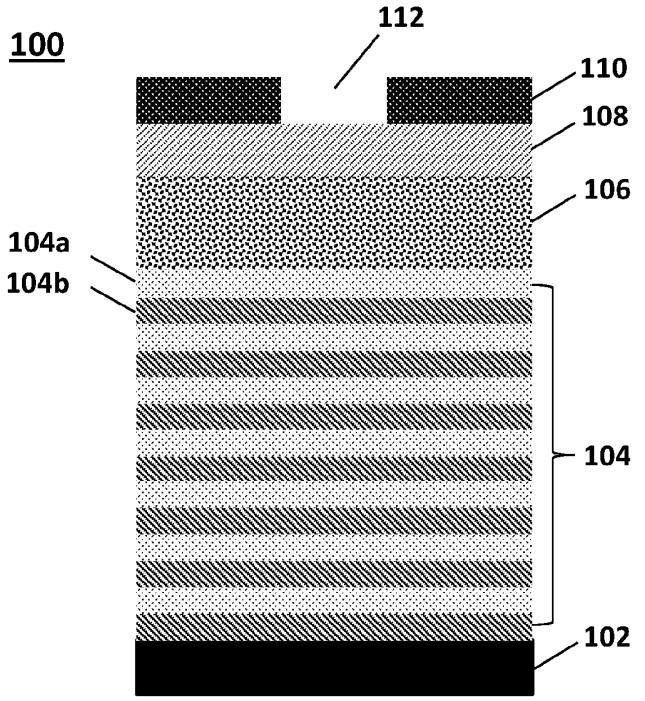

100
112
110
108
106
104a
104b
104
102

FIG. 1a

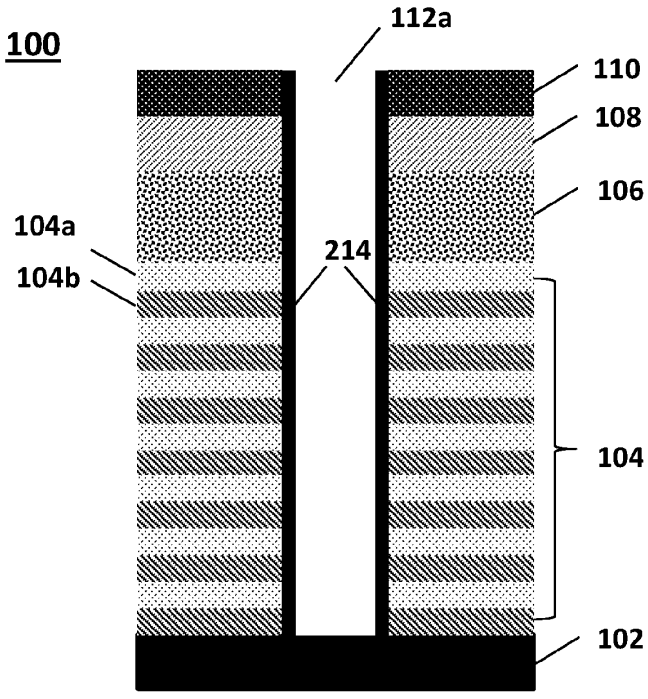

100
112a
110
108
106
104a
214
104b
104
102

FIG. 1b

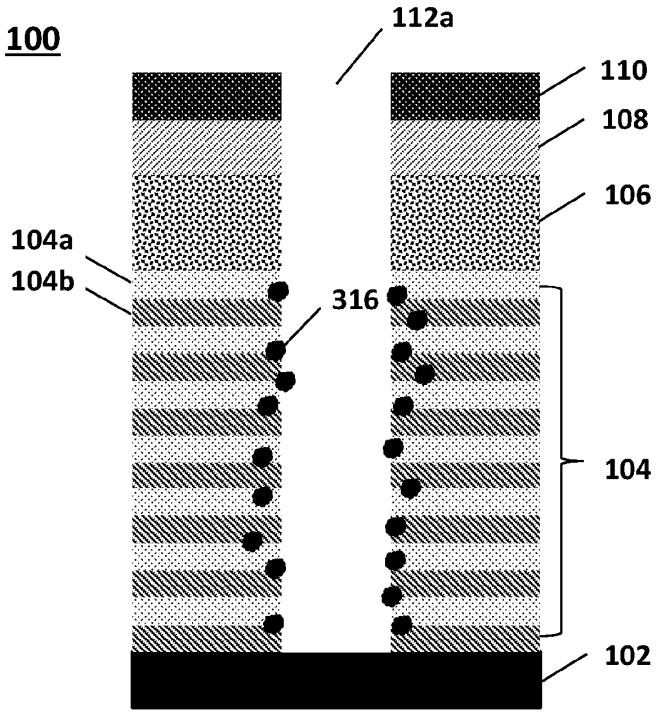

100
112a
