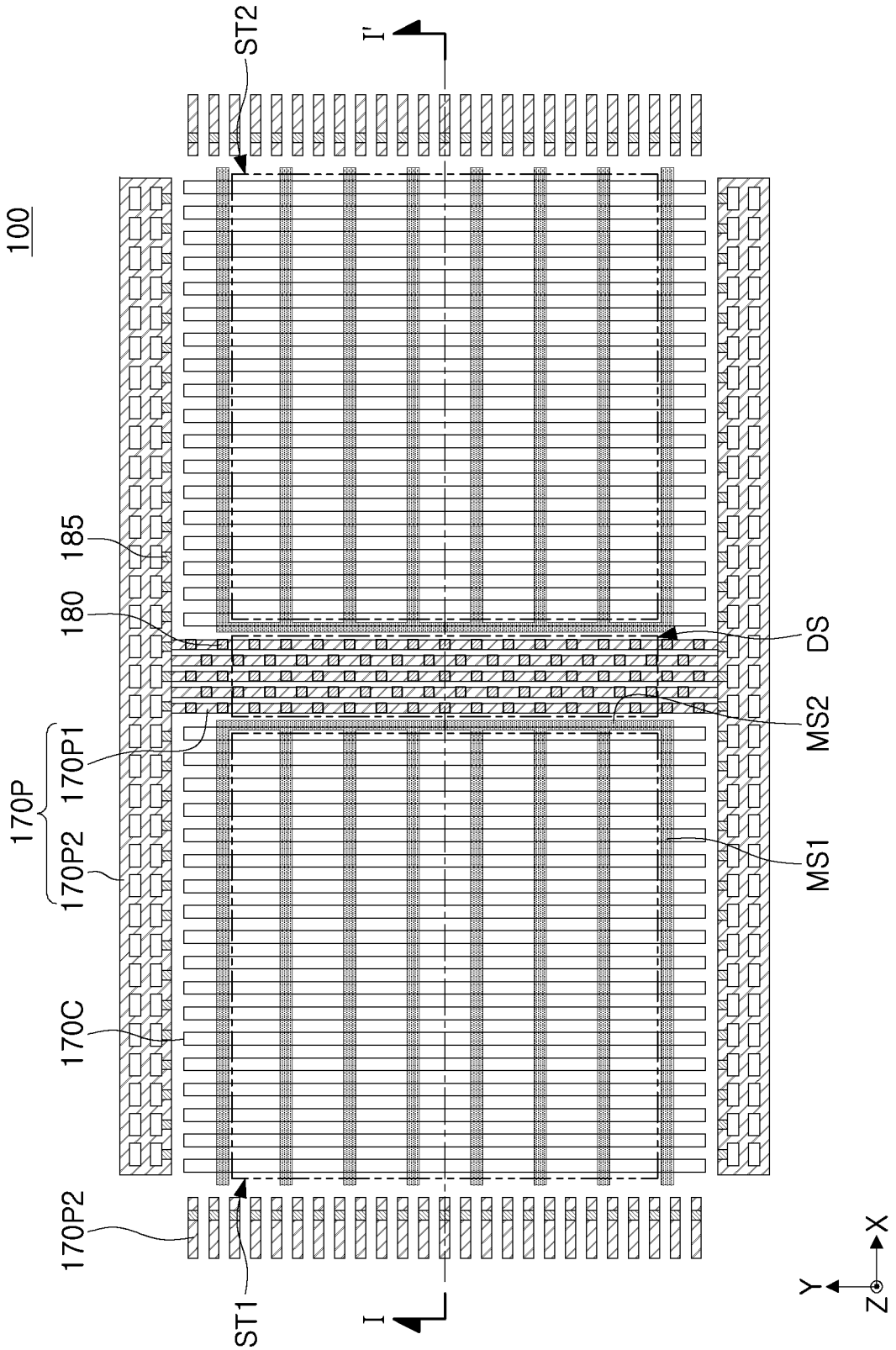

100
ST2
I'
185
180
170P
170P1
170P2
170C
170P2
ST1
I
DS
MS2
MS1
Y
X
Z

FIG. 1

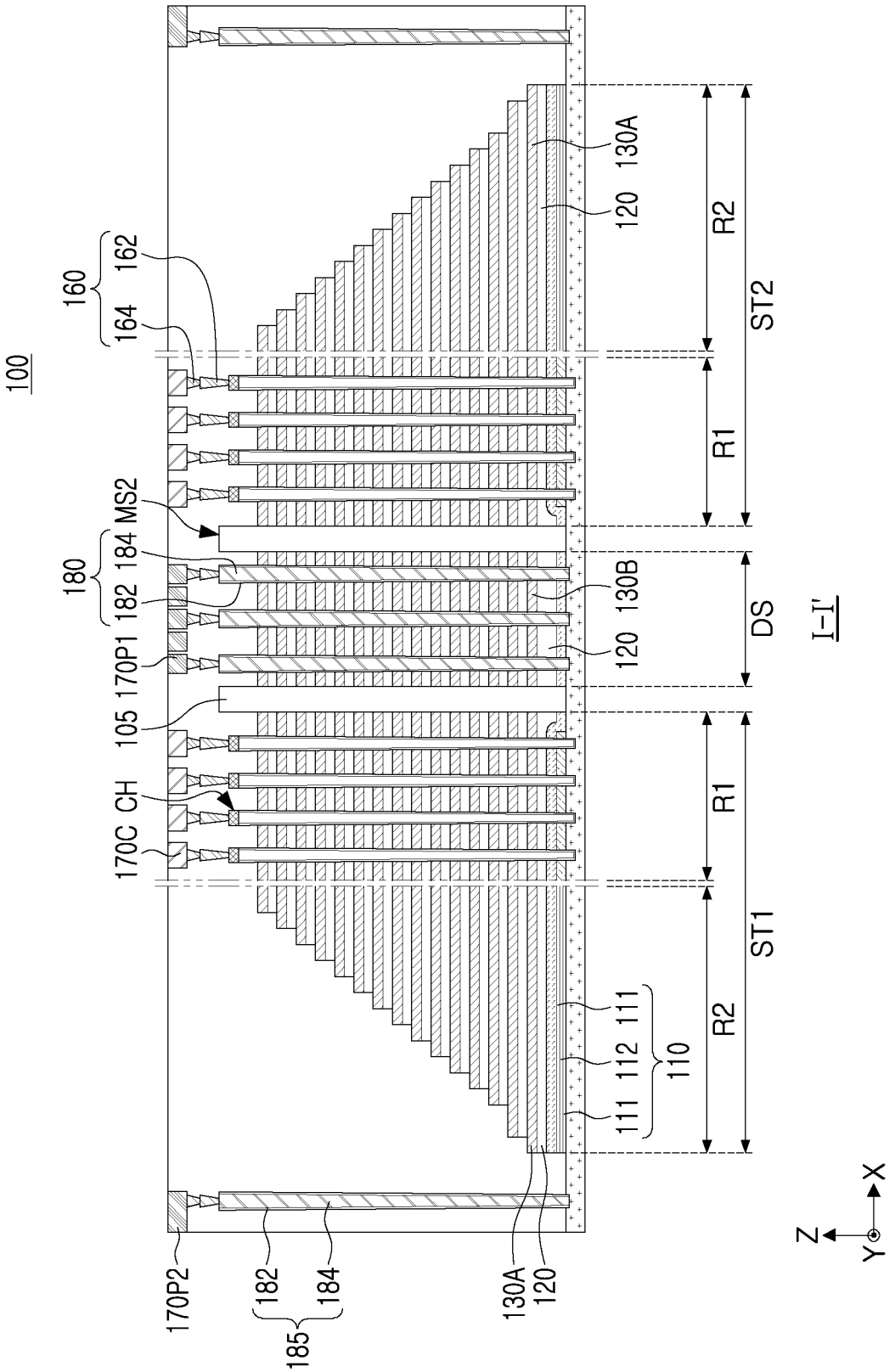

100
160
162
164
180
184
MS2
182
170P1
105
CH
170C
130A
120
130B
R1
R2
ST1
ST2
DS
I-I'
111
112
110
170P2
185
Z
Y
X

FIG. 2A

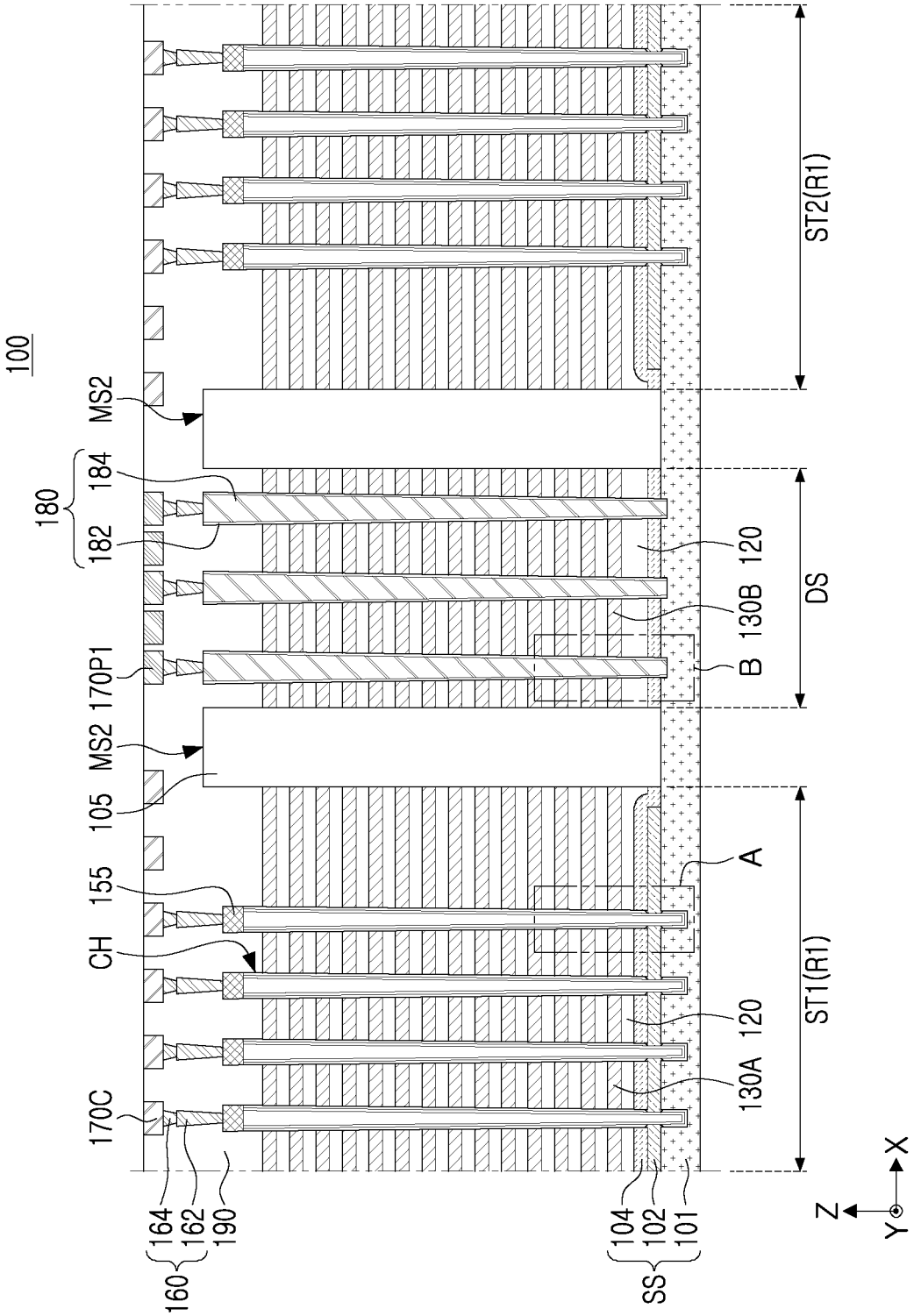

100
MS2
180
184
182
170P1
MS2
105
155
CH
170C
164
162
190
160
104
102
101
SS
130A
120
A
ST1(R1)
B
130B
120
DS
ST2(R1)
Z
Y
X

