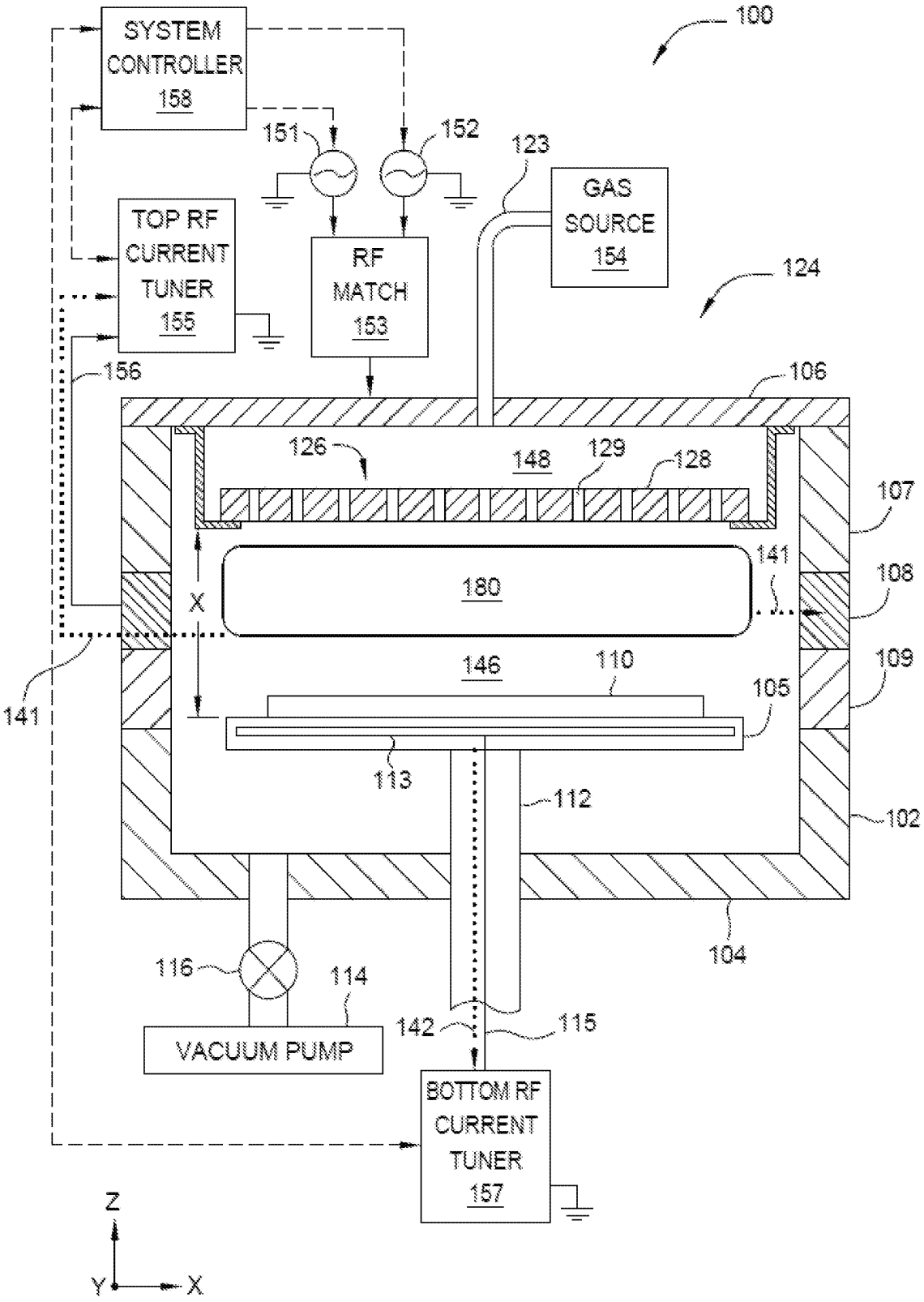

SYSTEM CONTROLLER 158
100
151
152
123
GAS SOURCE 154
TOP RF CURRENT TUNER 155
RF MATCH 153
124
156
106
126
148
129
128
107
141
180
108
X
146
110
109
105
141
113
112
102
104
116
114
VACUUM PUMP
142
115
BOTTOM RF CURRENT TUNER 157
Z
Y
X

