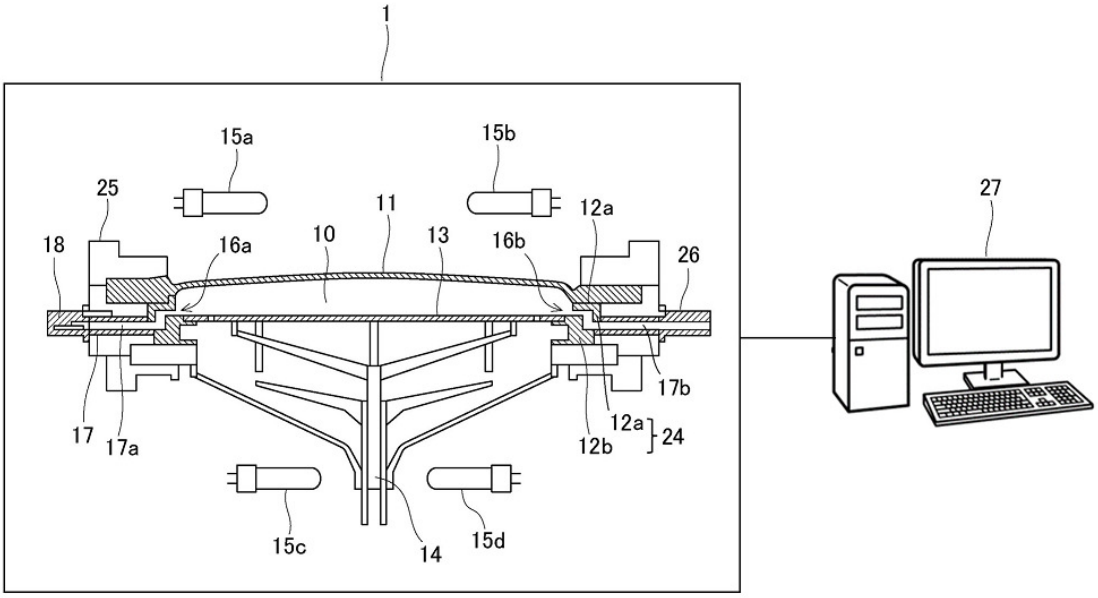
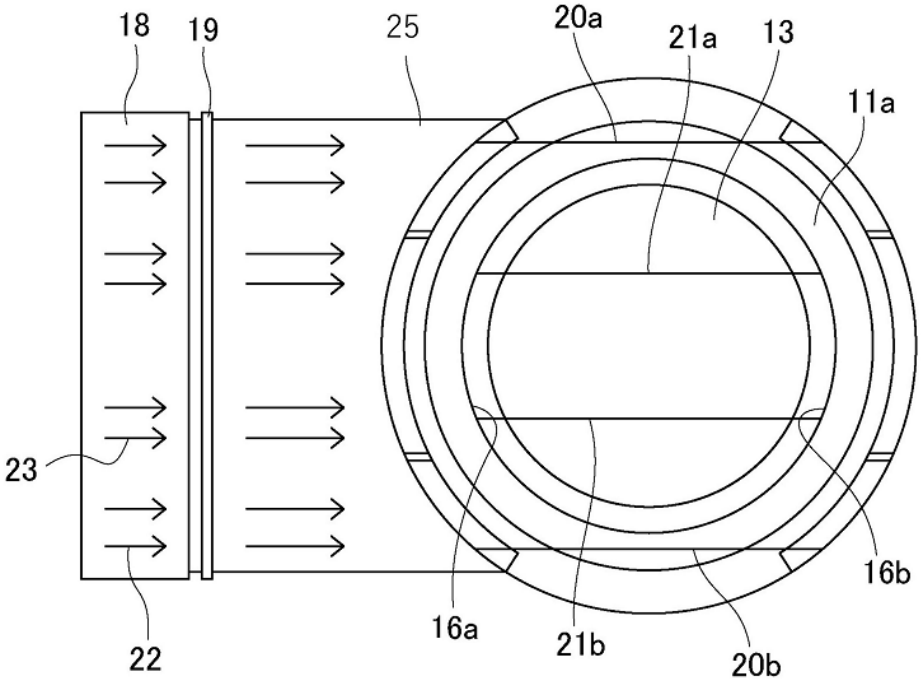
DRAWINGS