FIG. 2B

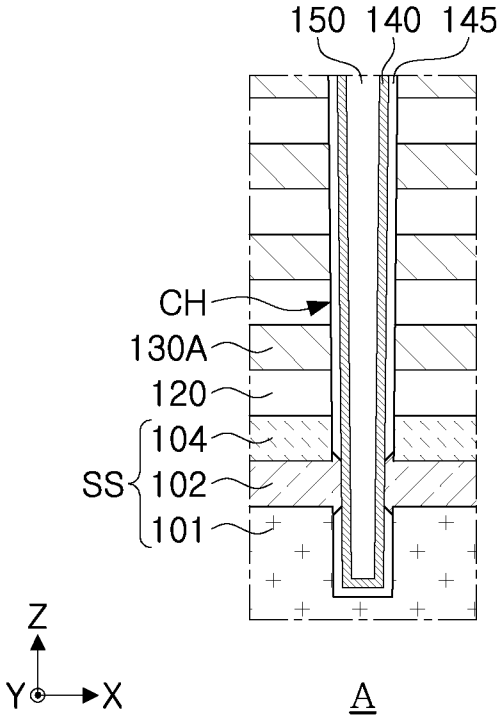

150
140
145
CH
130A
120
SS
104
102
101
Z
Y
X
A

FIG. 3A

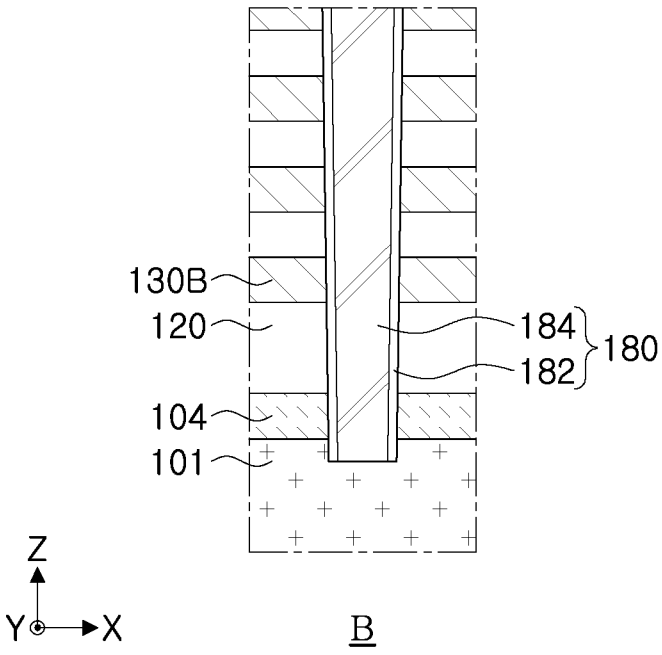

130B
120
184
180
182
104
101
Z
Y
X
B

FIG. 3B

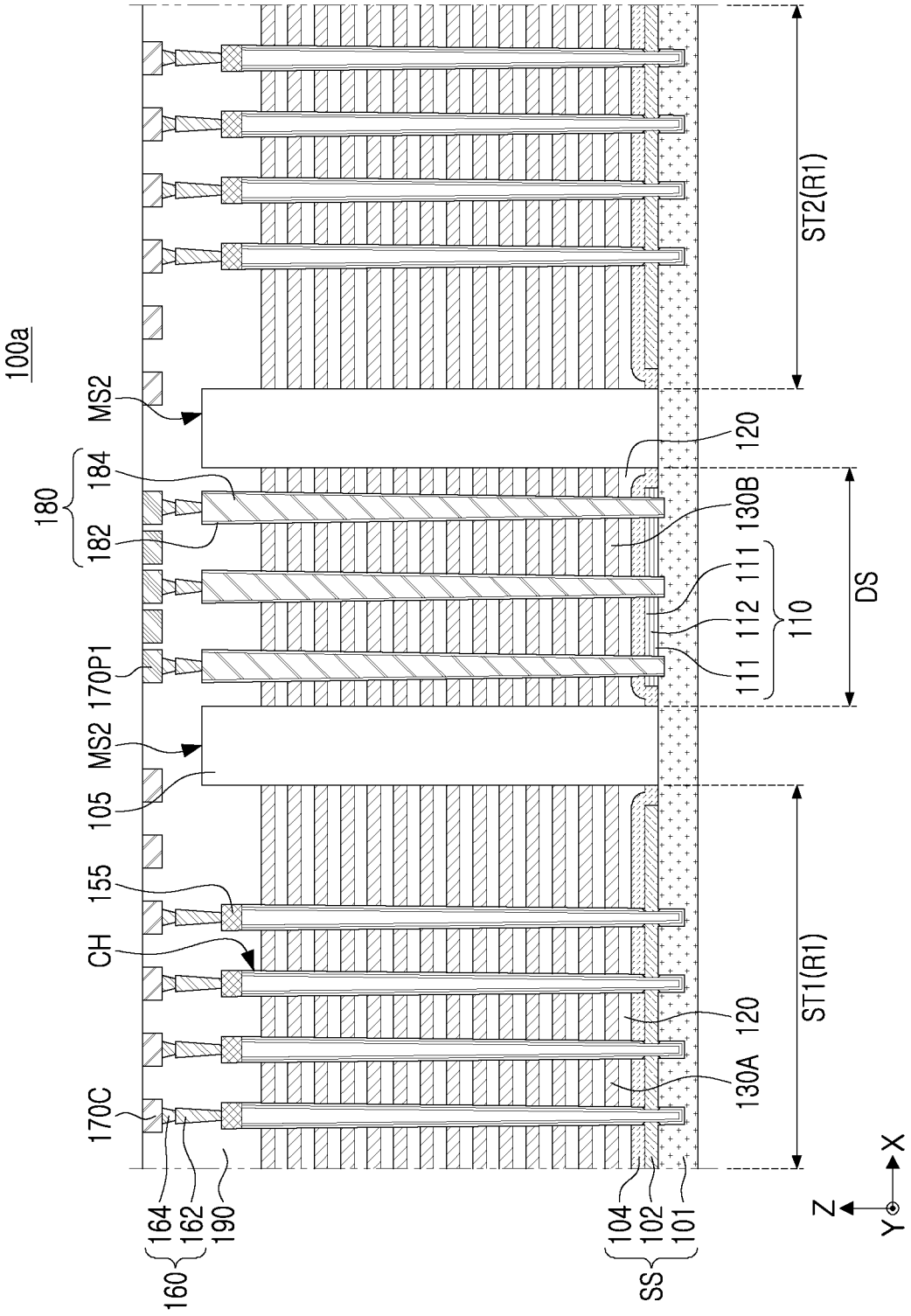

100a
MS2
180
184
182
170P1
MS2
105
155
CH
170C
164
162
190
160
104
102
101
SS
130A
120
ST1(R1)
111
112
111
110
130B
120
DS
ST2(R1)
Z
X
Y

FIG. 4

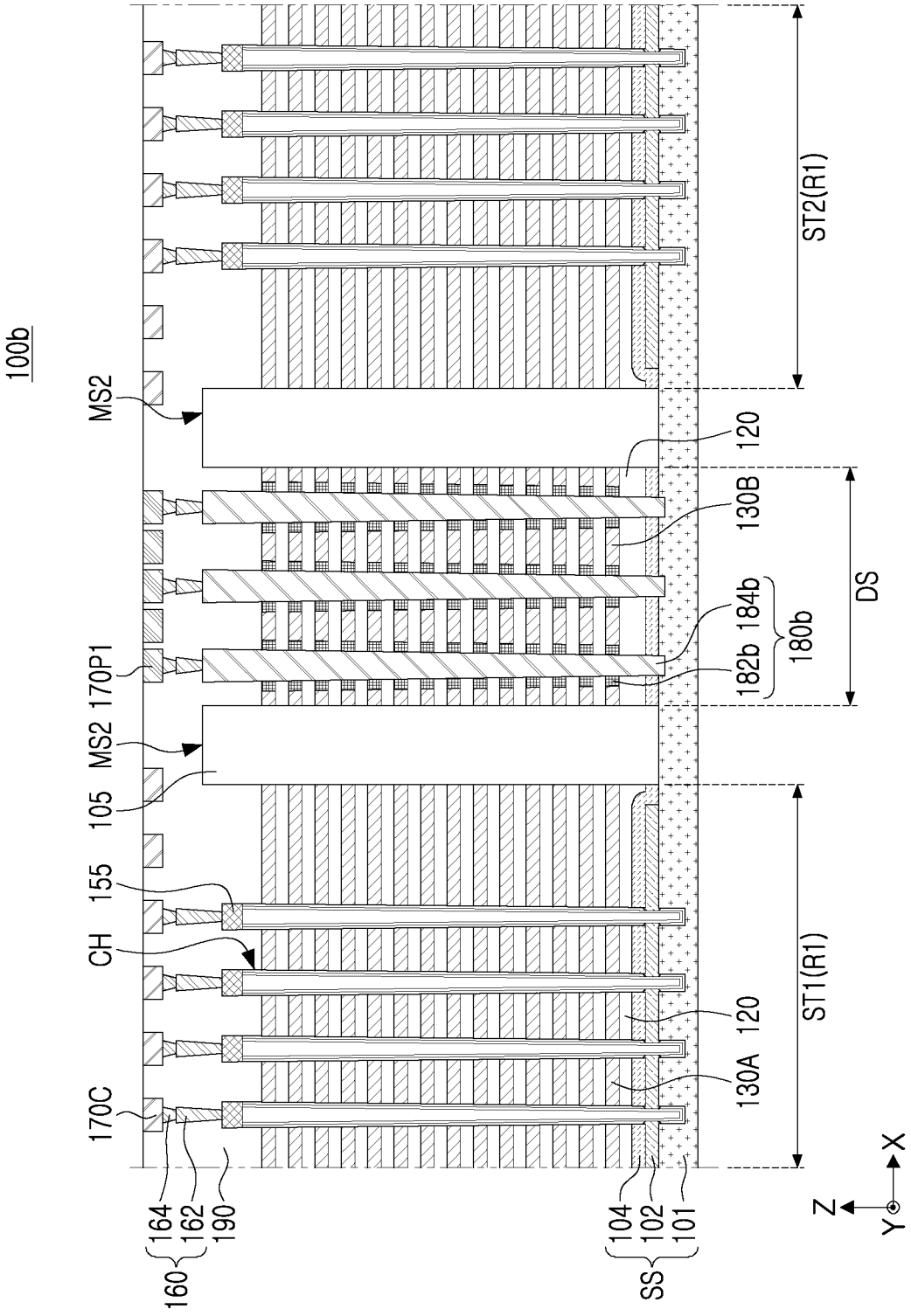

100b
MS2
170P1
MS2
105
155
CH
170C
164
162
190
160
104
102
101
SS
130A
120
130B
120
182b
184b
180b
DS
ST1(R1)
ST2(R1)
Z
X
Y

