FIG.1

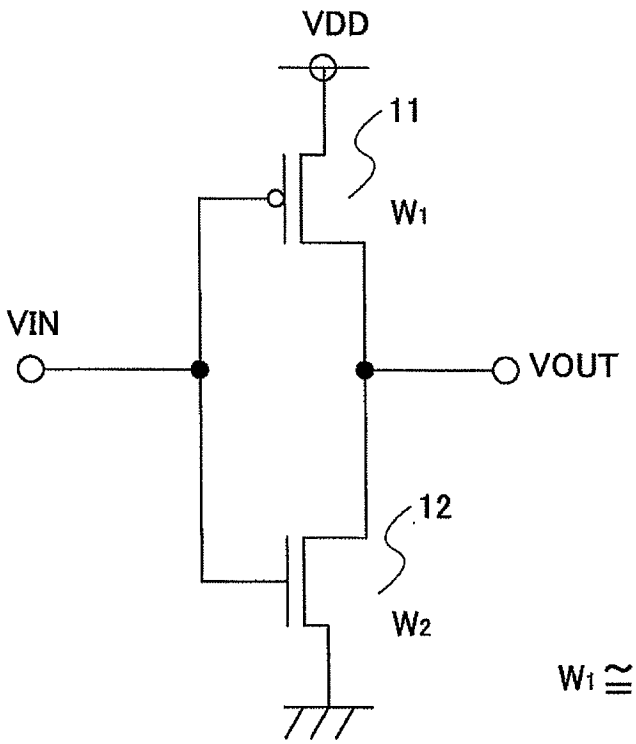


FIG.2

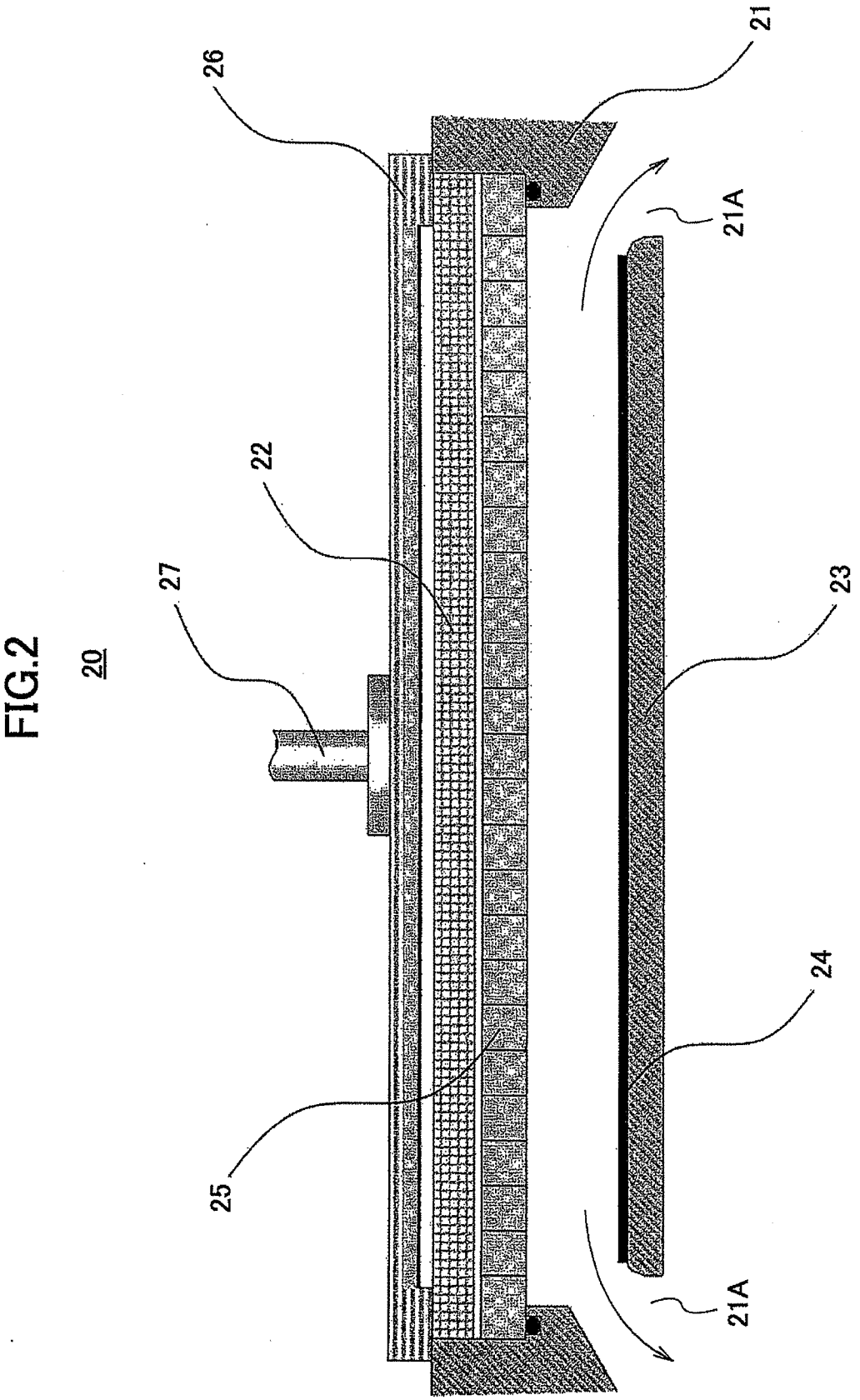


FIG.3

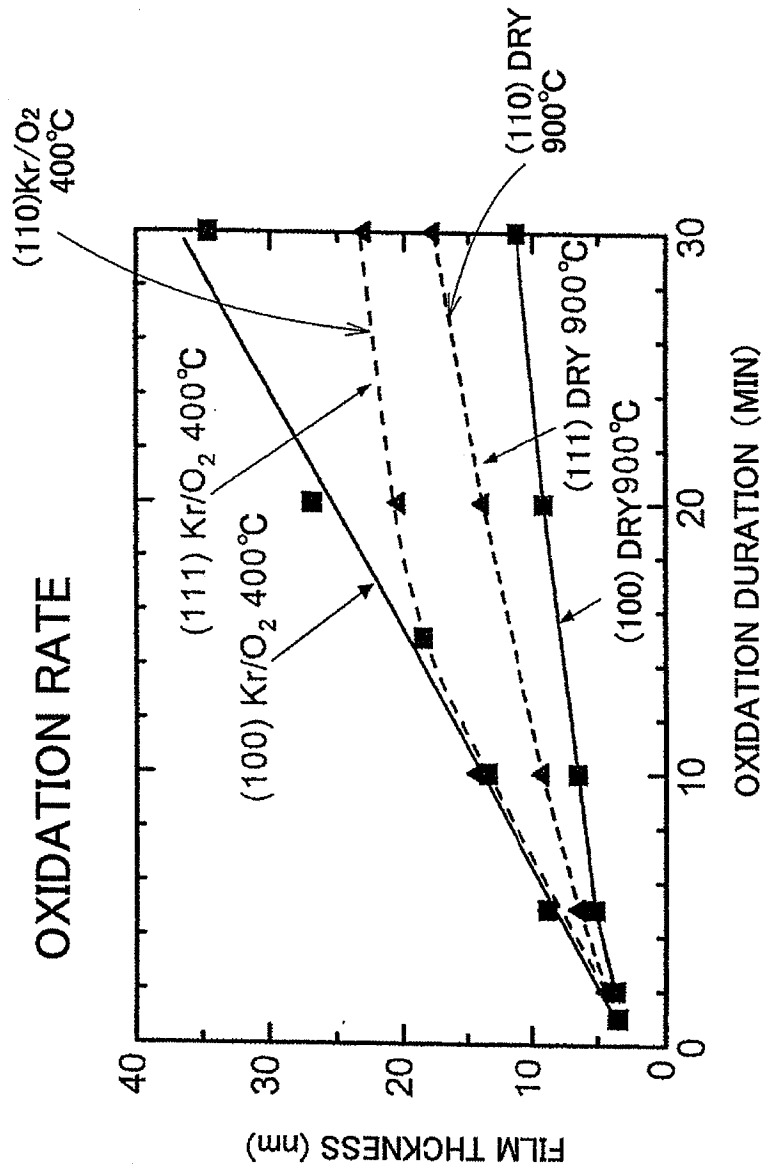

OXIDATION RATE
(110)Kr/O2 400°C
(110) DRY 900°C
(111) Kr/O2 400°C
(100) Kr/O2 400°C
(111) DRY 900°C
(100) DRY900°C
FILM THICKNESS (nm)
OXIDATION DURATION (MIN)
0
10
20
30
40
0
10
20
30