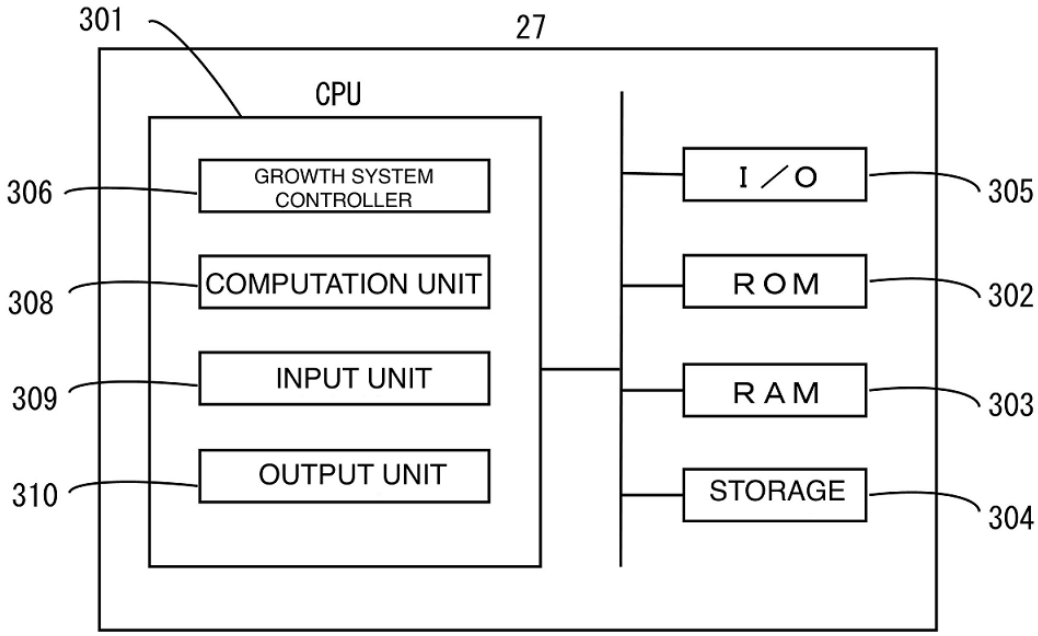
[Fig. 1]



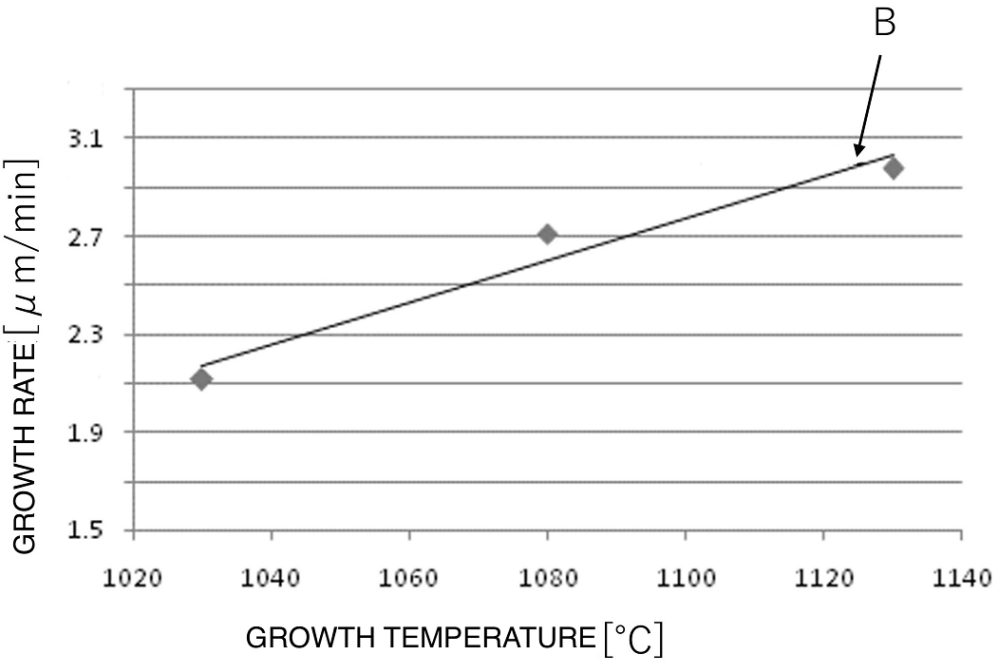
[Fig. 2]



