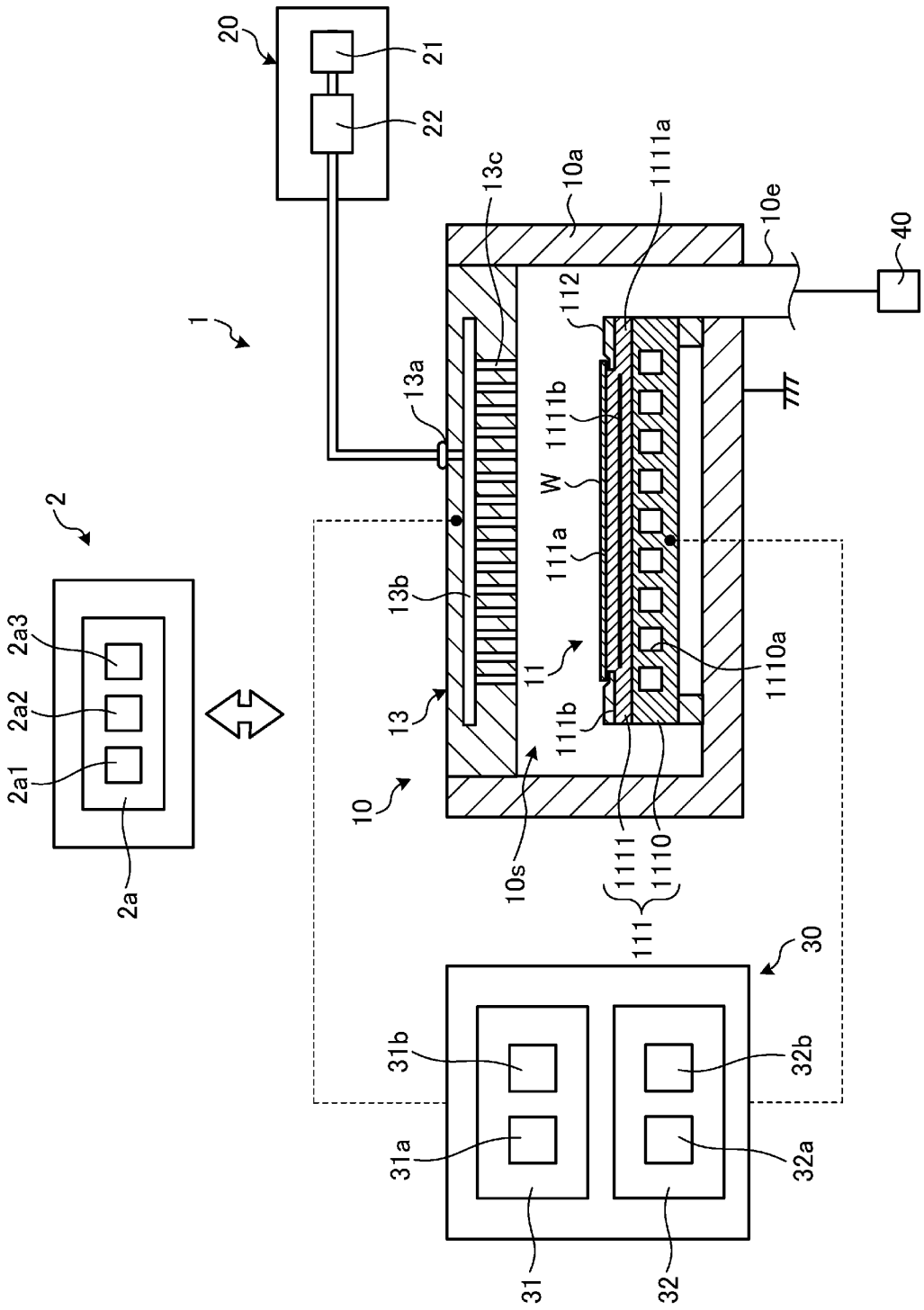
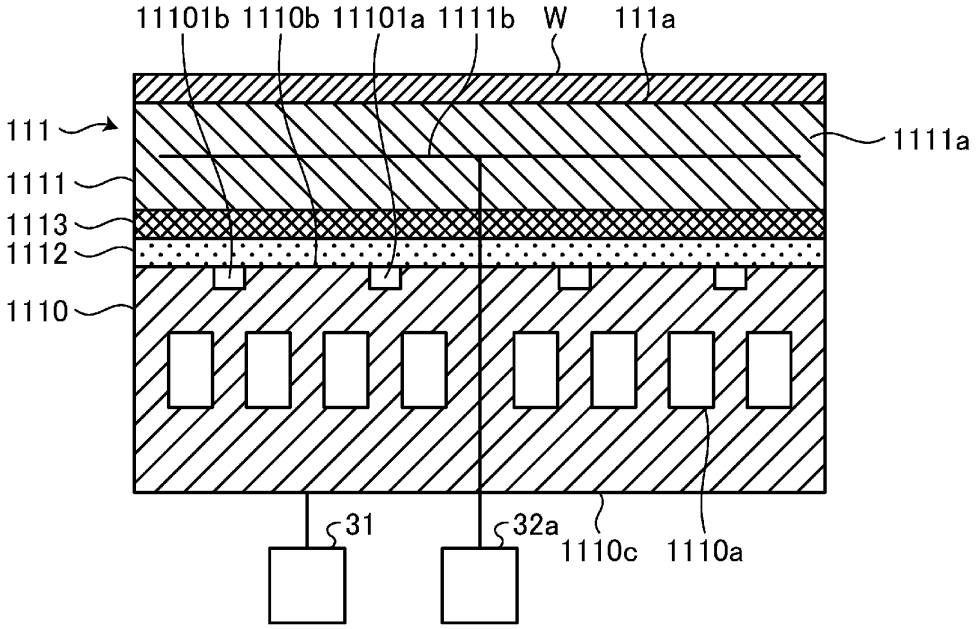
