1 # 2 # 11 D  zx,d #
4 # 1 # 1 # 2 # 12 D  x2-y2,d #
5 # 1 # 1 # 2 # 13 D  3z2-r2,d #
6 # 1 # 1 # 2 # 14 D  xy,u #
7 # 1 # 1 # 2 # 15 D  yz,u #
8 # 1 # 1 # 2 # 16 D  zx,u #
9 # 1 # 1 # 2 # 17 D  x2-y2,u #
10 # 1 # 1 # 2 # 18 D  3z2-r2,u #
11 # 2 # 2 # 1 # 3 P  x,d #
12 # 2 # 2 # 1 # 4 P  y,d #
13 # 2 # 2 # 1 # 5 P  z,d #
14 # 2 # 2 # 1 # 6 P  x,u #
15 # 2 # 2 # 1 # 7 P  y,u #
16 # 2 # 2 # 1 # 8 P  z,u #
```

============ PiLib Variable ============
hop.state_info, @full, [state_label, site, identifier, l, SubOrb]
ORDER= 0, SIZE=[16,   5], TYPE=INTEGER

1	2	3	4	5
1	1	1	2	9
2	1	1	2	10
3	1	1	2	11
4	1	1	2	12
5	1	1	2	13
6	1	1	2	14
7	1	1	2	15
8	1	1	2	16
9	1	1	2	17
10	1	1	2	18
11	2	1	1	3
12	2	1	1	4
13	2	1	1	5
14	2	1	1	6
15	2	1	1	7
16	2	1	1	8

============ PiLib Variable ============
hop.LS_mat, @t-sp, LS coupling matrix
ORDER= 1, SIZE=[1,   3], TYPE=SPARSE