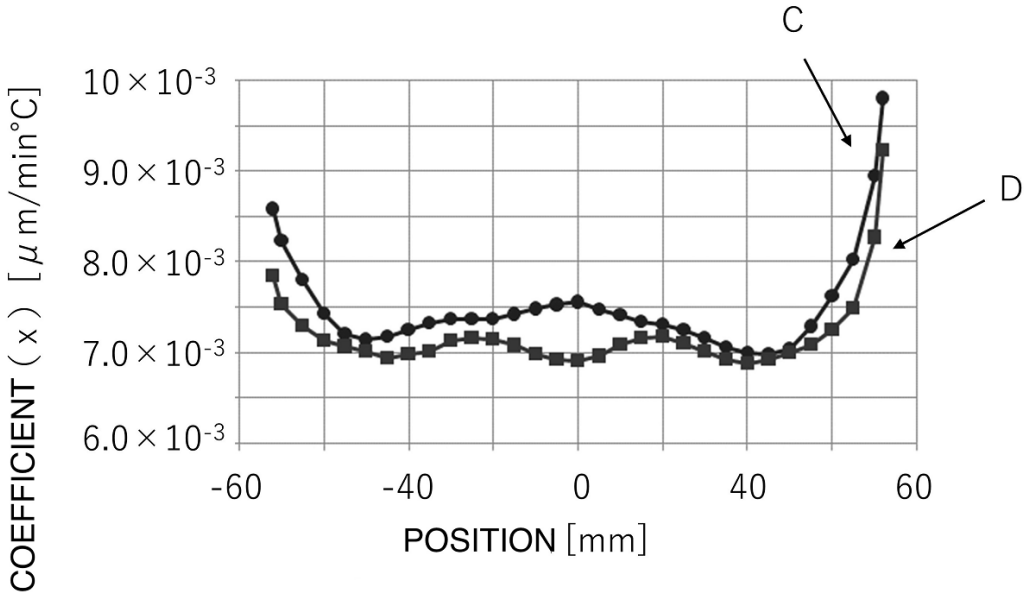
[Fig. 3]


301
27
CPU
306
GROWTH SYSTEM CONTROLLER
308
COMPUTATION UNIT
309
INPUT UNIT
310
OUTPUT UNIT
I／O
305
ROM
302
RAM
303
STORAGE
304

[Fig. 4]


B
3.1
2.7
2.3
1.9
1.5
GROWTH RATE [μm/min]
1020
1040
1060
1080
1100
1120
1140
GROWTH TEMPERATURE [°C]

[Fig. 5]


C
D
10×10^{-3}
9.0×10^{-3}
8.0×10^{-3}
7.0×10^{-3}
6.0×10^{-3}
COEFFICIENT（x）［μm/min°C］
-60
-40
0
40
60
POSITION [mm]

[Fig. 6]