110
108
106
104a
104b
316
104
102

FIG. 1c

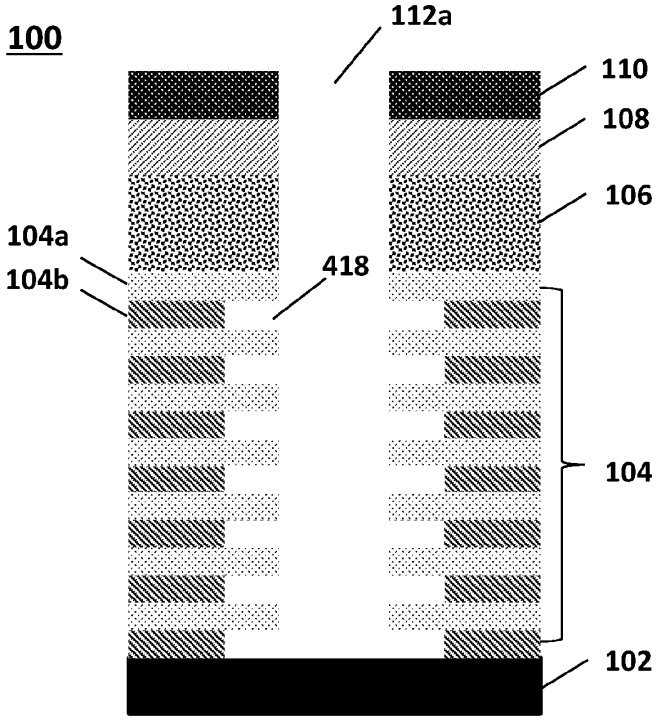

100
112a
110
108
106
104a
104b
418
104
102

FIG. 1d

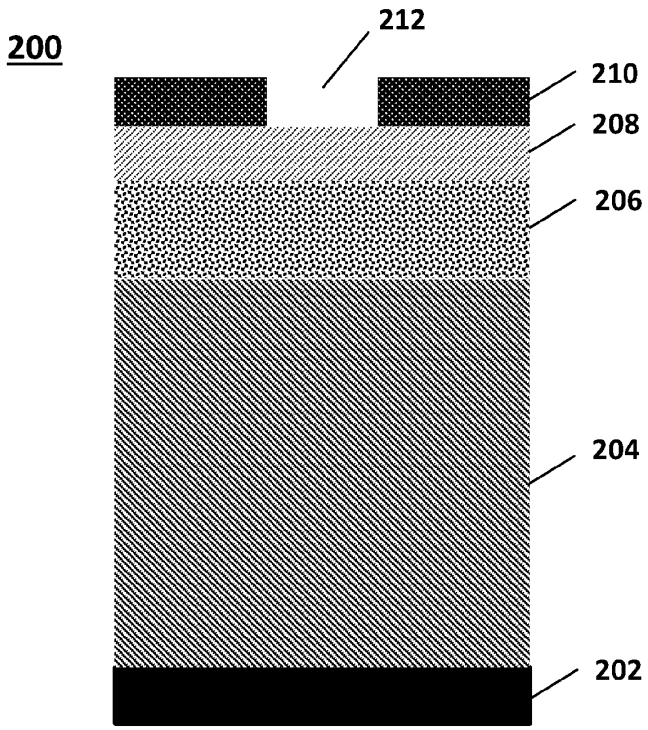


FIG. 2

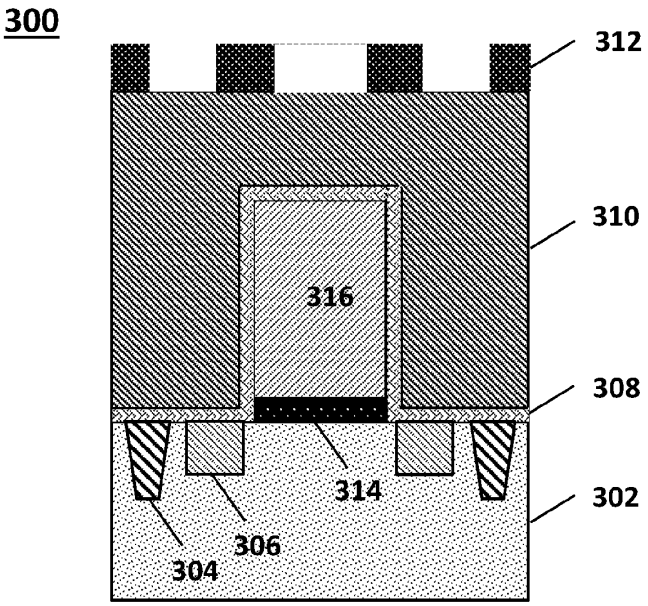

300
