FIG.1

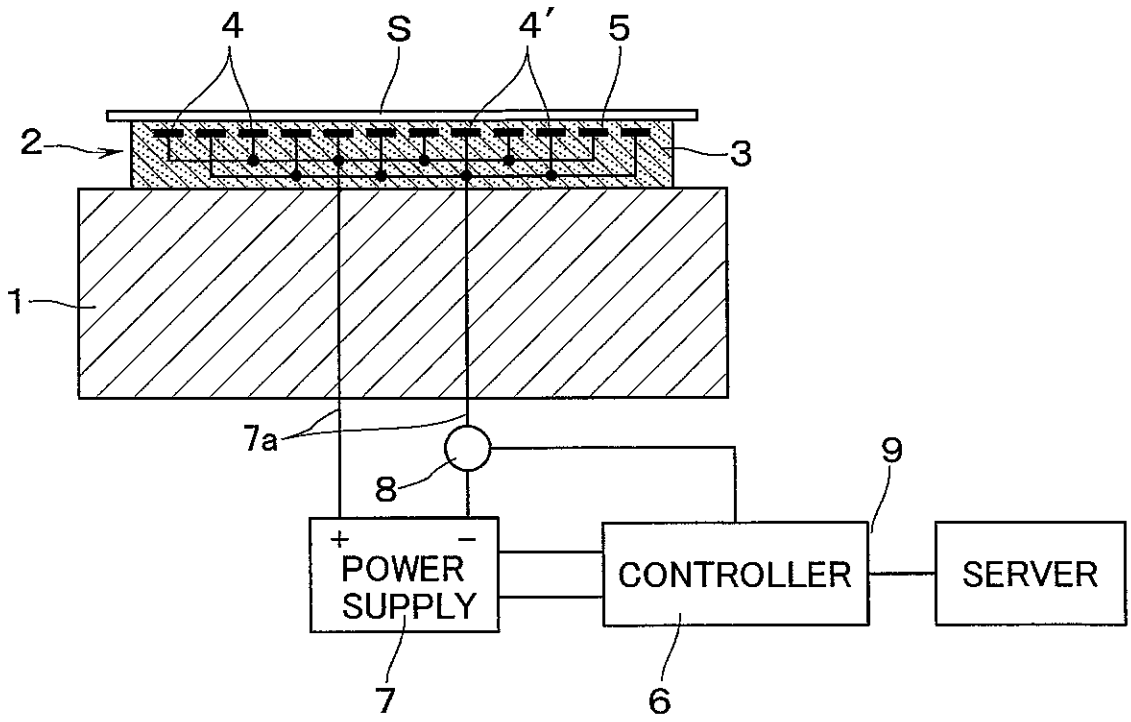

4
S
4′
5
2
3
1
7a
8
9
+
−
POWER SUPPLY
CONTROLLER
SERVER
7
6

FIG.2

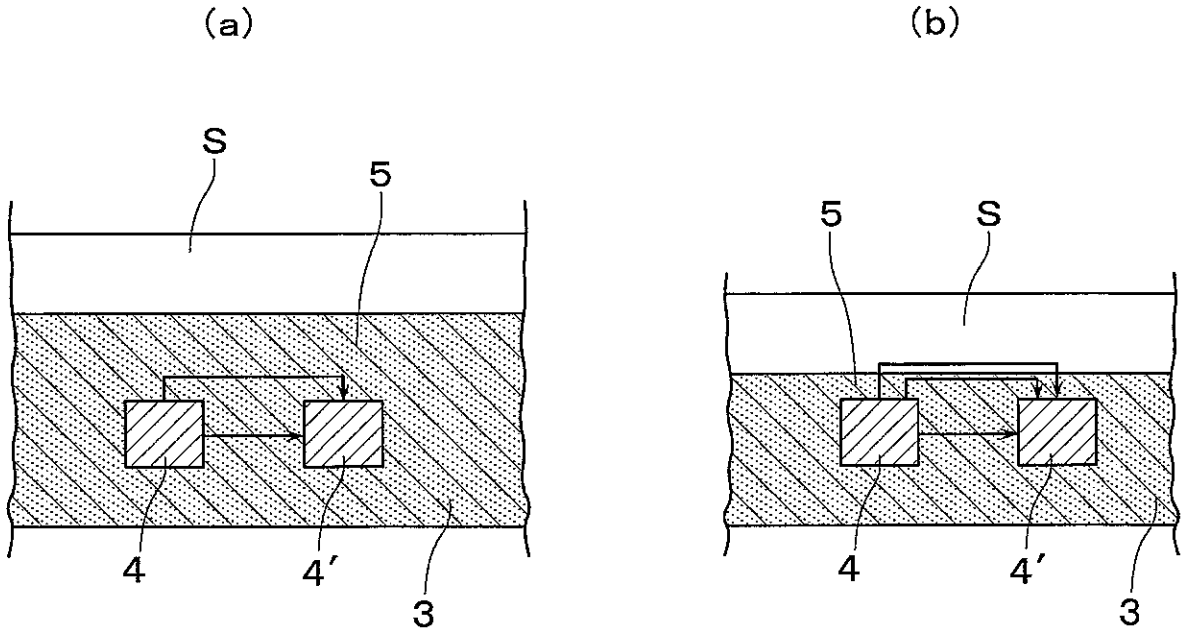

(a)
(b)
S
5
5
S
4
4′
3
4
4′
3

FIG.3

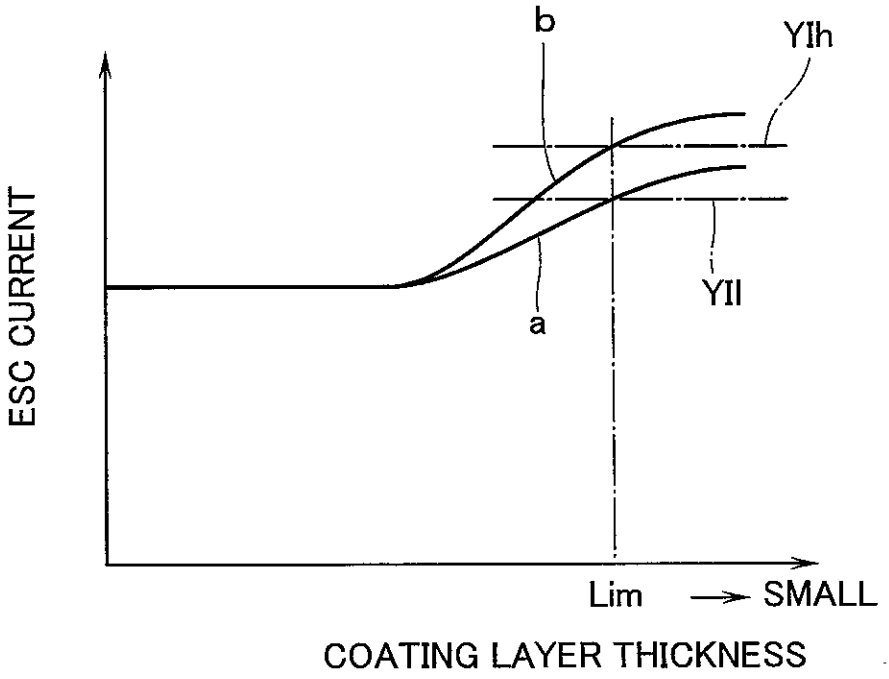

b
YIh
