FIG. 1

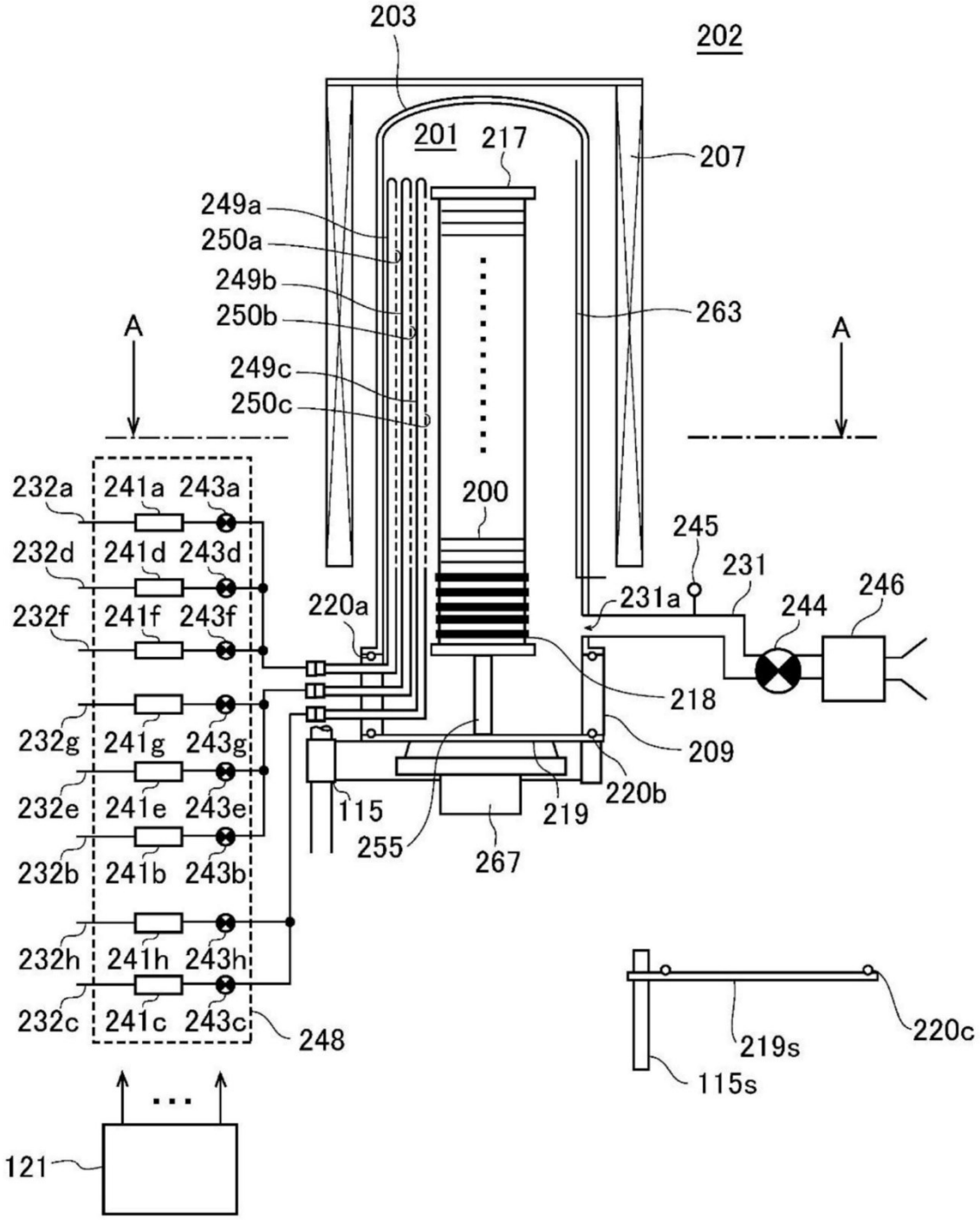

203
202
201
217
207
249a
250a
249b
250b
263
A
A
249c
250c
200
232a
241a
243a
232d
241d
243d
232f
241f
243f
245
231
231a
244
246
220a
218
232g
241g
243g
209
232e
241e
243e
220b
115
219
255
267
232b
241b
243b
232h
241h
243h
232c
241c
243c
248
219s
220c
115s
121

