Fig. 1

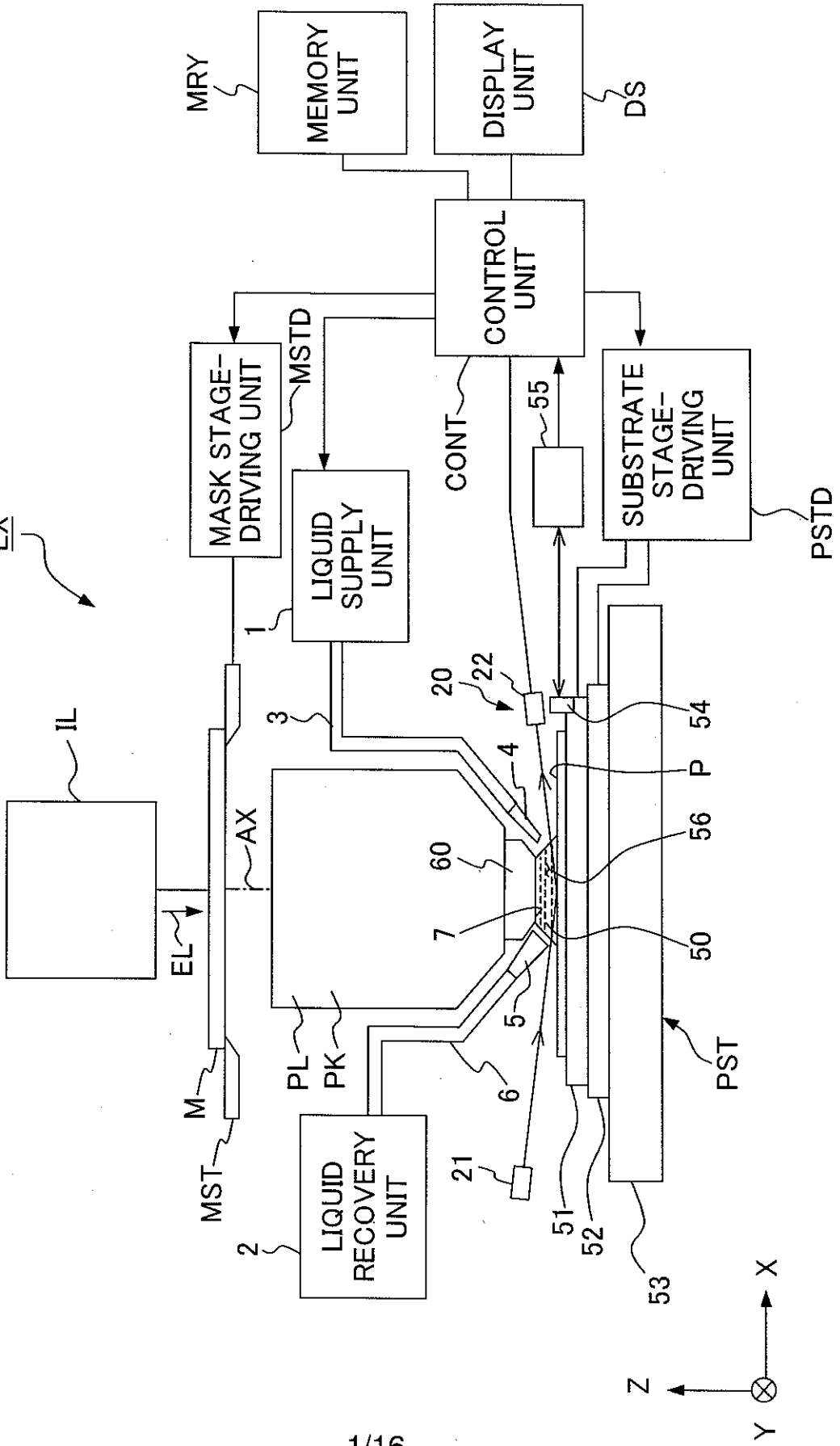

EX
IL
AX
EL
M
MST
2
LIQUID RECOVERY UNIT
PL
PK
6
21
MASK STAGE-DRIVING UNIT
MSTD
1
LIQUID SUPPLY UNIT
3
4
20
22
60
7
5
51
52
53
PST
50
56
P
54
55
CONT
CONTROL UNIT
MRY
MEMORY UNIT
DISPLAY UNIT
DS
SUBSTRATE STAGE-DRIVING UNIT
PSTD
Z
X
Y