FIG.4

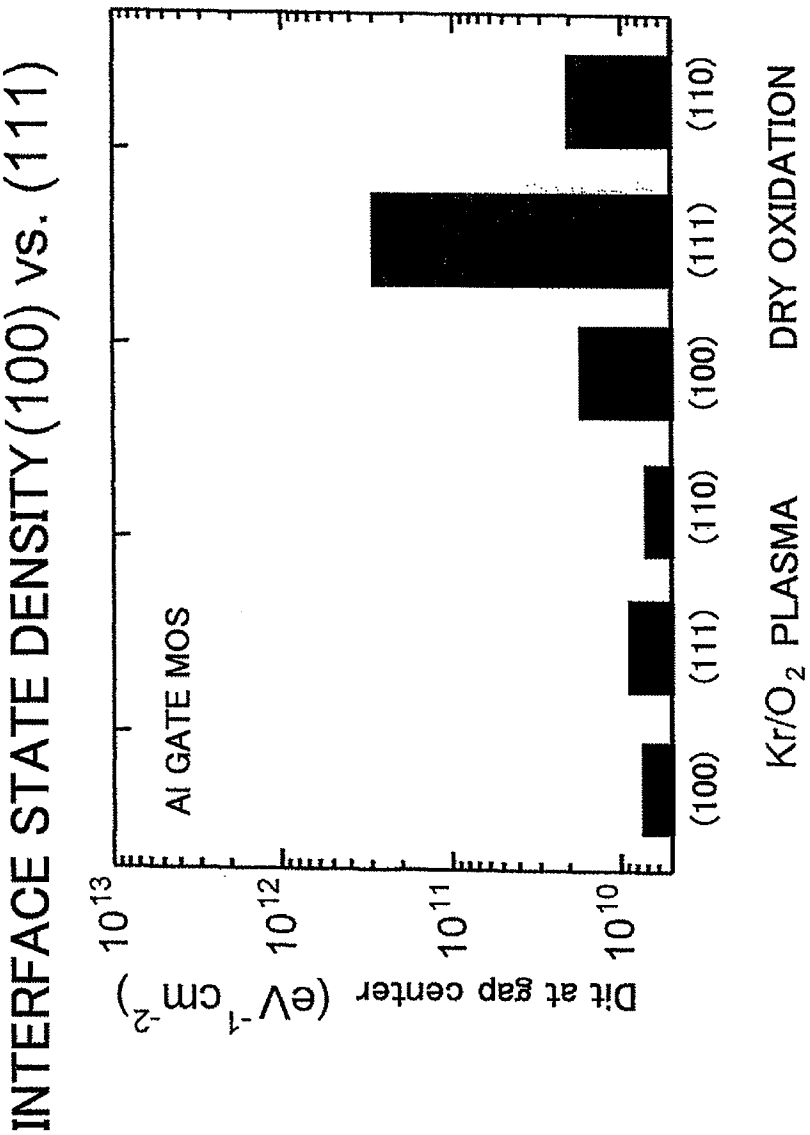

INTERFACE STATE DENSITY (100) vs. (111)
Dit at gap center (eV^{-1}cm^{-2})
10^{13}
10^{12}
10^{11}
10^{10}
Al GATE MOS
(100) (111) (110) (100) (111) (110)
Kr/O_2 PLASMA
DRY OXIDATION

