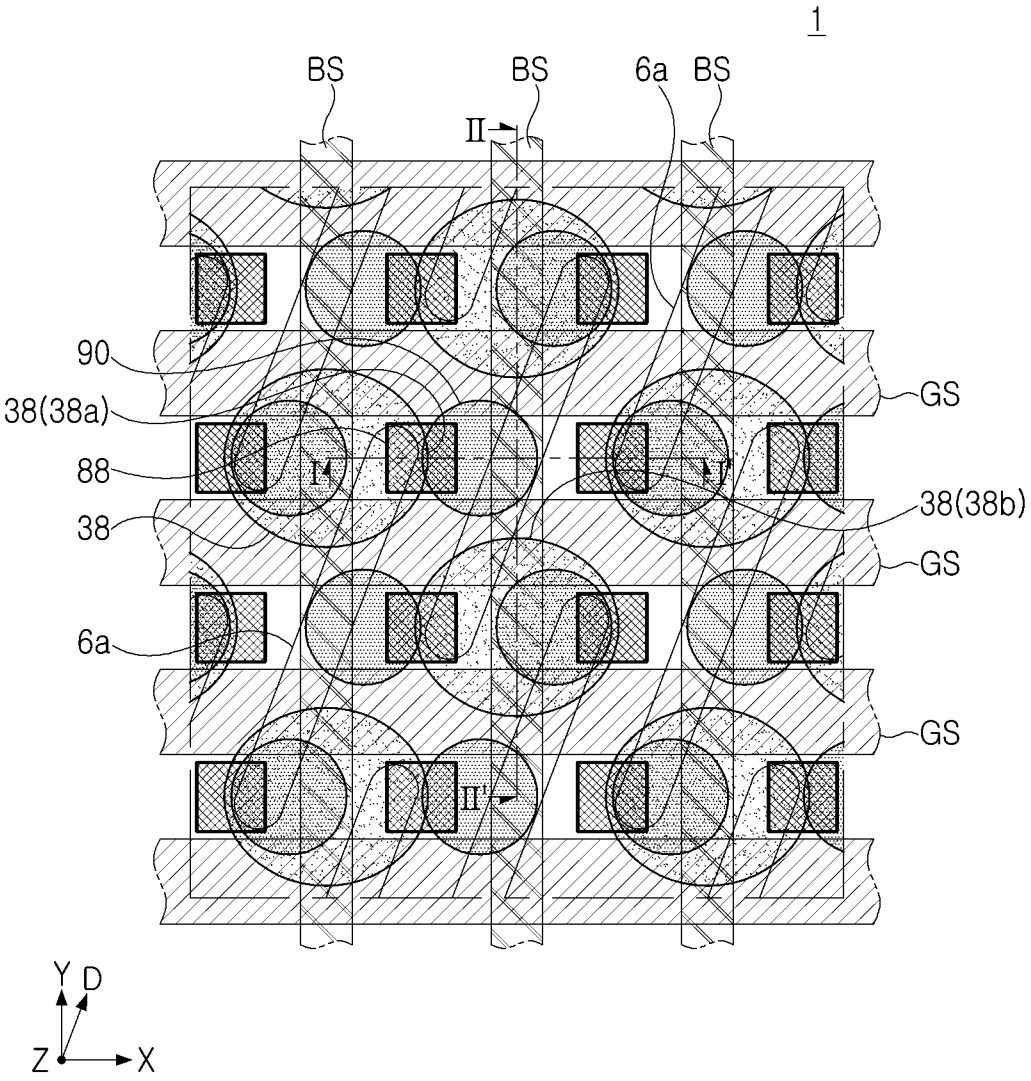


FIG. 1

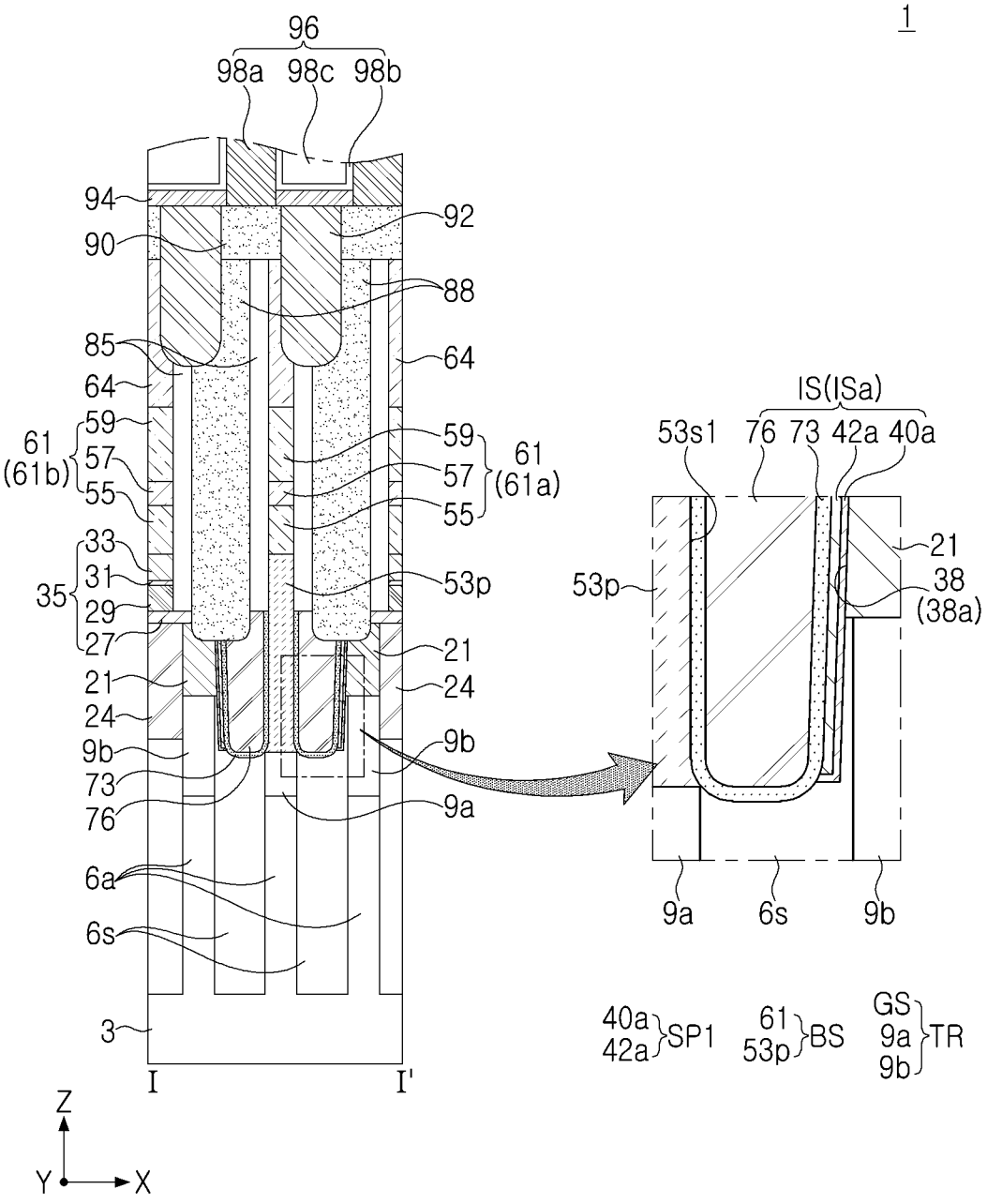

1
96
98a
98c
98b
94
90
92
88
85
64
64
59
57
55
61
(61b)
59
57
55
61
(61a)
33
31
29
27
35
53p
21
24
9b
73
76
9a
6a
6s
3
I
I'
Z
Y
X
IS(ISa)
53s1
76
73
42a
40a
21
38
(38a)
53p
9a
6s
9b
40a
42a
SP1
61
53p
BS
GS
9a
9b
TR