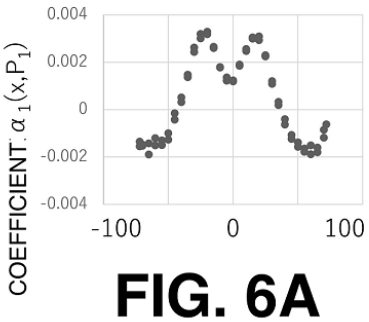


FIG. 6A

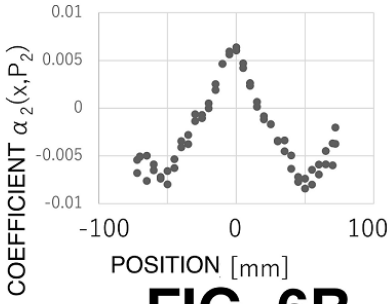


FIG. 6B

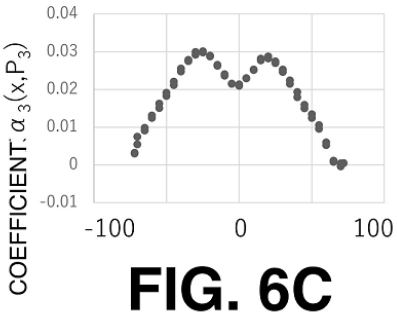
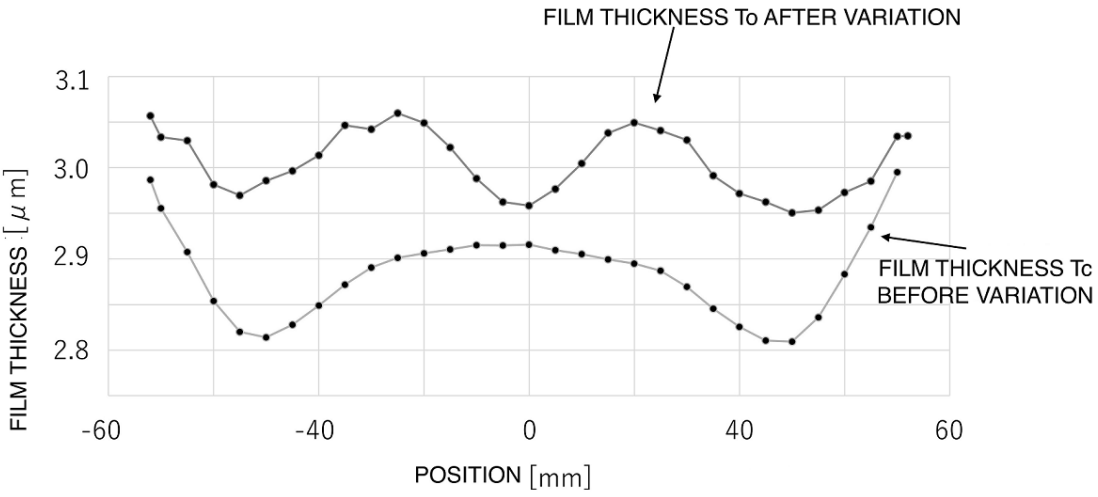
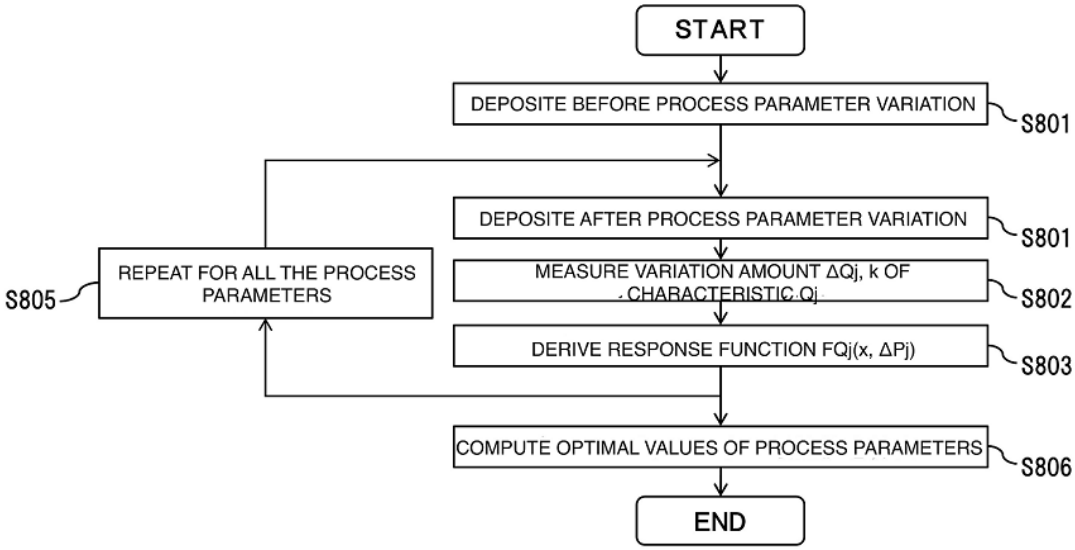