FIG.5A

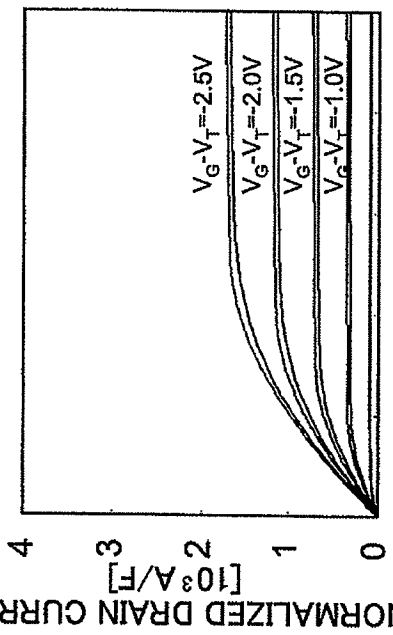


FIG.5B

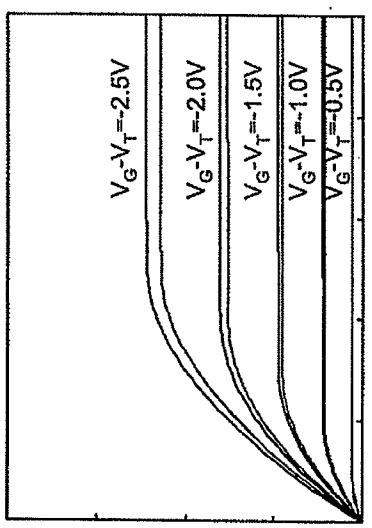


FIG.5C

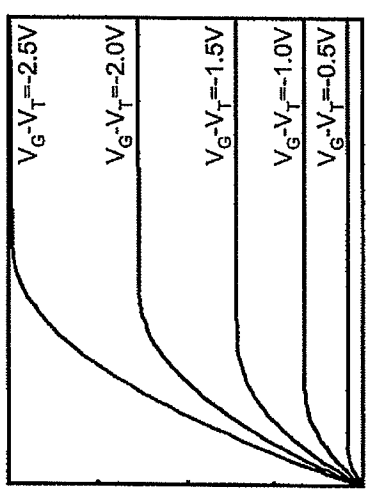


FIG.6

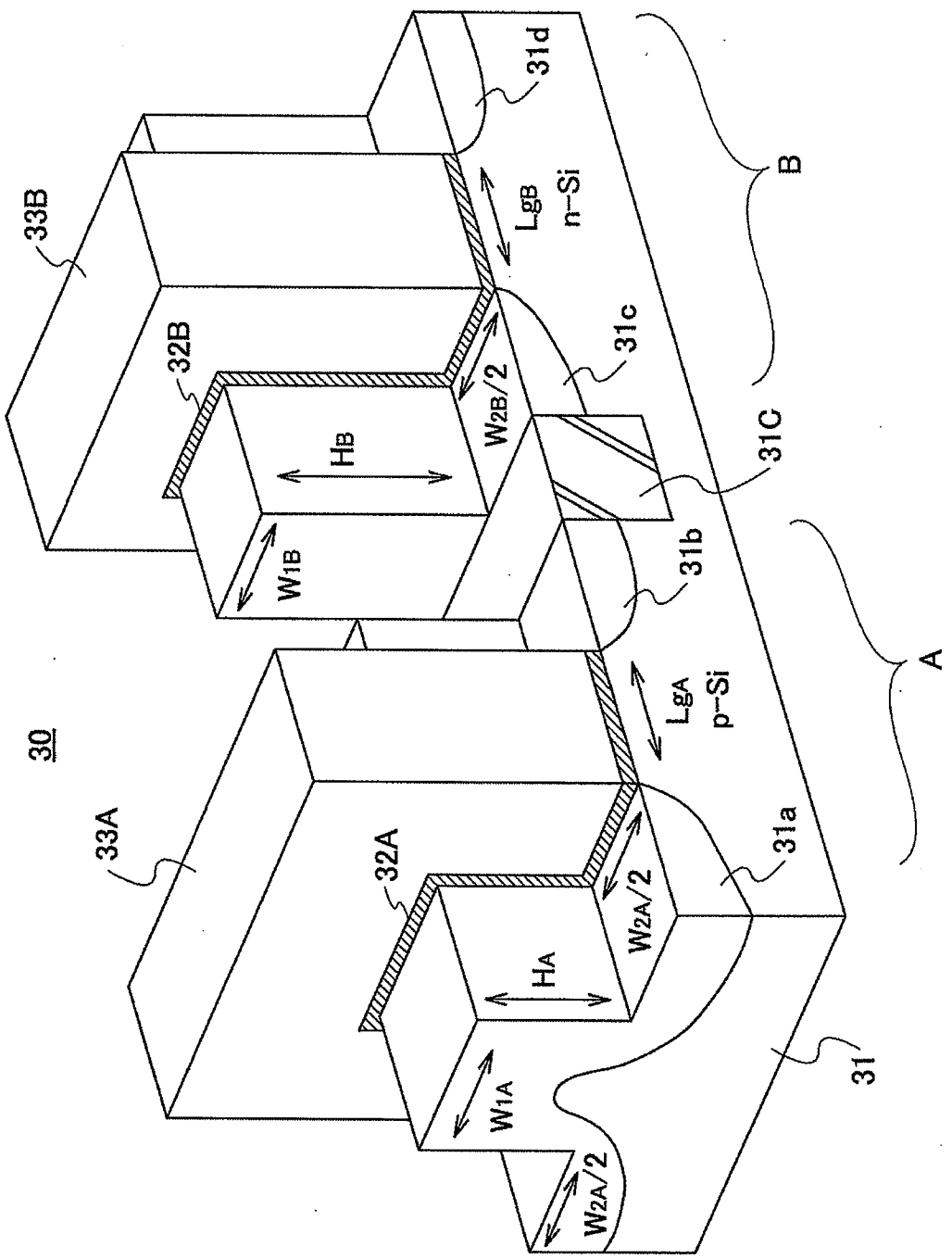

30
33A
33B
32A
32B
31
31a
31b
31c
31d
31C
A
B
p-Si
n-Si
L_{gA}
L_{gB}
H_A
H_B
W_{1A}
W_{1B}
$W_{2A}/2$
$W_{2B}/2$