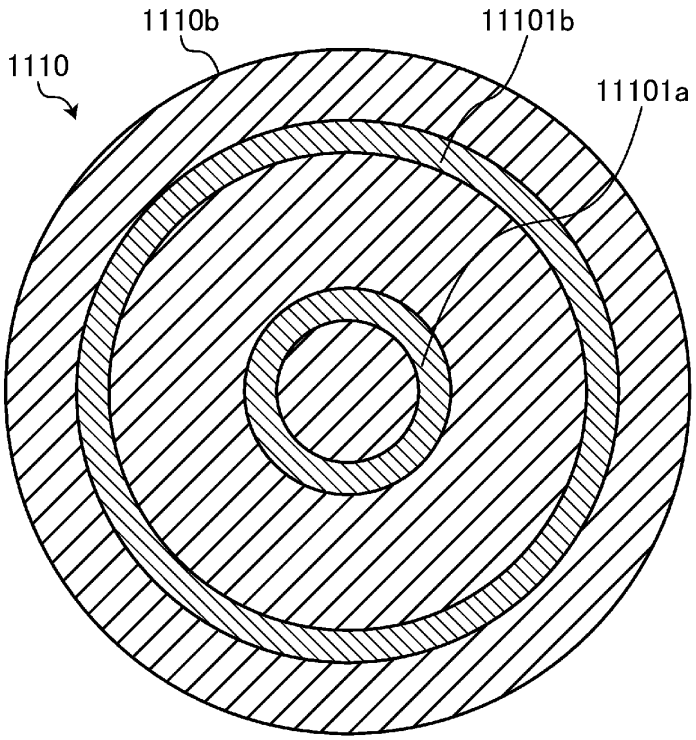
[図1]