FIG. 2A

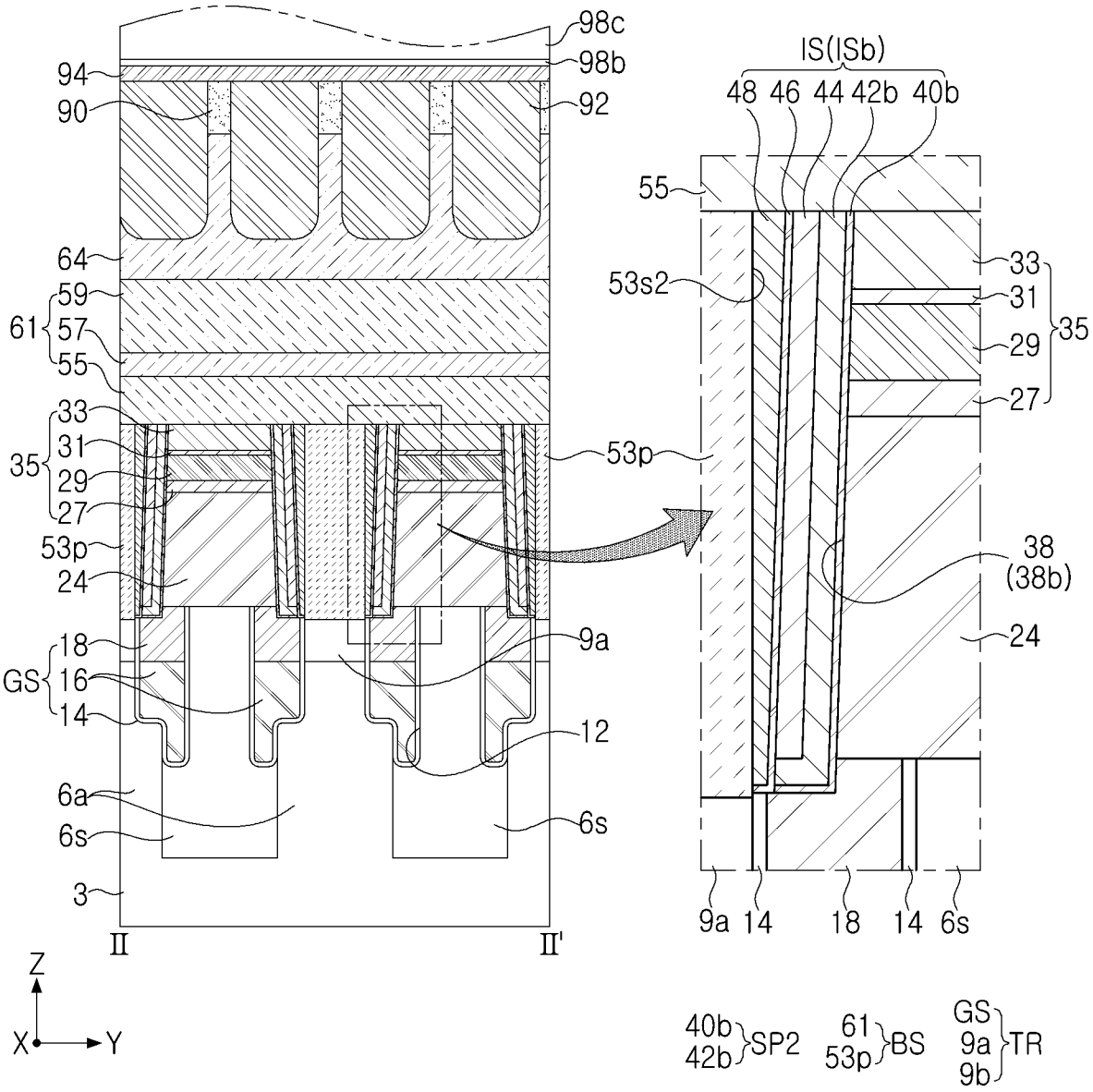

1
98c
98b
92
94
90
64
59
61
57
55
33
35
31
29
27
53p
24
18
GS
16
14
9a
12
6a
6s
3
II
II'
Z
X
Y
IS(ISb)
48 46 44 42b 40b
55
53s2
33
31
29
27
35
38
(38b)
24
9a 14 18 14 6s
40b
42b
SP2
61
53p
BS
GS
9a
9b
TR

FIG. 2B

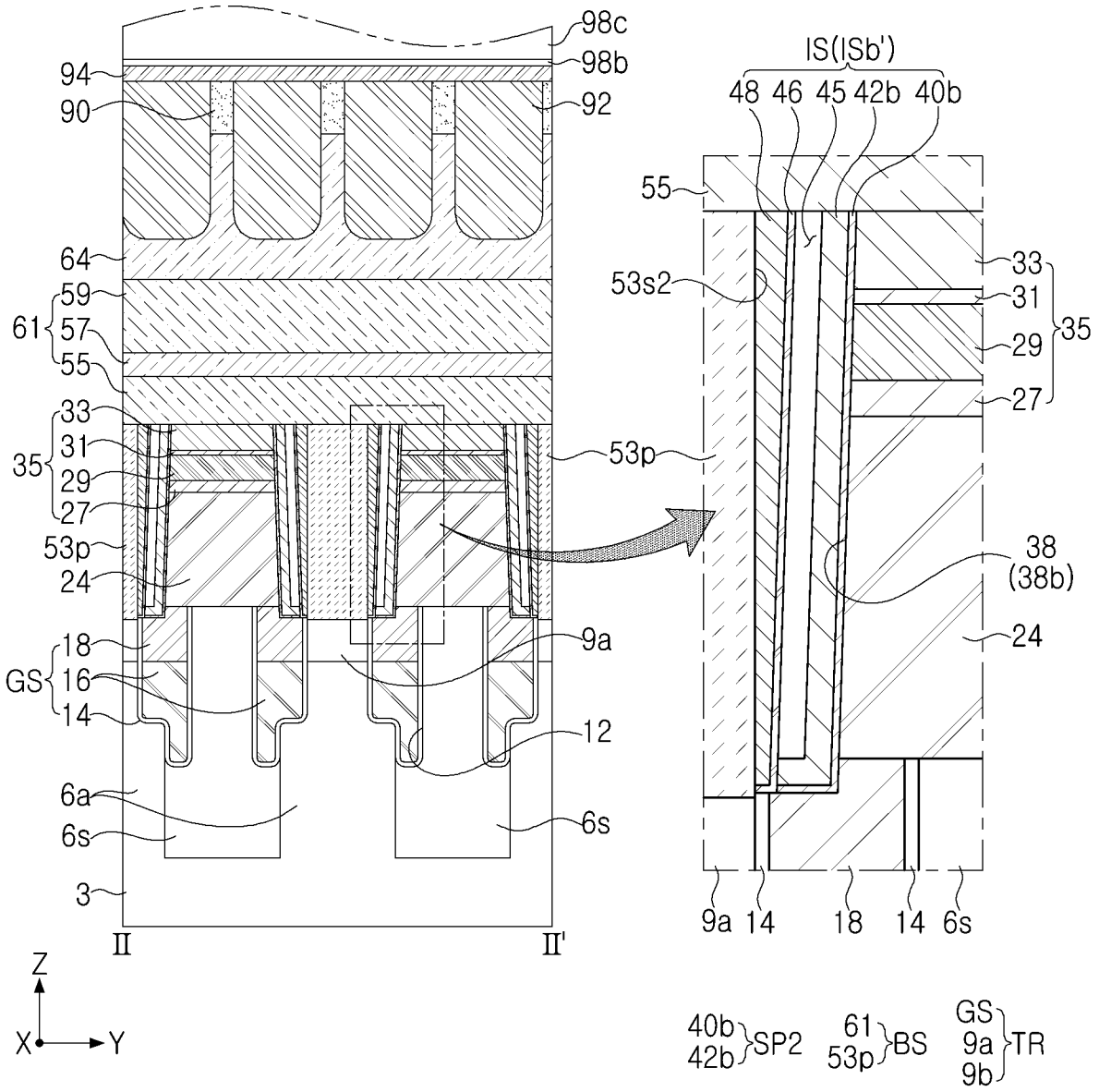

1
98c
98b
92
94
90
64
59
61
57
55
33
35
31
29
27
53p
24
18
GS
16
14
9a
12
6a
6s
3
II
II'
Z
X
Y
IS(ISb')
48 46 45 42b 40b
55
53s2
33
31
29
27
35
38
(38b)
24
9a 14 18 14 6s
40b
42b
SP2
61
53p
BS
GS
9a
9b
TR