FIG. 2

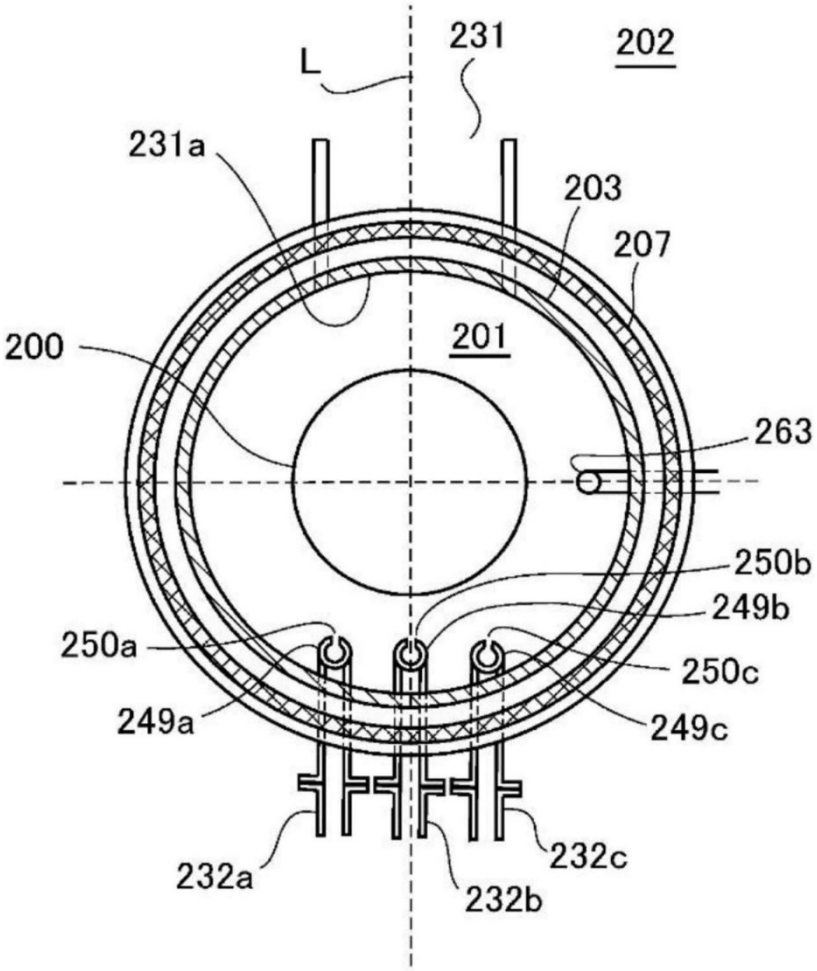

231
202
L
231a
203
207
200
201
263
250b
249b
250a
250c
249a
249c
232a
232b
232c

FIG. 3

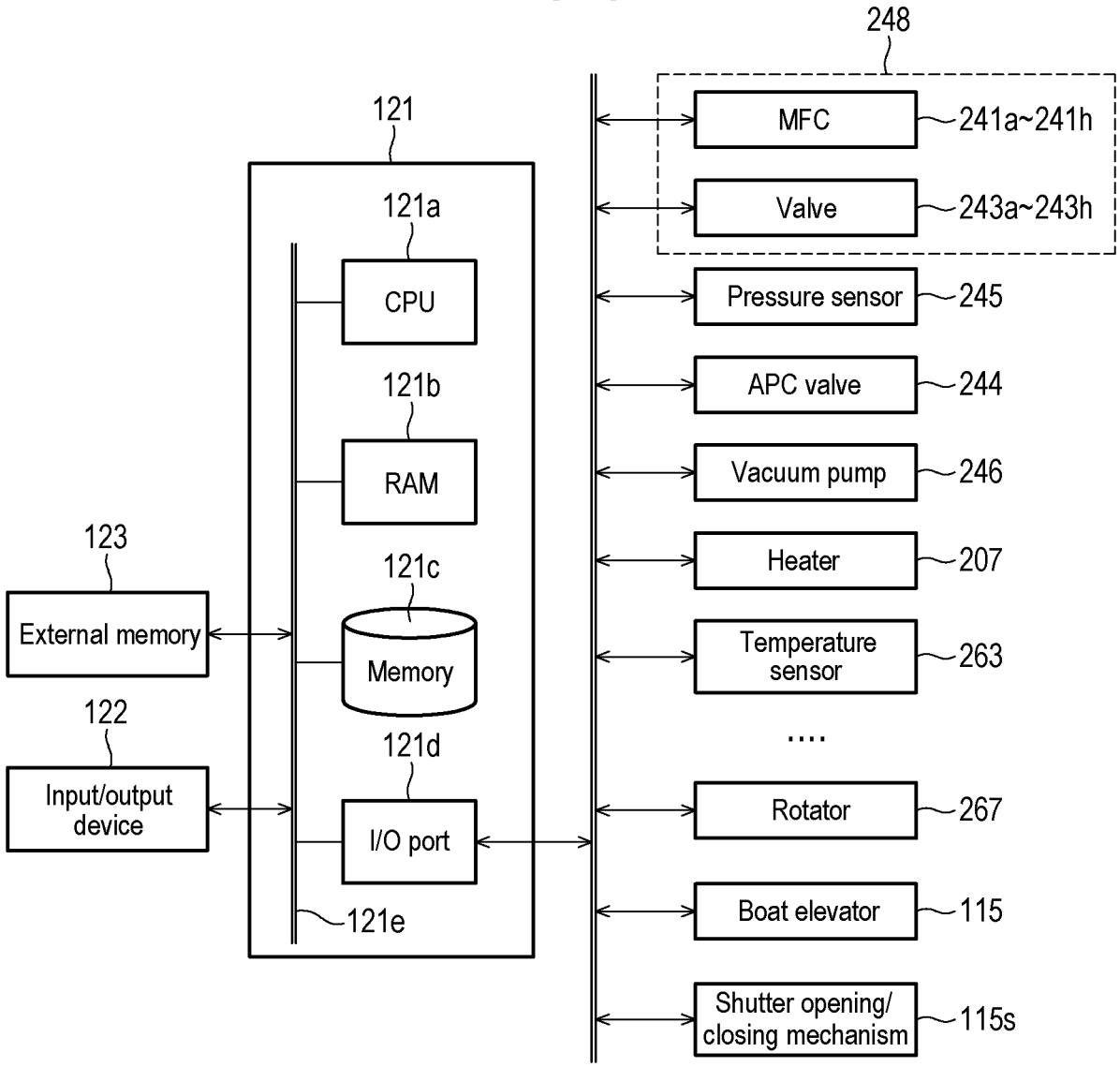

248
121
121a
CPU
121b
RAM
121c
Memory
121d
I/O port
121e
123
External memory
122
Input/output device
MFC
241a~241h
Valve
243a~243h
Pressure sensor
245
APC valve
244
Vacuum pump
246
Heater
207
Temperature sensor
263
....
Rotator
267
Boat elevator
115
Shutter opening/ closing mechanism
115s