312
310
316
308
314
302
306
304

FIG. 3a

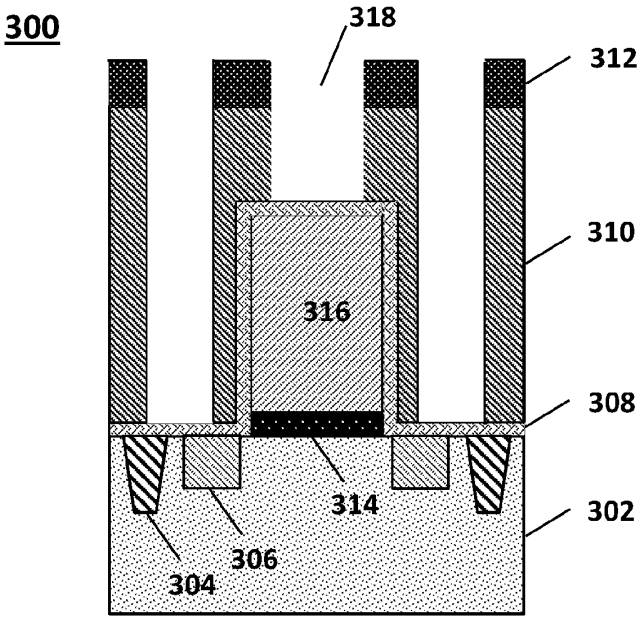

300
318
312
310
316
308
314
302
306
304

FIG. 3b

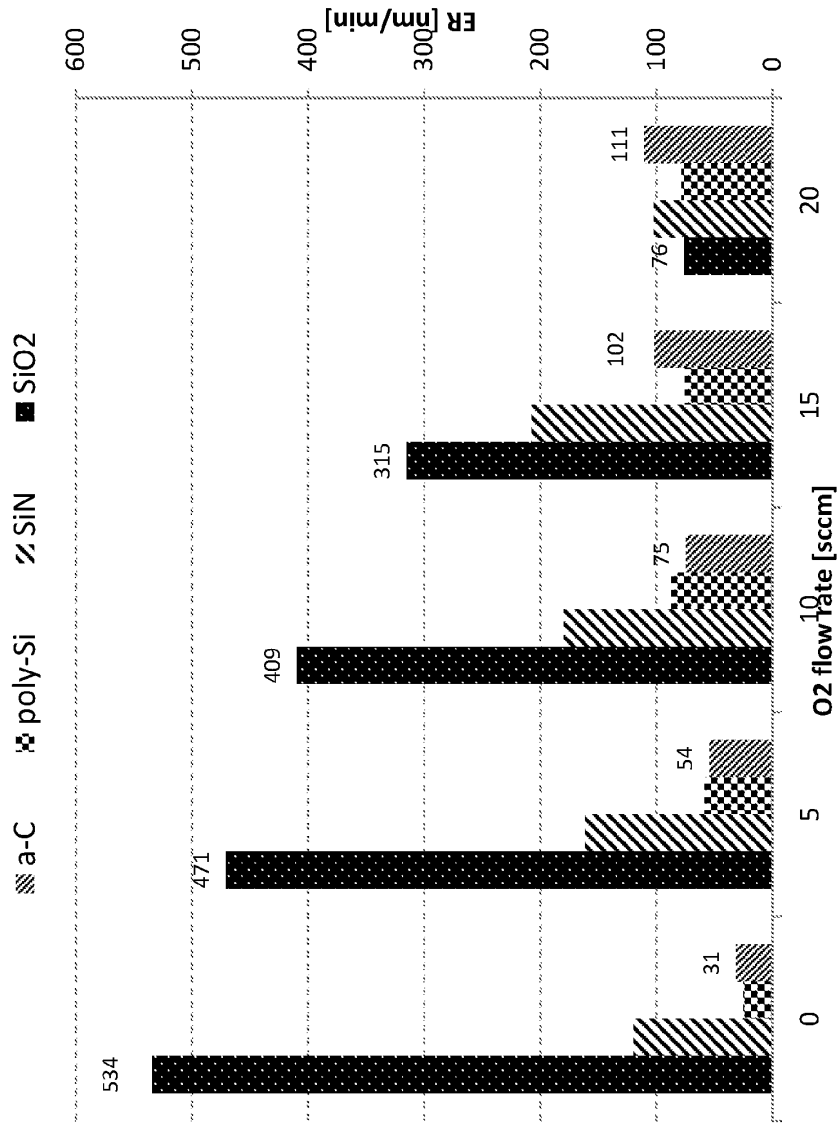

ER [nm/min]
600
500
400
300
200
100
0
a-C
poly-Si
SiN
SiO2