FIG. 3

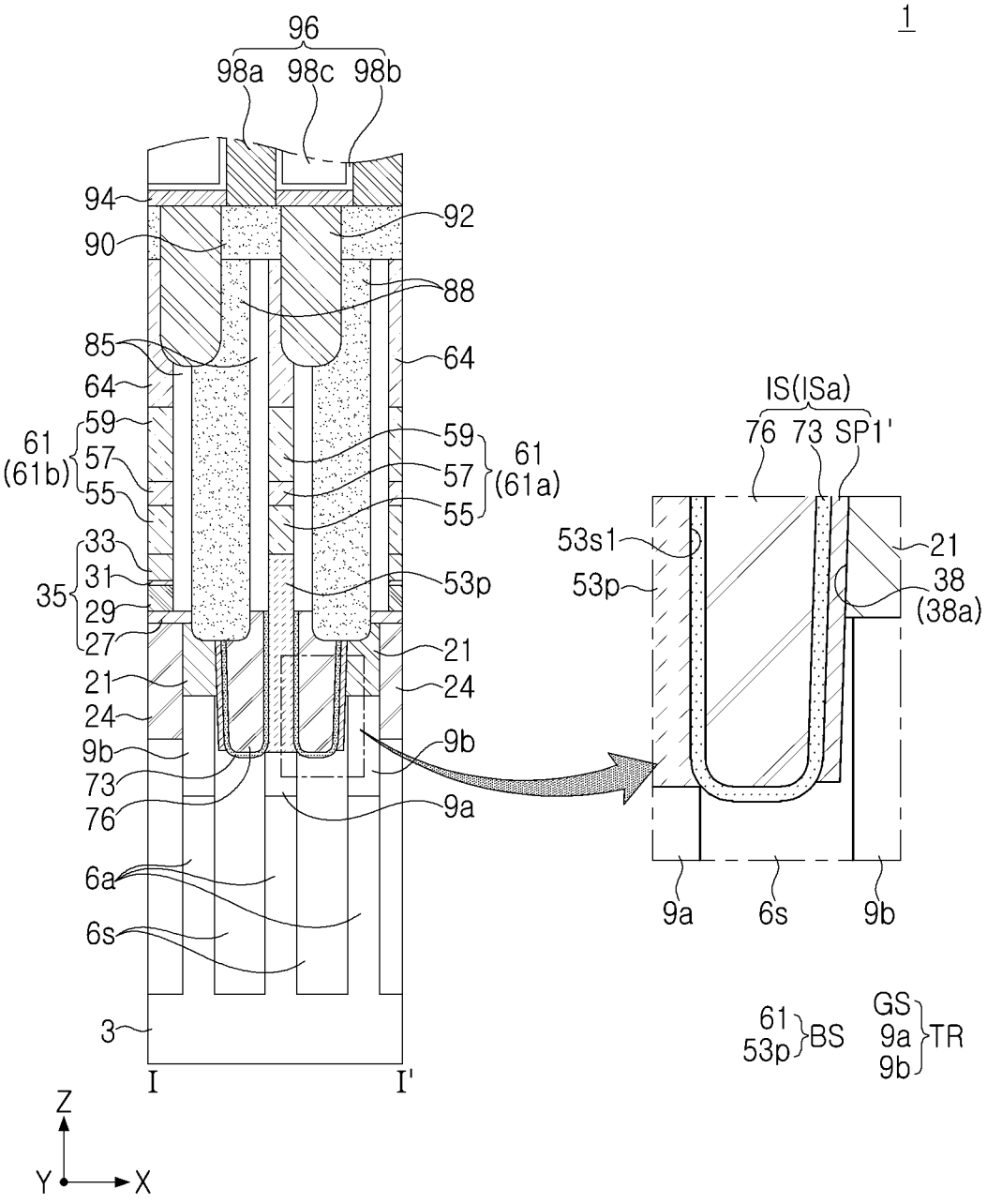

1
96
98a
98c
98b
94
90
92
88
85
64
64
59
61
(61b)
57
55
59
57
55
61
(61a)
33
31
35
29
27
53p
21
21
24
24
9b
9b
73
76
9a
6a
6s
3
I
I'
Z
Y
X
IS(ISa)
76
73
SP1'
53s1
53p
21
38
(38a)
9a
6s
9b
61
53p
BS
GS
9a
9b
TR

FIG. 4A

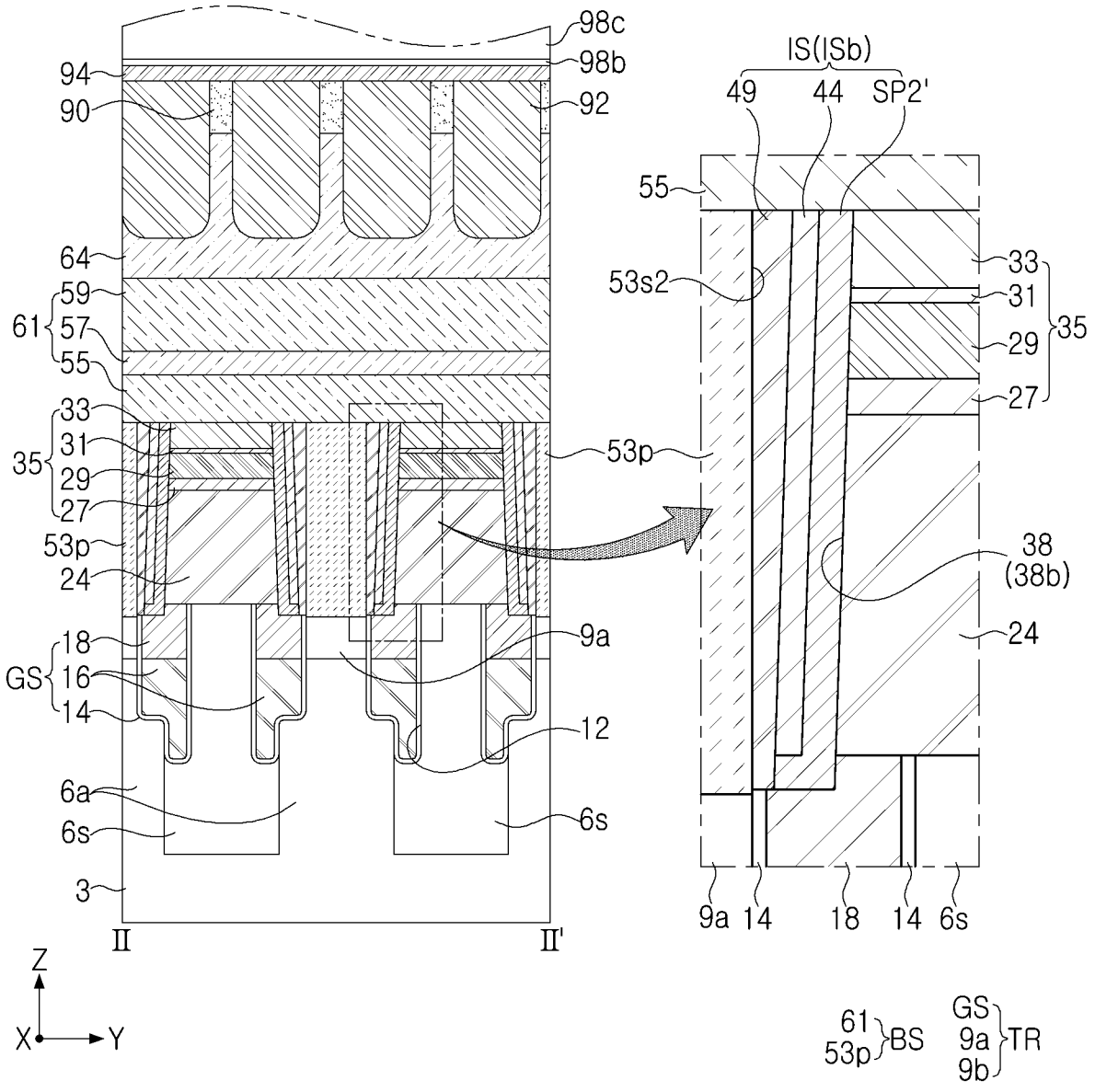

1
98c
98b
94
92
90
IS(ISb)
49
44
SP2'
55
64
53s2
33
59
31
61
57
29
35
55
27
33
53p
31
35
29
27
38
(38b)
53p
24
24
18
9a
GS
16
14
12
6a
6s
6s
3
II
II'
9a
14
18
14
6s
Z
X
Y
61
53p
BS
GS
9a
9b
TR