FIG.7

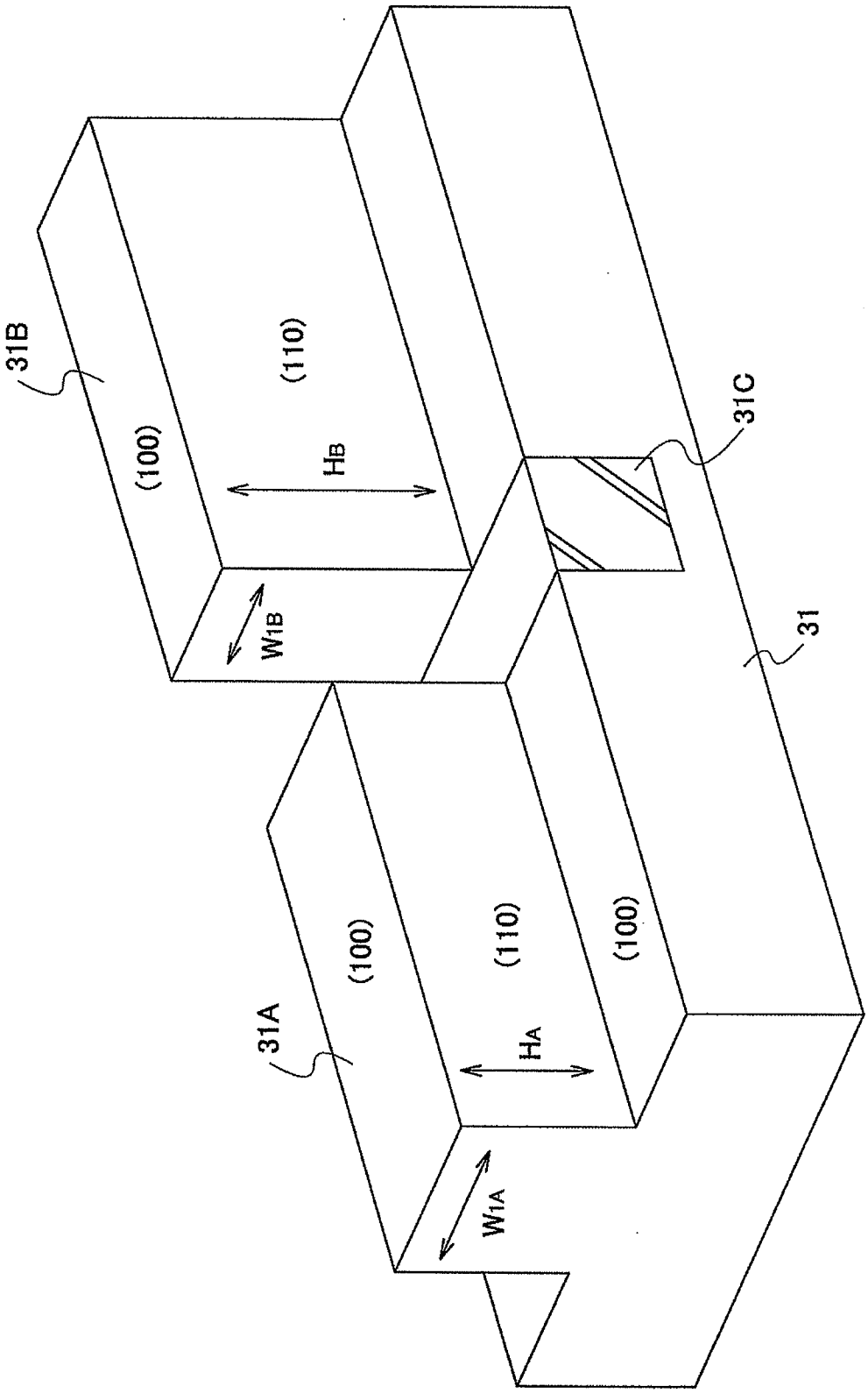
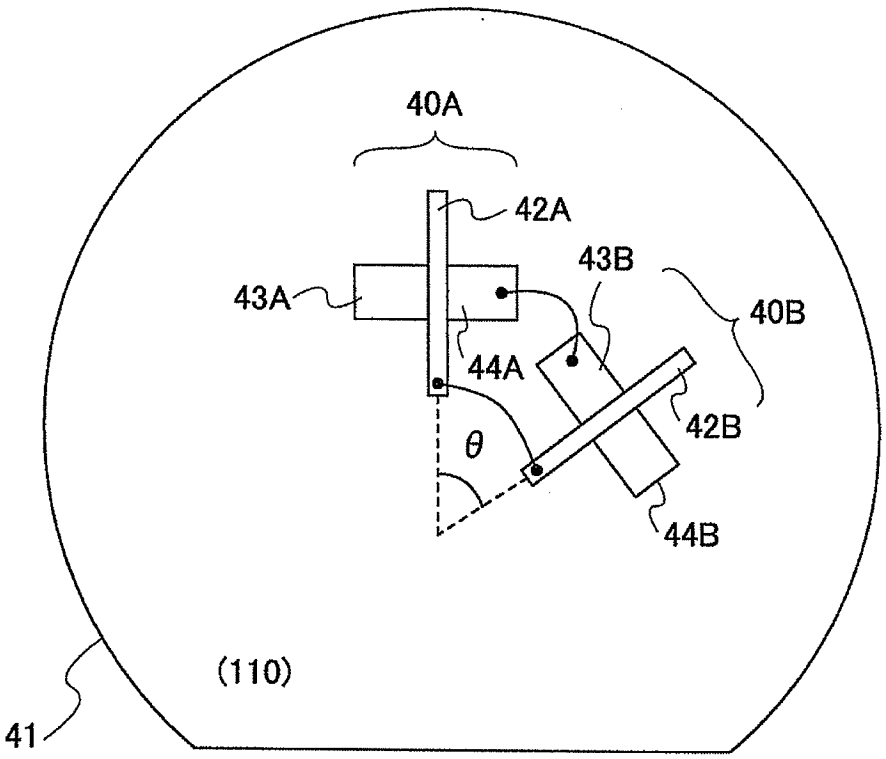