Fig. 2

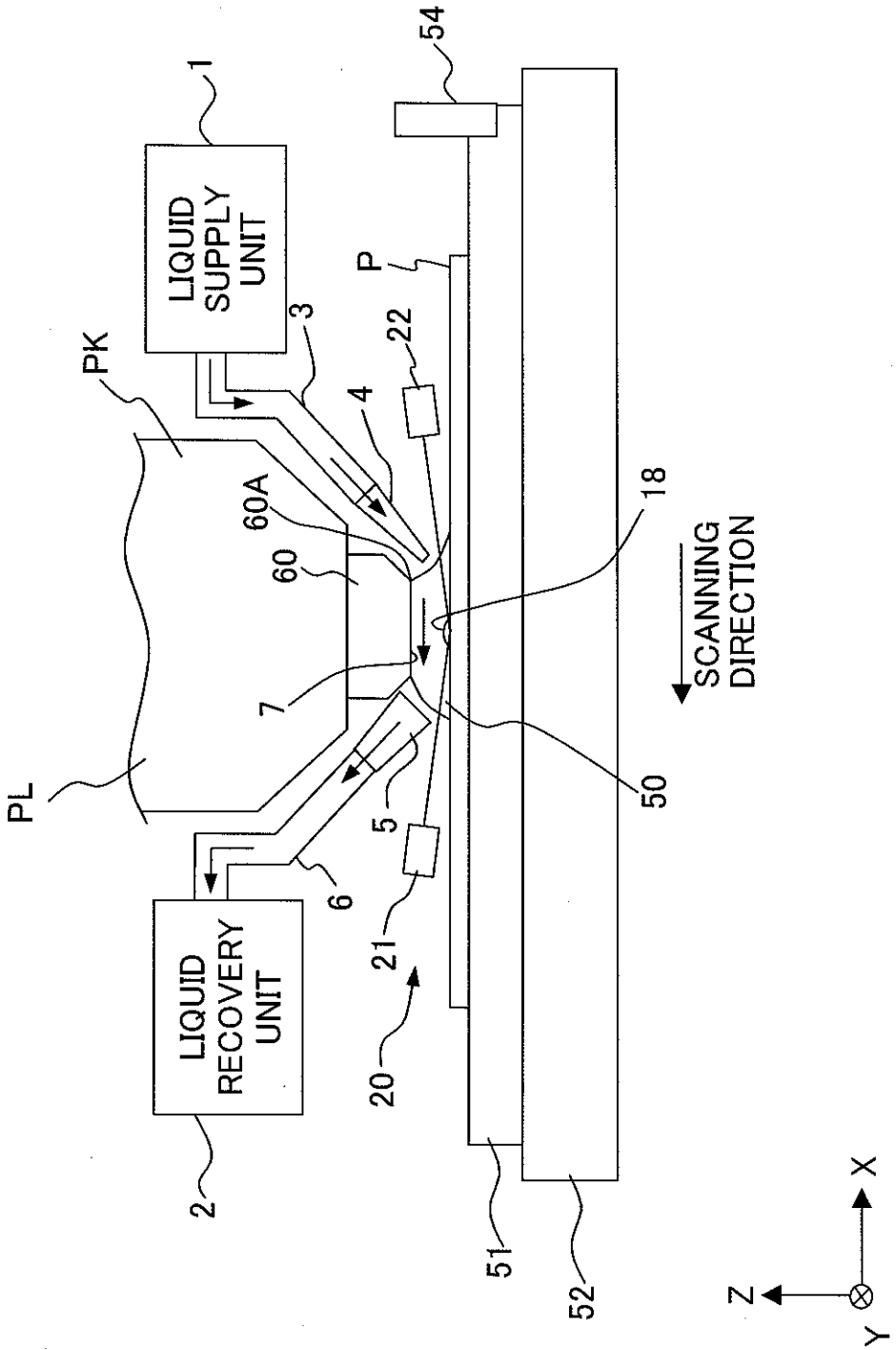

LIQUID SUPPLY UNIT
LIQUID RECOVERY UNIT
PK
PL
P
SCANNING DIRECTION
1
2
3
4
5
6
7
18
20
21
22
50
51
52
54
60
60A
Z
X
Y

Fig. 3

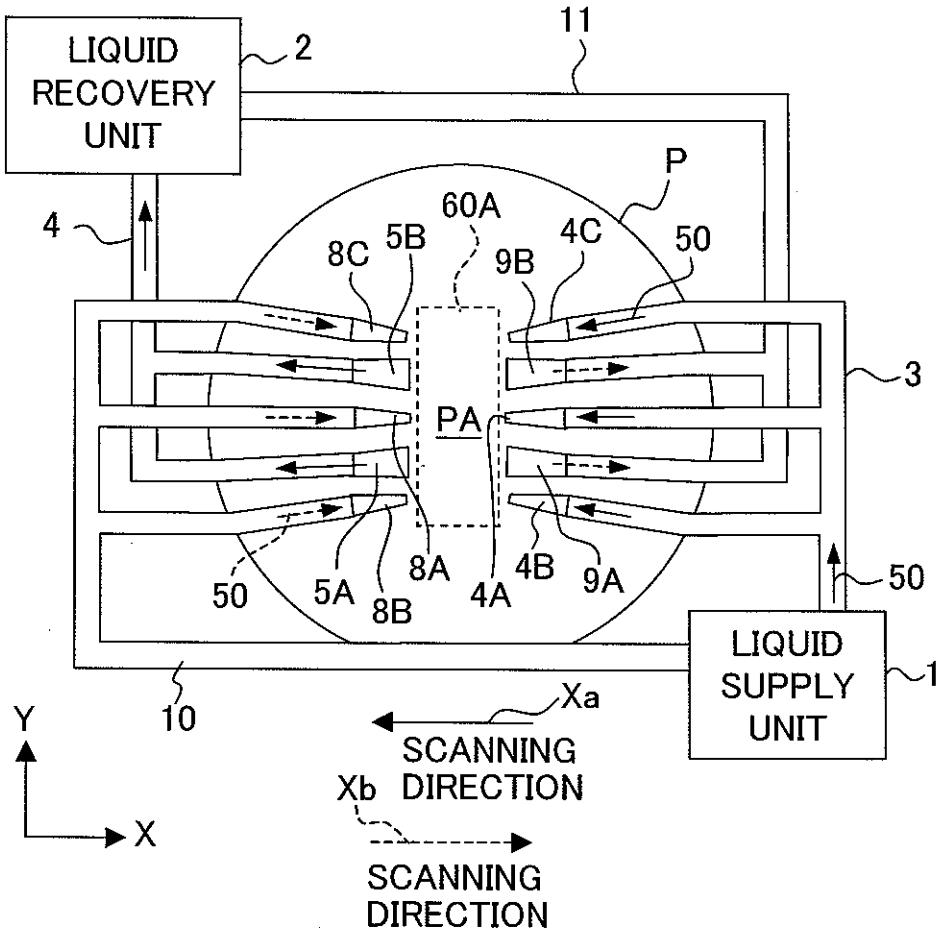

LIQUID RECOVERY UNIT
2
11
P
4
60A
8C
5B
9B
4C
50
3
PA
50
5A
8B
8A
4A
4B
9A
50
LIQUID SUPPLY UNIT
1
10
Xa
SCANNING DIRECTION
Xb
SCANNING DIRECTION
Y
X