FIG. 4B

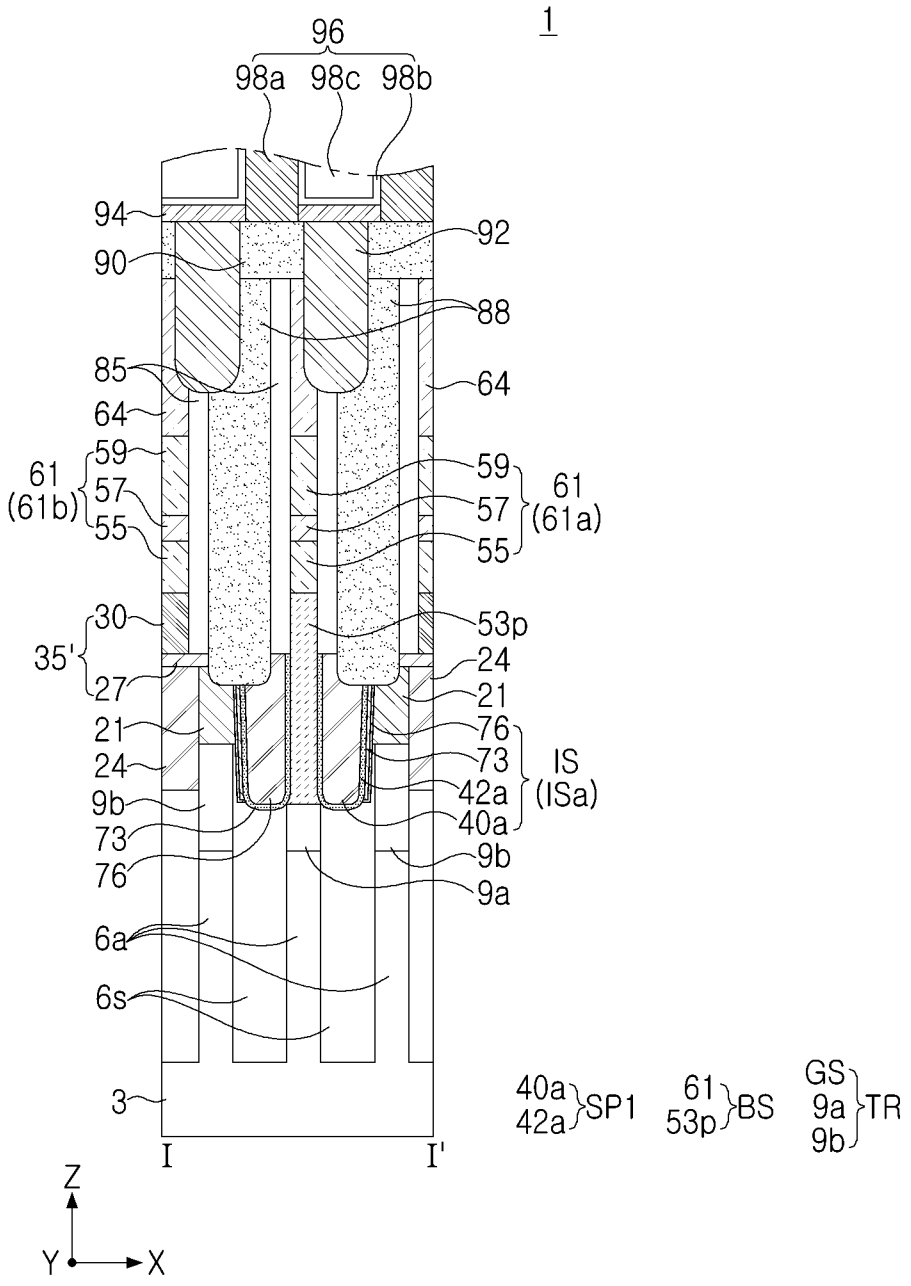

1
96
98a
98c
98b
94
90
92
88
85
64
64
59
61
(61b)
57
55
59
57
55
61
(61a)
30
35'
27
53p
24
21
21
24
9b
73
76
76
73
42a
40a
IS
(ISa)
9b
9a
6a
6s
3
I
I'
40a
42a
SP1
61
53p
BS
GS
9a
9b
TR
Z
Y
X

FIG. 5A

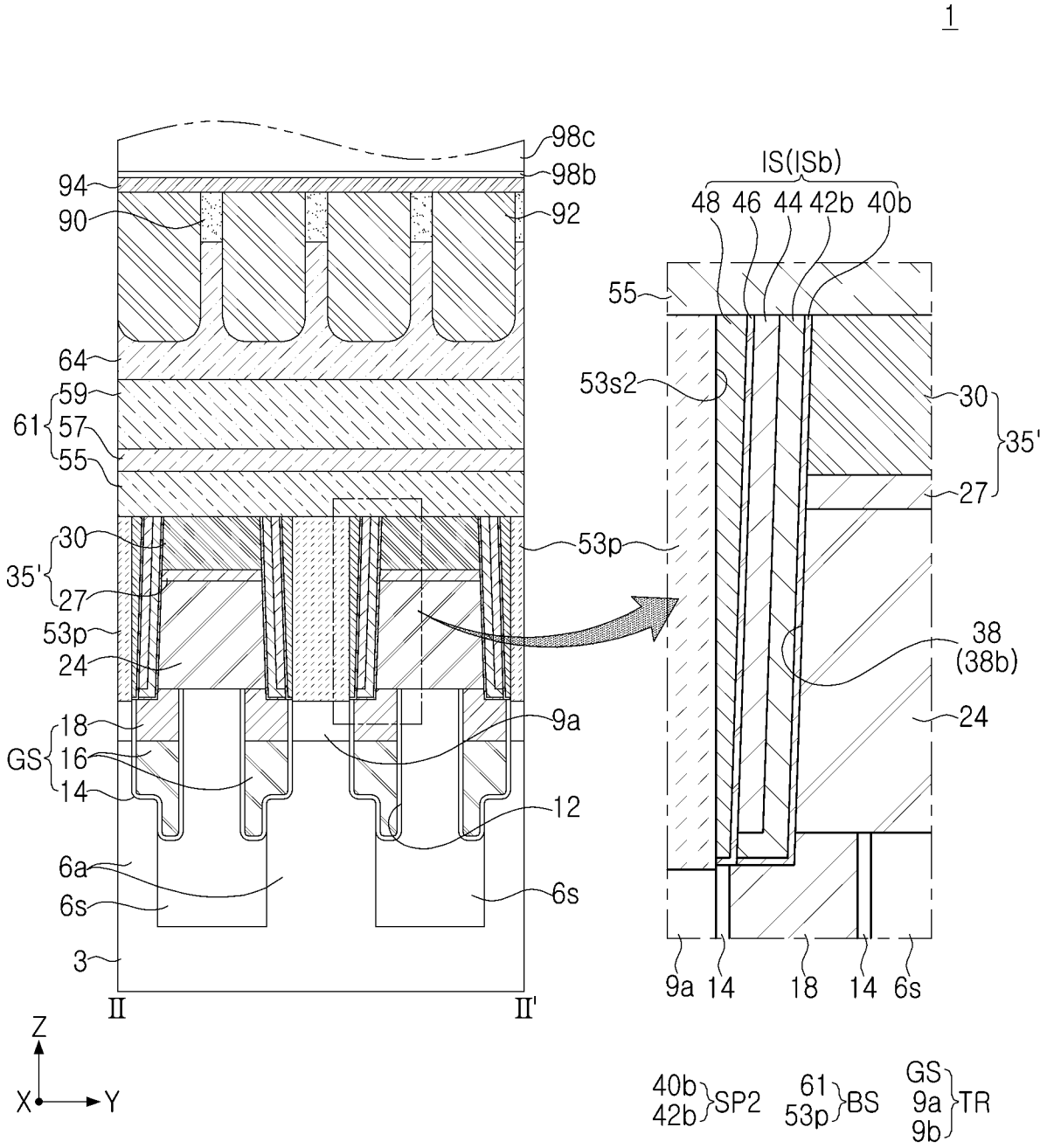

1
98c
98b
94
90
92
64
59
61
57
55
30
35'
27
53p
24
18
GS
16
14
9a
12
6a
6s
3
II
II'
Z
X
Y
IS(ISb)
48 46 44 42b 40b
55
53s2
30
35'
27
53p
38
(38b)
24
9a 14 18 14 6s
40b
42b
SP2
61
53p
BS
GS
9a
9b
TR