20
21
22
13c
10a
1111a
10e
40
112
1
13a
1111b
W
111a
2
13b
11
1110a
2a3
2a2
2a1
13
111b
10
10s
1111
1110
111
30
31b
32b
31a
32a
2a
31
32

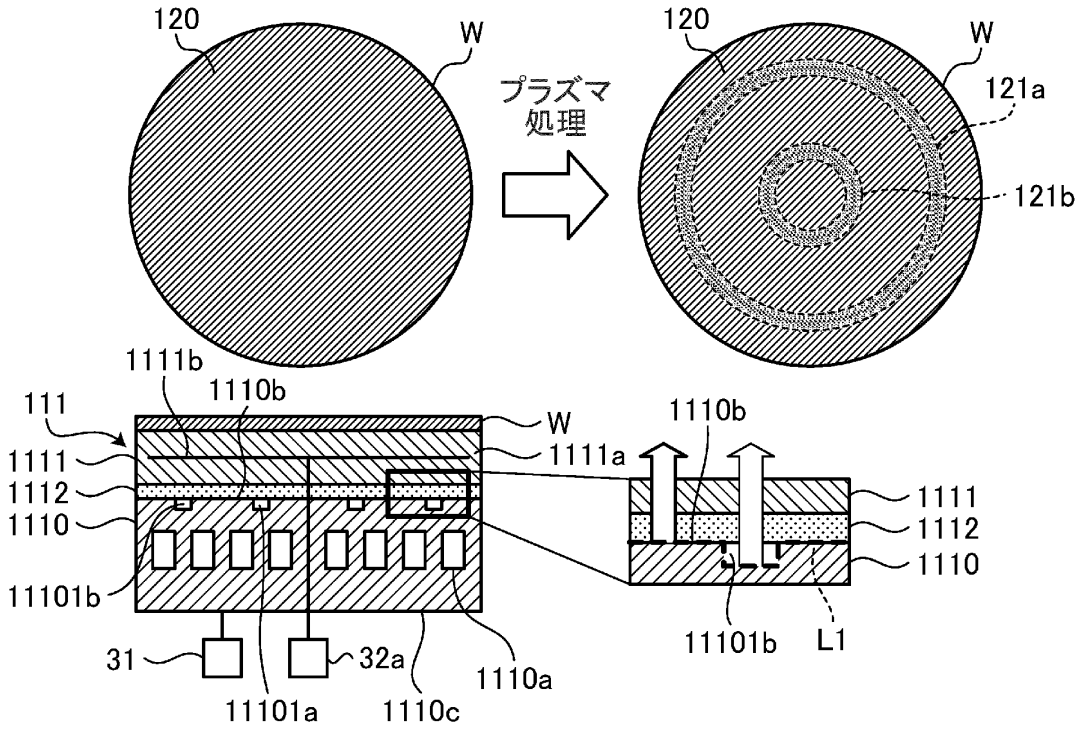
[図2]


11101b
1110b
11101a
1111b
W
111a
111
1111a
1111
1113
1112
1110
31
32a
1110c
1110a

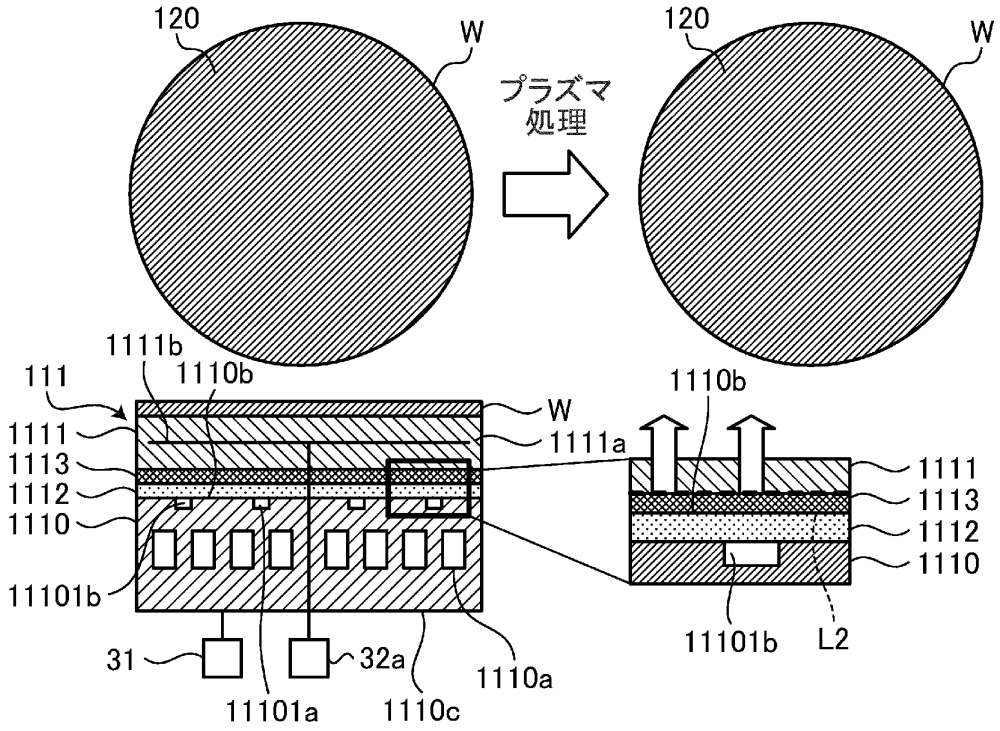
[図3]