534
31
471
54
409
75
315
102
111
76
0
5
10
15
20
O2 flow rate [sccm]

FIG. 4

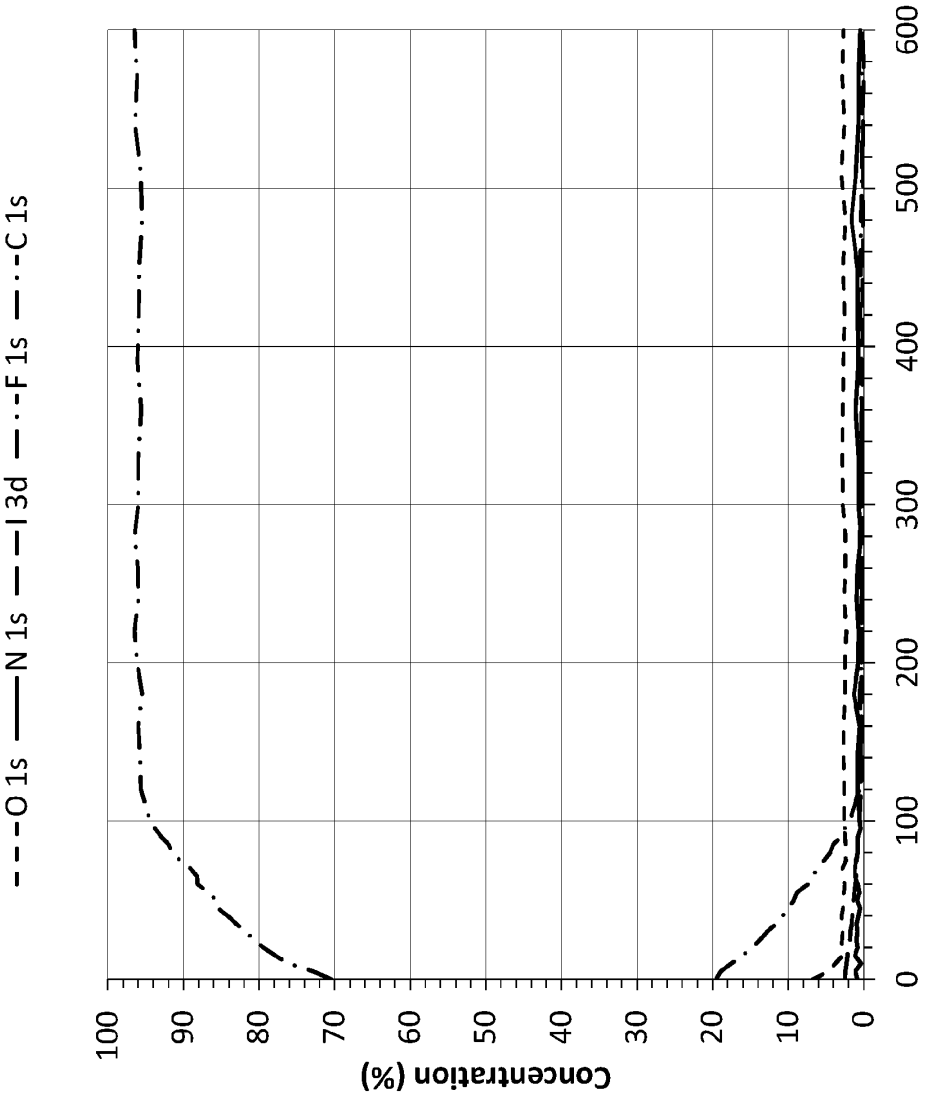

O 1s
N 1s
I 3d
F 1s
C 1s
Concentration (%)
0
10
20
30
40
50
60
70
80
90
100
Etch time (s)
0
100
200
300
400
500
600