FIG. 5B

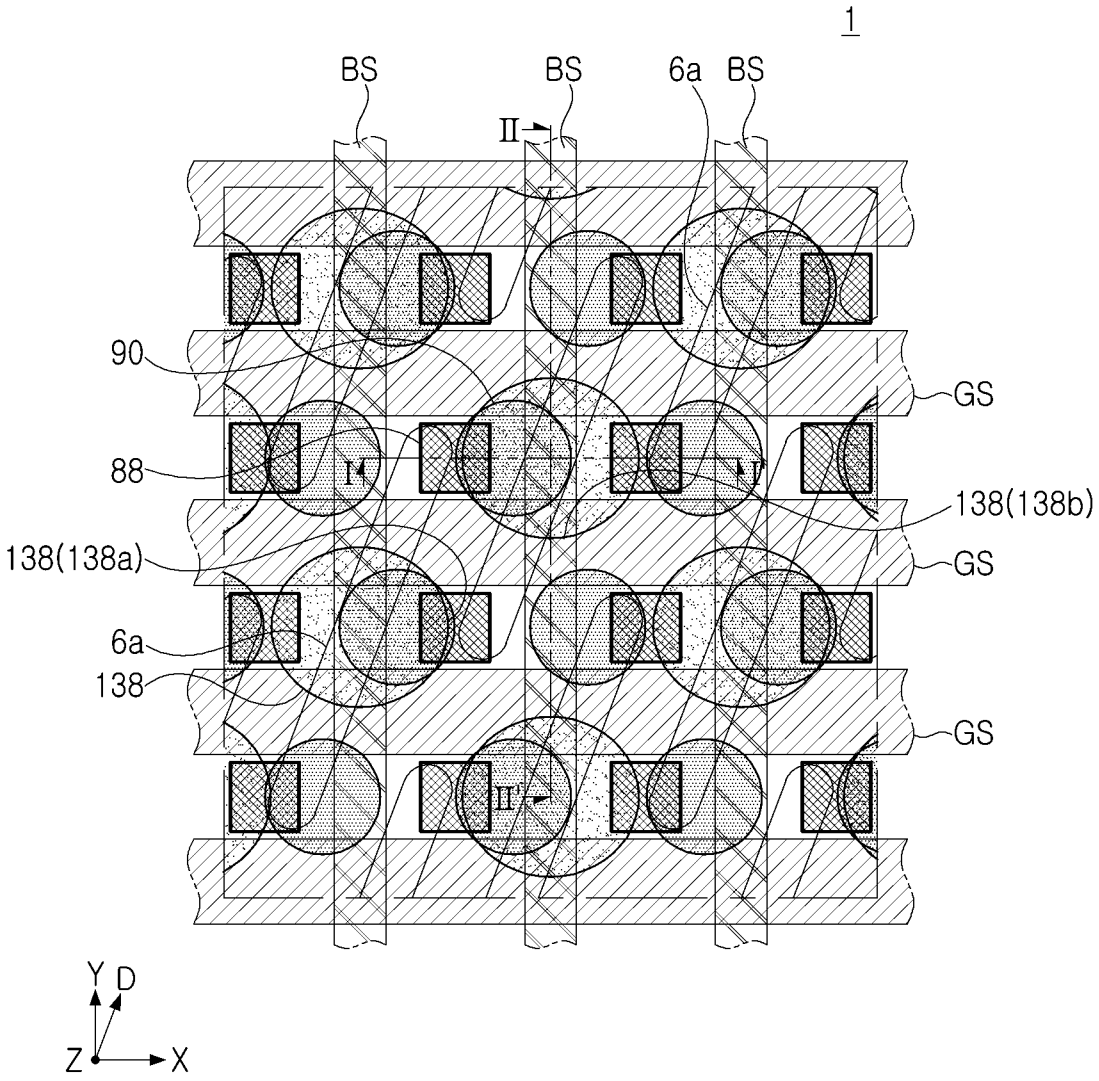


FIG. 6

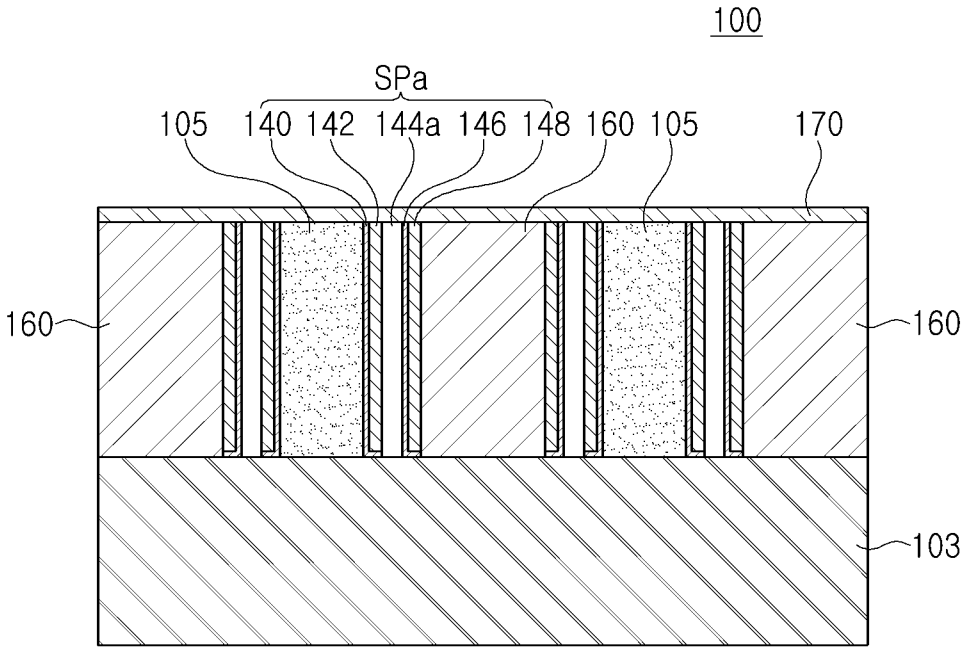

100
SPa
105
140
142
144a
146
148
160
105
170
160
160
103

FIG. 7

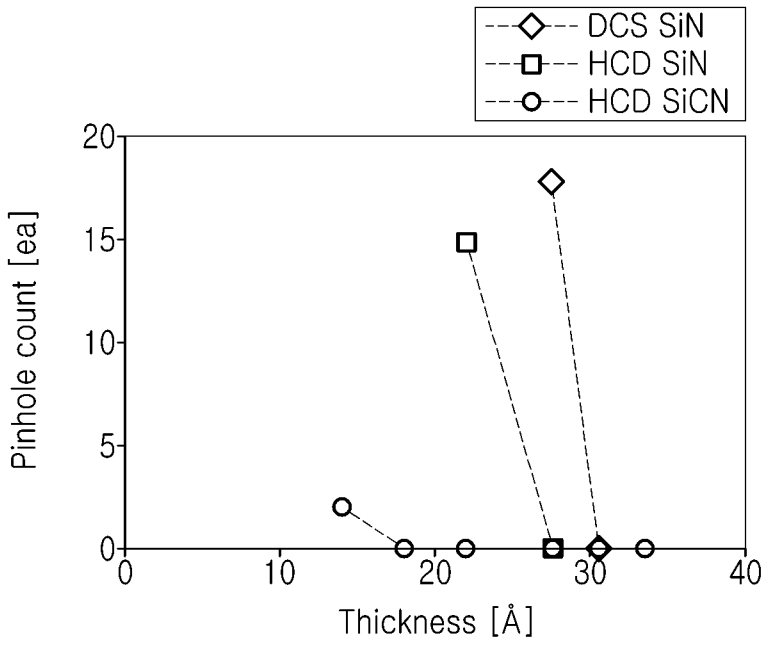

DCS SiN
HCD SiN
HCD SiCN
Pinhole count [ea]
20
15
10
5
0
0
10
20
30
40
Thickness [Å]

FIG. 8

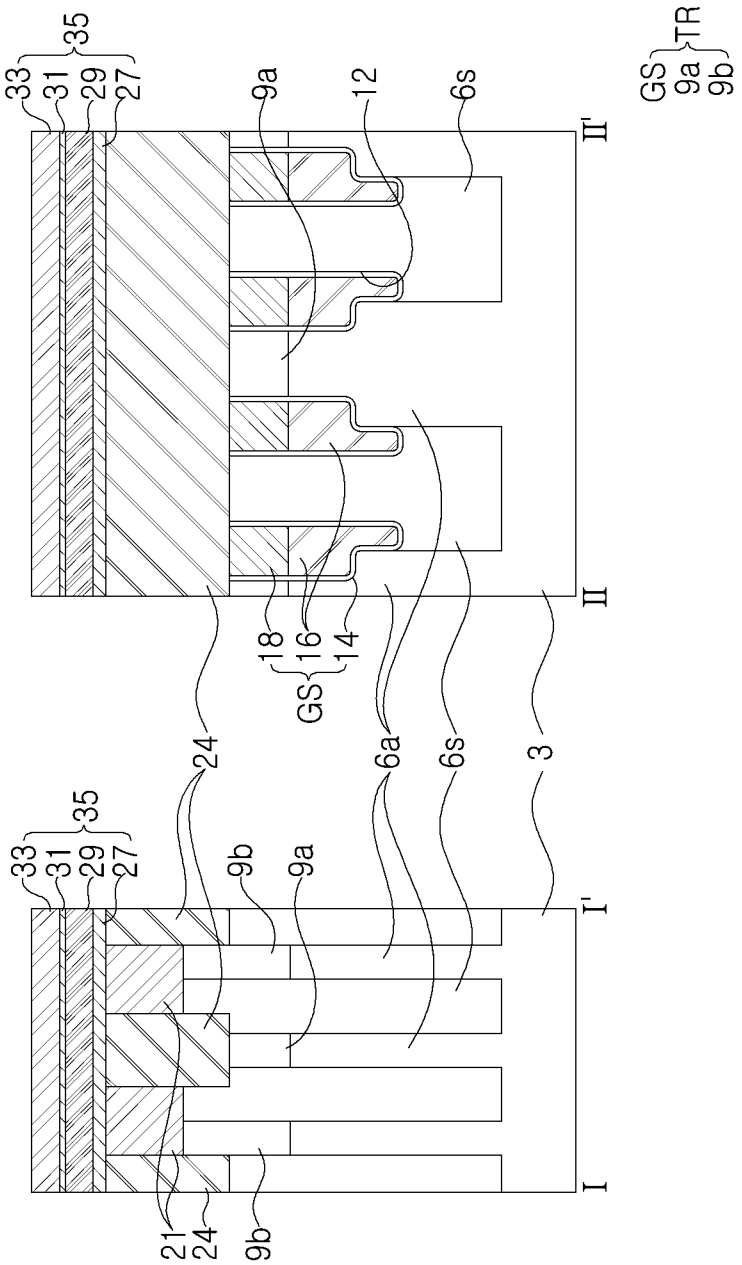

33
31
29
27
35
9a
12
6s
II'
II
18
16
14
GS
24
6a
6s
3
9b
9a
I'
I
21
24
9b
GS
9a
9b
TR