FIG. 4

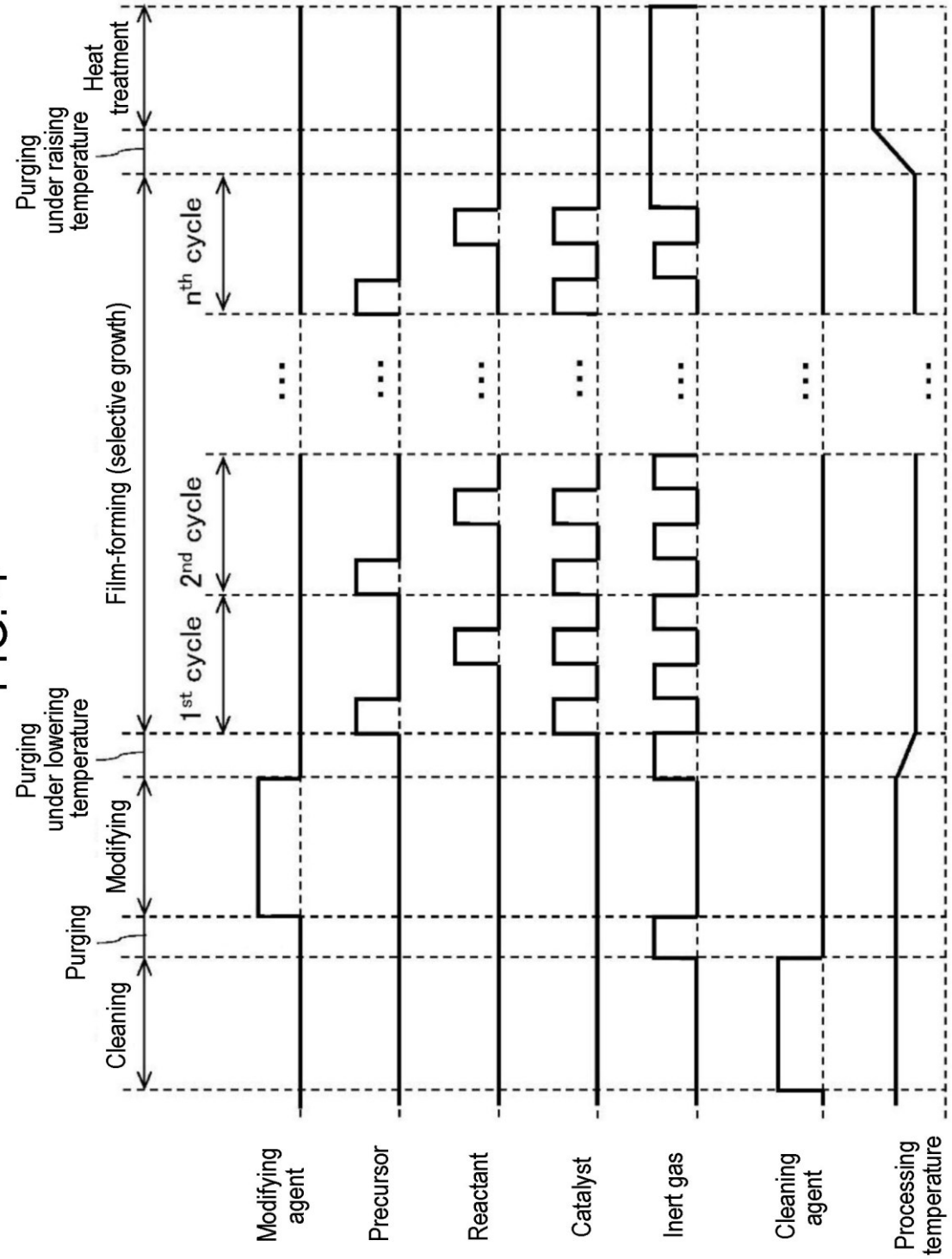

Cleaning
Purging
Modifying
Purging under lowering temperature
Film-forming (selective growth)
1st cycle
2nd cycle
nth cycle
Purging under raising temperature
Heat treatment
Modifying agent
Precursor
Reactant
Catalyst
Inert gas
Cleaning agent
Processing temperature