Fig. 4

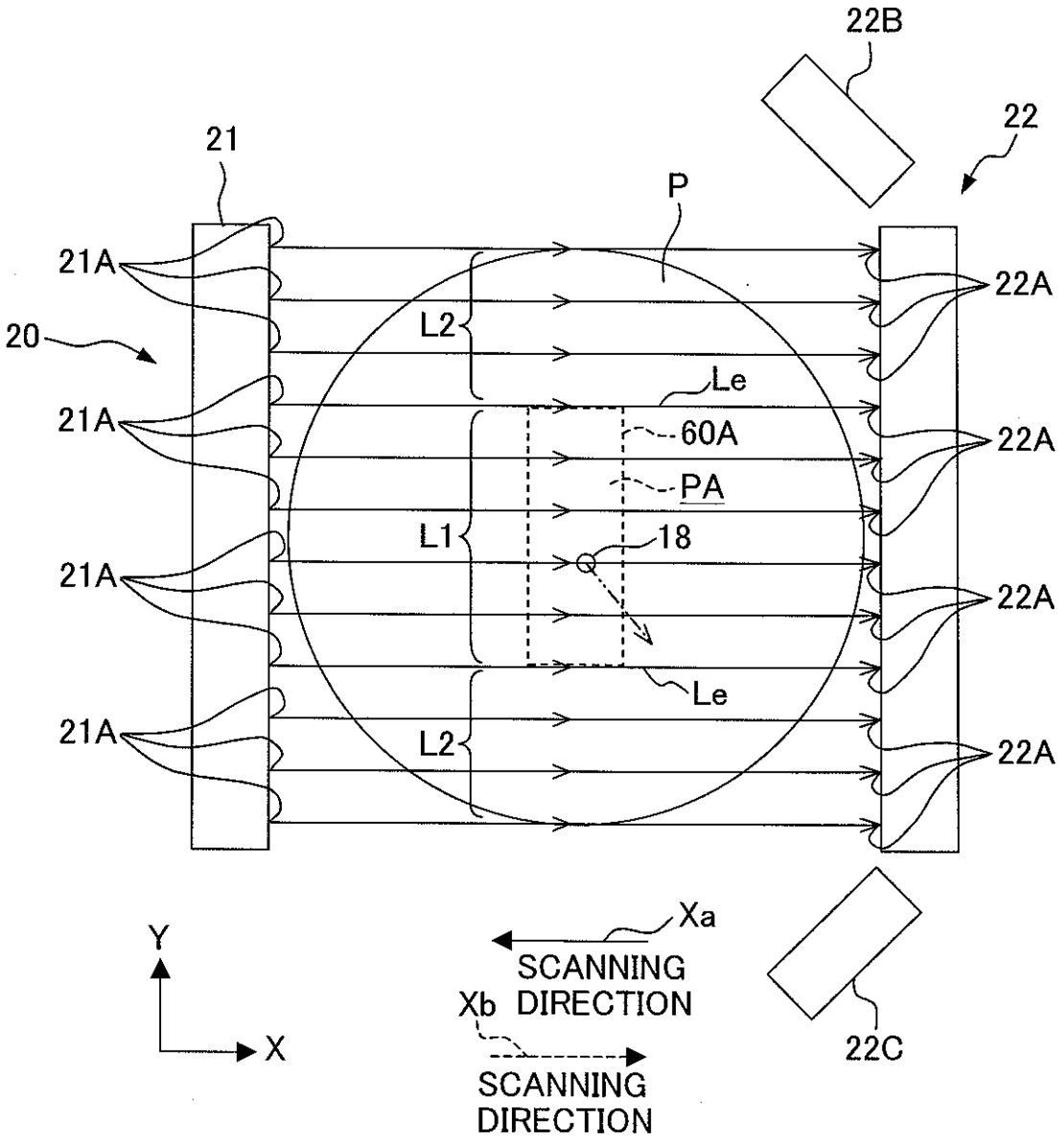

22B
22
21
P
21A
20
L2
Le
60A
PA
L1
18
22A
Le
L2
Y
X
Xa
SCANNING
DIRECTION
Xb
SCANNING
DIRECTION
22C

Fig. 5

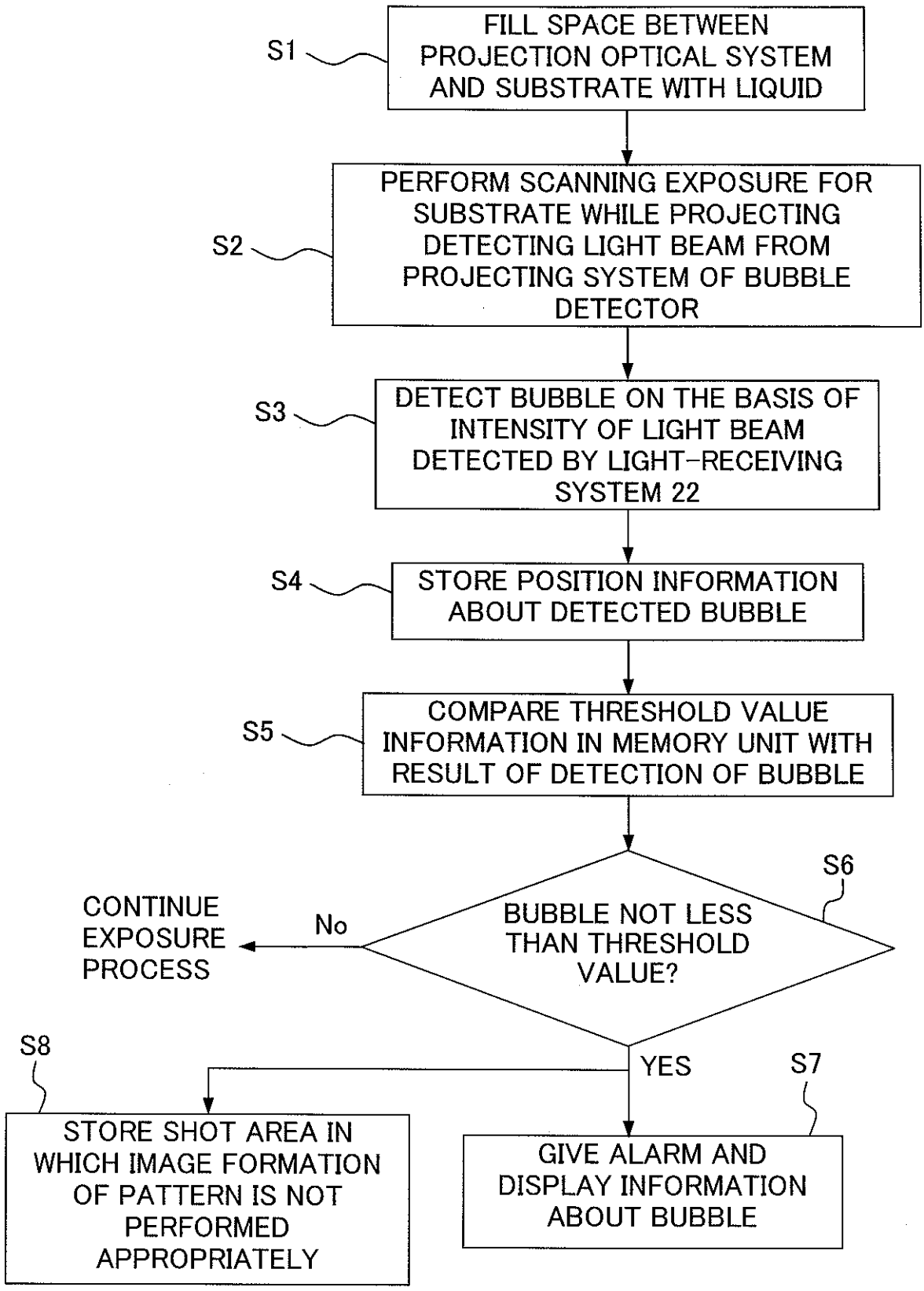

S1
FILL SPACE BETWEEN PROJECTION OPTICAL SYSTEM AND SUBSTRATE WITH LIQUID
S2
PERFORM SCANNING EXPOSURE FOR SUBSTRATE WHILE PROJECTING DETECTING LIGHT BEAM FROM PROJECTING SYSTEM OF BUBBLE DETECTOR
S3
DETECT BUBBLE ON THE BASIS OF INTENSITY OF LIGHT BEAM DETECTED BY LIGHT-RECEIVING SYSTEM 22
S4
STORE POSITION INFORMATION ABOUT DETECTED BUBBLE
S5
COMPARE THRESHOLD VALUE INFORMATION IN MEMORY UNIT WITH RESULT OF DETECTION OF BUBBLE
S6
BUBBLE NOT LESS THAN THRESHOLD VALUE?
No
CONTINUE EXPOSURE PROCESS
YES
S7
GIVE ALARM AND DISPLAY INFORMATION ABOUT BUBBLE
S8
STORE SHOT AREA IN WHICH IMAGE FORMATION OF PATTERN IS NOT PERFORMED APPROPRIATELY