FIG. 9

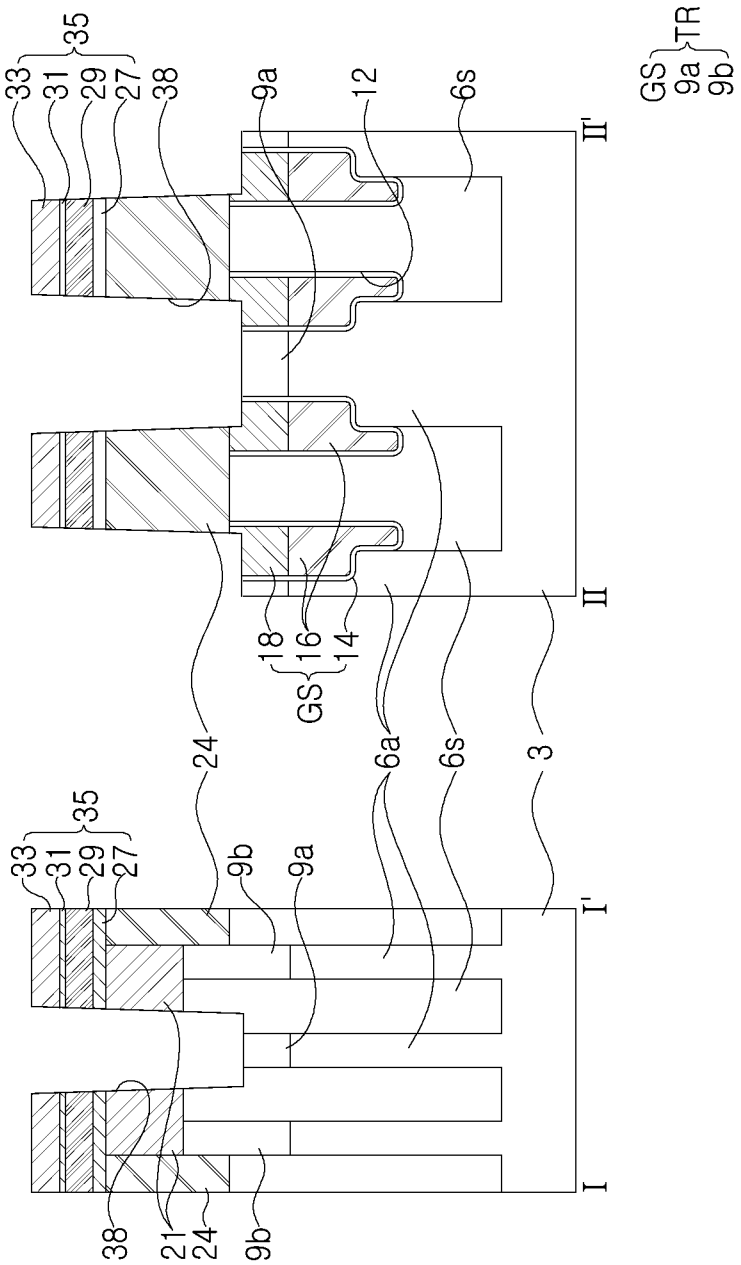

33
31
35
29
27
38
9a
12
6s
II'
GS
9a
TR
9b
18
16
14
GS
II
24
6a
6s
3
33
31
35
29
27
9b
9a
I'
I
38
21
24
9b

FIG. 10

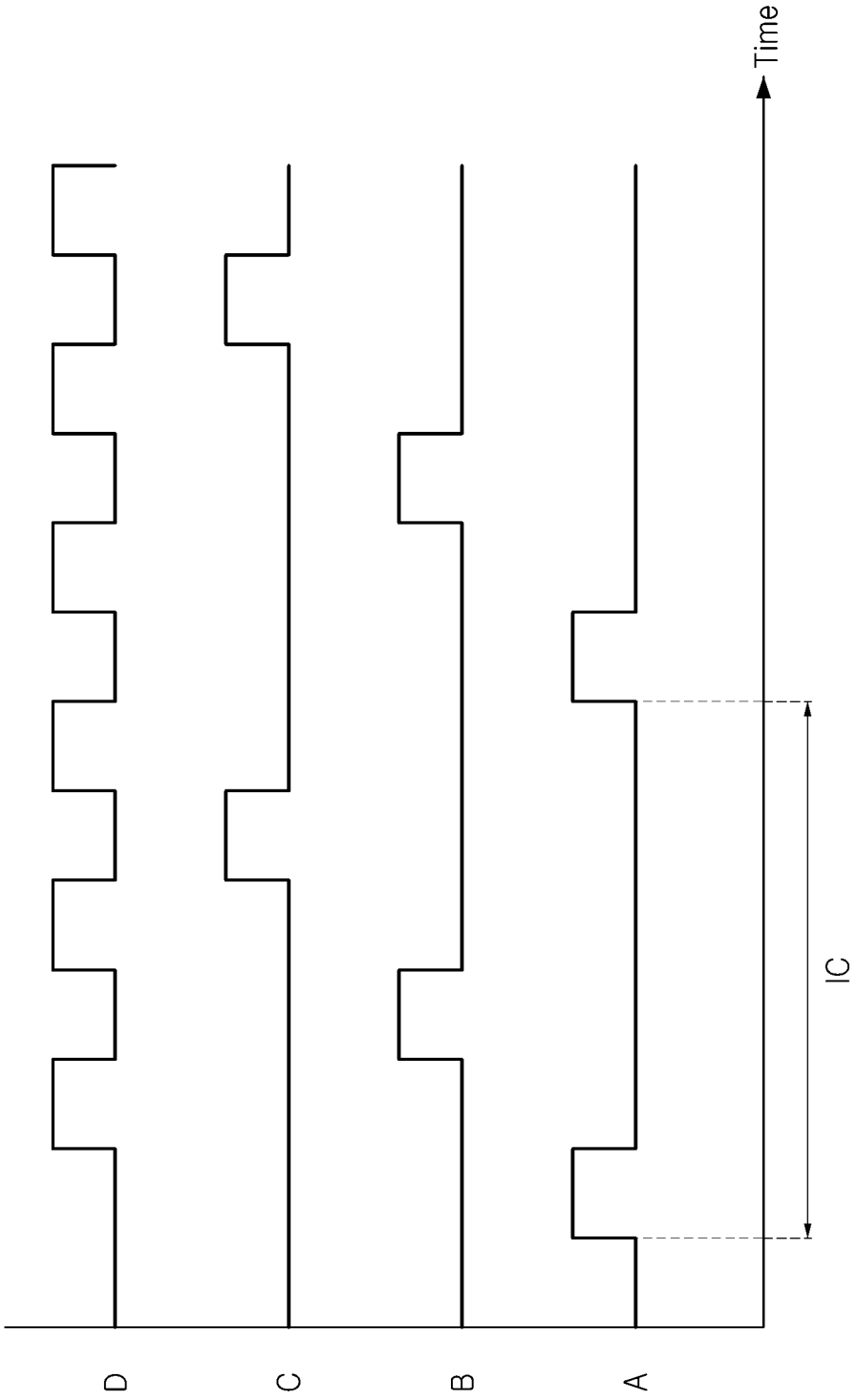


FIG. 11

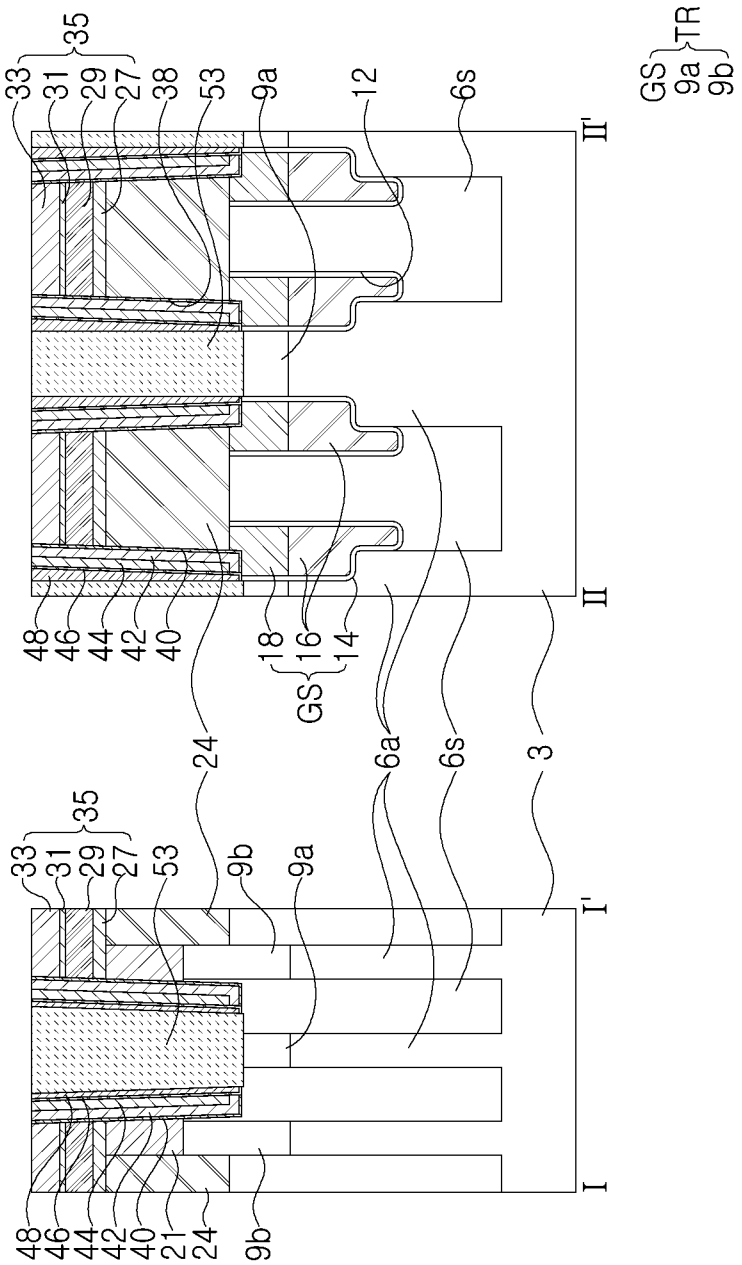

33
31
35
29
27
38
53
9a
12
6s
II'
II
48
46
44
42
40
18
16
14
GS
24
6a
6s
3
I'
I
21
9b
GS
9a
TR