FIG.8



18 MAY 2006

FIG.9

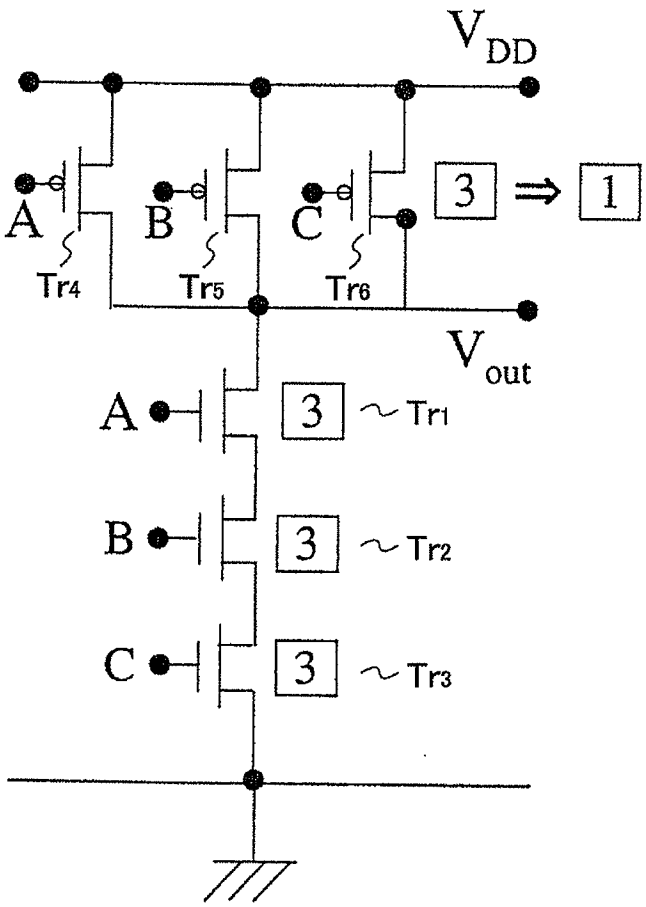


FIG.10

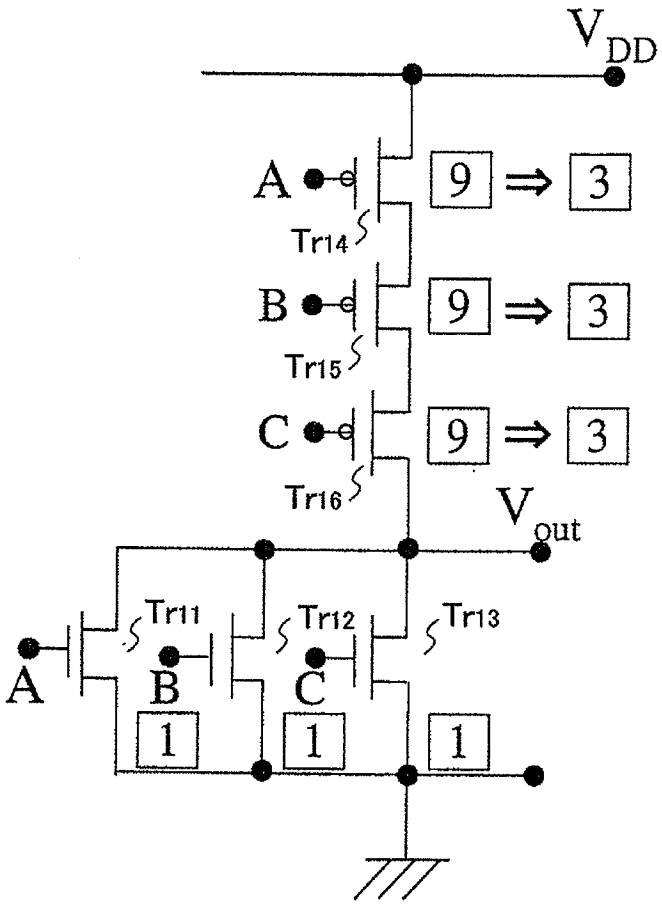


FIG.11