Fig. 6

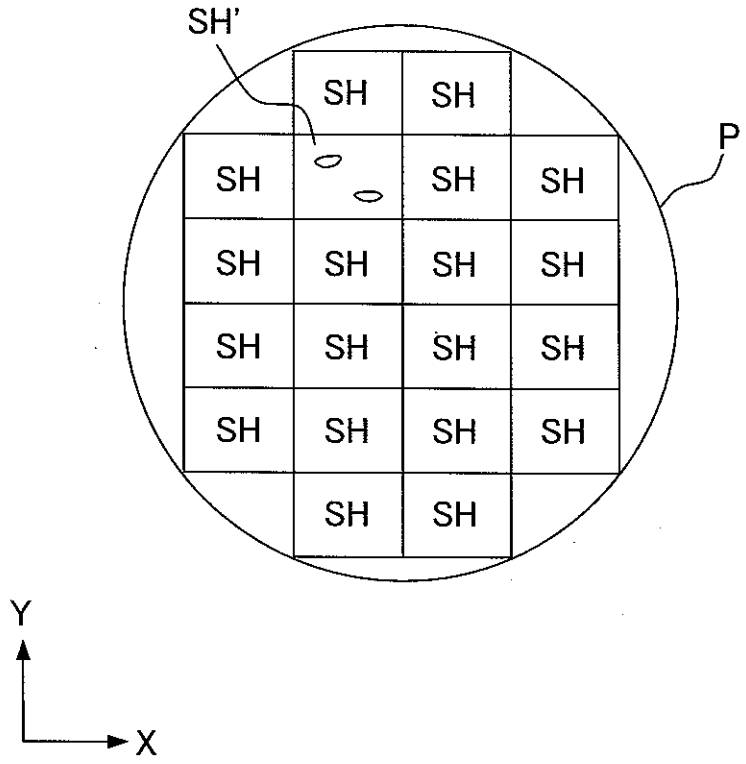
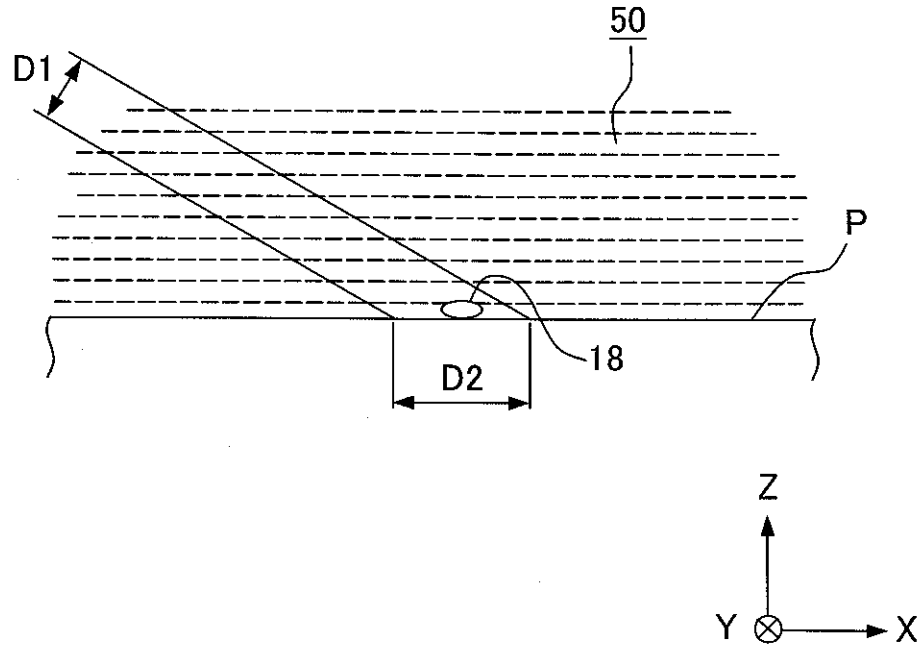


Fig. 7

(a)



(b)