FIG. 12

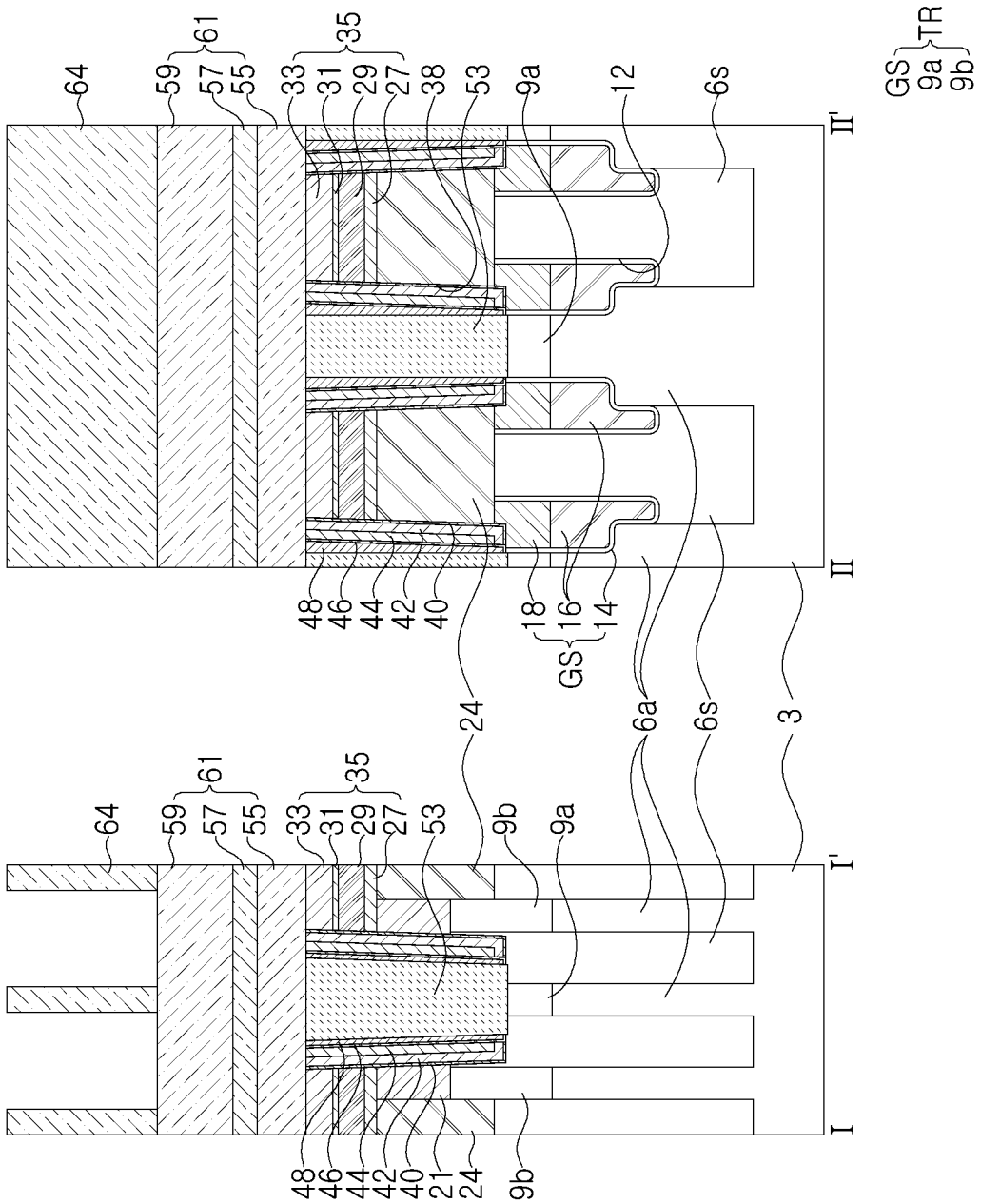

64
59
61
57
55
33
35
31
29
27
38
53
9a
12
6s
II'
II
48
46
44
42
40
18
16
14
GS
24
6a
6s
3
I'
I
9b
21
GS
TR
9a
9b

FIG. 13

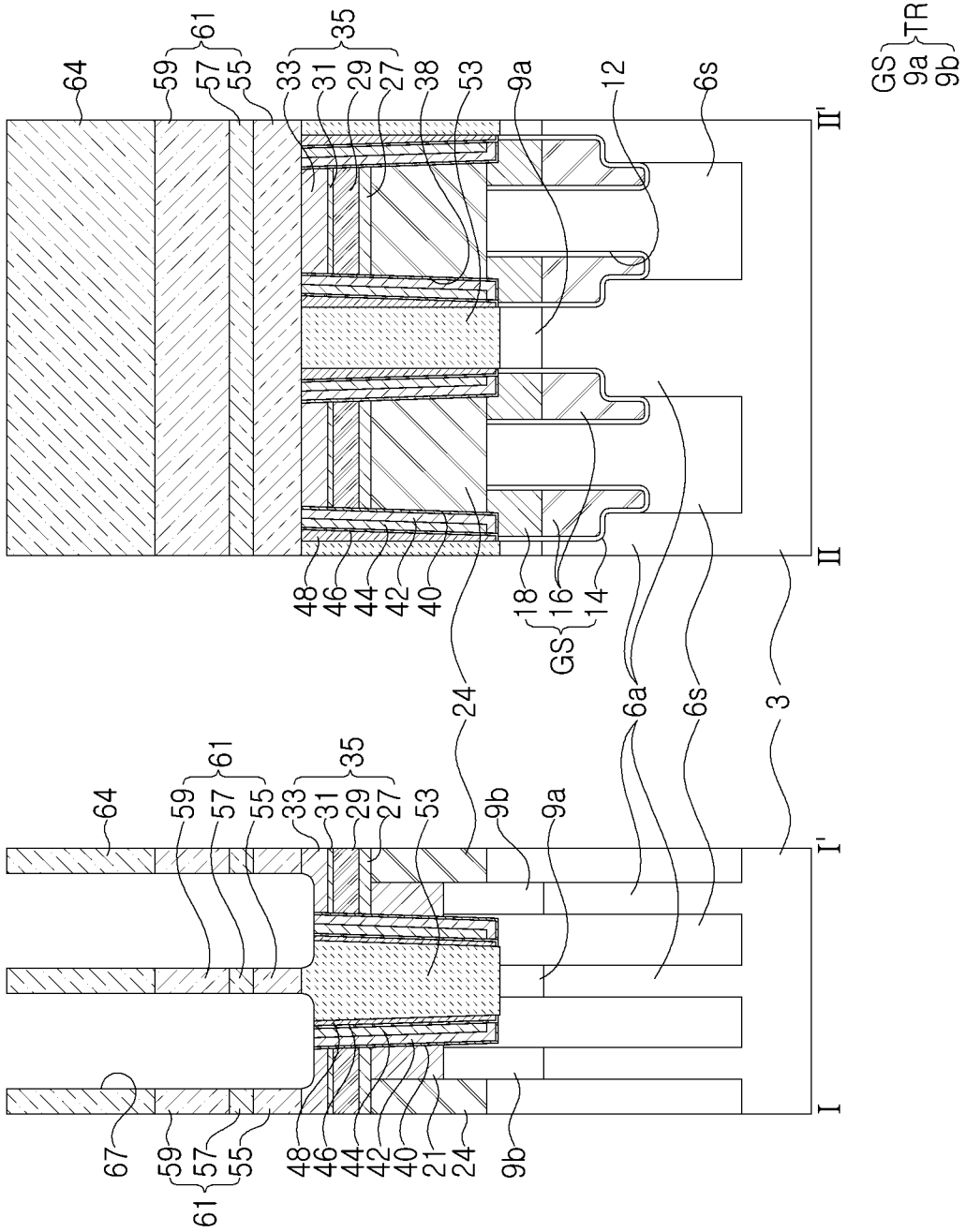

64
59
57
55
61
33
31
29
27
35
38
53
9a
12
6s
II'
II
48
46
44
42
40
18
16
14
GS
24
6a
6s
3
I'
I
67
21
9b
GS
9a
9b
TR