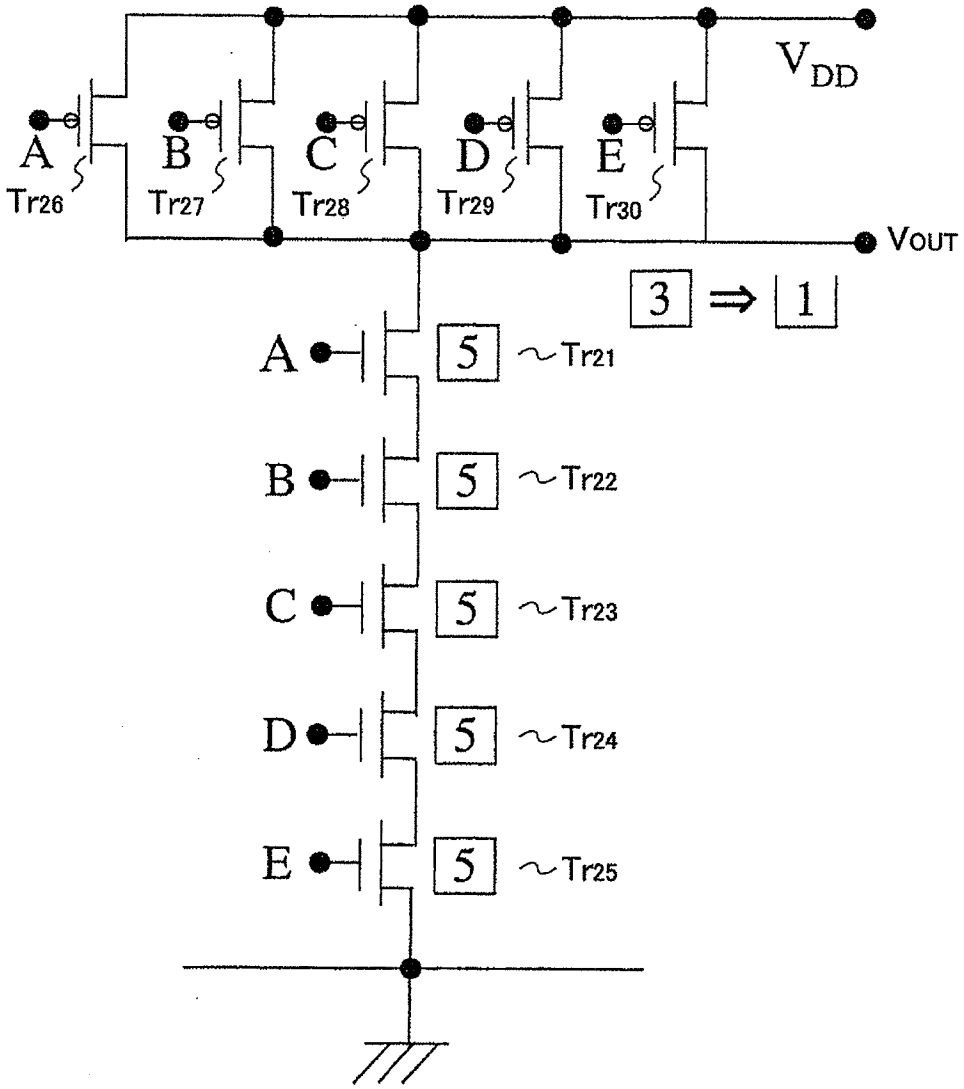

V_{DD}
A
B
C
D
E
Tr26
Tr27
Tr28
Tr29
Tr30
VOUT
3 ⇒ 1
A
B
C
D
E
5
Tr21
Tr22
Tr23
Tr24
Tr25