FIG. 5A

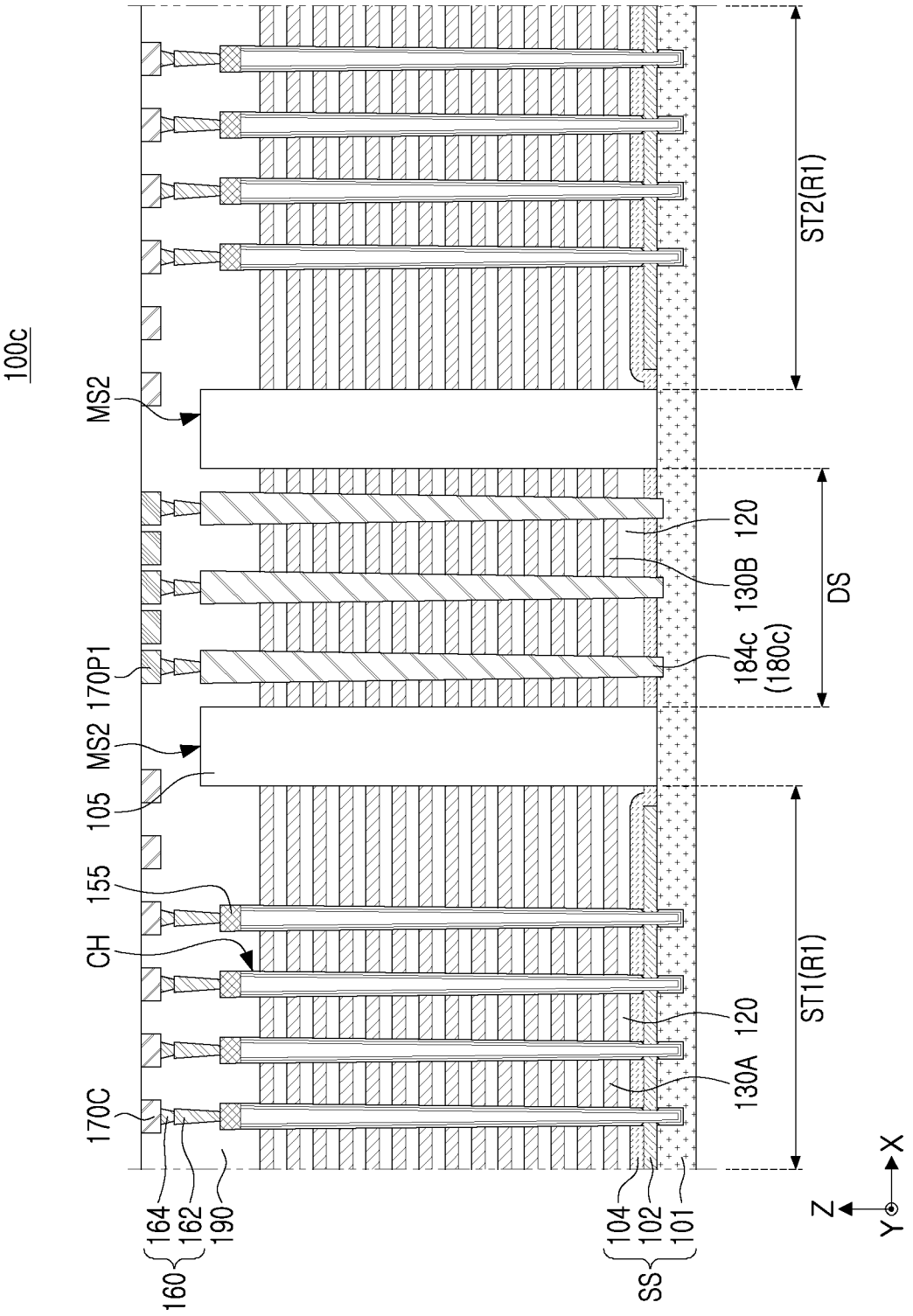

100c
MS2
170P1
MS2
105
155
CH
170C
164
162
190
160
104
102
101
SS
130A
120
184c
(180c)
130B
120
ST1(R1)
DS
ST2(R1)
Z
X
Y

FIG. 5B

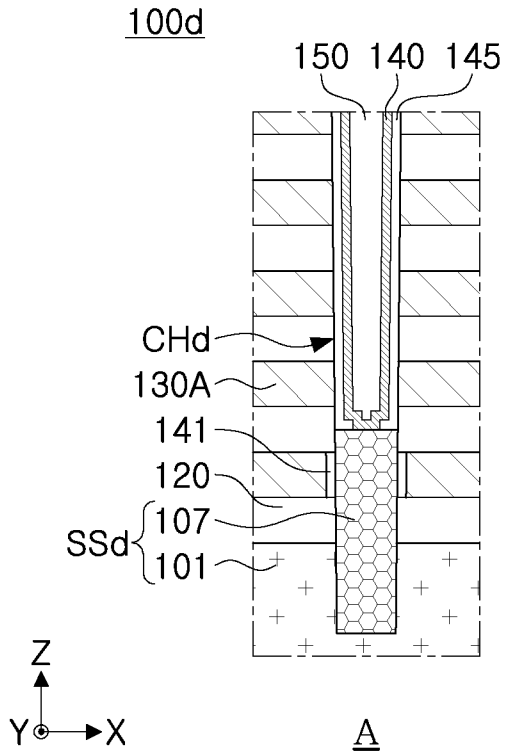


FIG. 6

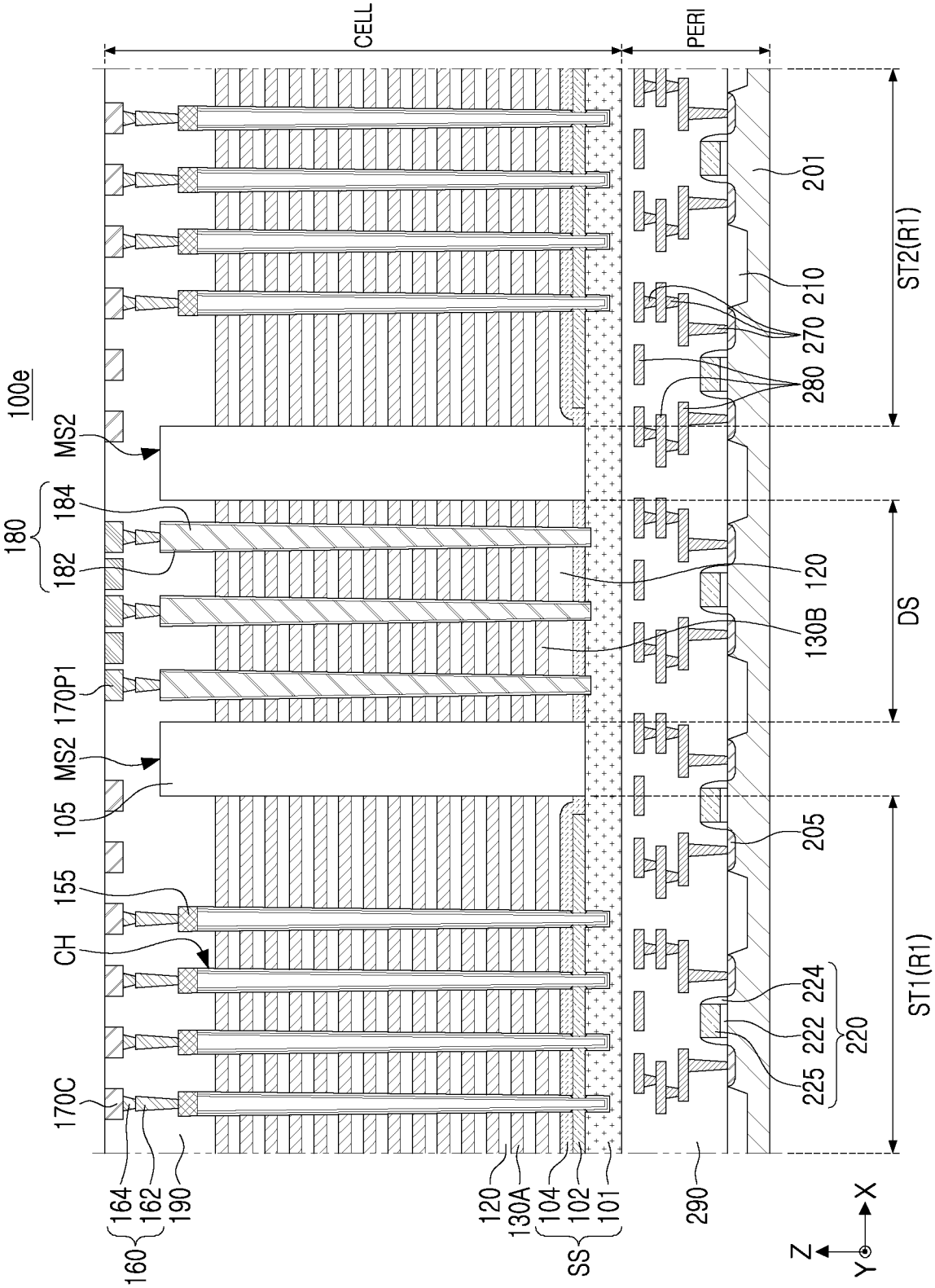

CELL
PERI
100e
MS2
180
184
182
170P1
MS2
105
155
CH
170C
160
164
162
190
120
130A
104
102
101
SS
290
201
210
270
280
ST2(R1)
120
130B
DS
205
224
222
225
220
ST1(R1)
Z
X
Y

FIG. 7A

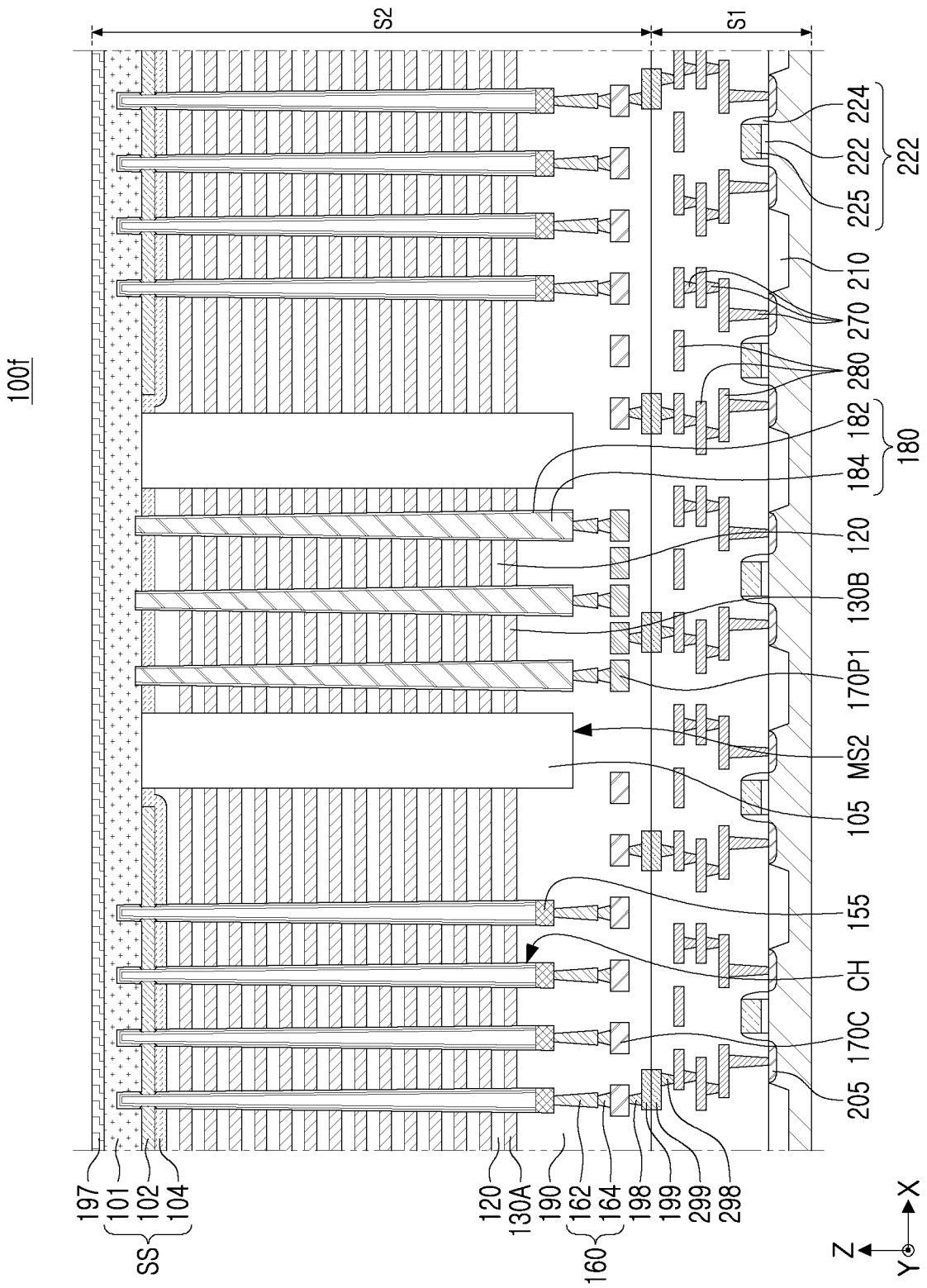

100f
S2
S1
197
101
102
104
SS
120
130A
190
162
164
160
198
199
299
298
205
170C
CH
155
105
MS2
170P1
130B
120
184
182
180
280
270
210
225
222
224
222
Z
Y
X

FIG. 7B

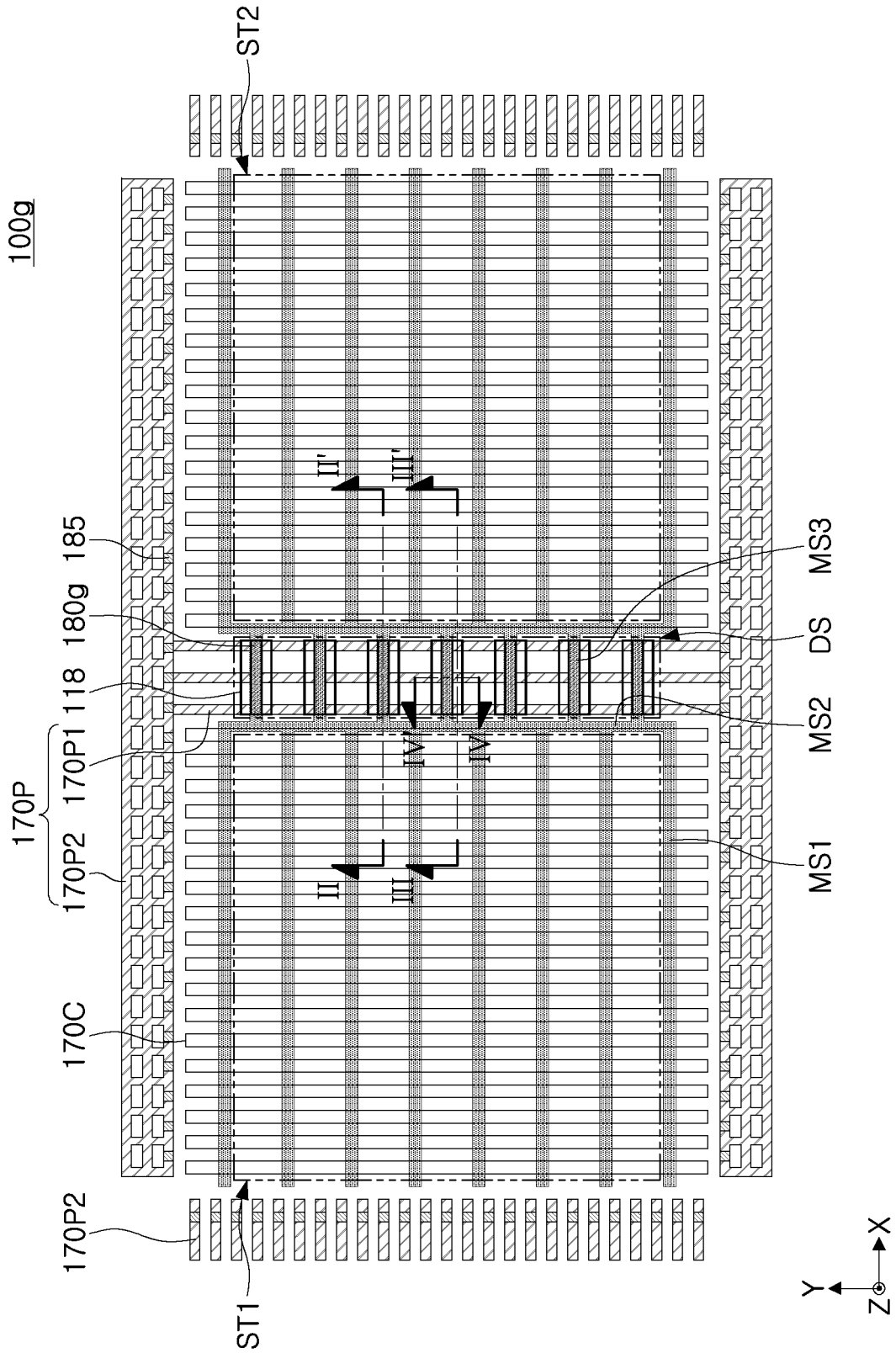

100g
ST2
ST1
II'
III'
II
III
IV'
IV
185
180g
118
170P1
170P
170P2
170C
MS3
DS
MS2
MS1
Y
X
Z

FIG. 8

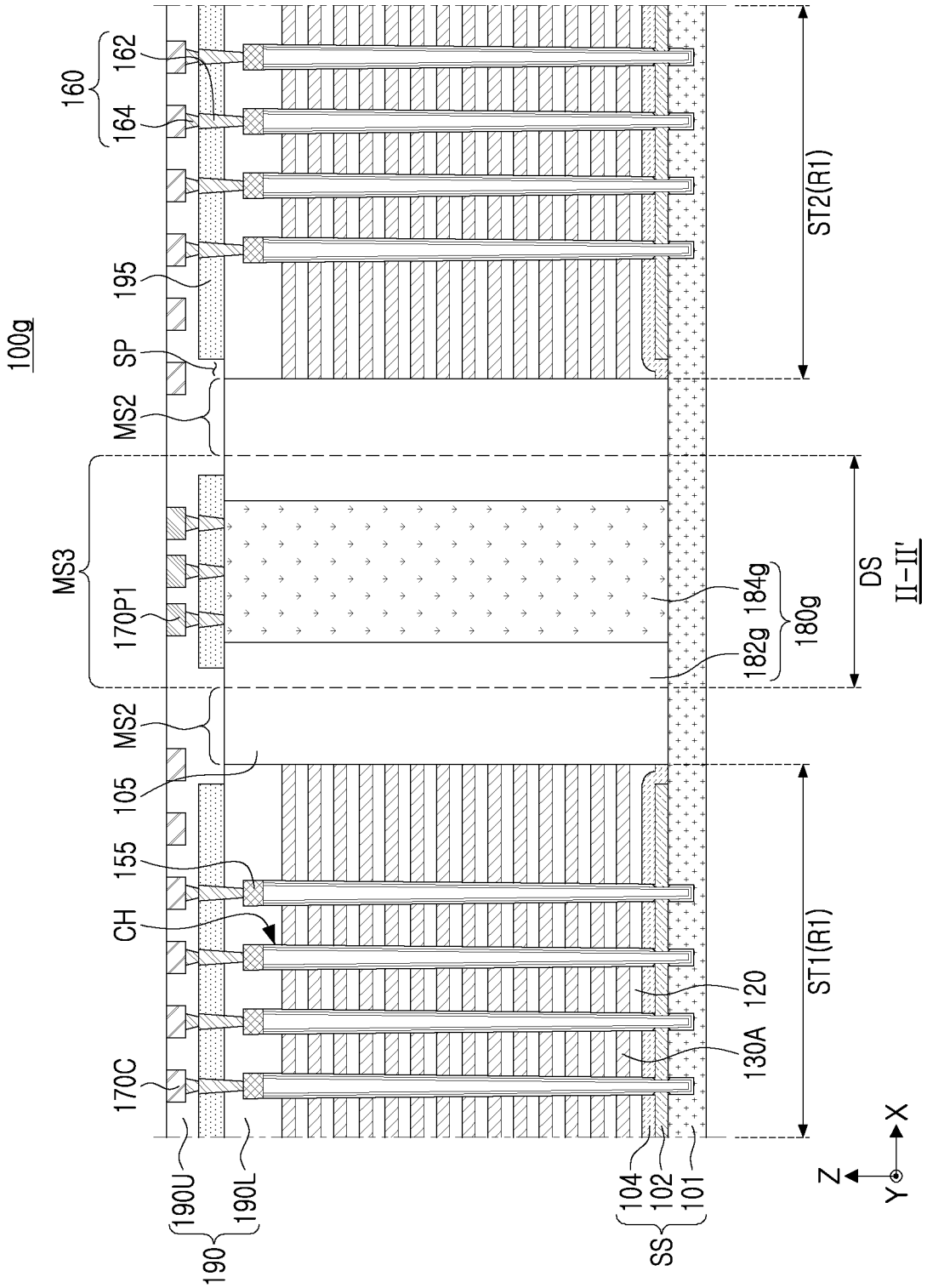

100g
160
162
164
195
SP
MS2
MS3
170P1
MS2
105
155
CH
170C
190U
190L
190
104
102
101
SS
130A
120
182g
184g
180g
DS
ST2(R1)
ST1(R1)
II-II'
Z
X
Y