FIG. 5a

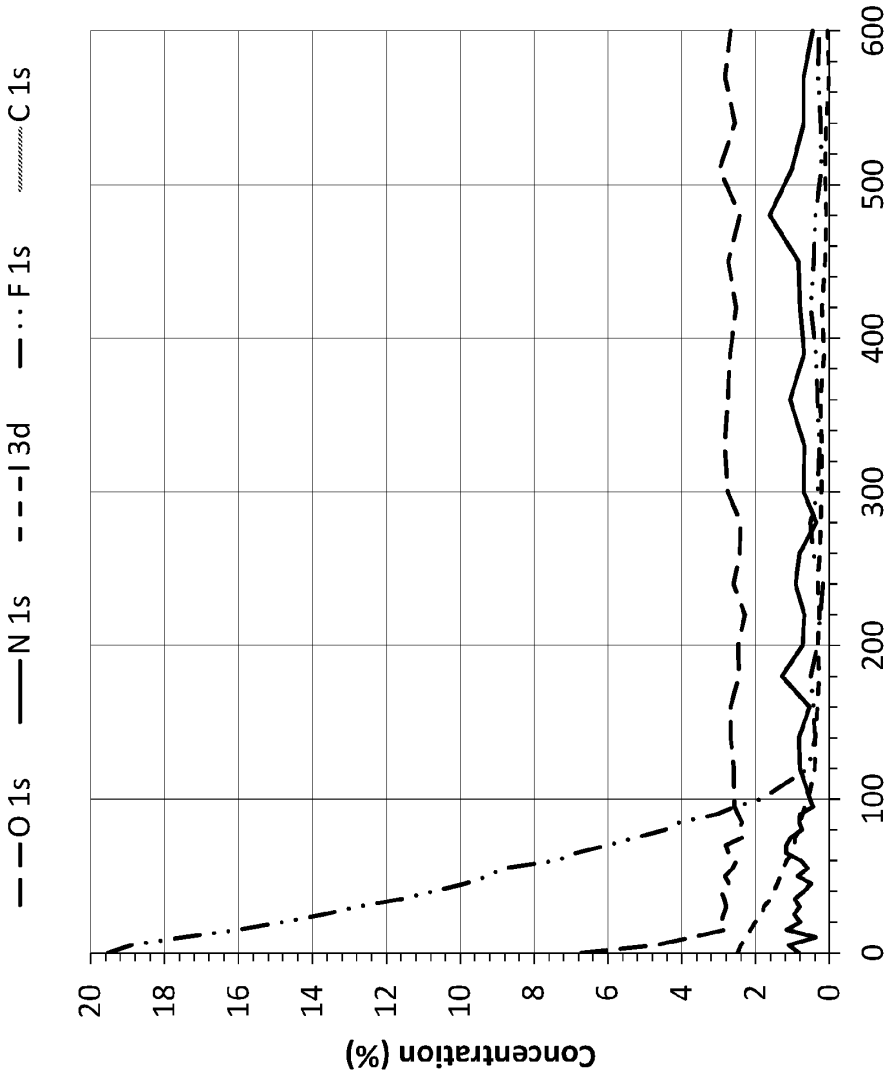

O 1s
N 1s
I 3d
F 1s
C 1s
Concentration (%)
Etch time (s)
0
2
4
6
8
10
12
14
16
18
20
0
100
200
300
400
500
600