1110b
11101b
1110
11101a

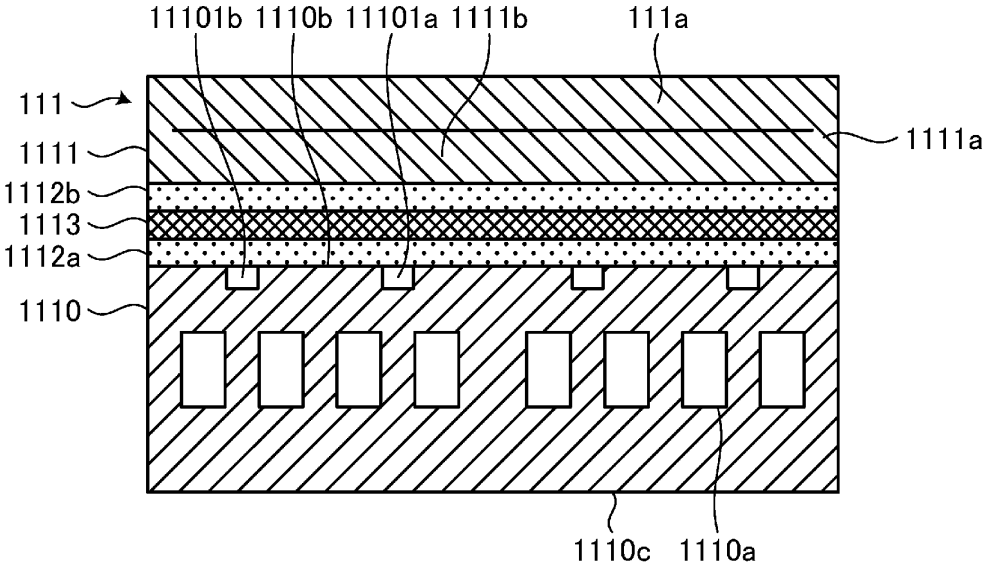
[図4]


120
W
プラズマ
処理
120
W
121a
121b
1111b
1110b
111
1111
1112
1110
11101b
W
1111a
1110b
1111
1112
1110
11101b
L1
31
32a
11101a
1110c
1110a