FIG. 9A

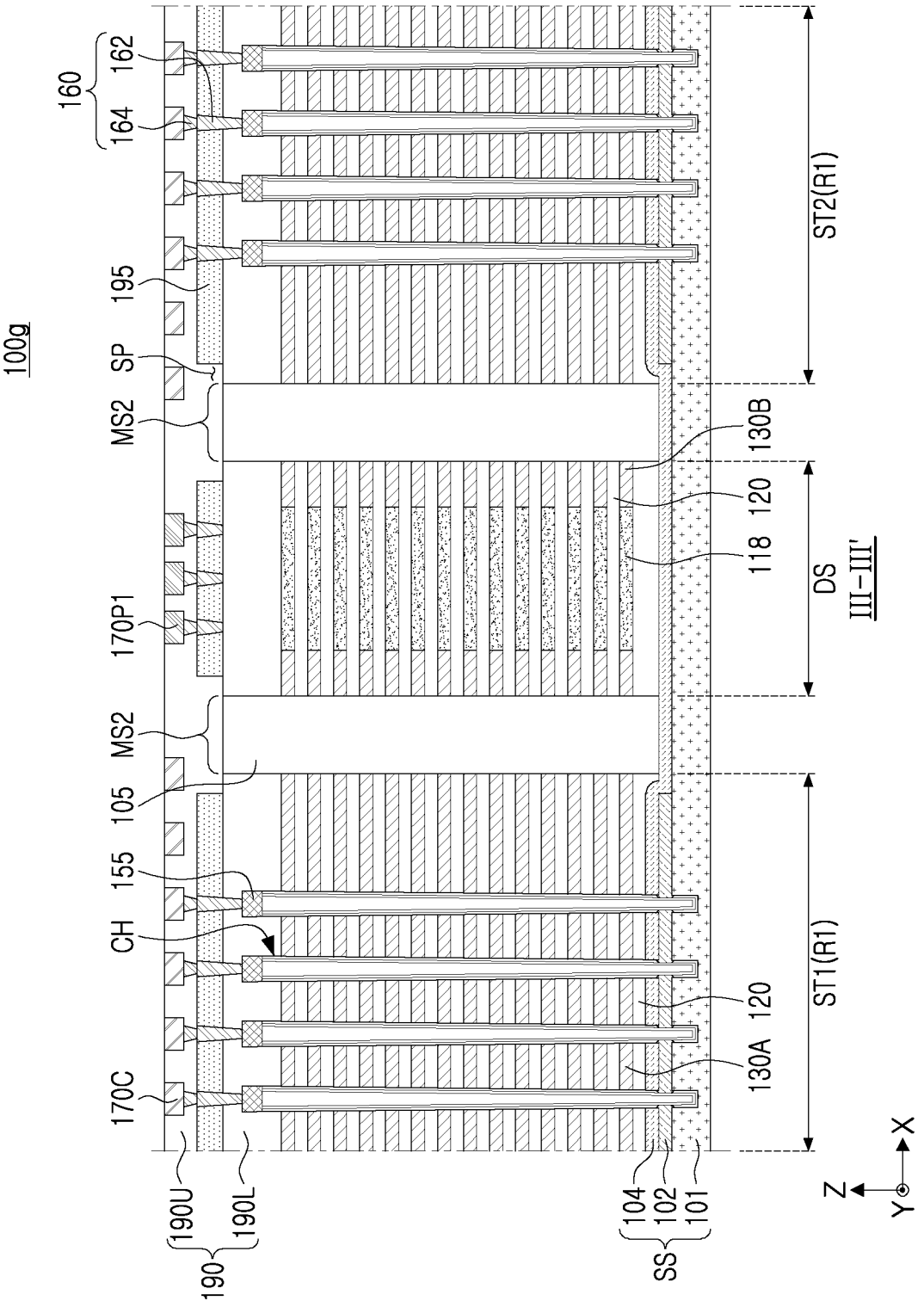

100g
160
162
164
195
SP
MS2
170P1
MS2
105
155
CH
170C
190U
190L
190
104
102
101
SS
130A
120
130B
120
118
ST1(R1)
DS
ST2(R1)
III-III'
Z
Y
X

