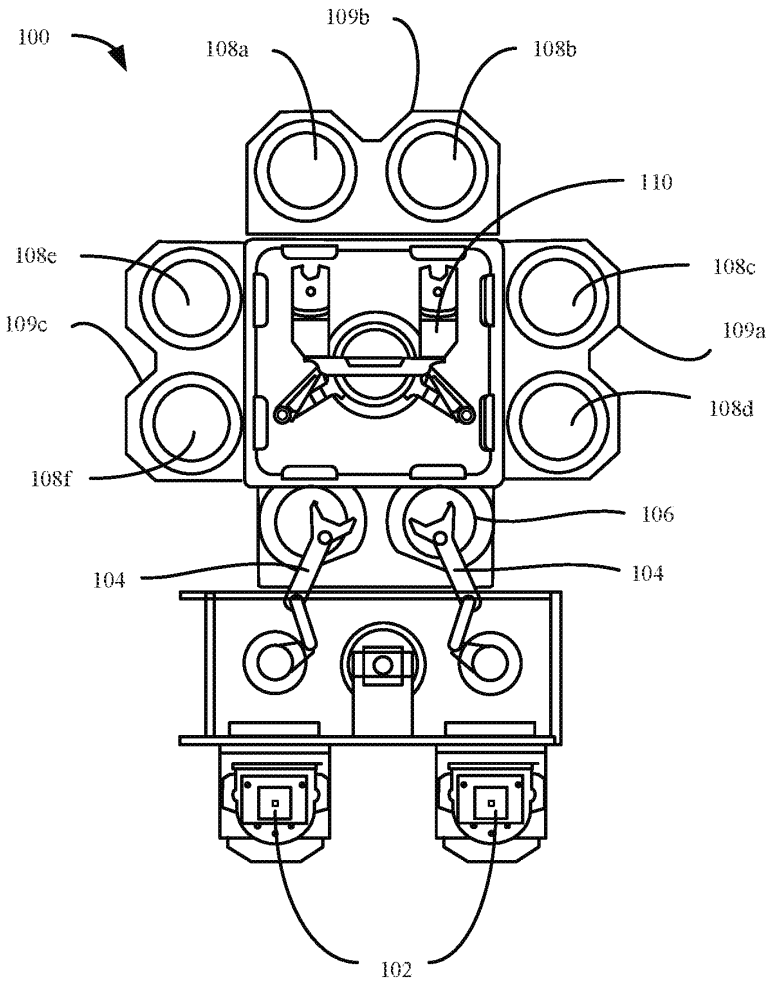

100
109b
108a
108b
110
108e
108c
109c
109a
108d
108f
106
104
104
102

FIG. 1

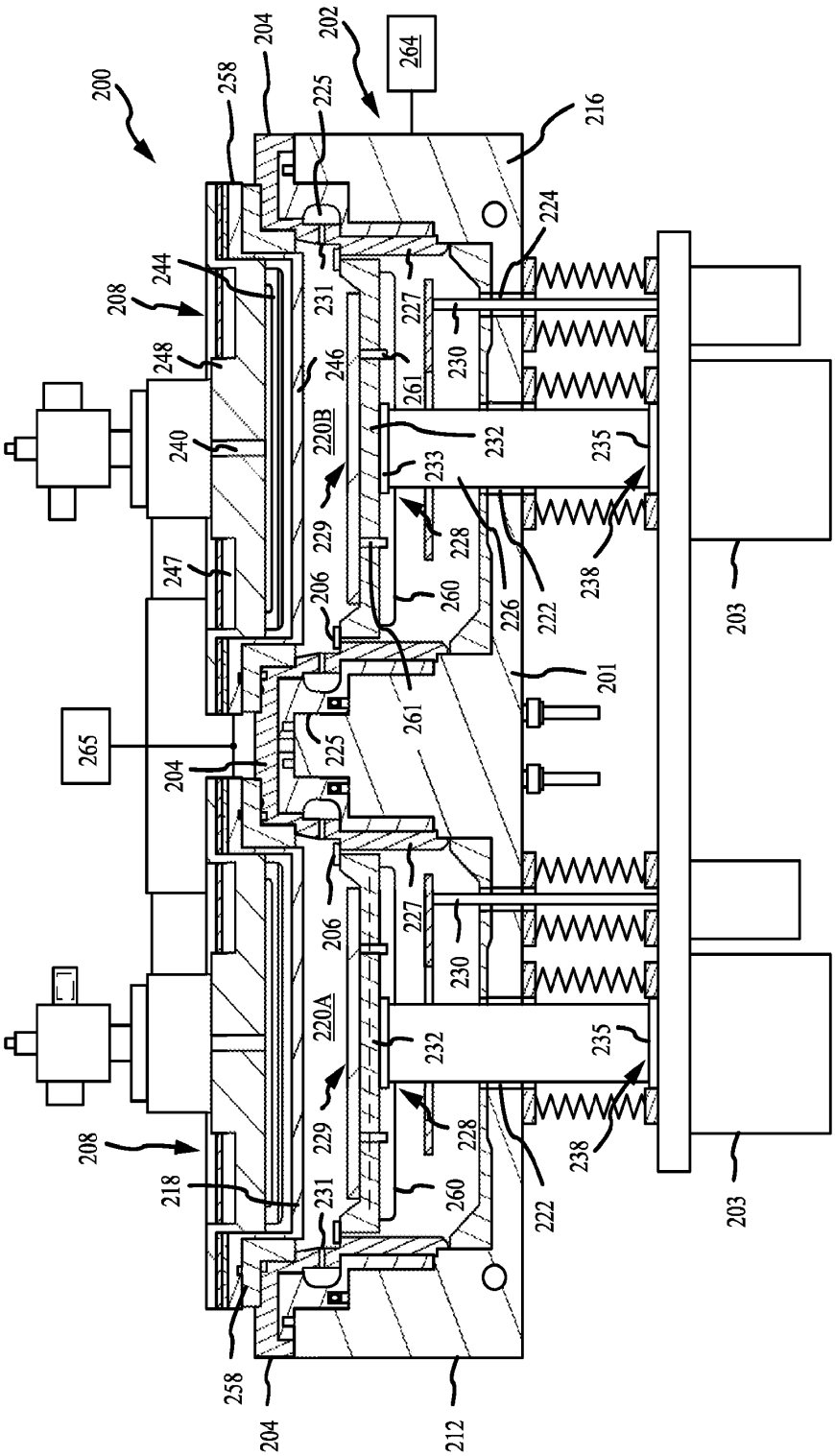

200
258
204
202
264
225
216
224
244
208
231
227
248
246
261
230
240
220B
232
235
233
229
228
247
206
260
226
222
238
203
201
265
225
261