FIG. 6C

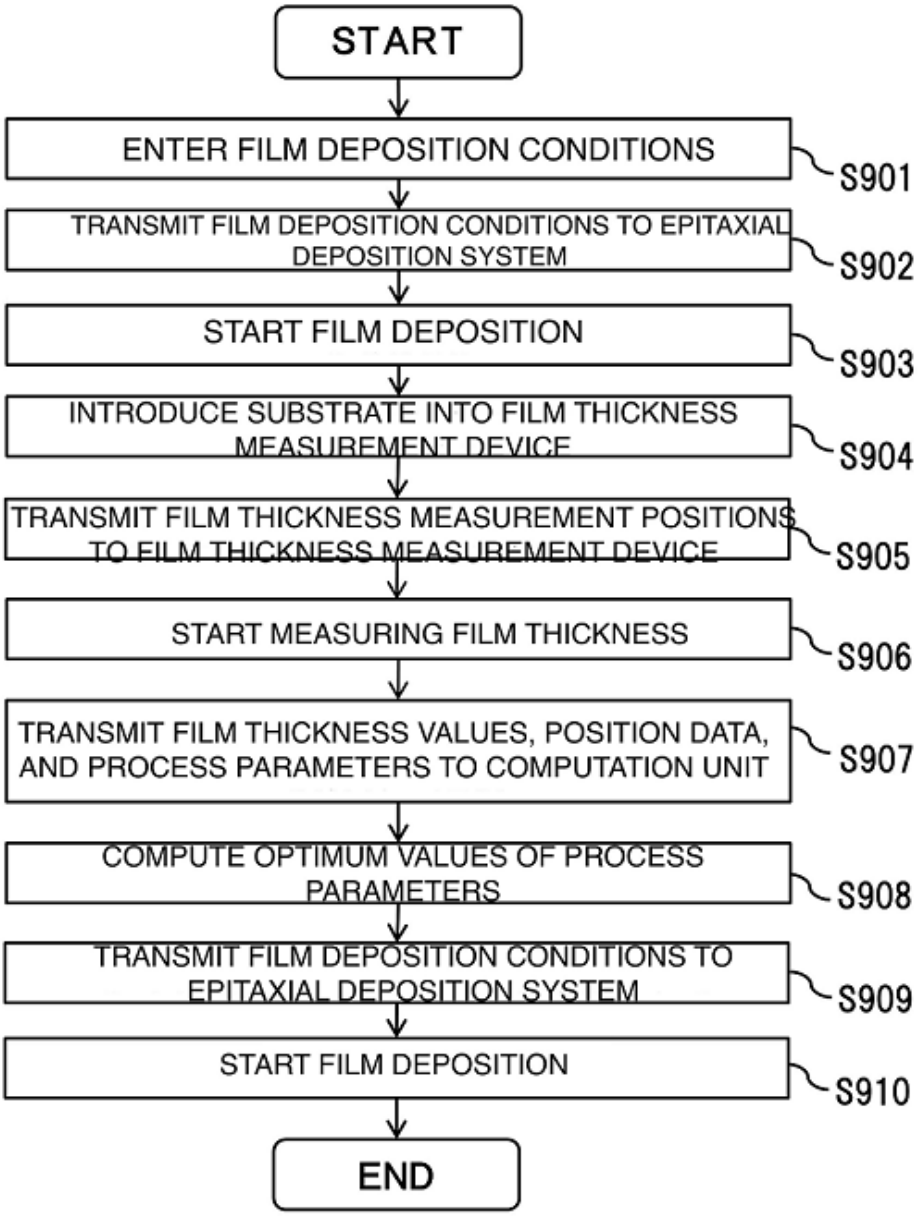
[Fig. 7]


FILM THICKNESS To AFTER VARIATION
FILM THICKNESS Tc
BEFORE VARIATION
FILM THICKNESS [μm]
3.1
3.0
2.9
2.8
-60
-40
0
40
60
POSITION [mm]

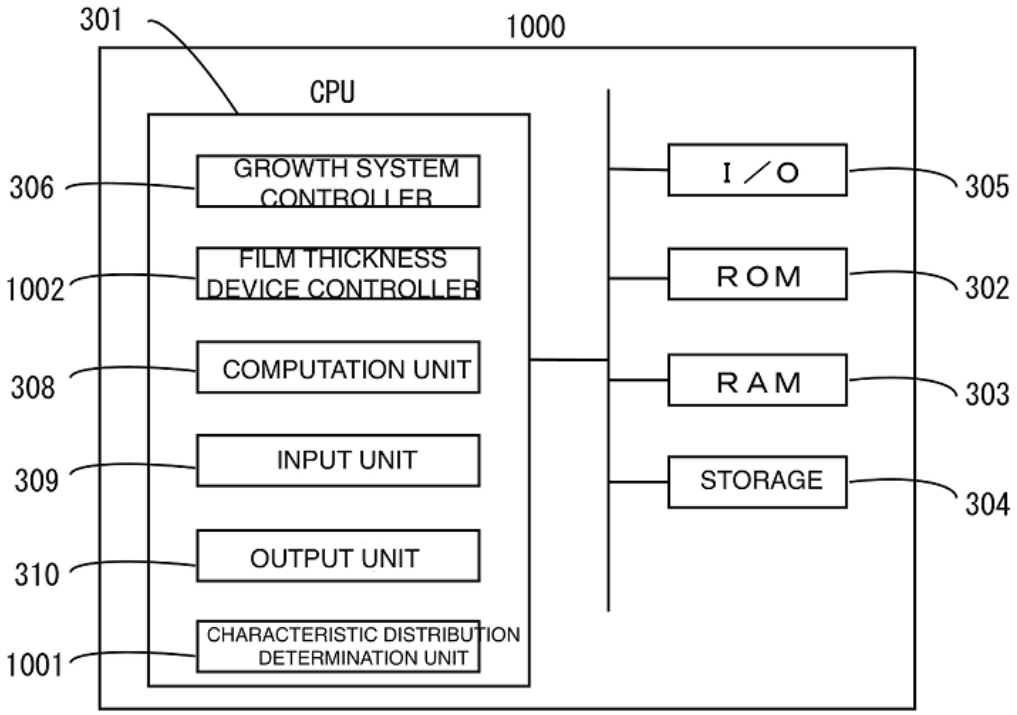
[Fig. 8]