FIG. 5A

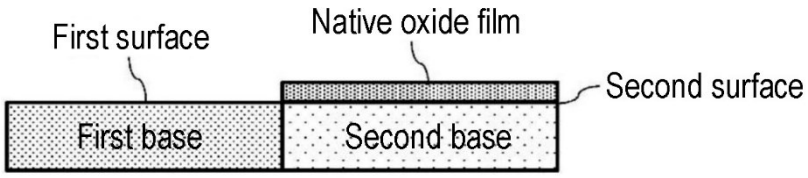


FIG. 5B

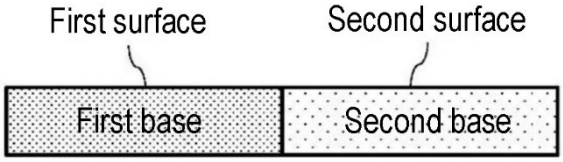


FIG. 5C

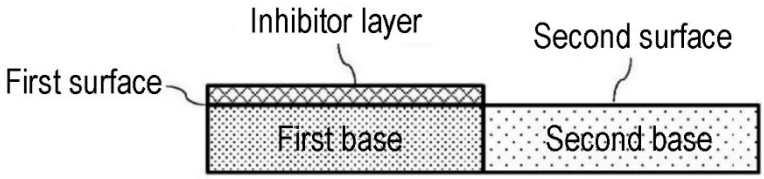


FIG. 5D

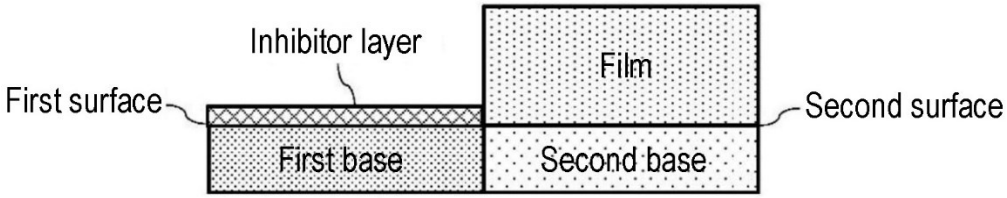


FIG. 5E

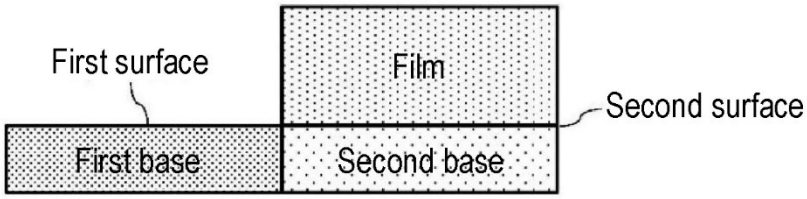