FIG. 5b

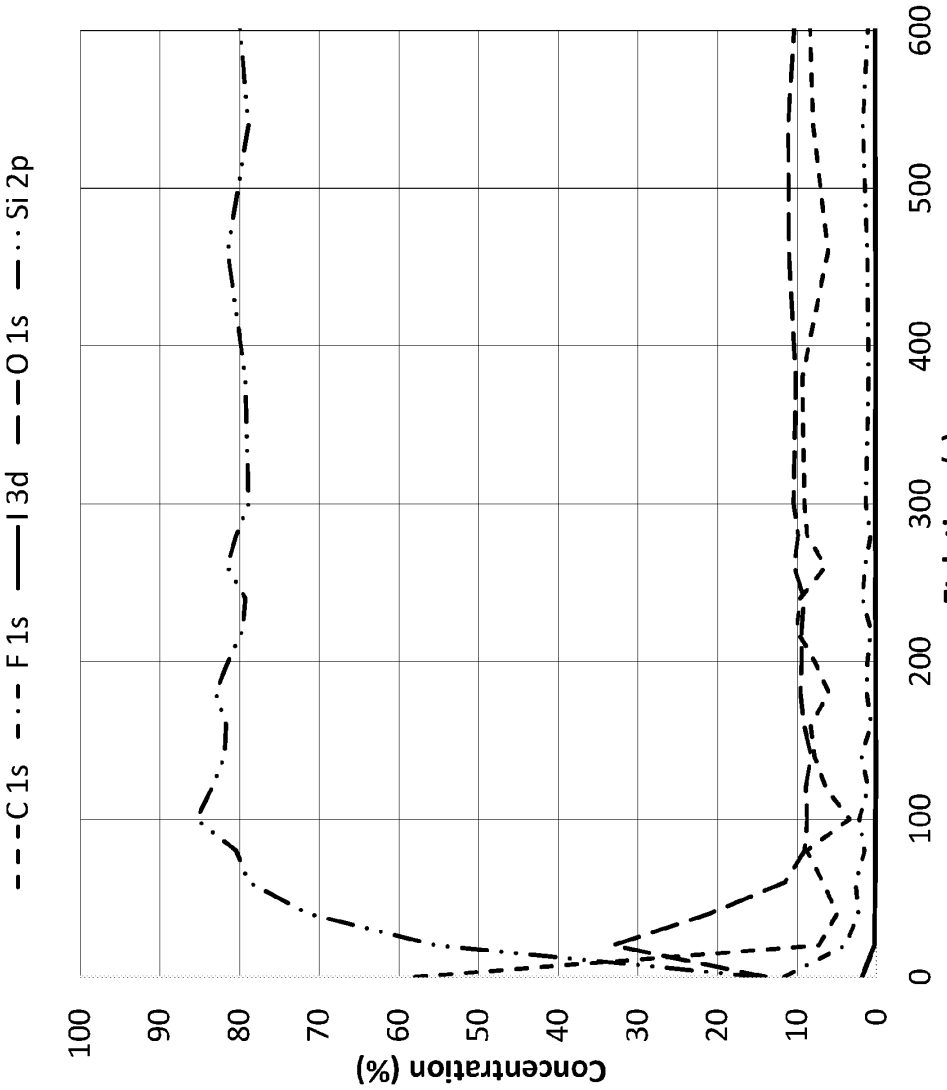

C 1s
F 1s
I 3d
O 1s
Si 2p
Concentration (%)
100
90
80
70
60
50
40
30
20
10
0
0
100
200
300
400
500
600
Etch time (s)