FIG. 9B

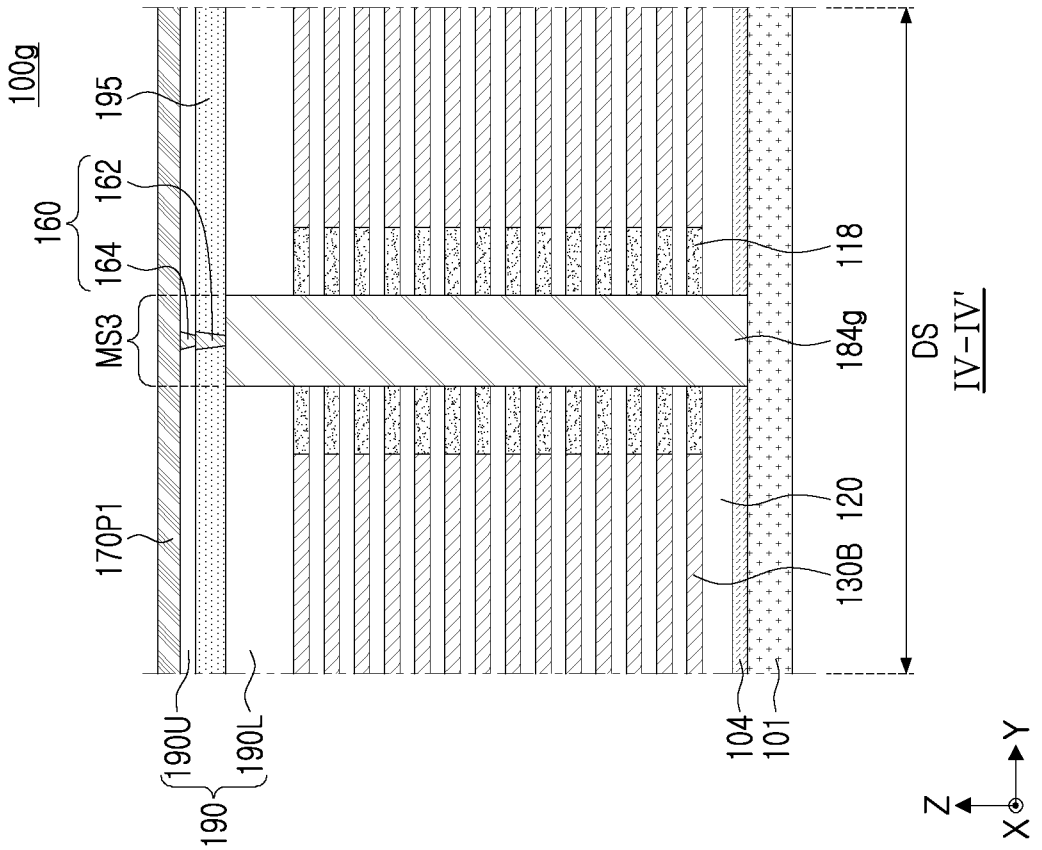

100g
195
160
162
164
MS3
170P1
118
184g
DS
IV-IV'
120
130B
190U
190L
190
104
101
Z
Y
X

FIG. 9C

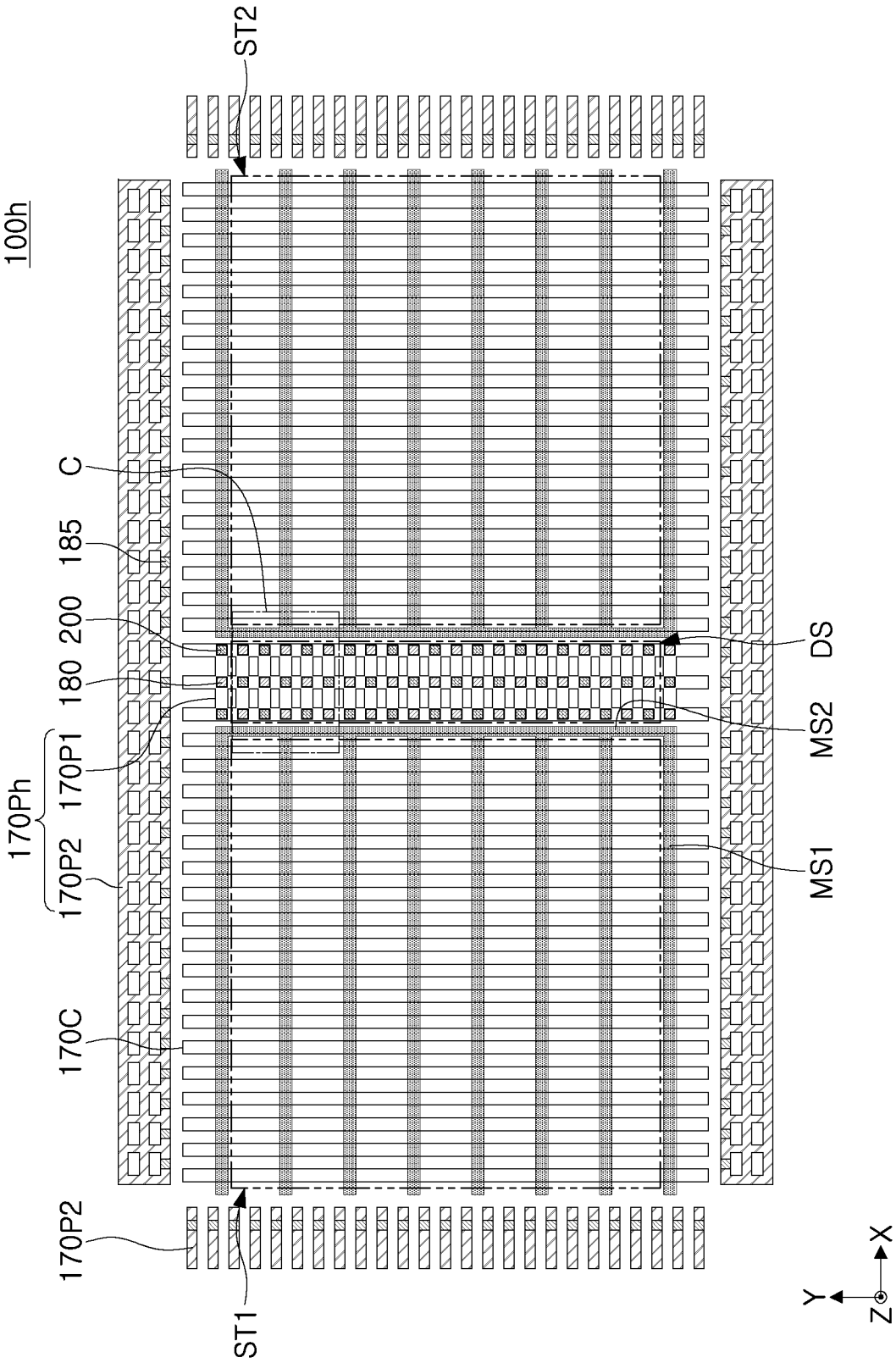

100h
ST2
C
185
200
180
170P1
170Ph
170P2
170C
170P2
ST1
DS
MS2
MS1
Y
X
Z

FIG. 10

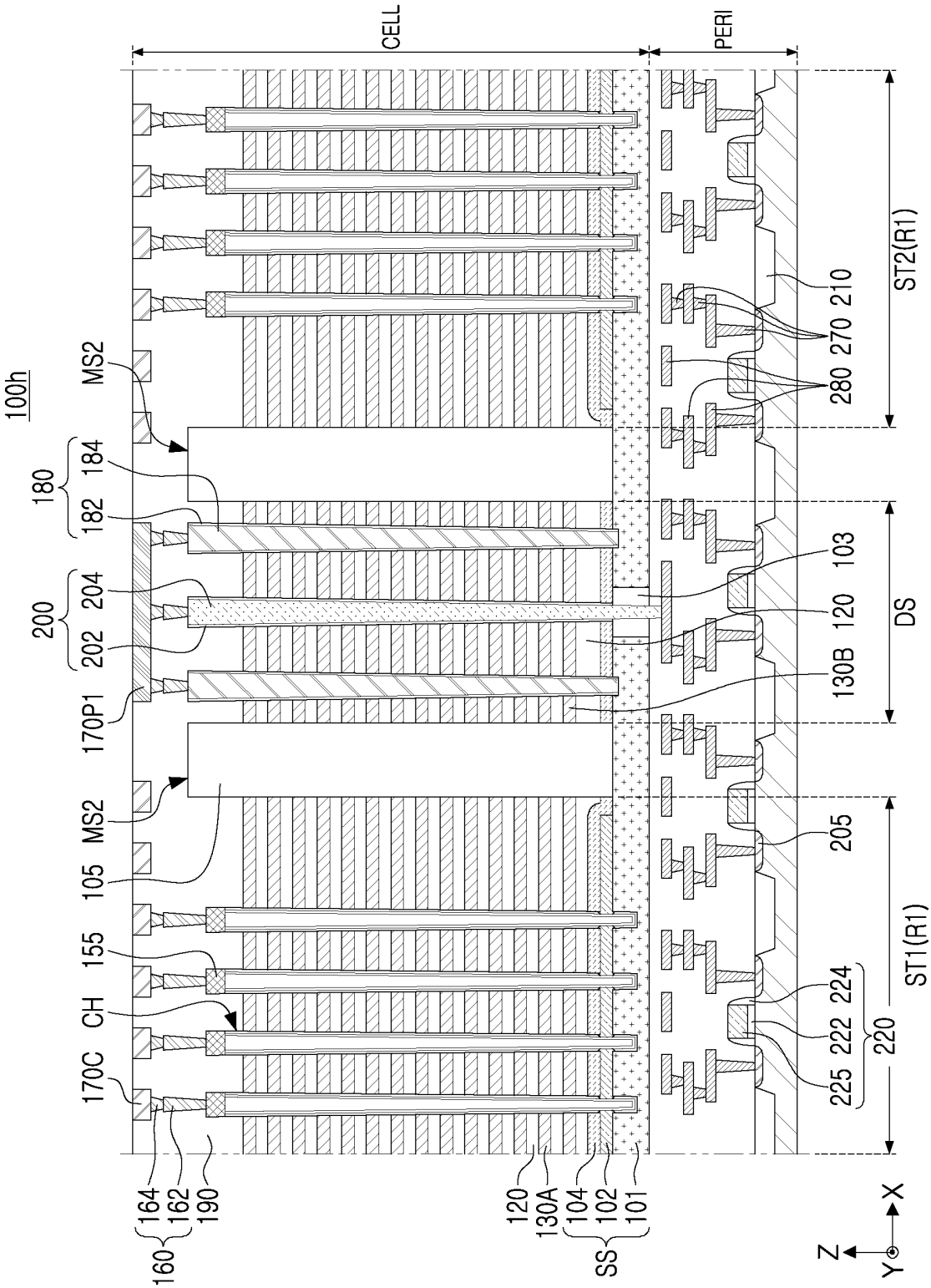

100h
CELL
PERI
MS2
180
184
182
200
204
202
170P1
MS2
105
155
CH
170C
160
164
162
190
120
130A
104
102
101
SS
ST2(R1)
210
270
280
DS
103
120
130B
ST1(R1)
205
220
224
222
225
Z
X
Y