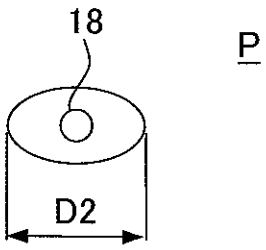


Fig. 8

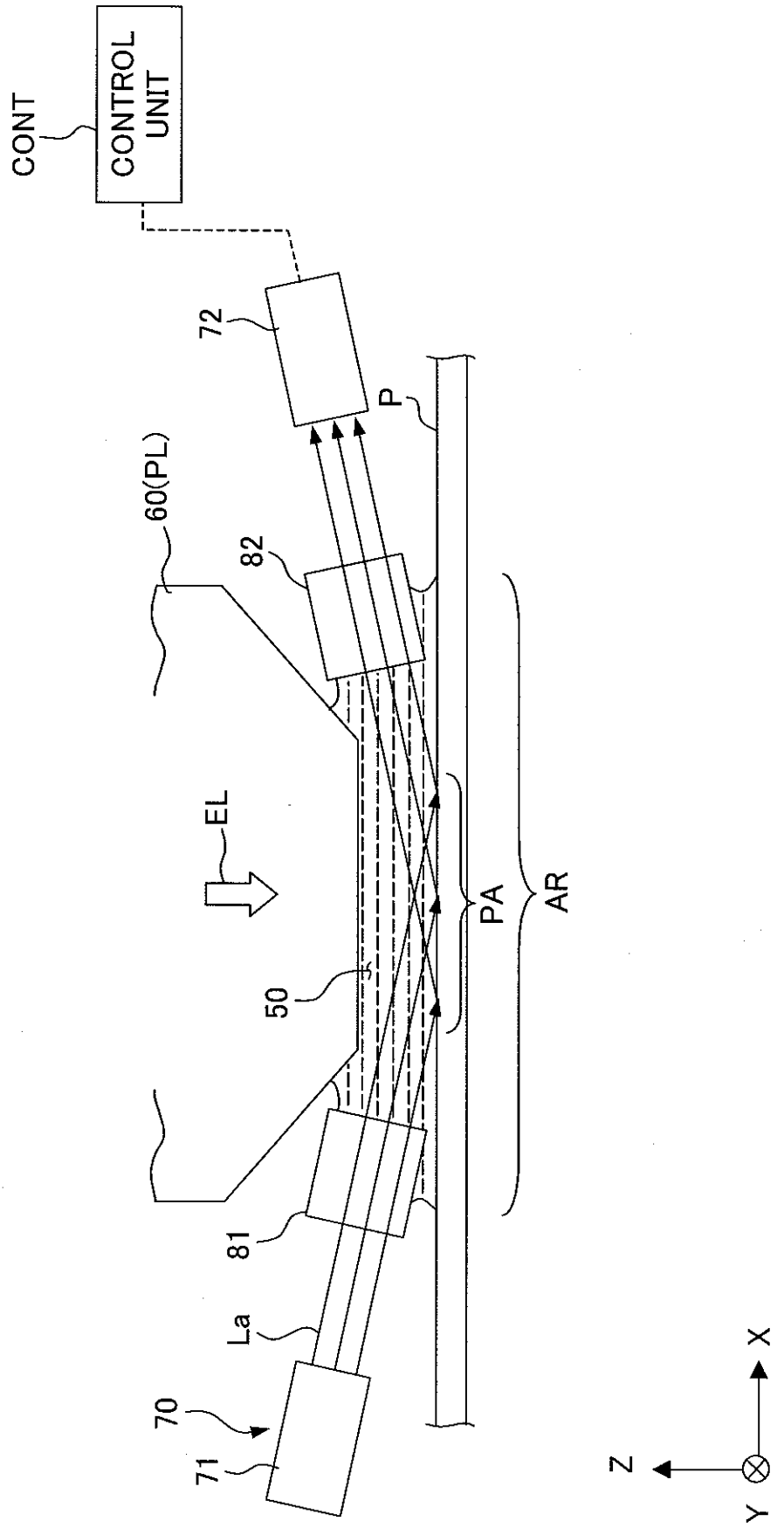


Fig. 9

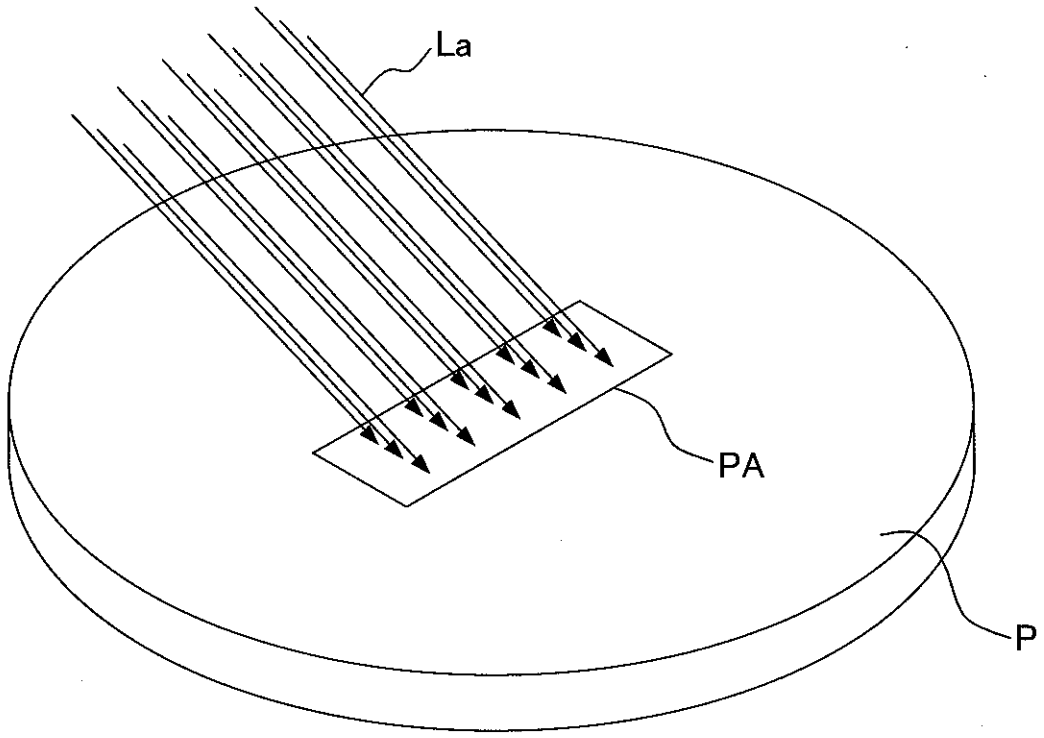


Fig. 10

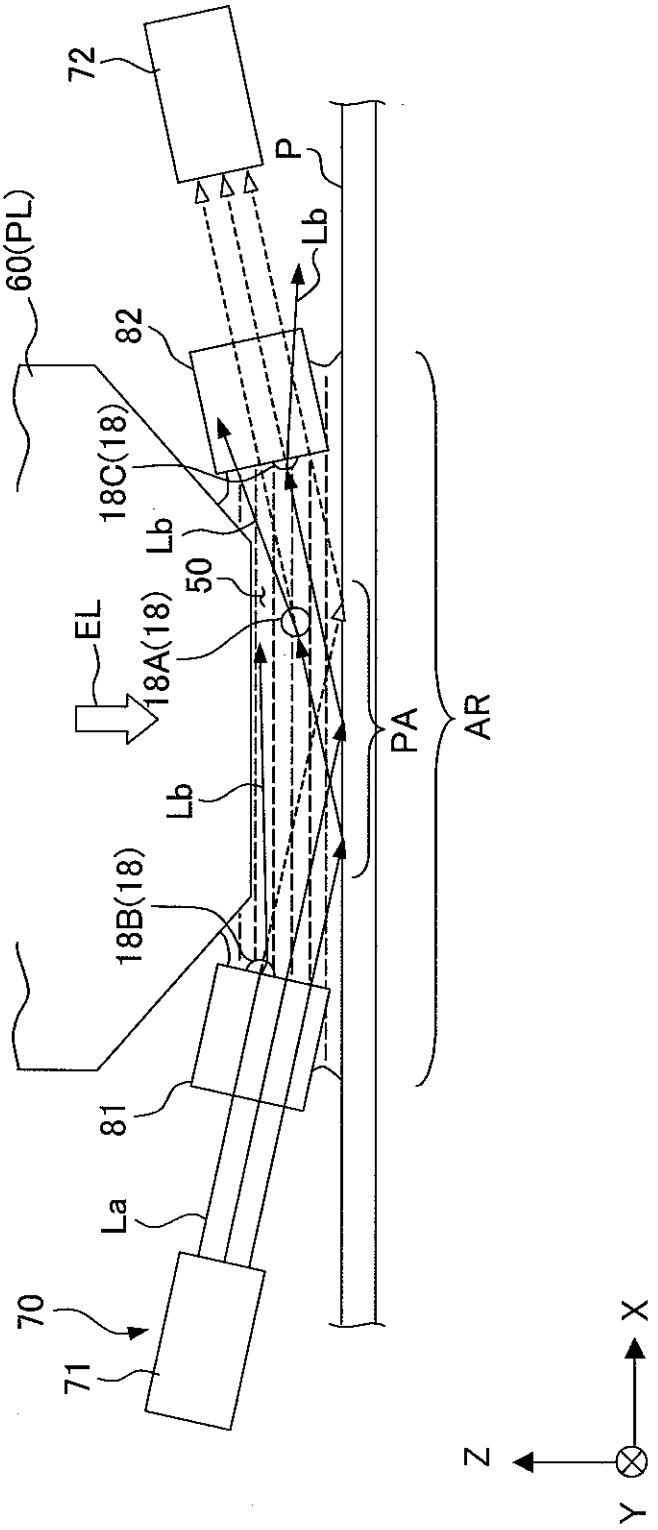


Fig. 11