FIG. 1

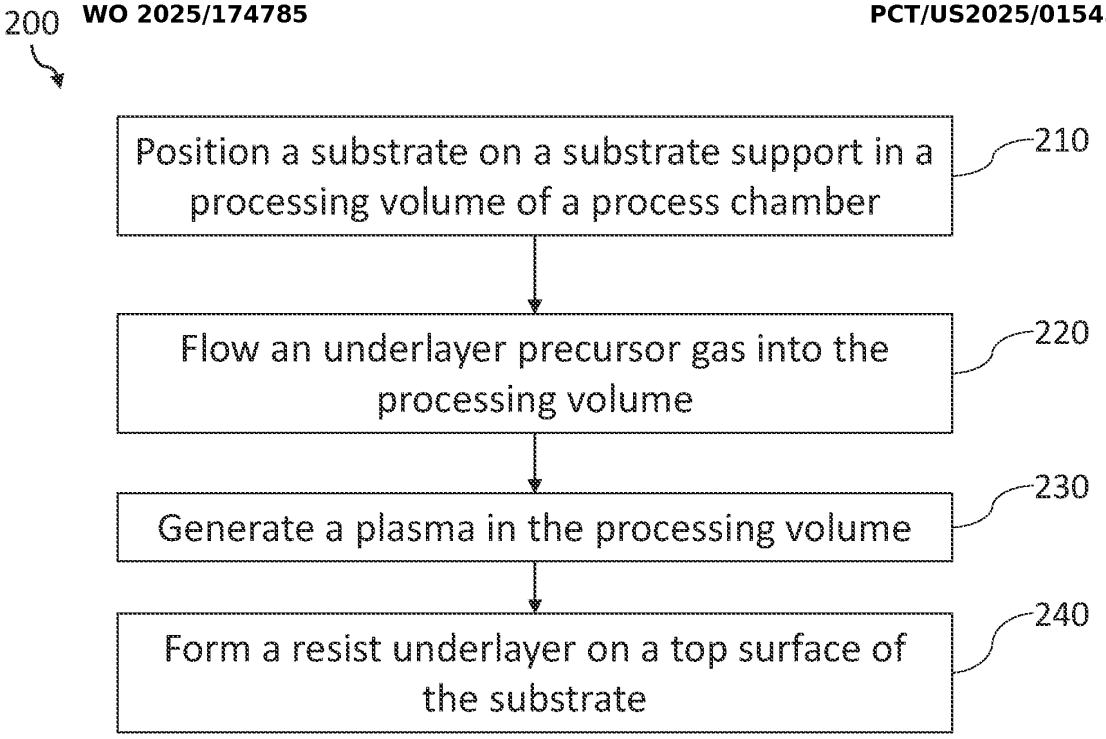

200
Position a substrate on a substrate support in a processing volume of a process chamber
210
Flow an underlayer precursor gas into the processing volume
220
Generate a plasma in the processing volume
230
Form a resist underlayer on a top surface of the substrate
240

FIG. 2

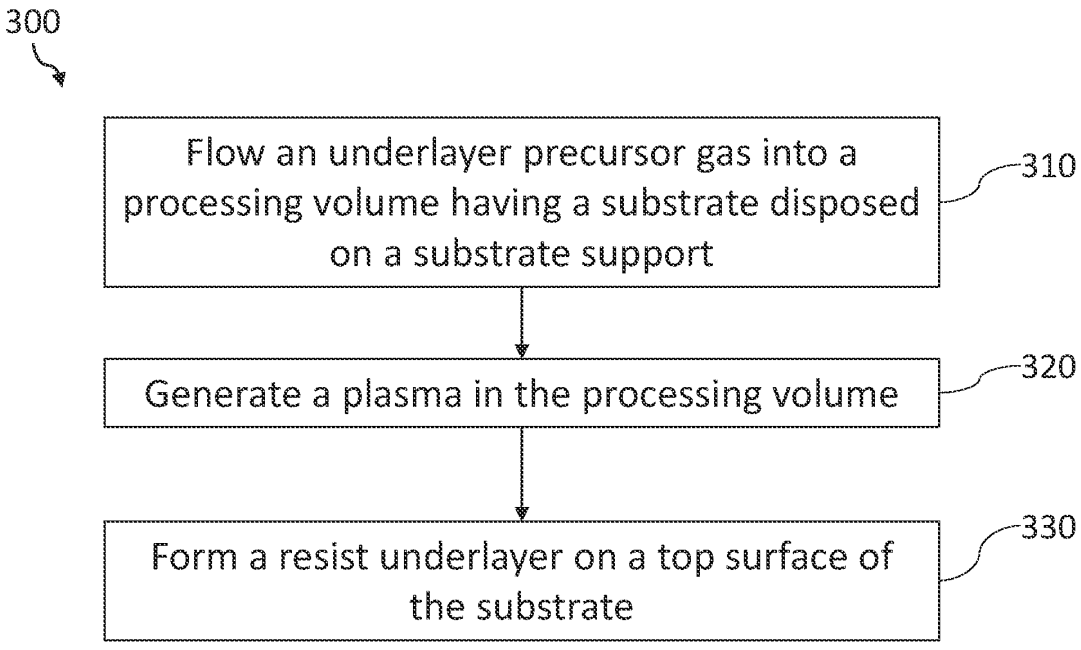

300
Flow an underlayer precursor gas into a processing volume having a substrate disposed on a substrate support
310
Generate a plasma in the processing volume
320
Form a resist underlayer on a top surface of the substrate
330