204
206
227
230
220A
232
235
208
229
228
218
231
260
222
238
203
258
204
212

FIG. 2

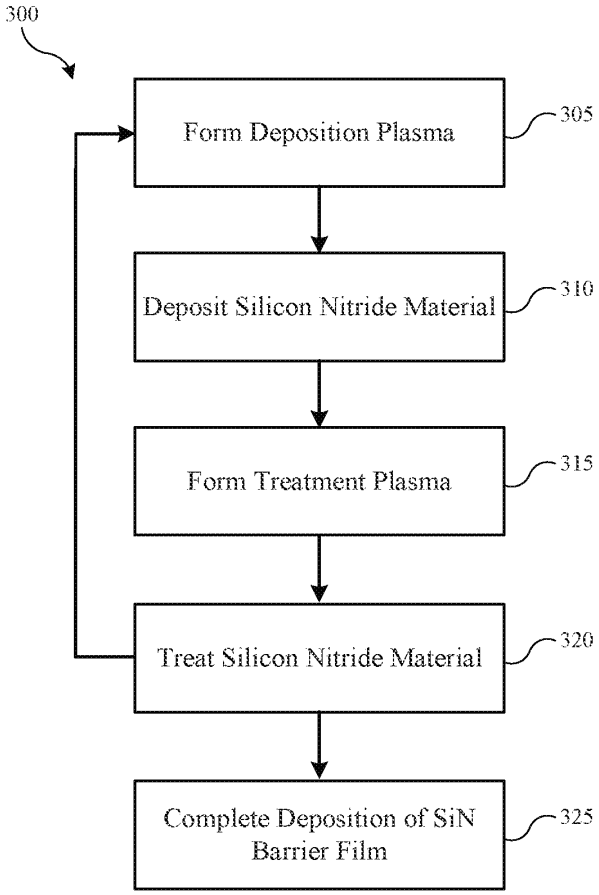

300
Form Deposition Plasma
305
Deposit Silicon Nitride Material
310
Form Treatment Plasma
315
Treat Silicon Nitride Material
320
Complete Deposition of SiN Barrier Film
325