ESC CURRENT
YII
a
Lim
SMALL
COATING LAYER THICKNESS

FIG.4

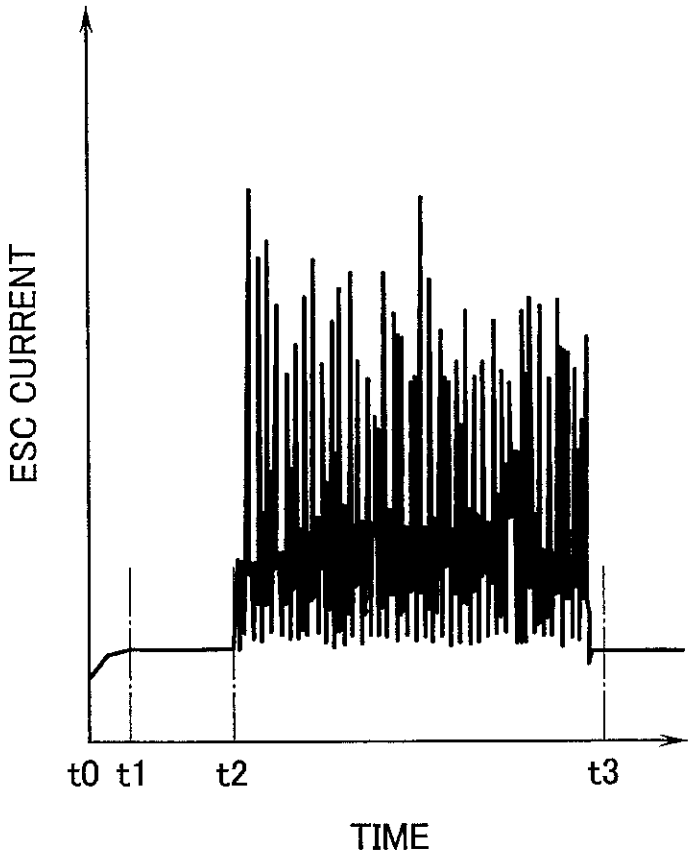
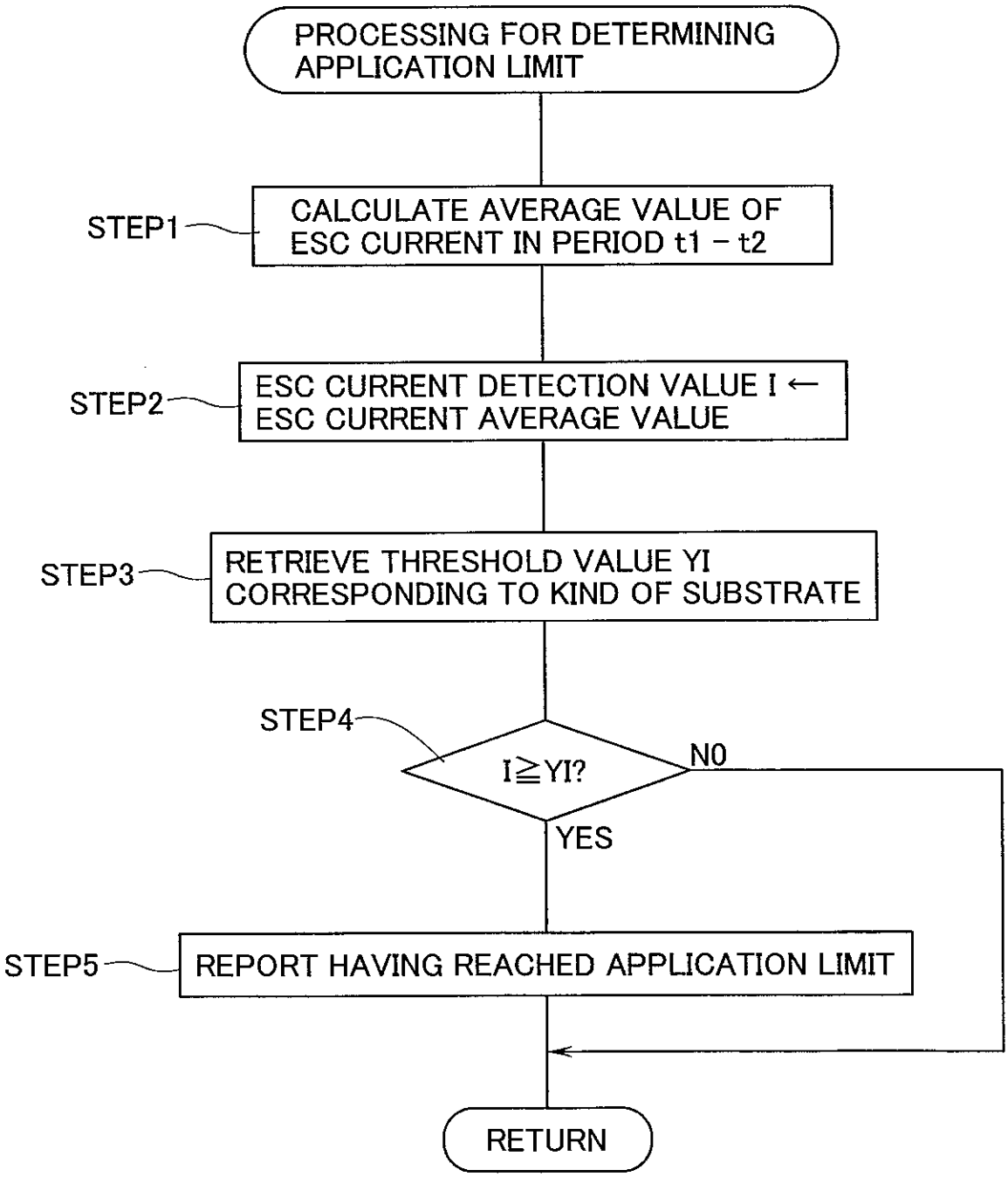

ESC CURRENT
t0
t1
t2
t3
TIME

FIG.5


PROCESSING FOR DETERMINING APPLICATION LIMIT
STEP1
CALCULATE AVERAGE VALUE OF ESC CURRENT IN PERIOD t1 – t2
STEP2
ESC CURRENT DETECTION VALUE I ← ESC CURRENT AVERAGE VALUE
STEP3
RETRIEVE THRESHOLD VALUE YI CORRESPONDING TO KIND OF SUBSTRATE
STEP4
I≧YI?
NO
YES
STEP5
REPORT HAVING REACHED APPLICATION LIMIT
RETURN