FIG. 6a

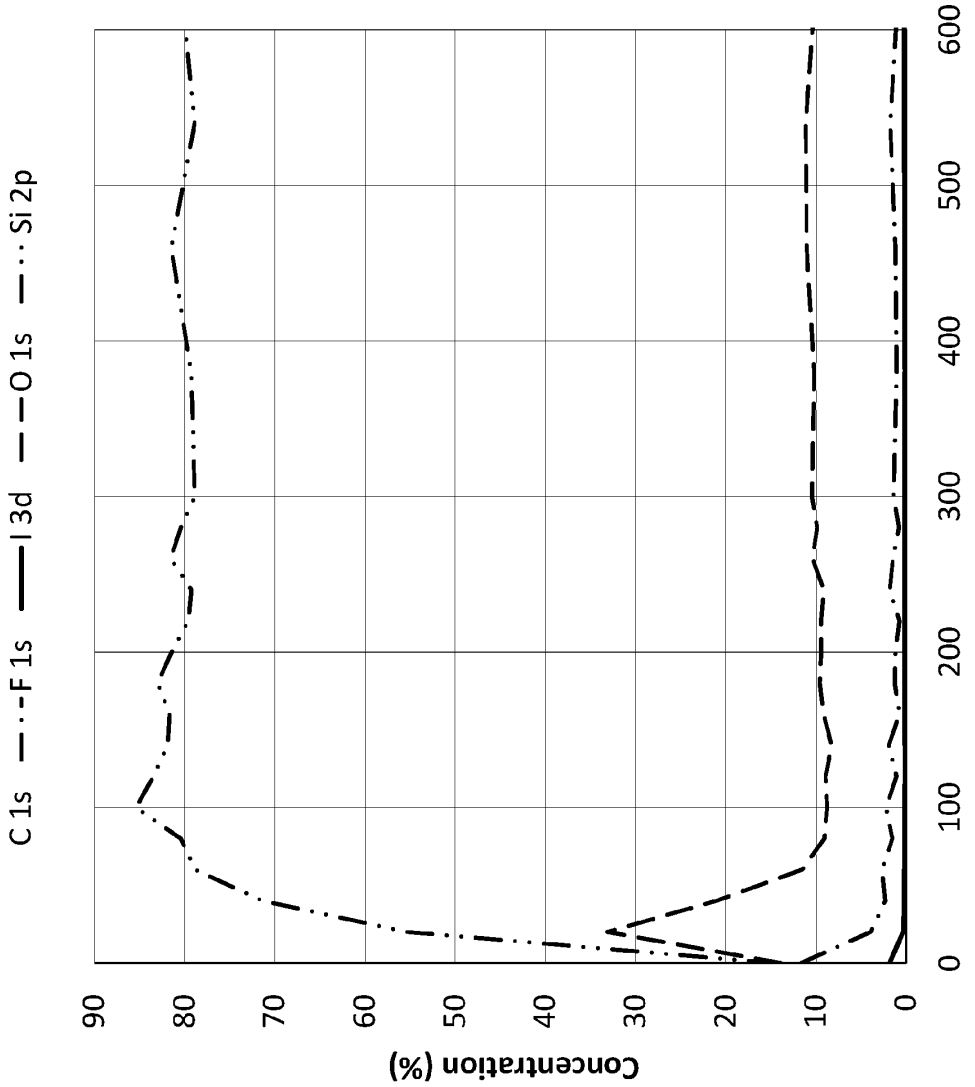

C 1s
F 1s
I 3d
O 1s
Si 2p
Concentration (%)
0
10
20
30
40
50
60
70
80
90
0
100
200
300
400
500
600
Etch time (s)