FIG. 11

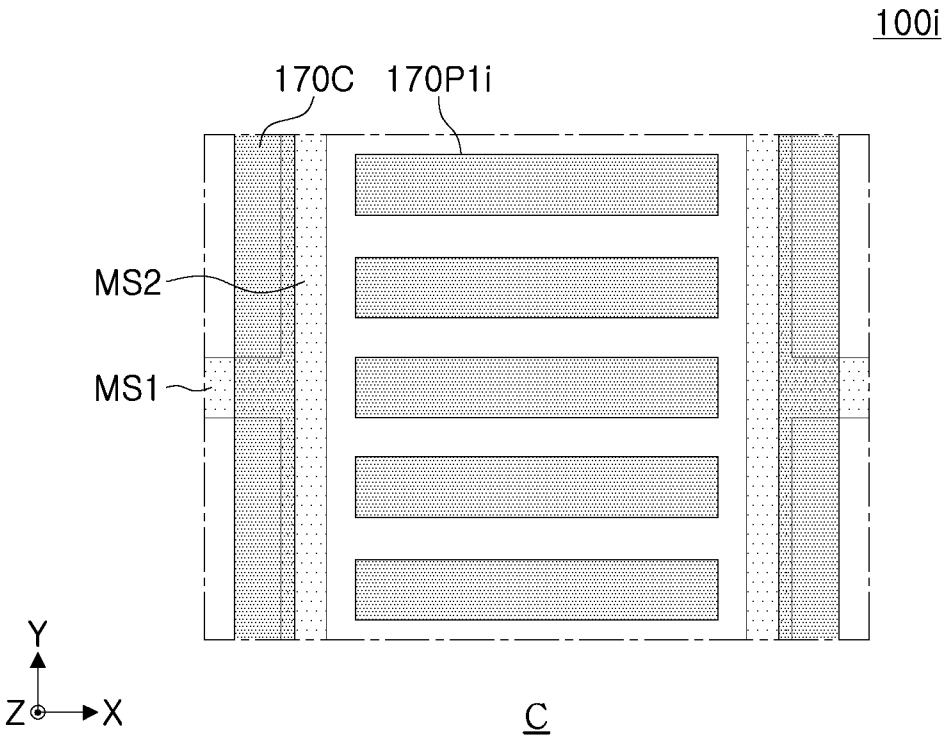


FIG. 12A

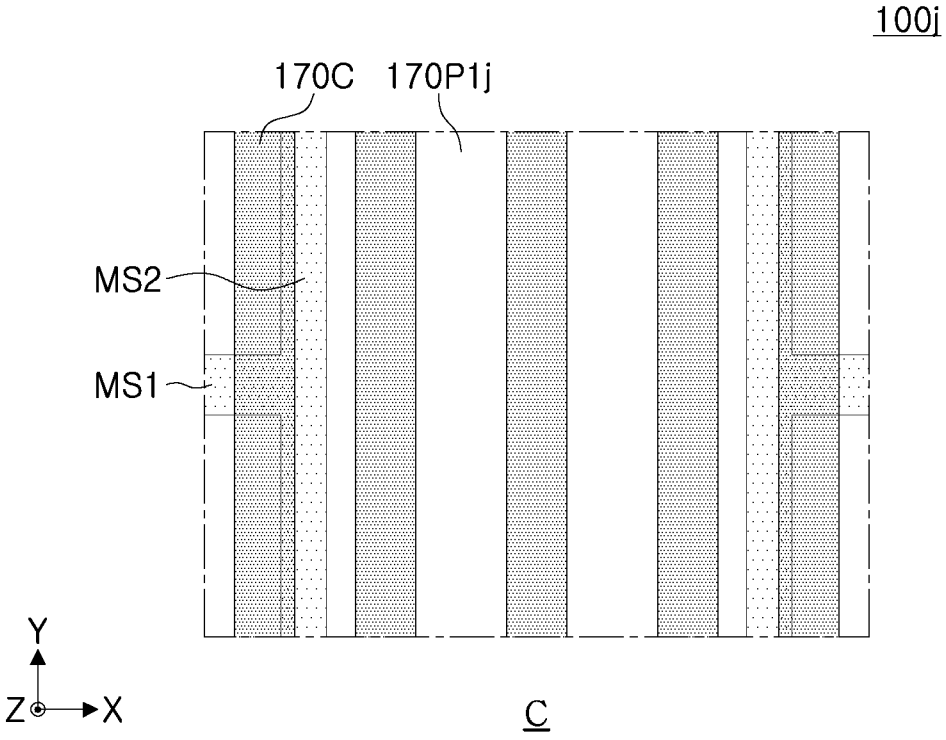


FIG. 12B

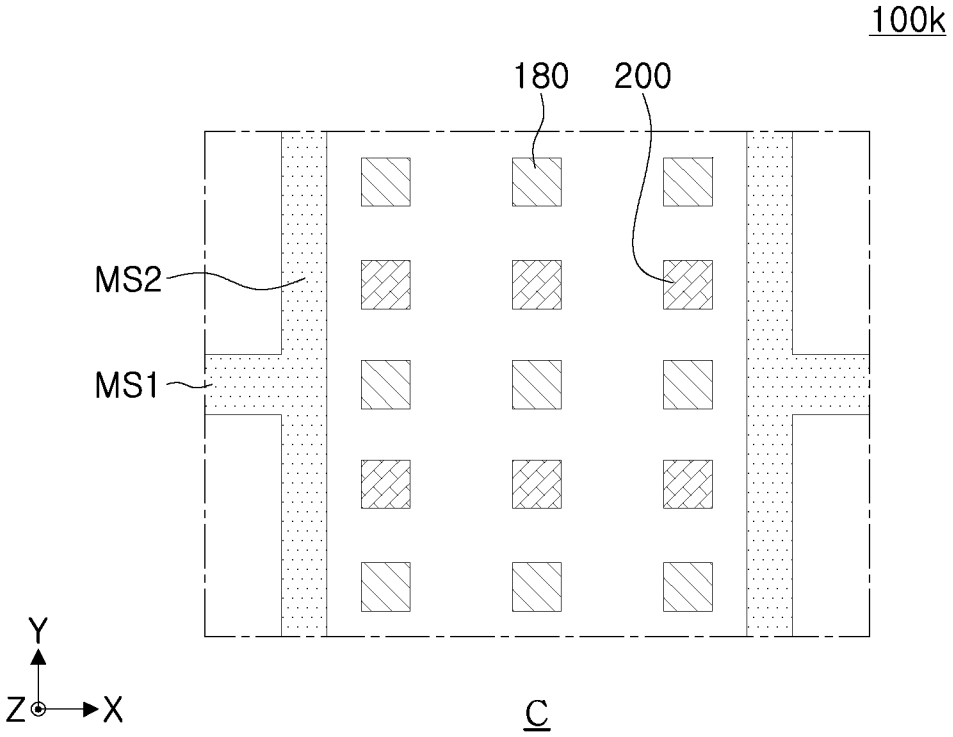


FIG. 13A

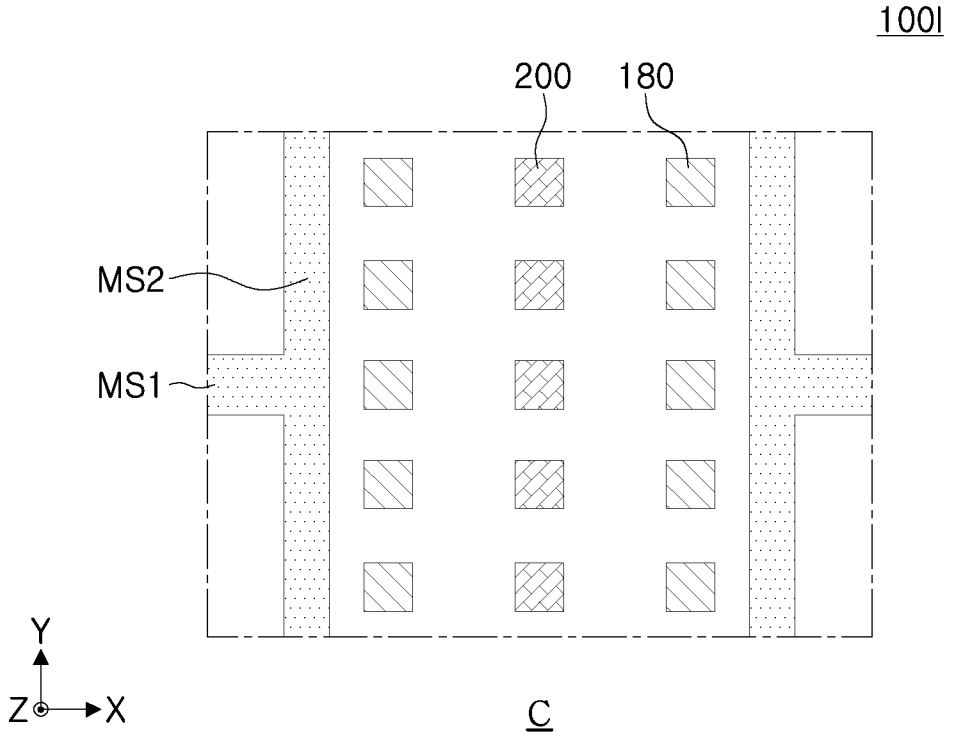


FIG. 13B

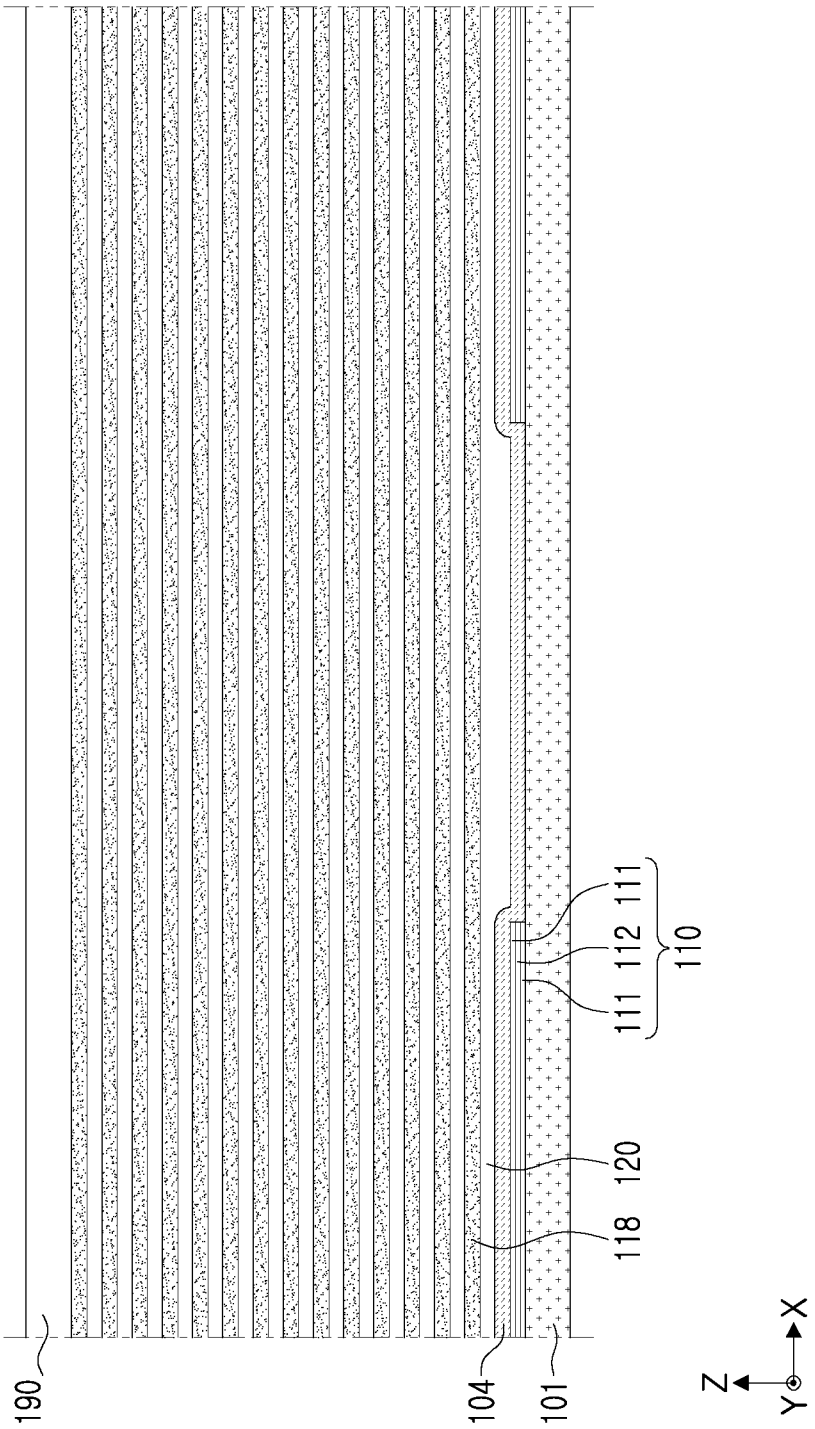


FIG. 14A

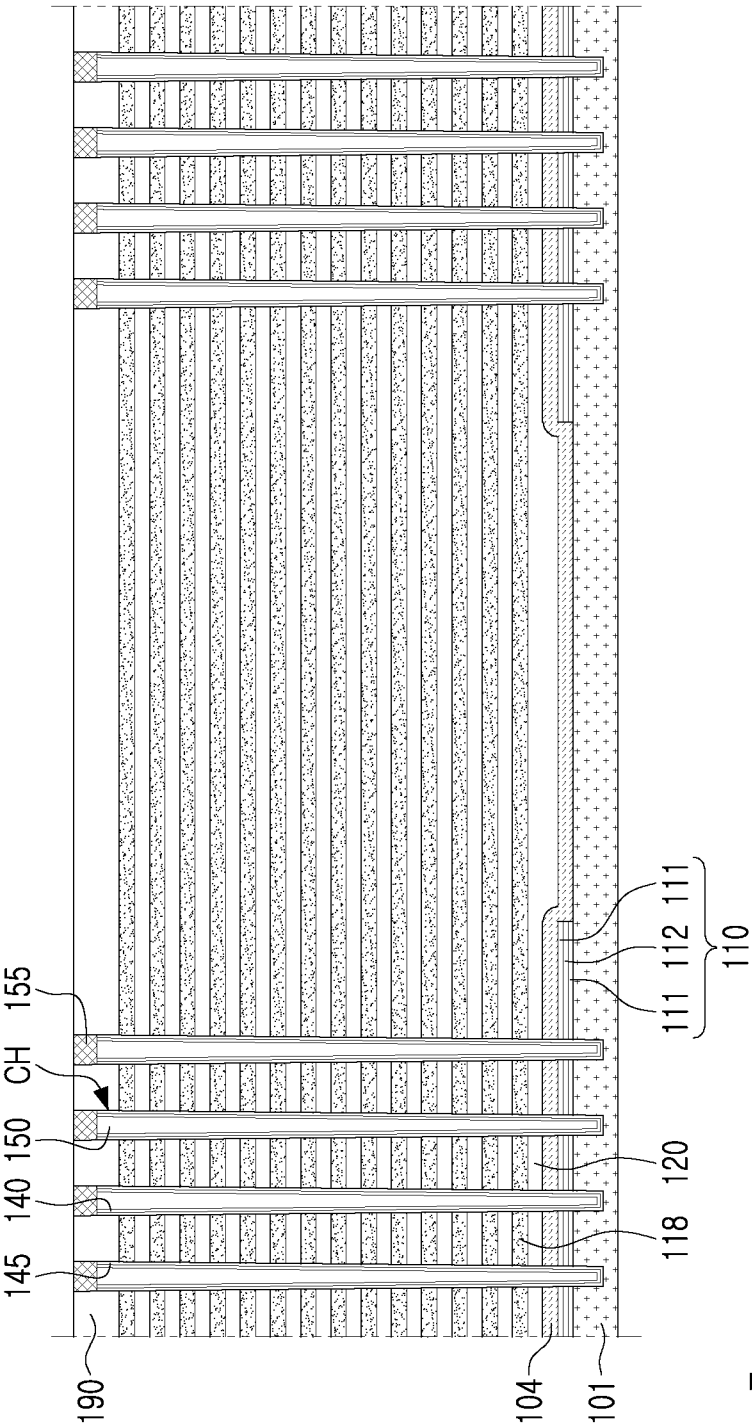


FIG. 14B

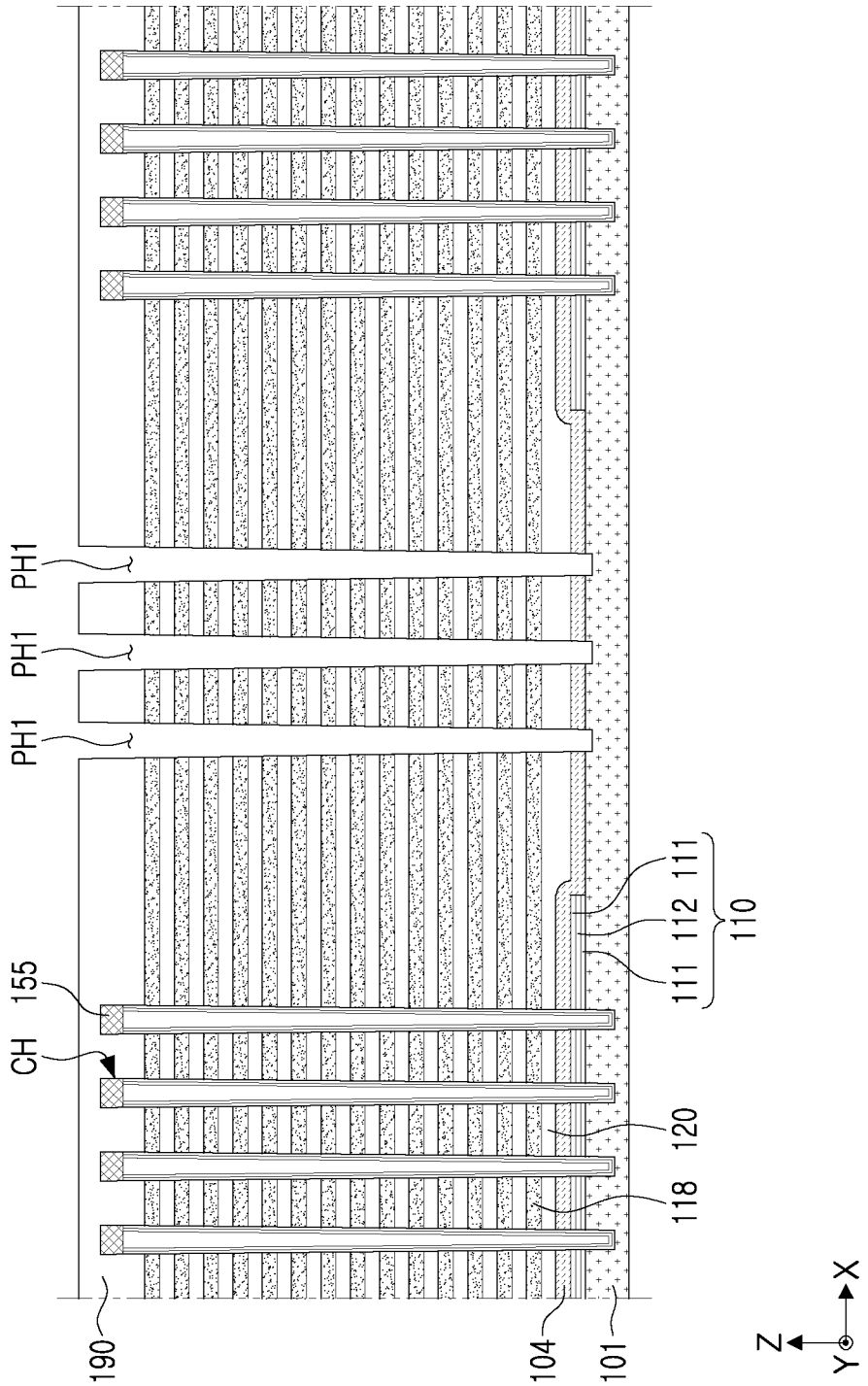


FIG. 14C