START
DEPOSITE BEFORE PROCESS PARAMETER VARIATION
S801
DEPOSITE AFTER PROCESS PARAMETER VARIATION
S801
MEASURE VARIATION AMOUNT ΔQj, k OF CHARACTERISTIC Qj
S802
DERIVE RESPONSE FUNCTION FQj(x, ΔPj)
S803
REPEAT FOR ALL THE PROCESS PARAMETERS
S805
COMPUTE OPTIMAL VALUES OF PROCESS PARAMETERS
S806
END

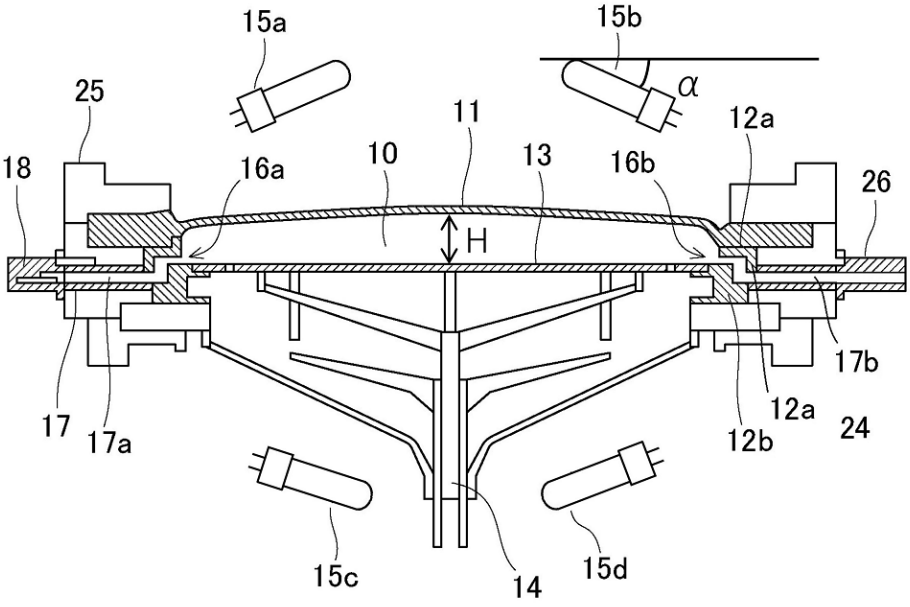
[Fig. 9]


START
ENTER FILM DEPOSITION CONDITIONS
S901
TRANSMIT FILM DEPOSITION CONDITIONS TO EPITAXIAL DEPOSITION SYSTEM
S902
START FILM DEPOSITION
S903
INTRODUCE SUBSTRATE INTO FILM THICKNESS MEASUREMENT DEVICE
S904
TRANSMIT FILM THICKNESS MEASUREMENT POSITIONS TO FILM THICKNESS MEASUREMENT DEVICE
S905
START MEASURING FILM THICKNESS
S906
TRANSMIT FILM THICKNESS VALUES, POSITION DATA, AND PROCESS PARAMETERS TO COMPUTATION UNIT
S907
COMPUTE OPTIMUM VALUES OF PROCESS PARAMETERS
S908
TRANSMIT FILM DEPOSITION CONDITIONS TO EPITAXIAL DEPOSITION SYSTEM
S909
START FILM DEPOSITION
S910
END

[Fig. 10]


301
1000
CPU
306
GROWTH SYSTEM CONTROLLER
1002
FILM THICKNESS DEVICE CONTROLLER
308
COMPUTATION UNIT
309
INPUT UNIT
310
OUTPUT UNIT
1001
CHARACTERISTIC DISTRIBUTION DETERMINATION UNIT
I／O
305
ROM
302
RAM
303
STORAGE
304

[Fig. 11]


15a
15b
α
25
11
12a
18
16a
10
13
16b
26
H
17b
17
17a
12a
12b
24
15c
14
15d