FIG. 6A

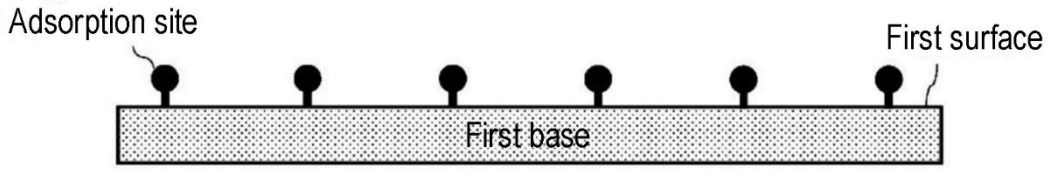


FIG. 6B

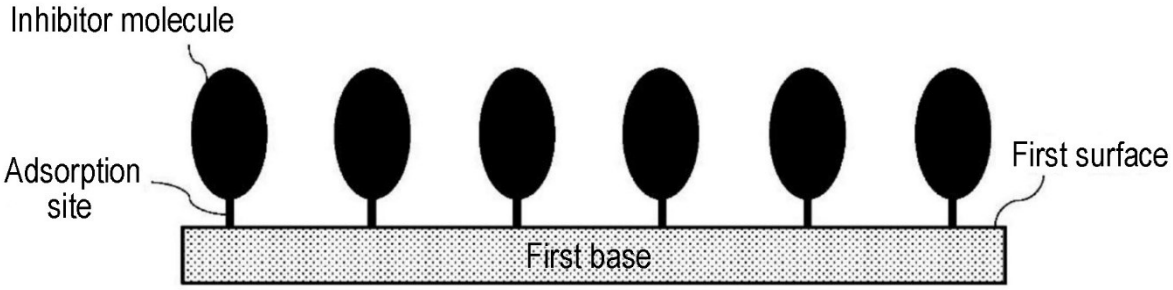


FIG. 6C

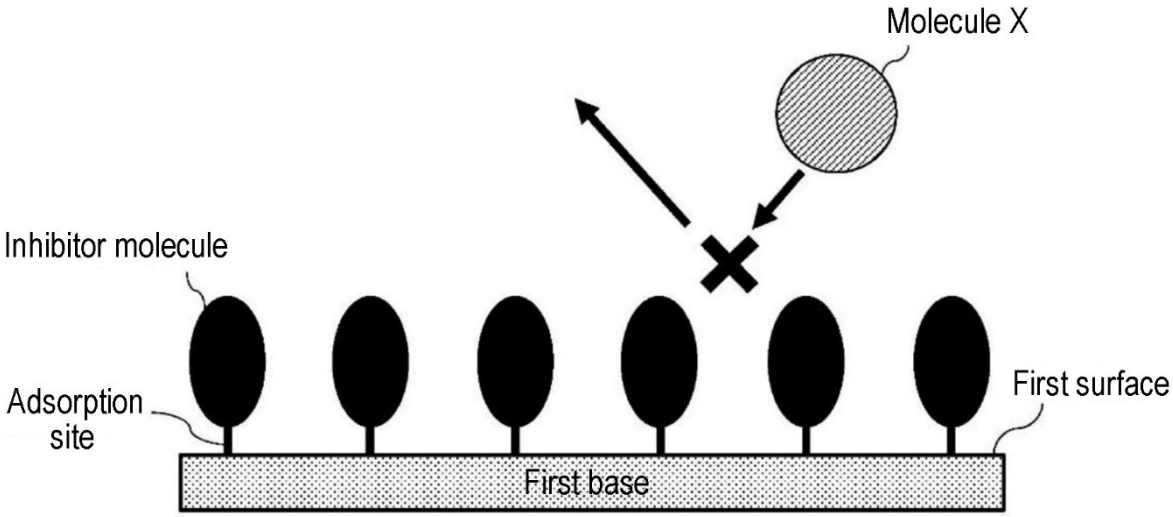


FIG. 7

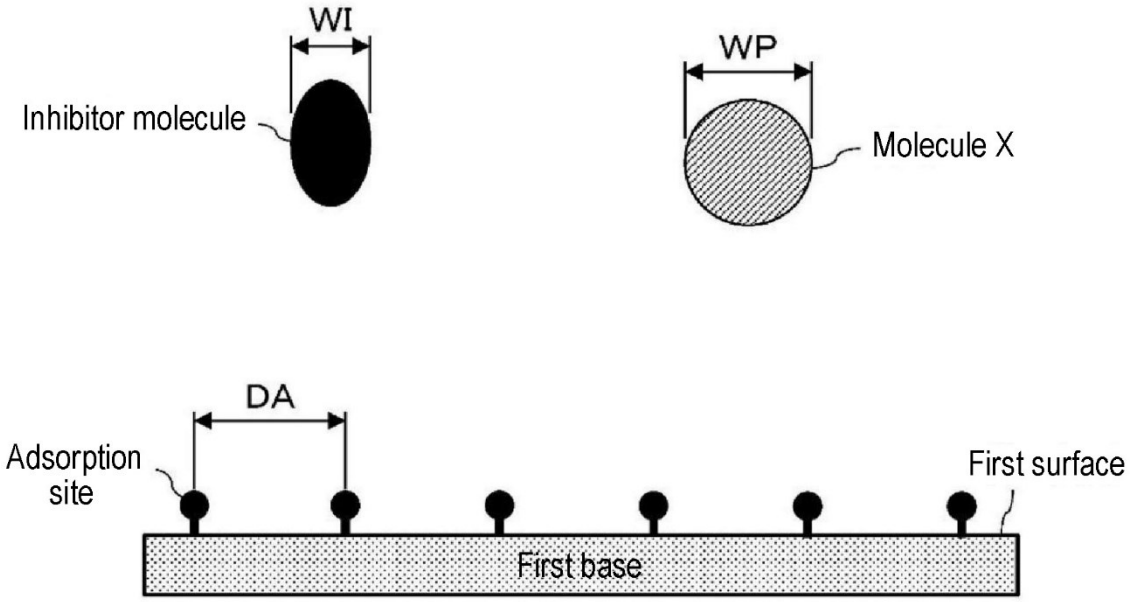

WI
Inhibitor molecule
WP
Molecule X
DA