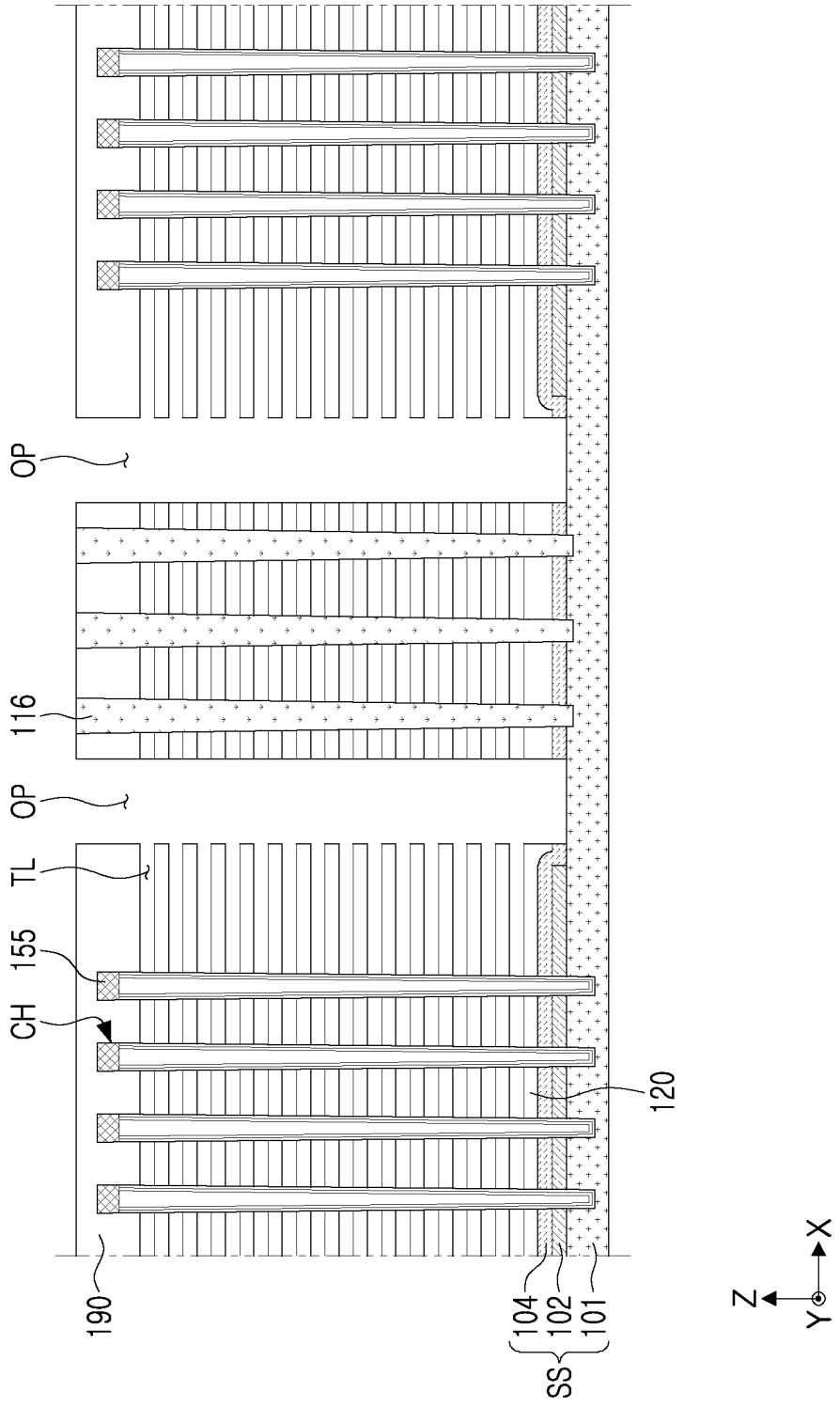


FIG. 14D

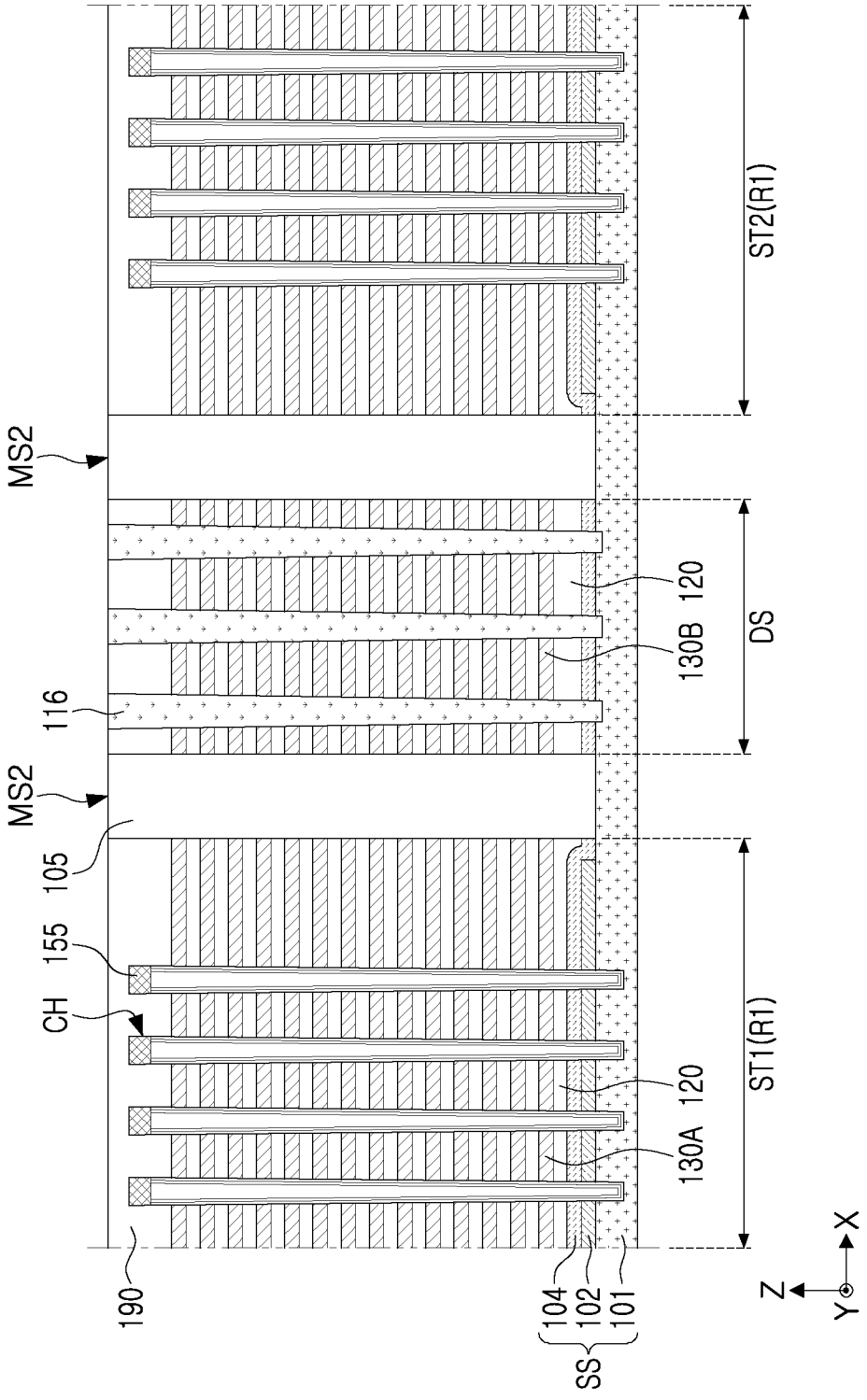

MS2
MS2
116
105
155
CH
190
104
102
101
SS
130A
120
130B
120
ST1(R1)
DS
ST2(R1)
Z
X
Y

FIG. 14E

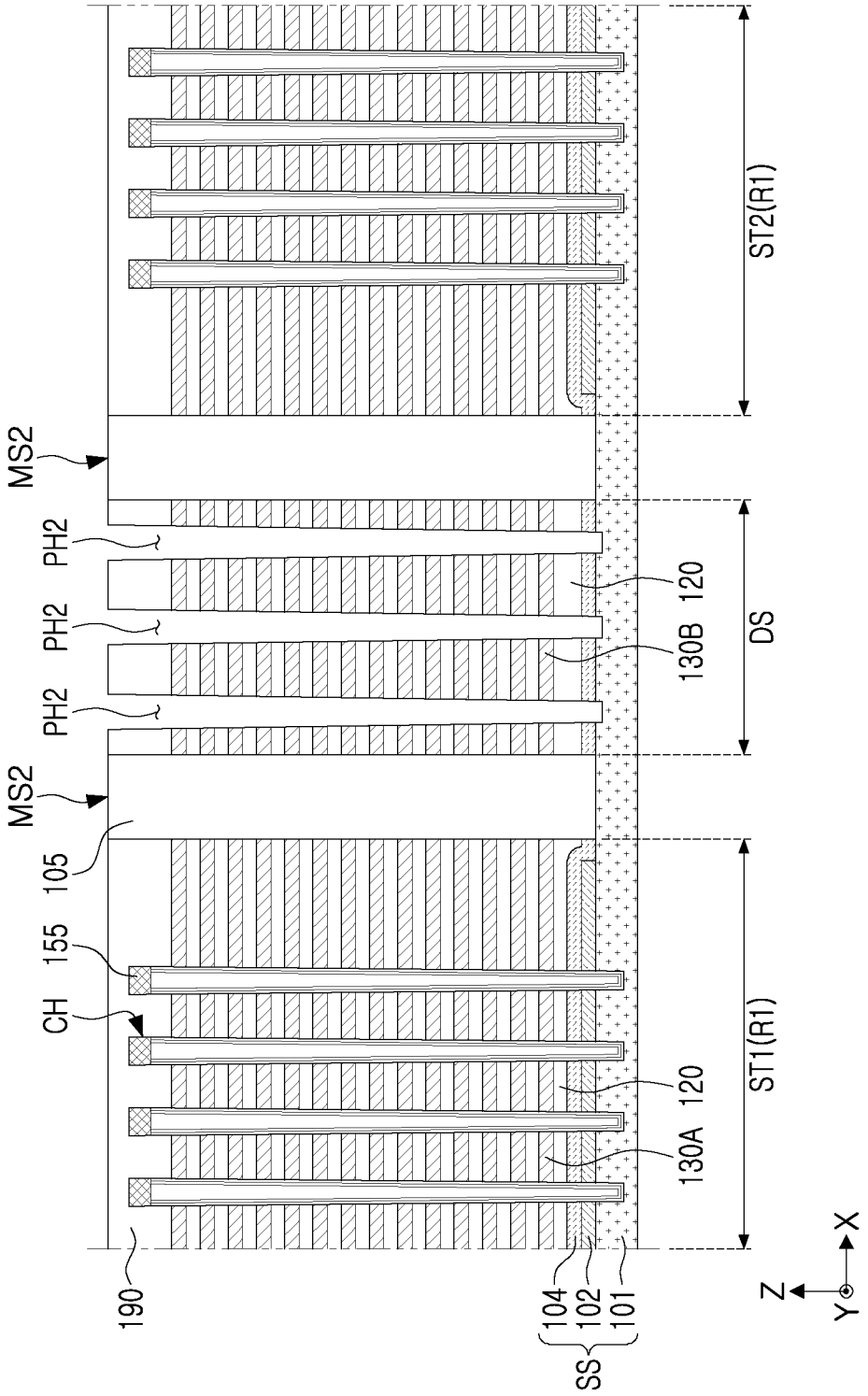

MS2
PH2
PH2
PH2
MS2
105
155
CH
190
104
102
101
SS
130A
120
130B
120
ST1(R1)
DS
ST2(R1)
Z
Y
X

FIG. 14F

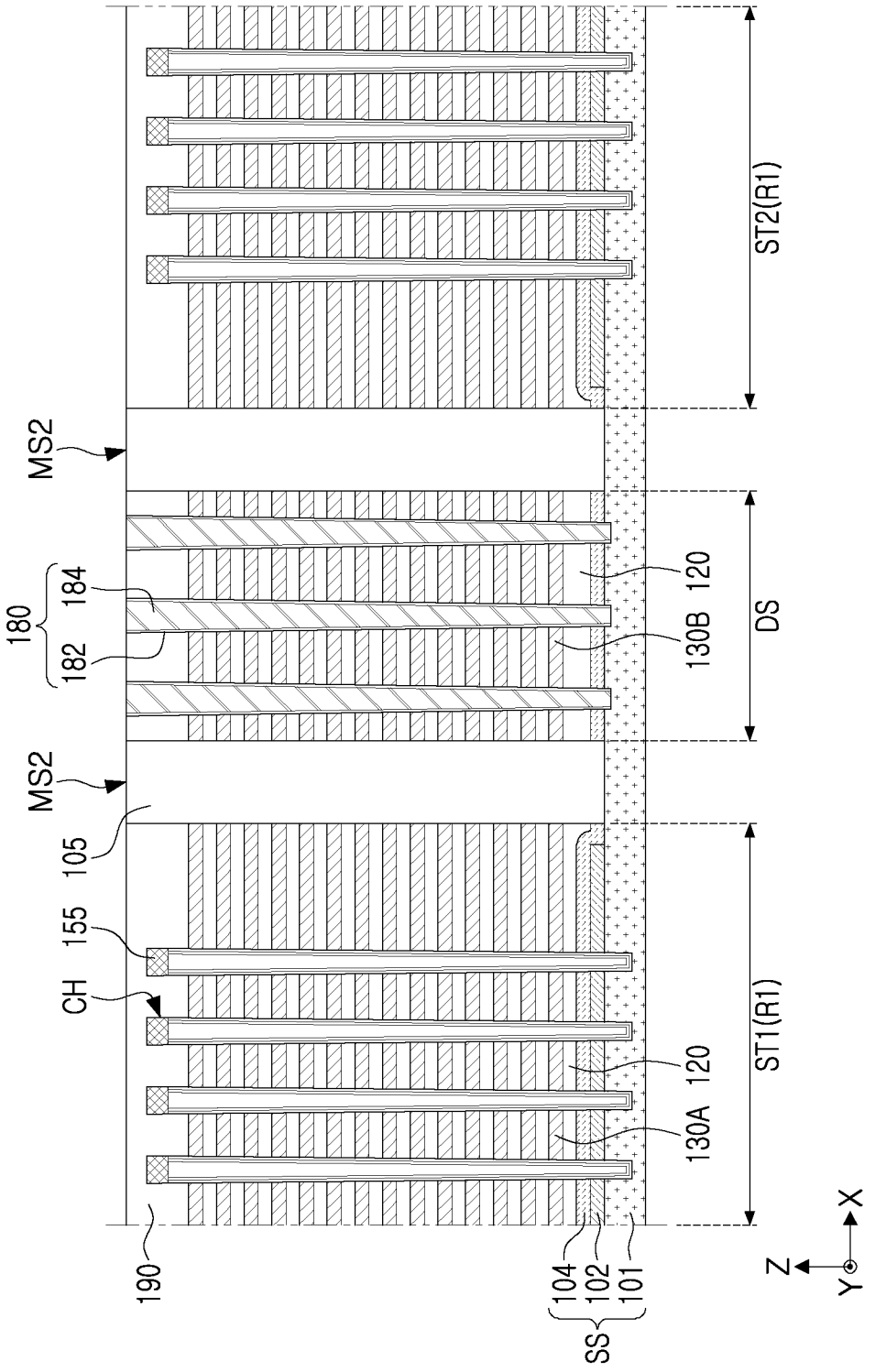

ST2(R1)
MS2
180
184
182
130B
120
DS
MS2