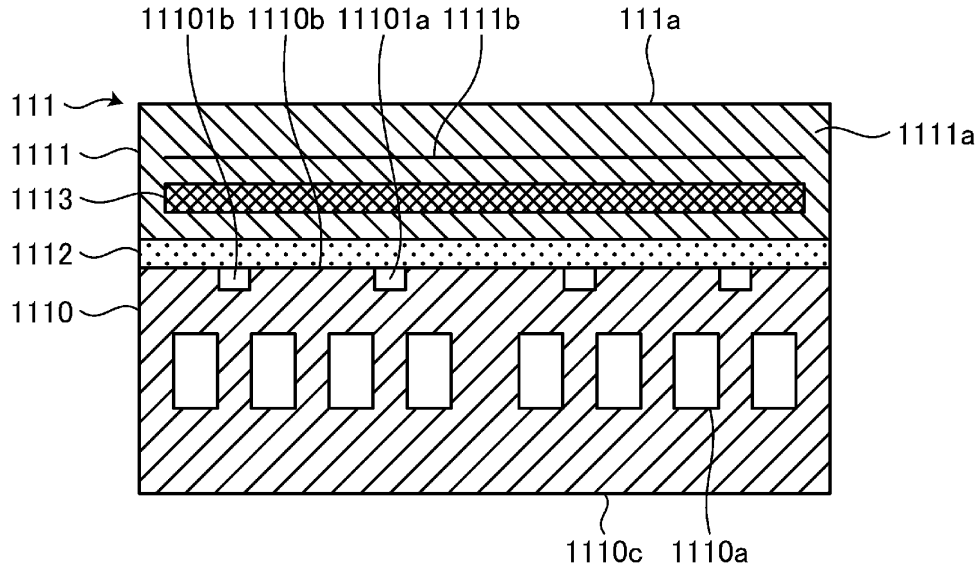
[図5]


120
W
プラズマ
処理
120
W
1111b
1110b
111
1111
1113
1112
1110
11101b
W
1111a
1110b
1111
1113
1112
1110
11101b
L2
31
32a
11101a
1110c
1110a

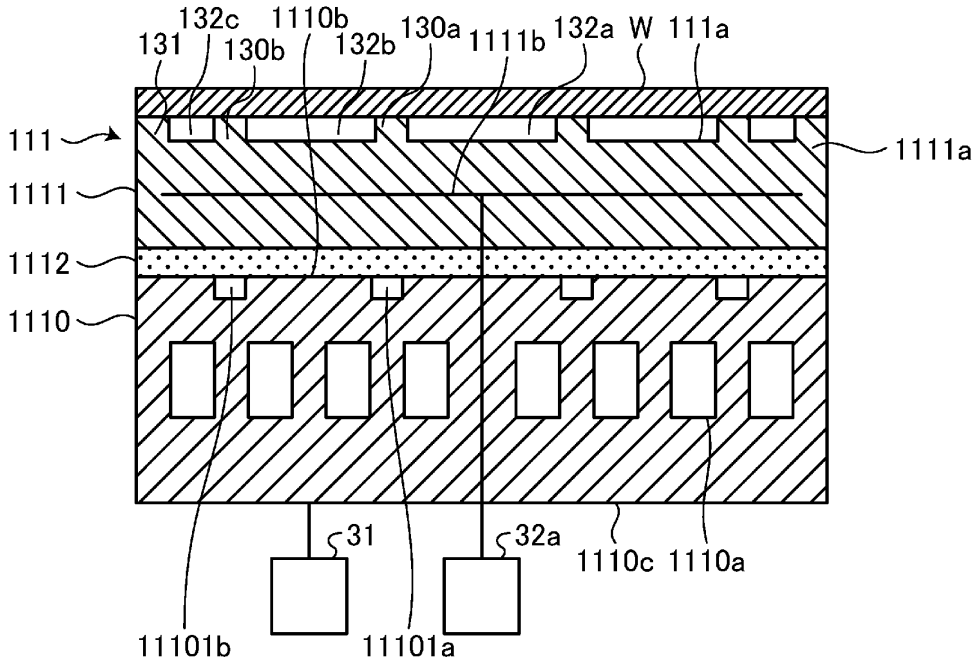
[図6]