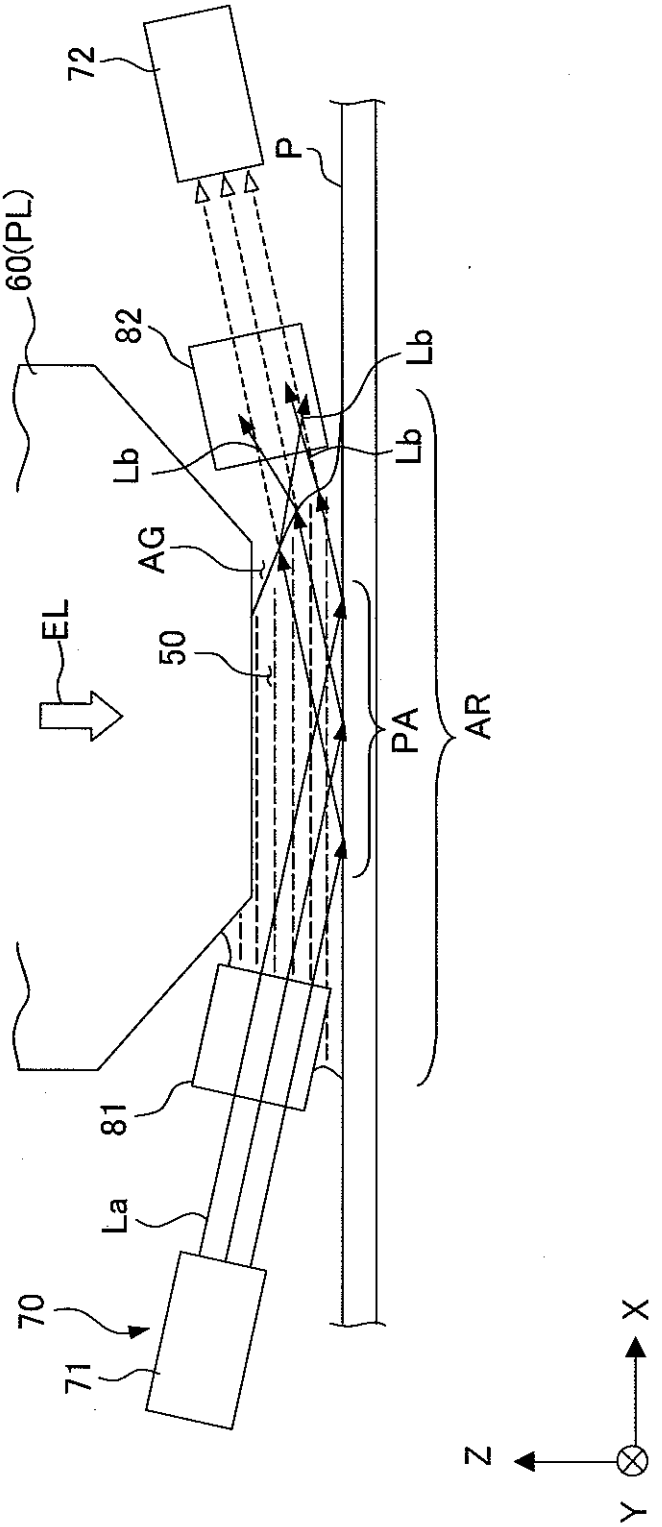
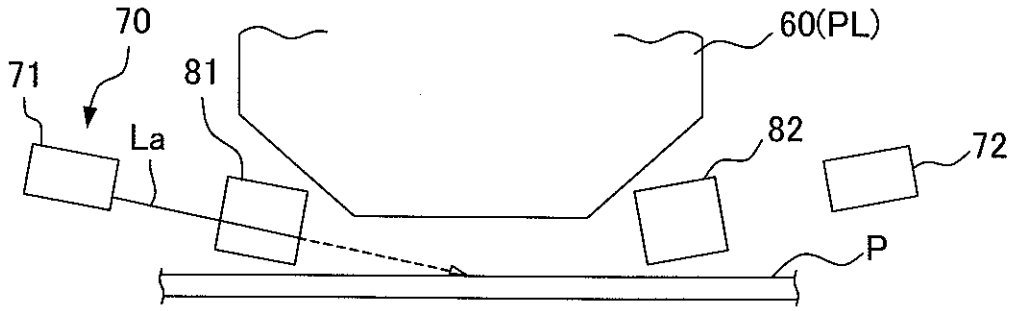
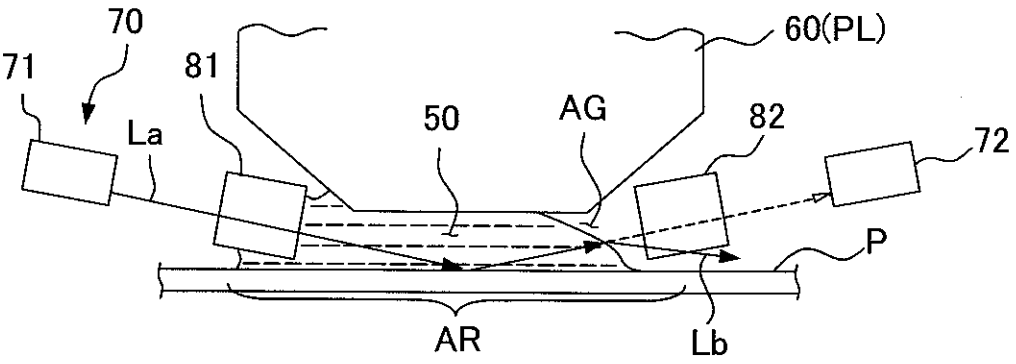


Fig. 12

(a)


70
71
81
La
60(PL)
82
72
P

(b)


70
71
81
La
50
AG
60(PL)
82
72
P
AR
Lb

(c)