Adsorption site
First surface
First base

FIG. 8

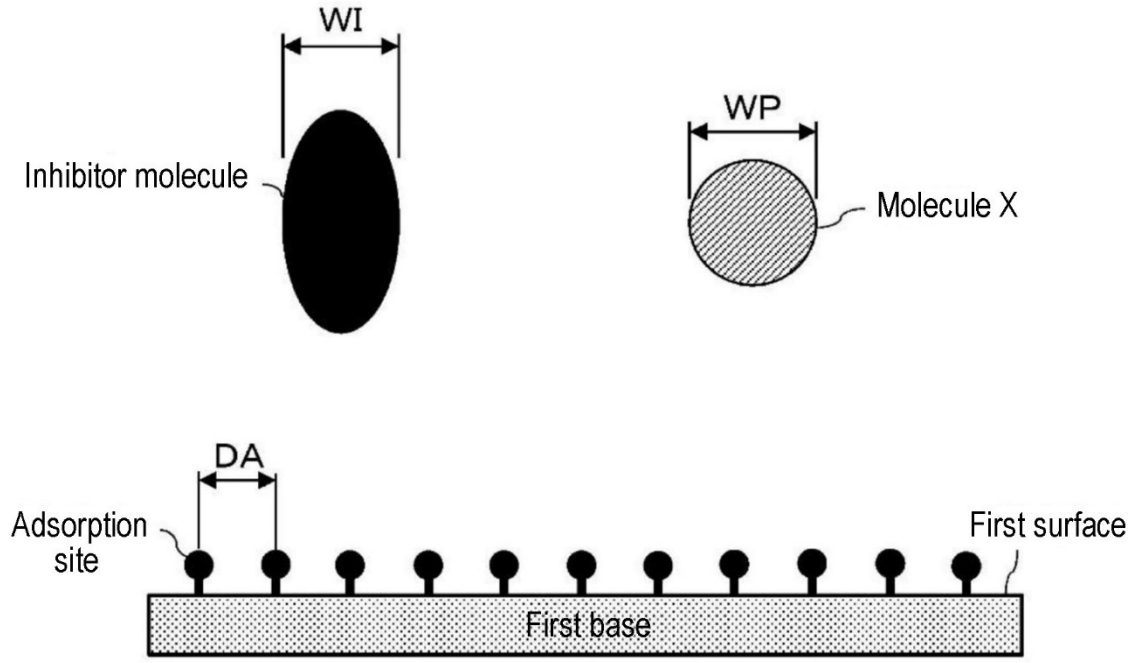

WI
Inhibitor molecule
WP
Molecule X
DA
Adsorption site
First surface
First base

FIG. 9

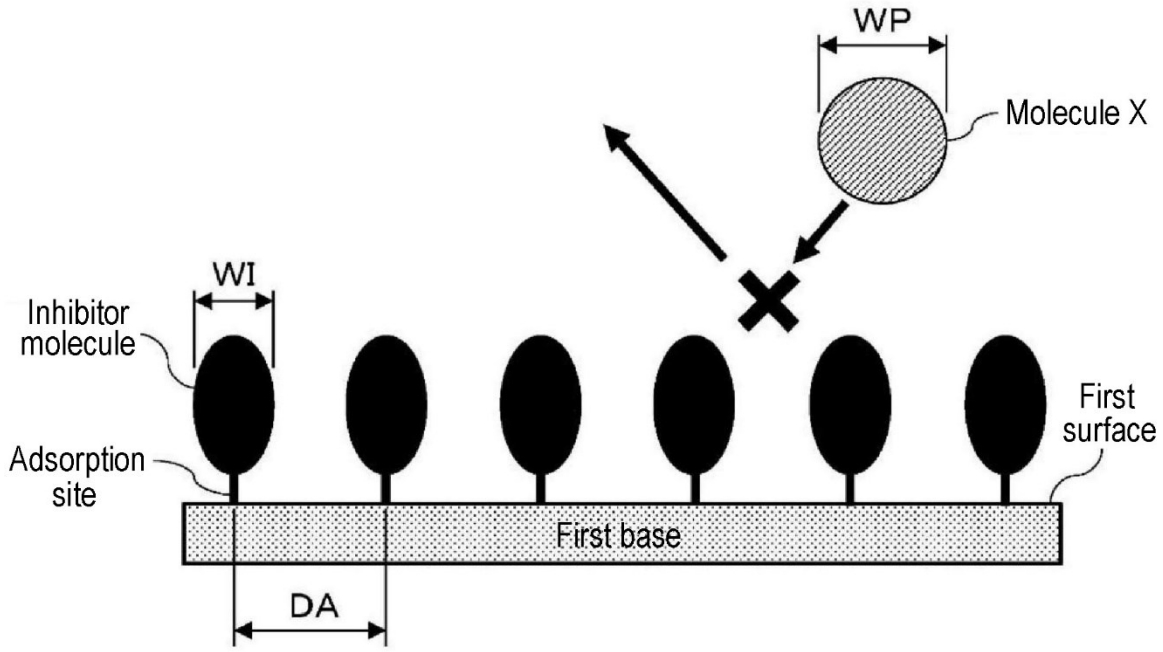

WP
Molecule X
WI
Inhibitor molecule