11101b
1110b
11101a
1111b
111a
111
1111
1112b
1113
1112a
1110
1111a
1110c
1110a

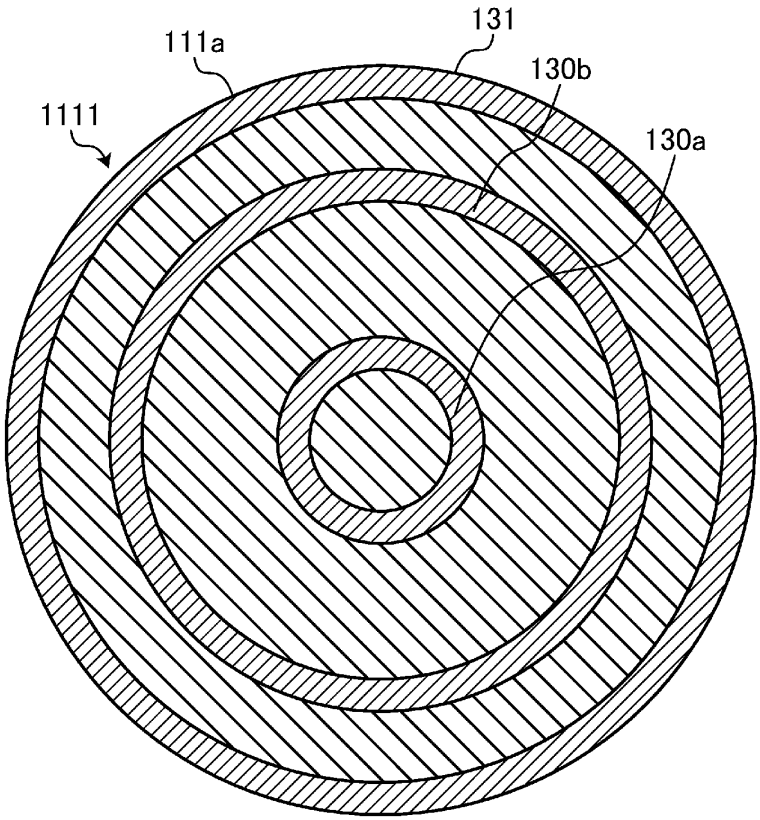
[図7]


11101b
1110b
11101a
1111b
111a
111
1111
1113
1112
1110
1111a
1110c
1110a

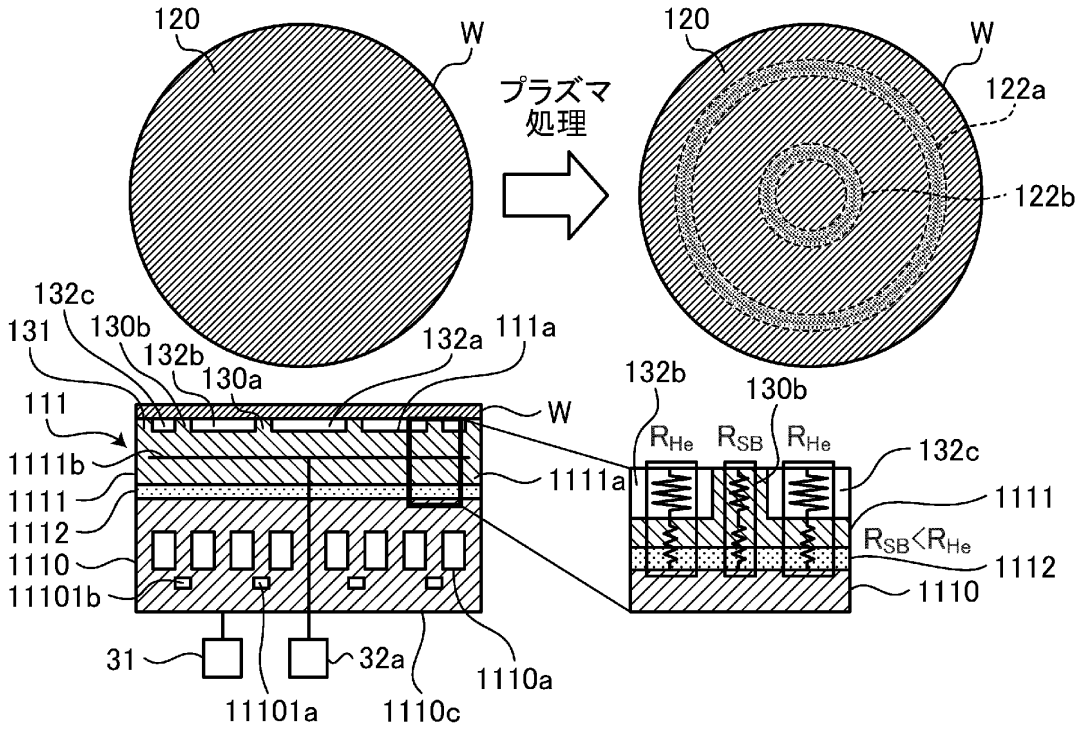
[図8]