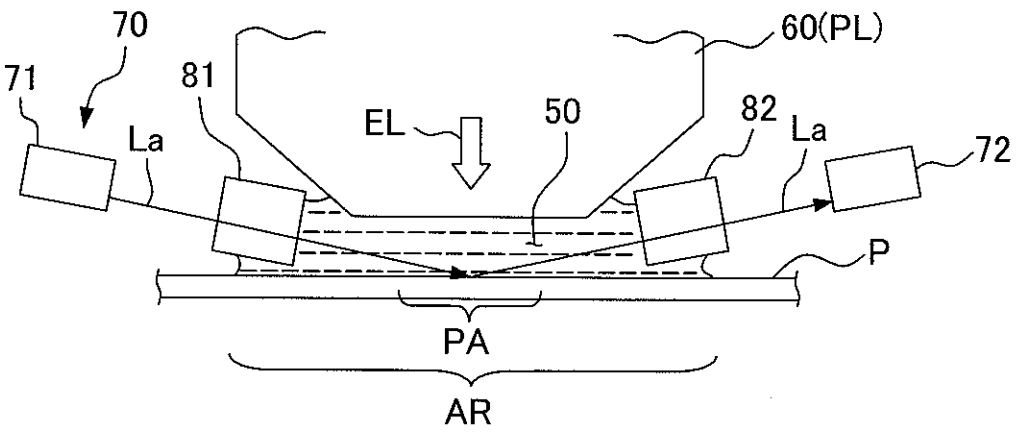

70
71
81
La
EL
50
60(PL)
82
La
72
P
PA
AR

Fig. 13

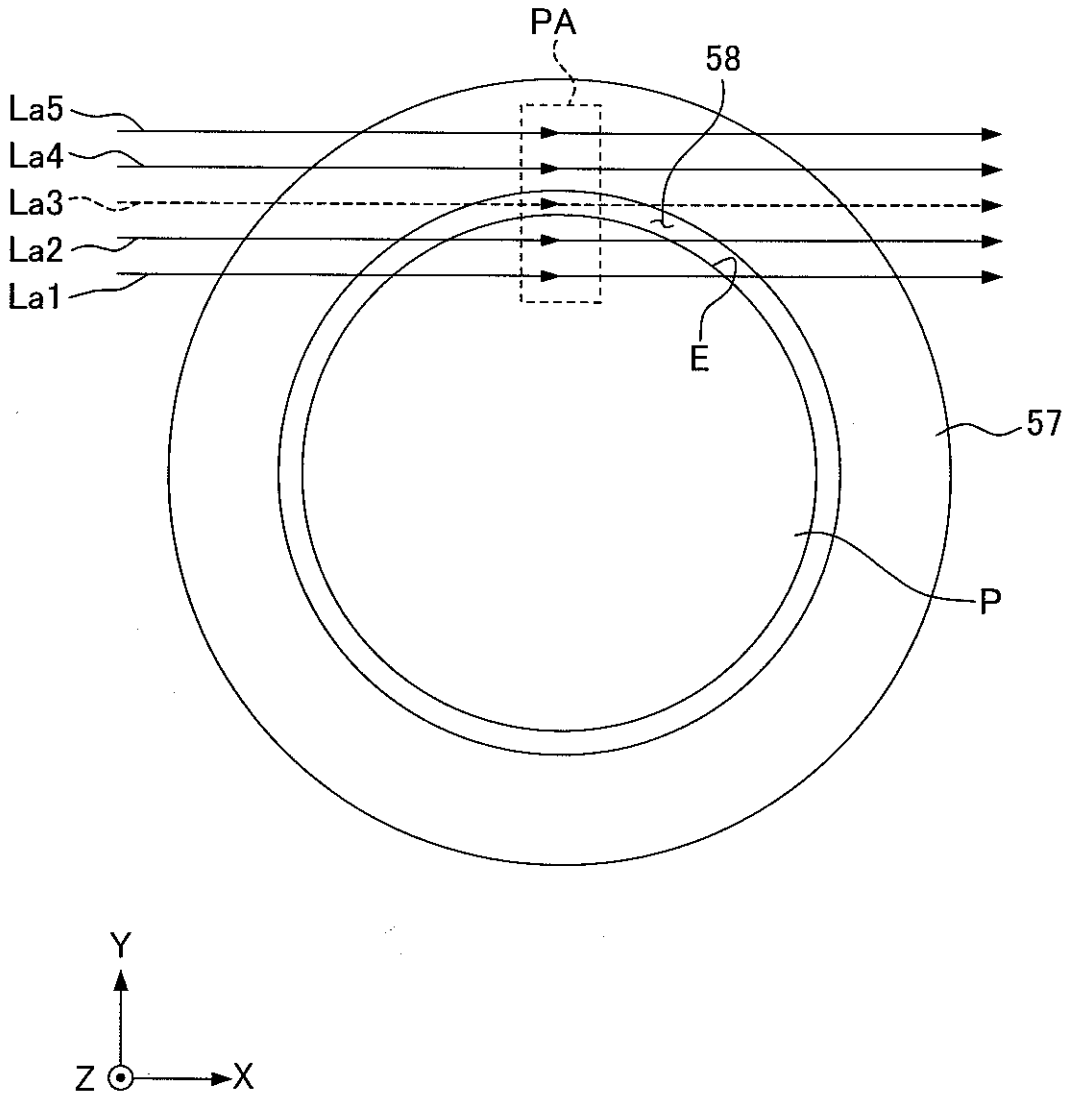


Fig. 14

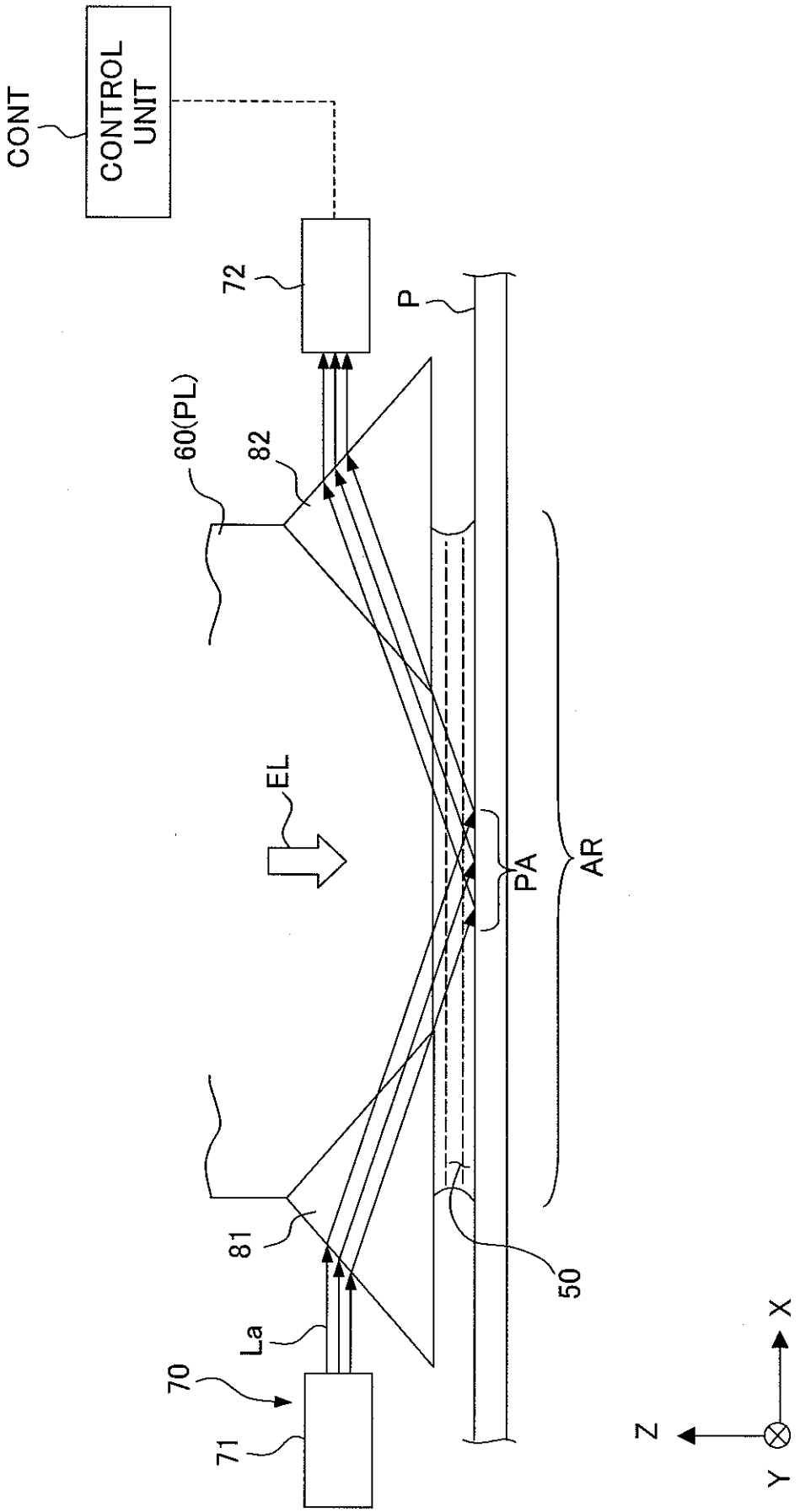


Fig. 15

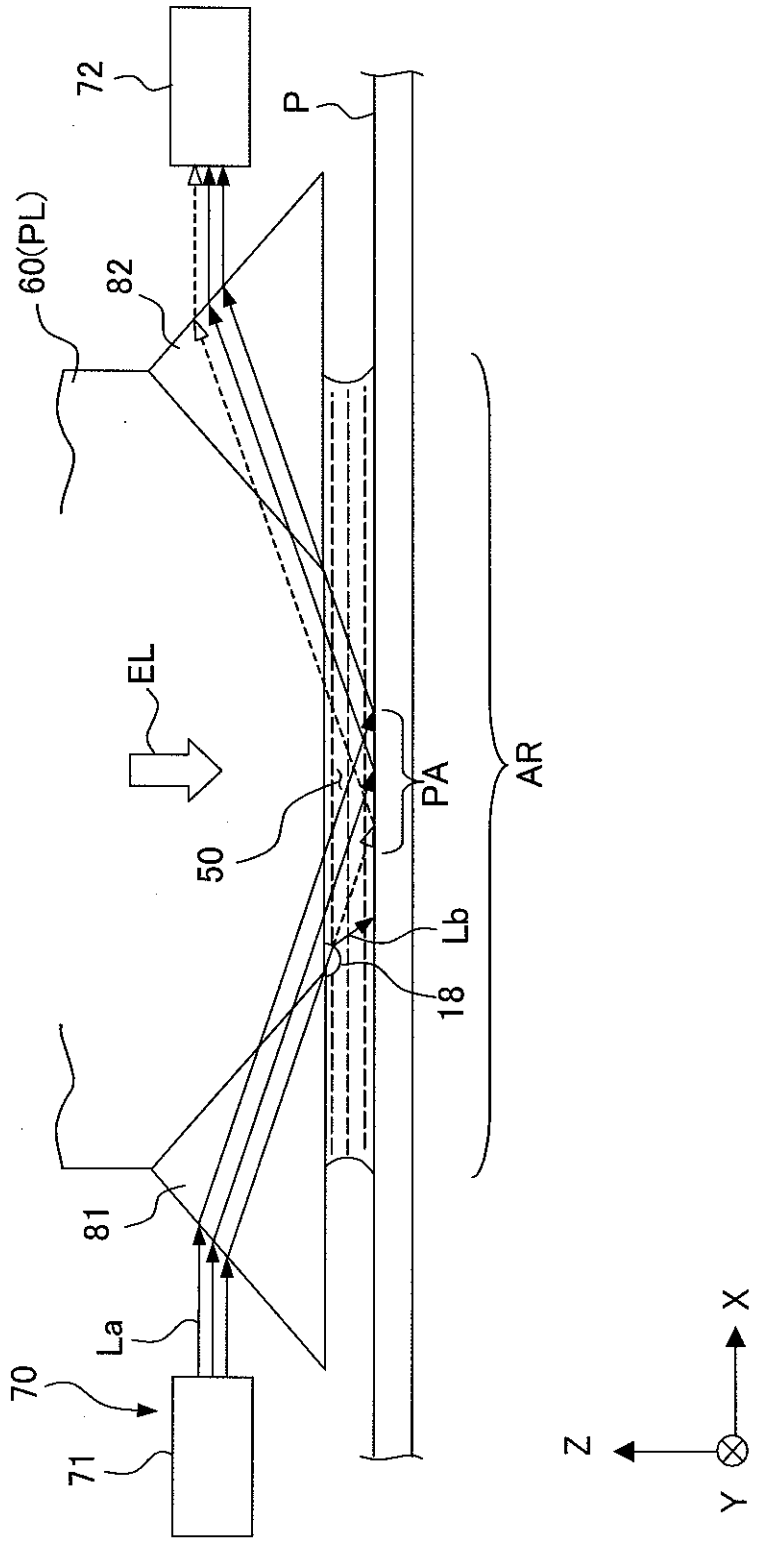