FIG. 3

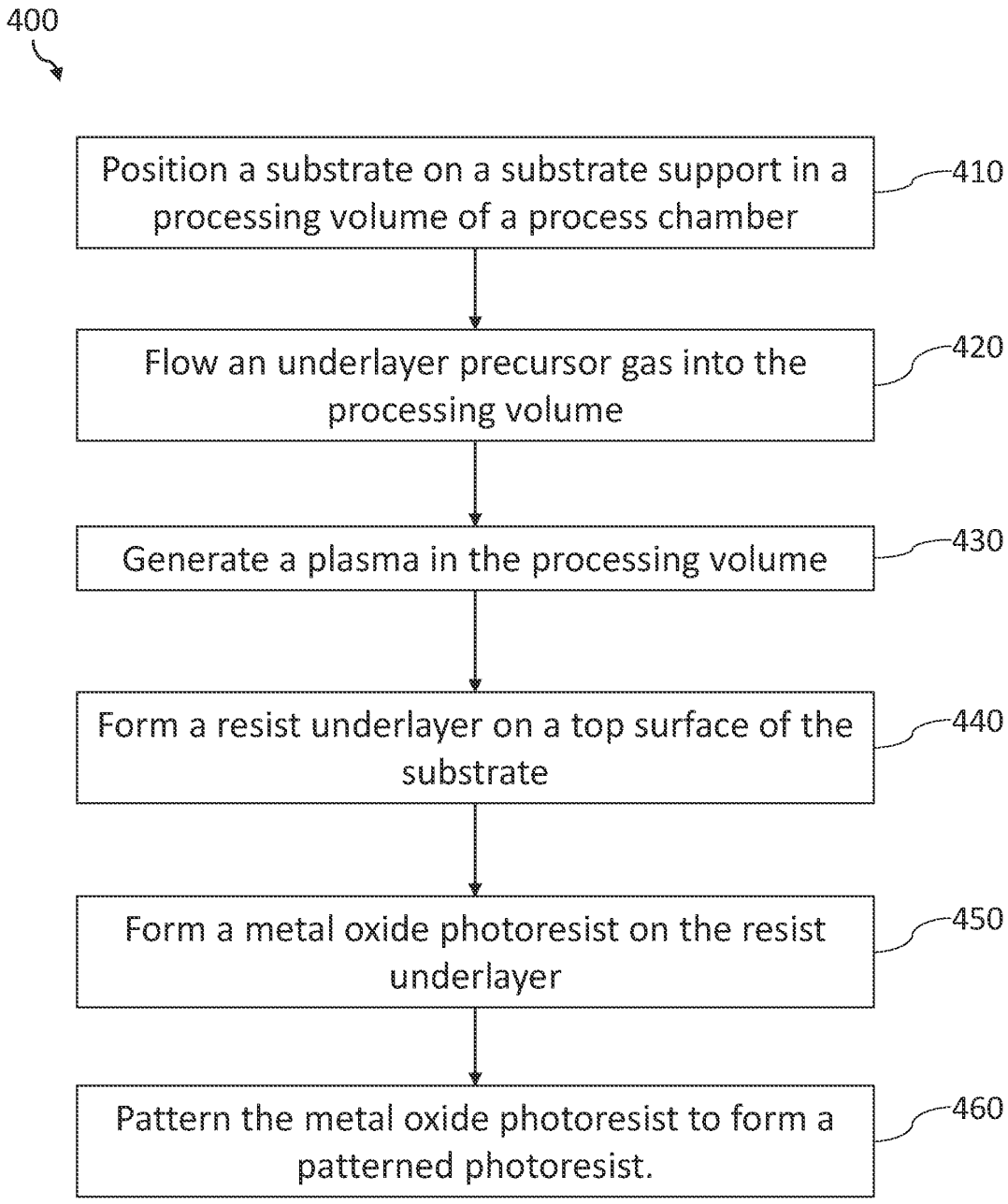

400
Position a substrate on a substrate support in a processing volume of a process chamber
410
Flow an underlayer precursor gas into the processing volume
420
Generate a plasma in the processing volume
430
Form a resist underlayer on a top surface of the substrate
440
Form a metal oxide photoresist on the resist underlayer
450
Pattern the metal oxide photoresist to form a patterned photoresist.
460

FIG. 4