Adsorption site
First surface
First base
DA

FIG. 10

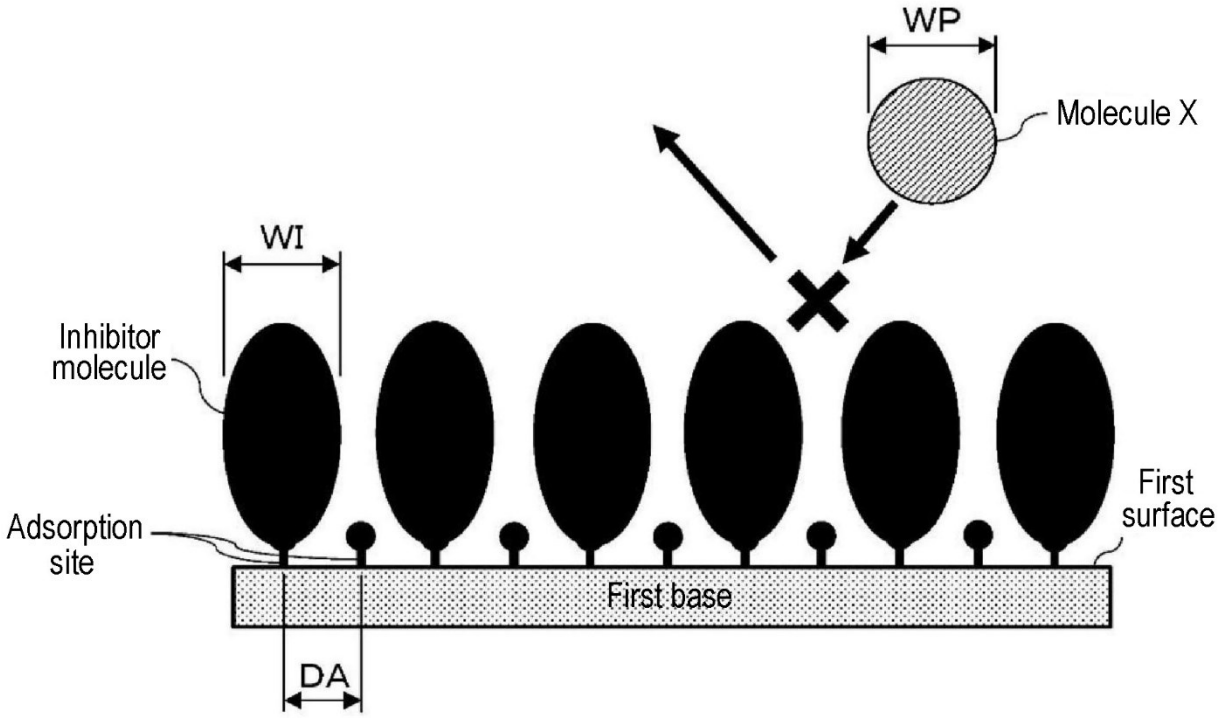
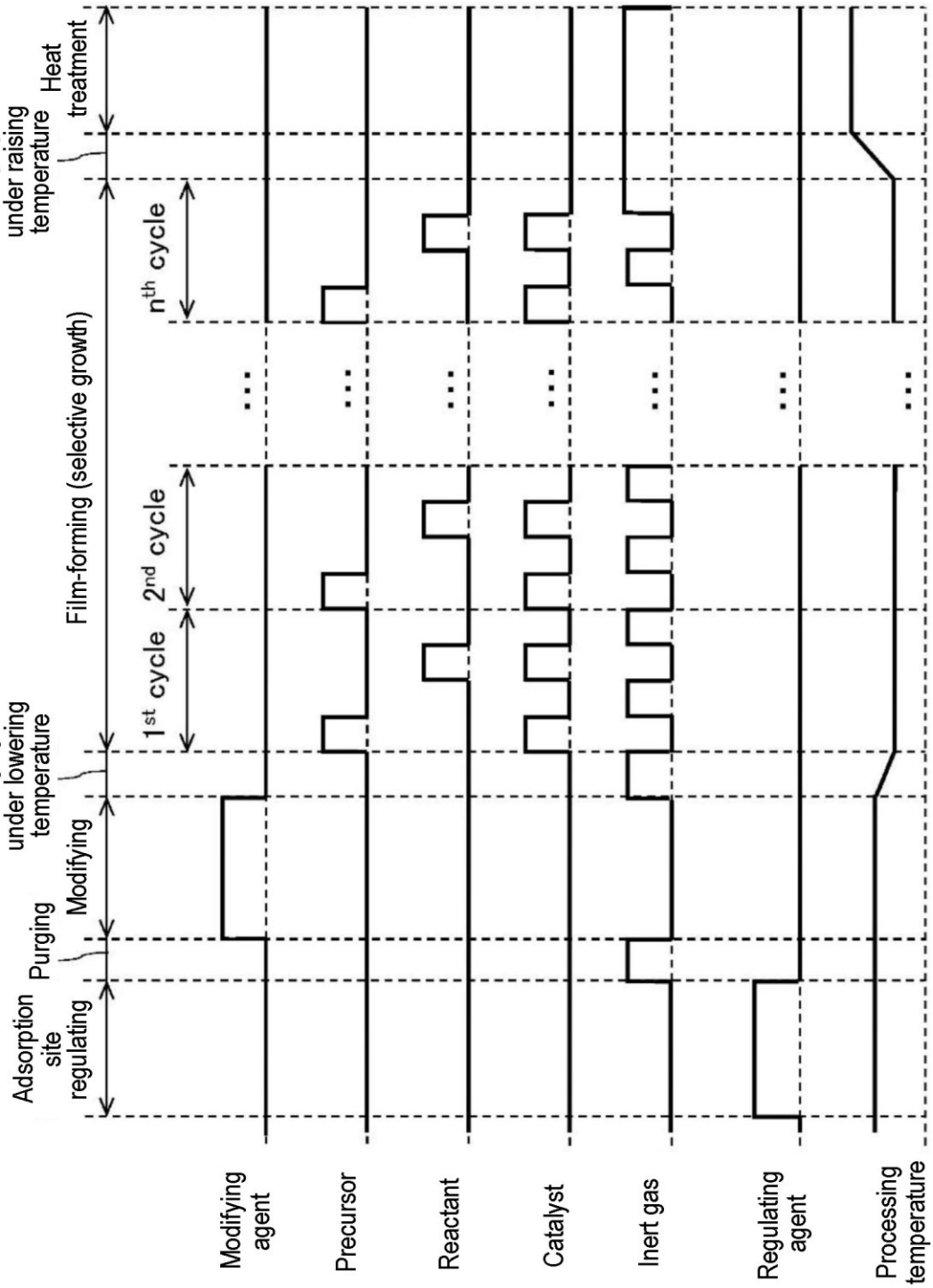

WP
Molecule X
WI
Inhibitor molecule
Adsorption site
First surface
First base
DA

FIG. 11


Adsorption site regulating
Purging
Modifying
Purging under lowering temperature
Film-forming (selective growth)
1st cycle
2nd cycle
nth cycle
Purging under raising temperature
Heat treatment
Modifying agent
Precursor
Reactant
Catalyst
Inert gas
Regulating agent
Processing temperature