FIG. 14

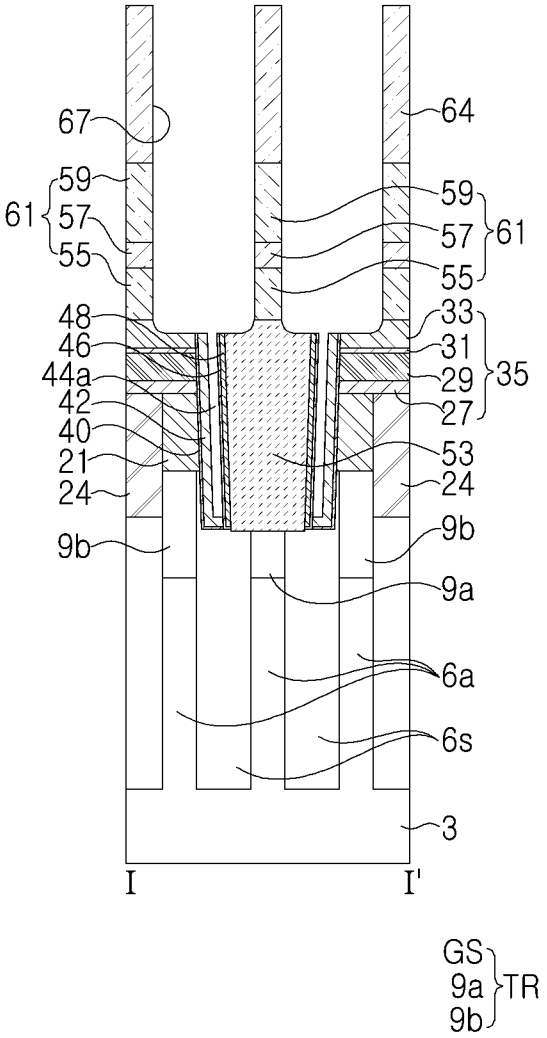

67
64
59
61
57
55
59
57
55
61
48
46
44a
42
40
21
24
9b
33
31
29
27
35
53
24
9b
9a
6a
6s
3
I
I'
GS
9a
9b
TR

FIG. 15

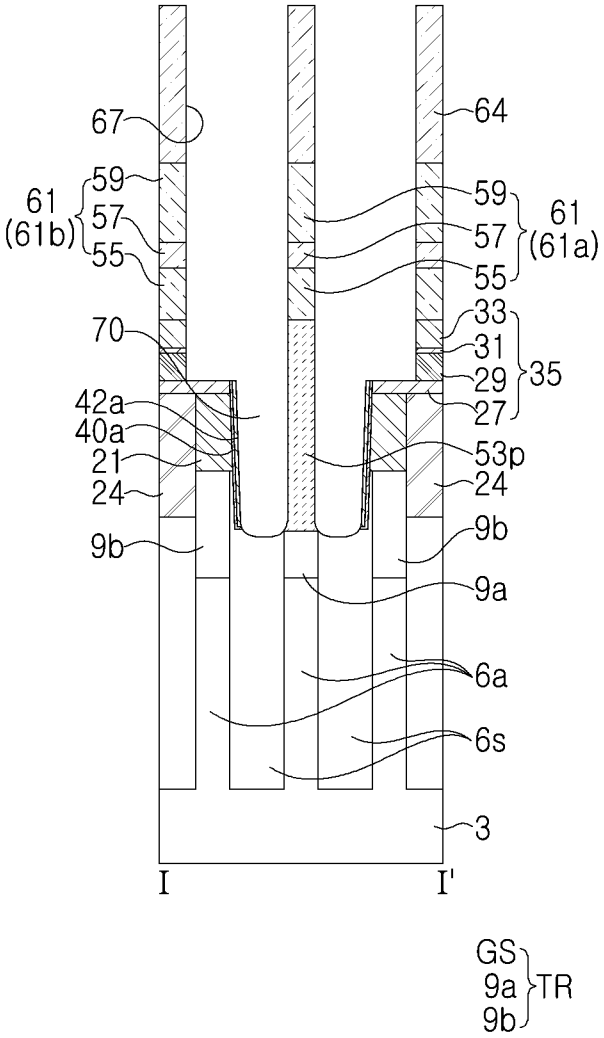

67
64
59
61
(61b)
57
55
59
57
55
61
(61a)
70
33
31
29
27
35
42a
40a
21
24
53p
24
9b
9b
9a
6a
6s
3
I
I'
GS
9a
9b
TR

FIG. 16

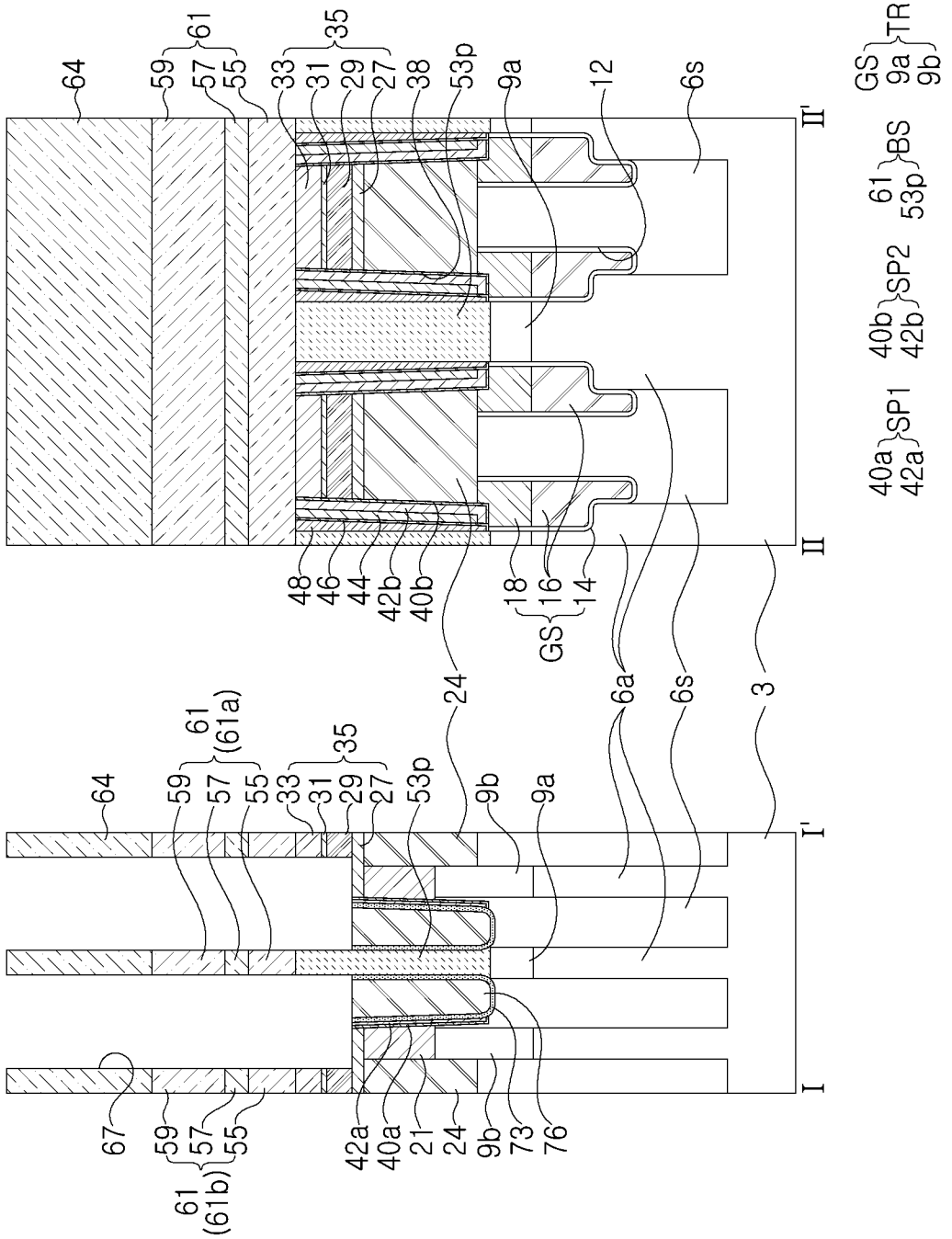

64
59
57
55
61
33
31
29
27
35
38
53p
9a
12
6s
II'
II
48
46
44
42b
40b
18
16
14
GS
24
6a
6s
3
64
59
57
55
61
(61a)
33
31
29
27
35
53p
9b
9a
I'
I
67
59
57
55
61
(61b)
42a
40a
21
24
9b
73
76
GS
9a
9b
TR
61
53p
BS
40b
42b
SP2
40a
42a
SP1

FIG. 17