FIG.12

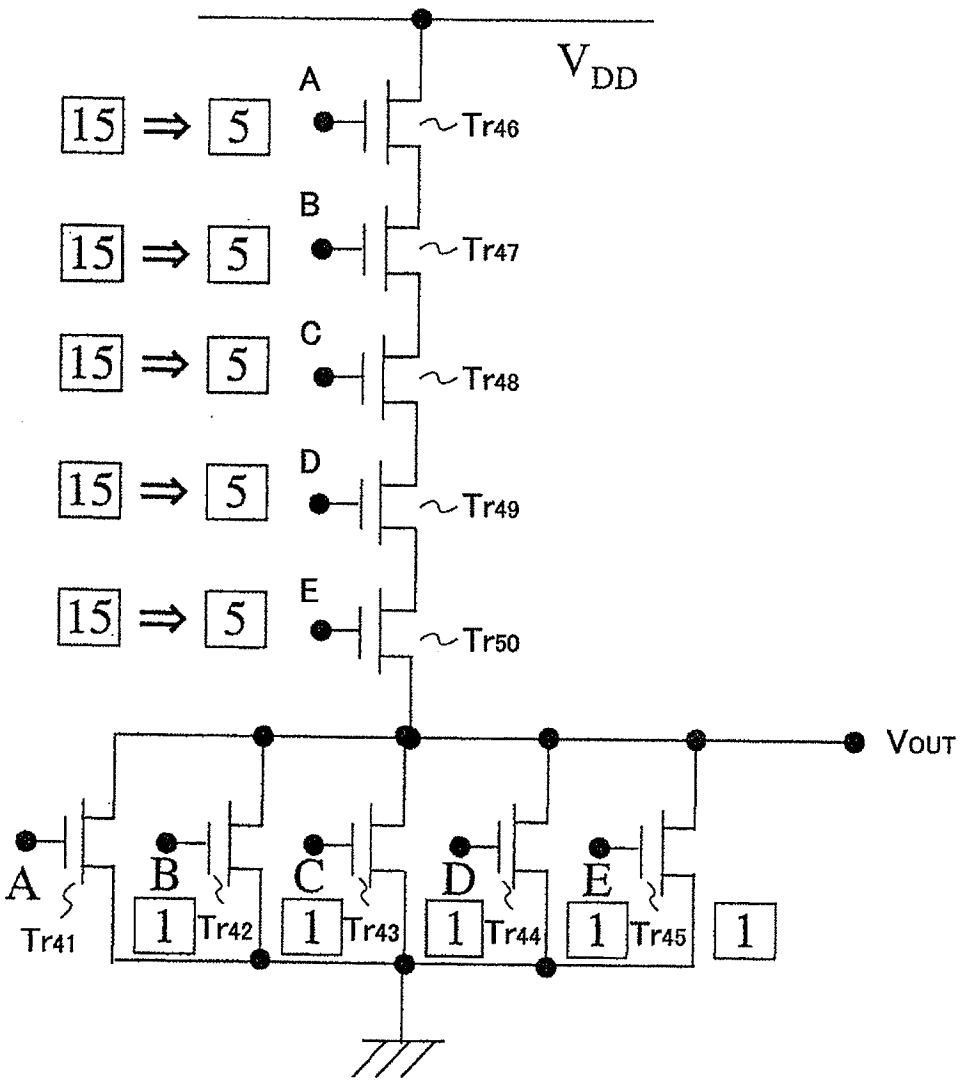

V_{DD}
A
B
C
D
E
15 ⇒ 5
Tr46
Tr47
Tr48
Tr49
Tr50
VOUT
A
B
C
D
E
Tr41
1
Tr42
Tr43
Tr44
Tr45
1

FIG.13

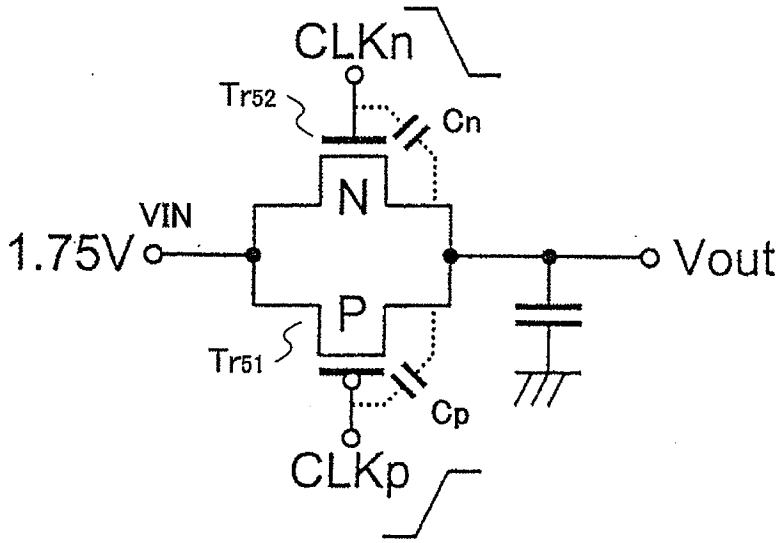


FIG.14A

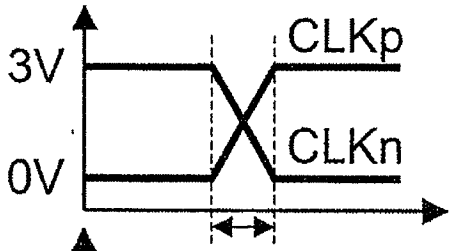


FIG.14B

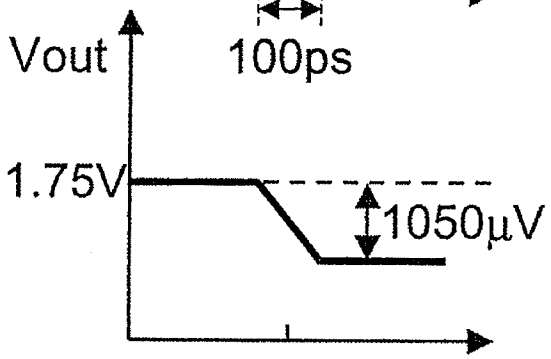


FIG.14C

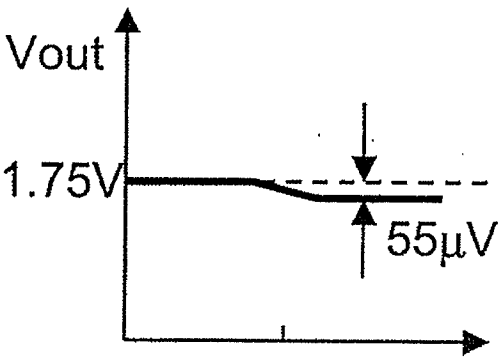


FIG.15