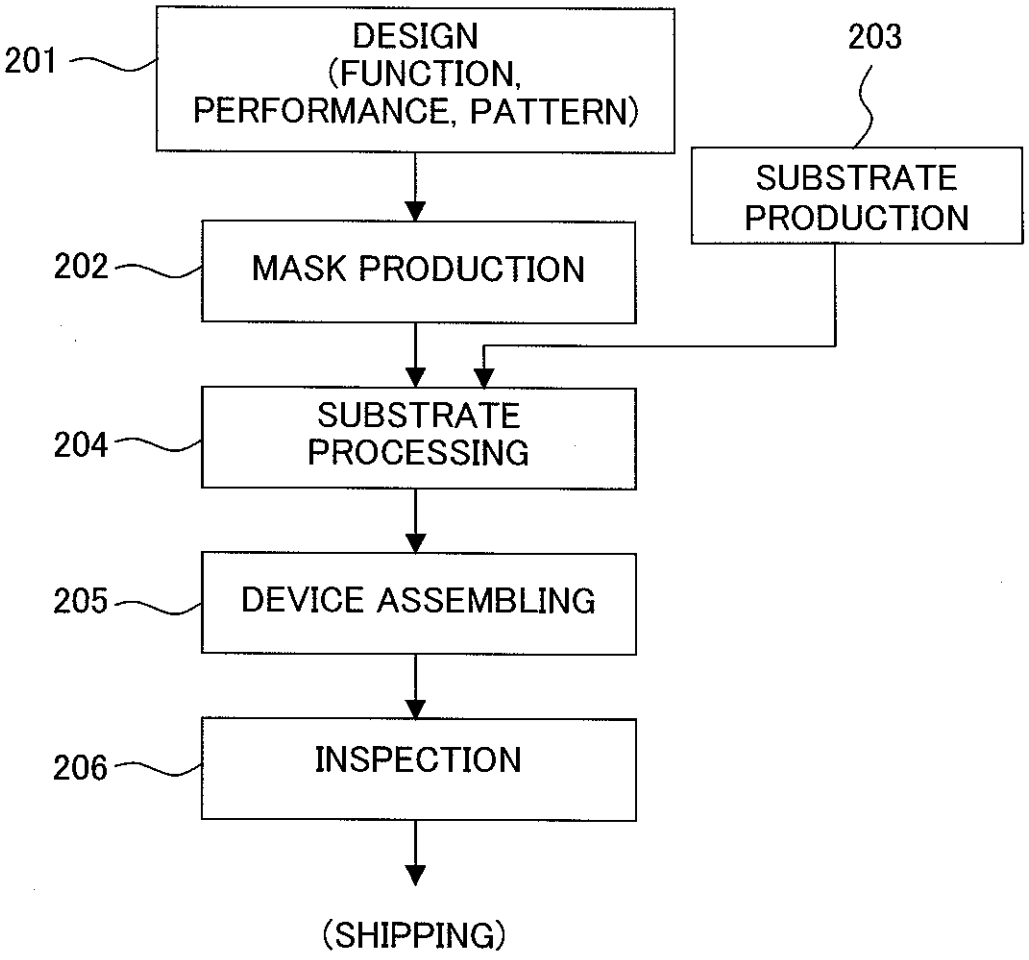


Fig. 16


201
DESIGN
(FUNCTION,
PERFORMANCE, PATTERN)
203
SUBSTRATE
PRODUCTION
202
MASK PRODUCTION
204
SUBSTRATE
PROCESSING
205
DEVICE ASSEMBLING
206
INSPECTION
(SHIPPING)