FIG. 6b

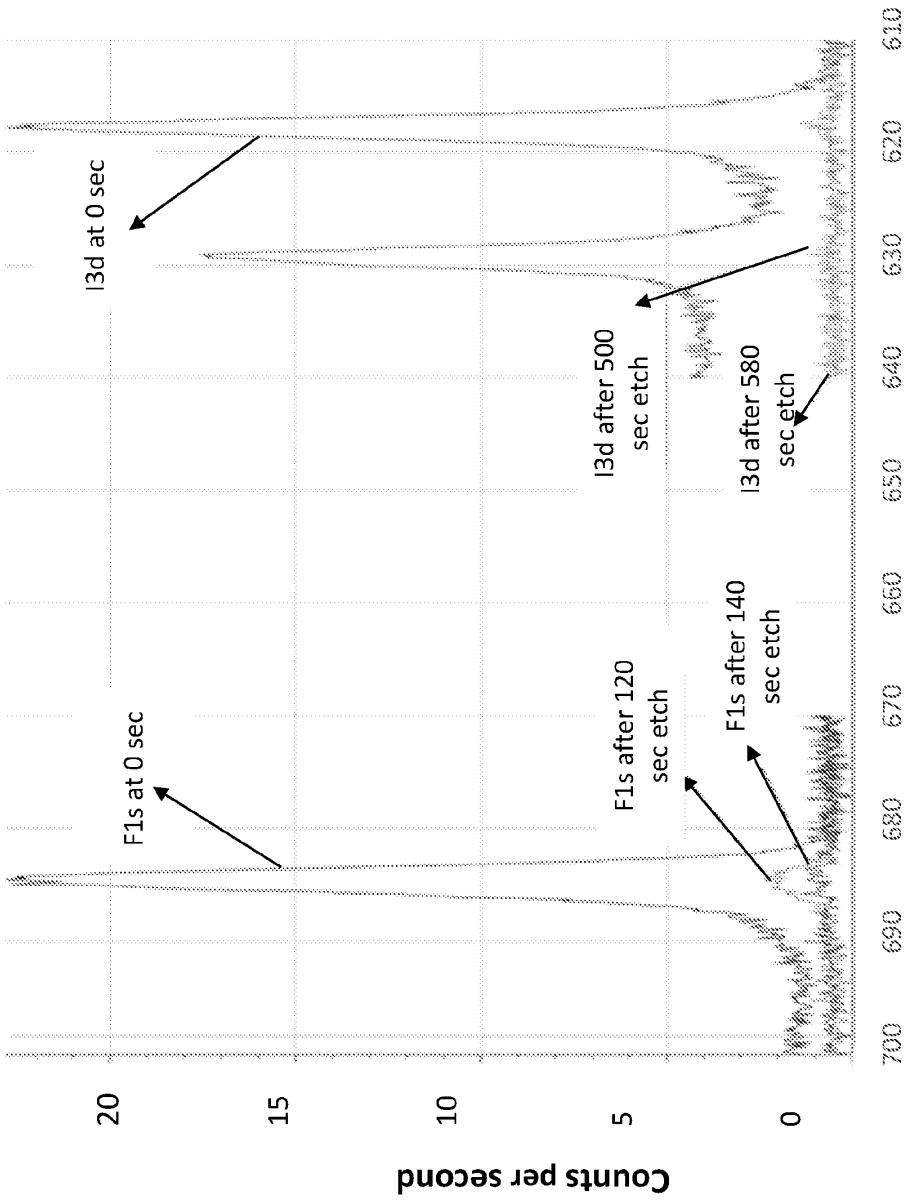

I3d at 0 sec
I3d after 500 sec etch
I3d after 580 sec etch
F1s at 0 sec
F1s after 120 sec etch
F1s after 140 sec etch
Counts per second
0
5
10
15
20
Binding Energy (eV)
610
620
630
640
650
660
670
680
690
700

FIG. 7

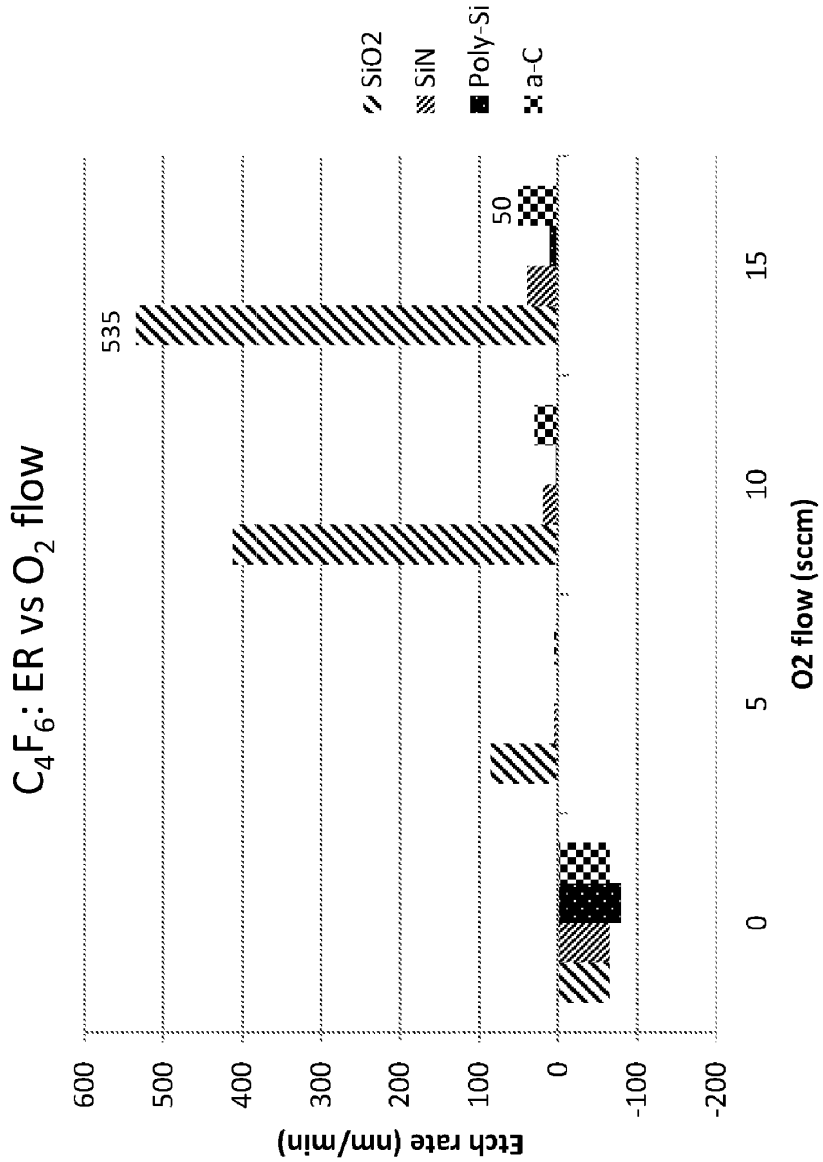

C4F6: ER vs O2 flow
SiO2
SiN
Poly-Si
a-C
535
50
600
500
400
300
200
100
0
-100
-200
Etch rate (nm/min)
0
5
10
15
O2 flow (sccm)

FIG. 8