FIG. 3

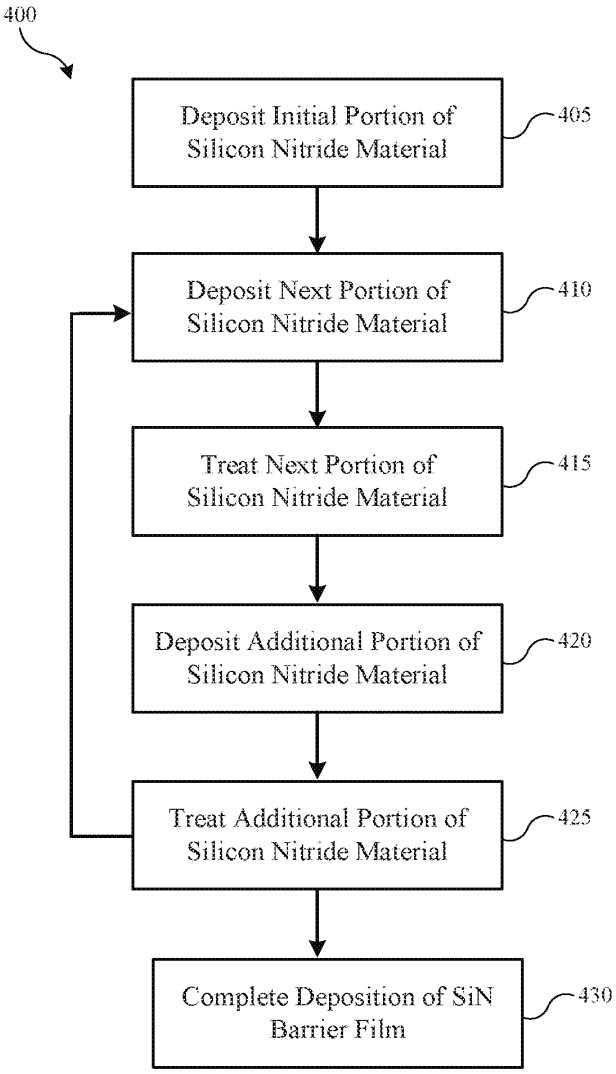

400
Deposit Initial Portion of Silicon Nitride Material
405
Deposit Next Portion of Silicon Nitride Material
410
Treat Next Portion of Silicon Nitride Material
415
Deposit Additional Portion of Silicon Nitride Material
420
Treat Additional Portion of Silicon Nitride Material
425
Complete Deposition of SiN Barrier Film
430

FIG. 4

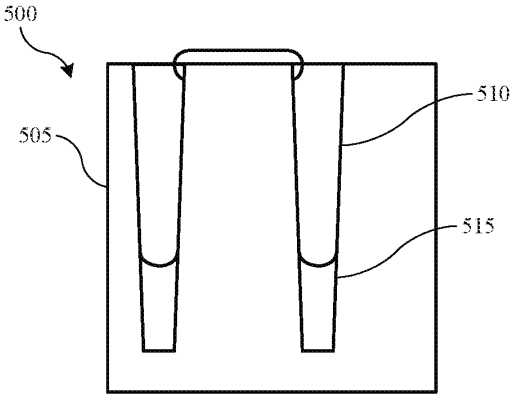


FIG. 5A

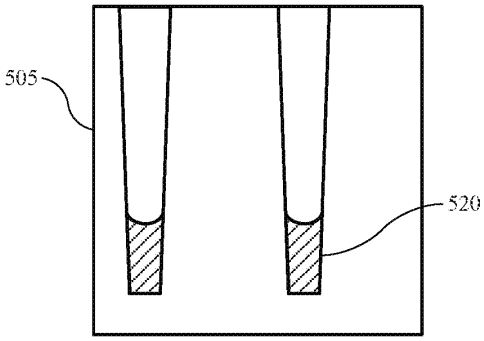


FIG. 5B