132c
1110b
130a
131
130b
132b
1111b
132a
W
111a
111
1111a
1111
1112
1110
31
32a
1110c
1110a
11101b
11101a

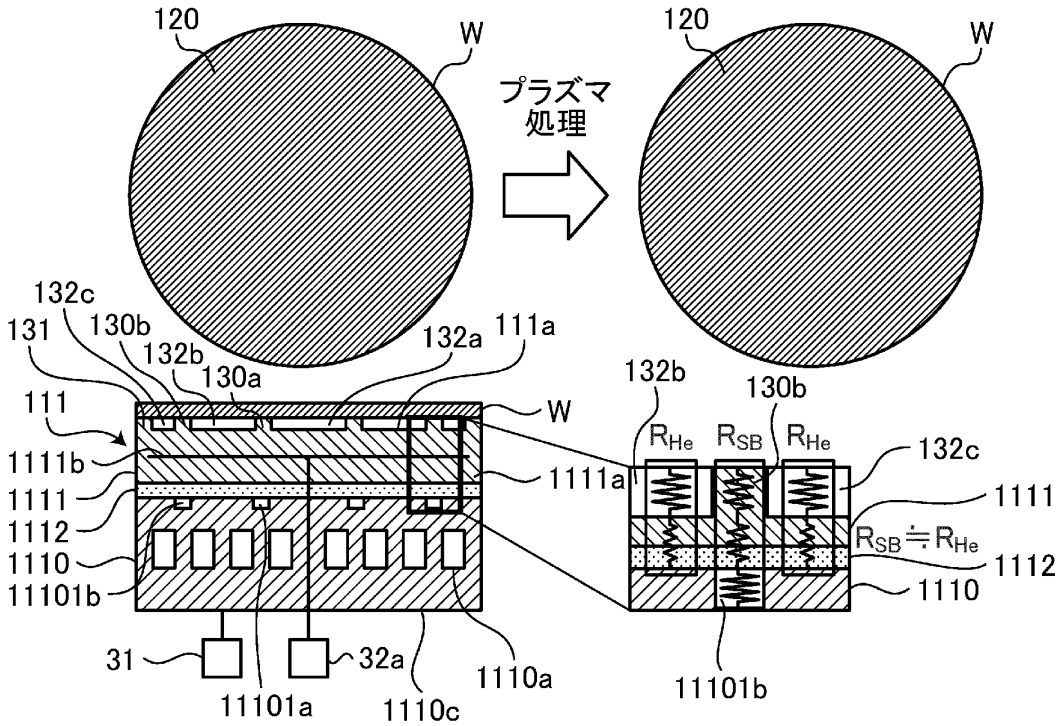
[図9]


131
111a
130b
1111
130a

[図10]


120
W
プラズマ
処理
122a
122b
132c
131
130b
132b
130a
132a
111a
111
1111b
1111
1112
1110
11101b
31
32a
11101a
1110c
1110a
1111a
R_{He}
R_{SB}
R_{He}
$R_{SB}<R_{He}$

[図11]


120
W
プラズマ
処理
132c
131
130b
132b
130a
132a
111a
111
1111b
1111
1112
1110
11101b
31
32a
11101a
1110c
1110a
1111a
R_{He}
R_{SB}
R_{He}
$R_{SB}\fallingdotseq R_{He}$