105
155
CH
ST1(R1)
120
130A
190
104
102
101
SS
Z
X
Y

FIG. 14G

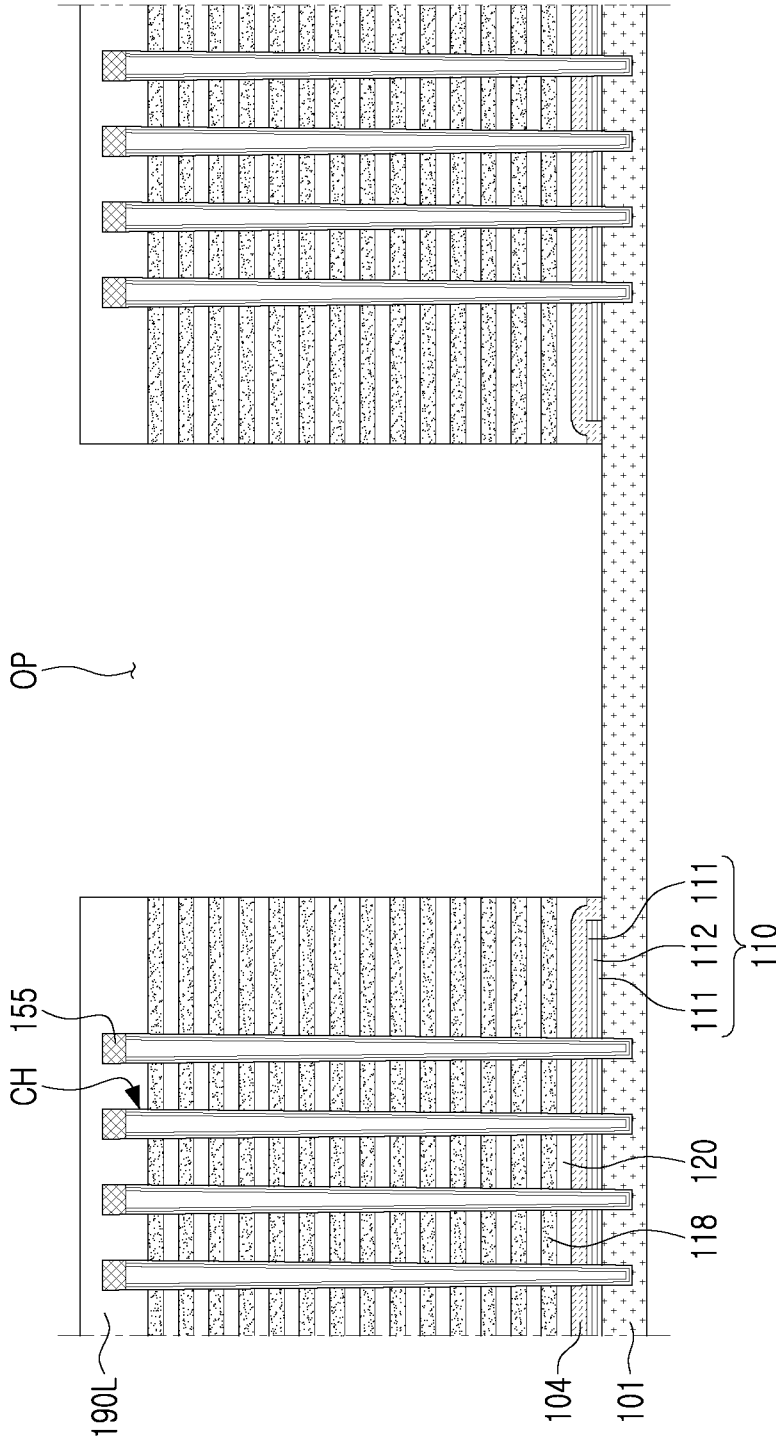


FIG. 15A

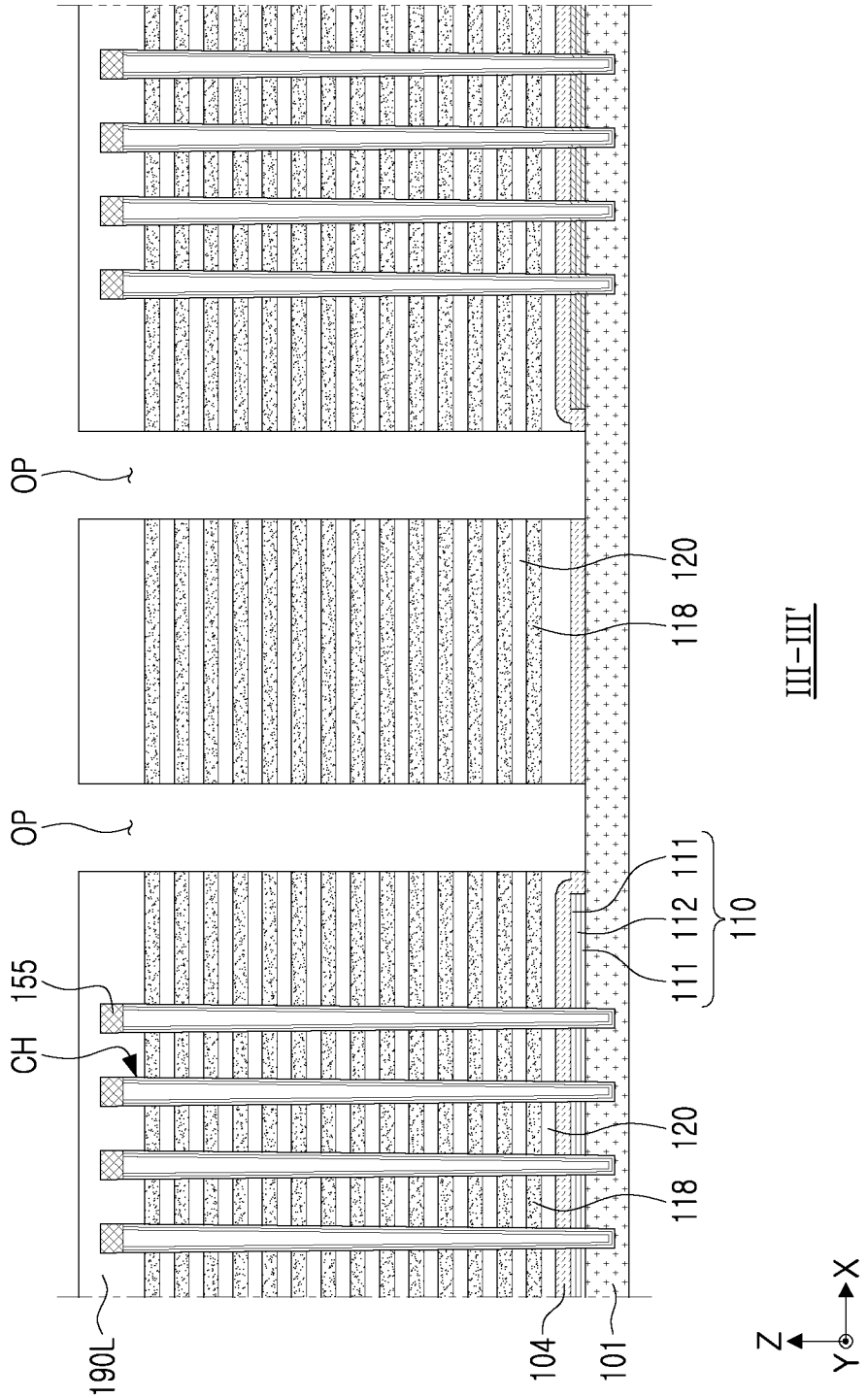

OP
OP
CH
155
120
118
111
112
111
110
120
118
190L
104
101
III-III'
Z
X
Y

FIG. 15B

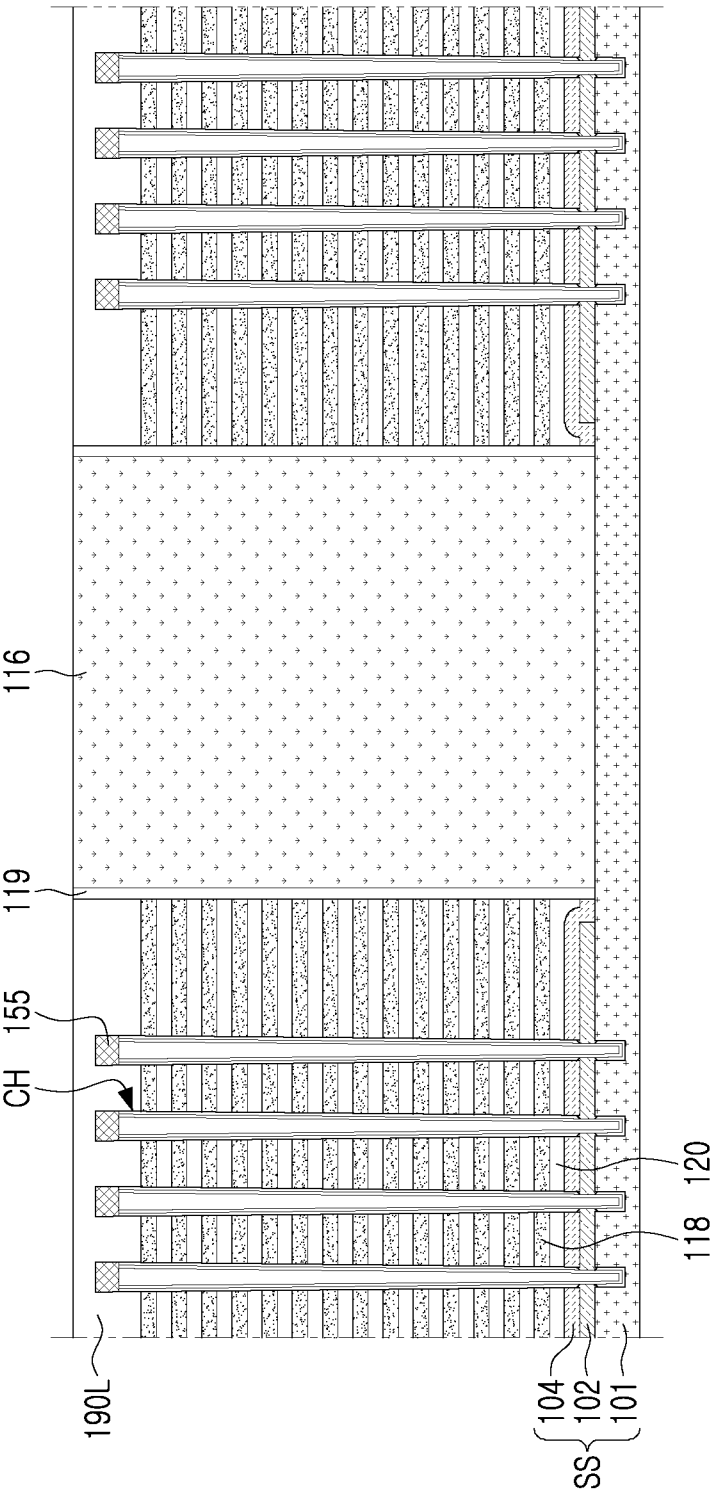


FIG. 16A

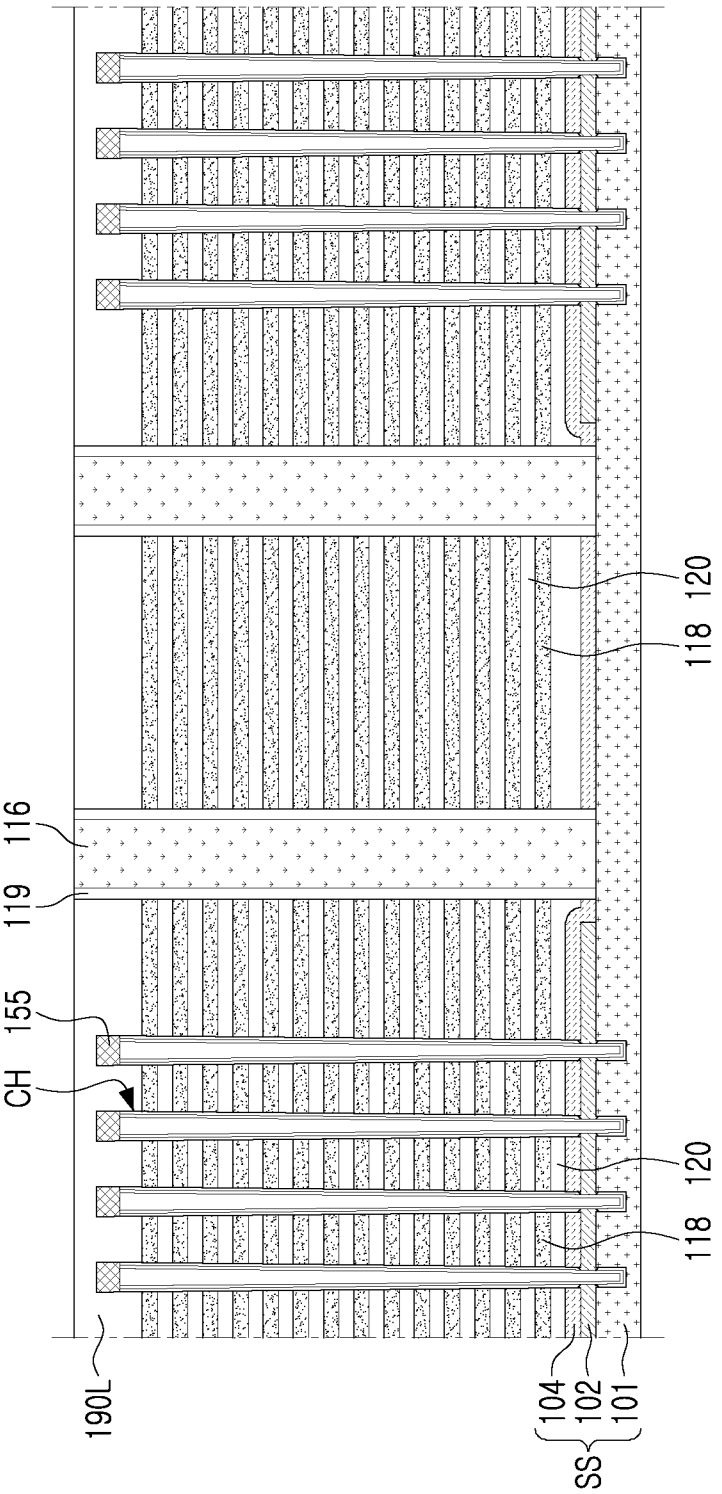


FIG. 16B

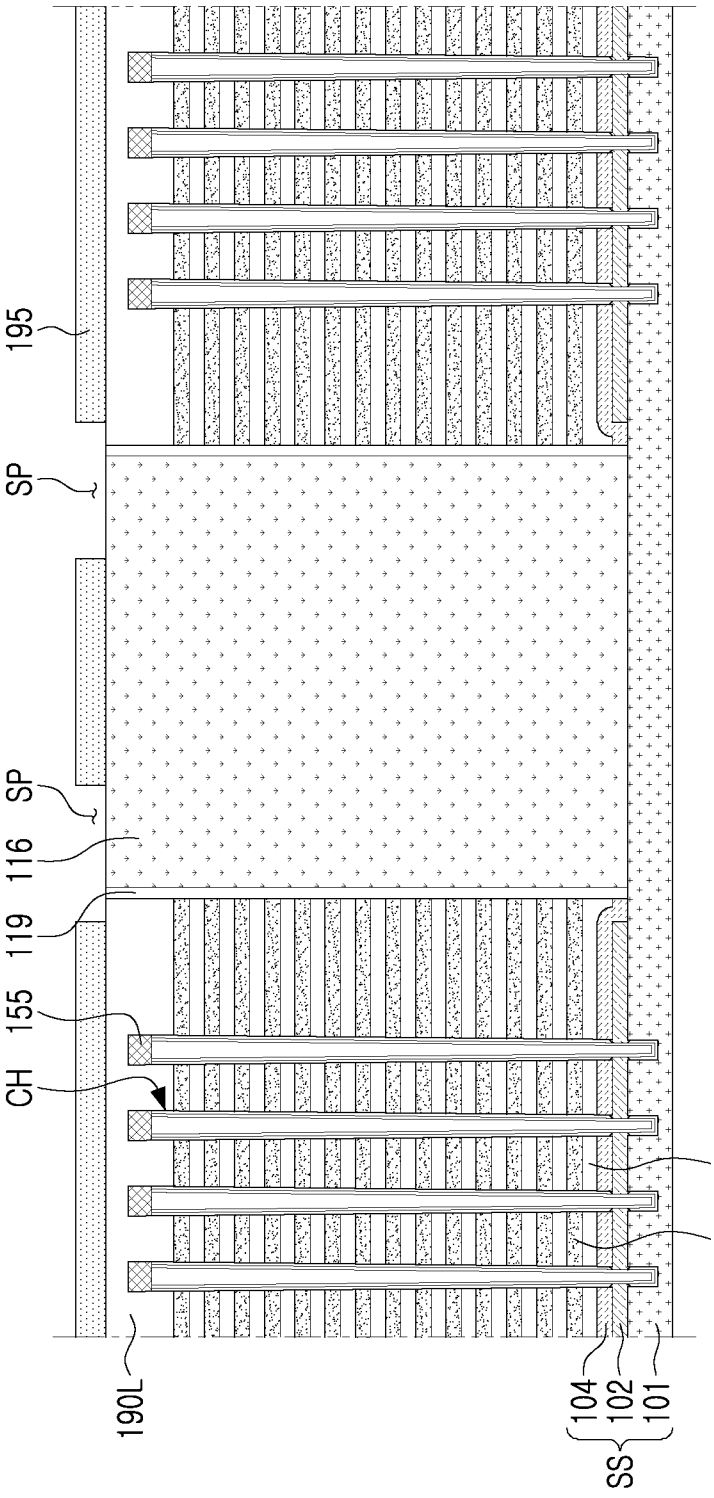


FIG. 17A

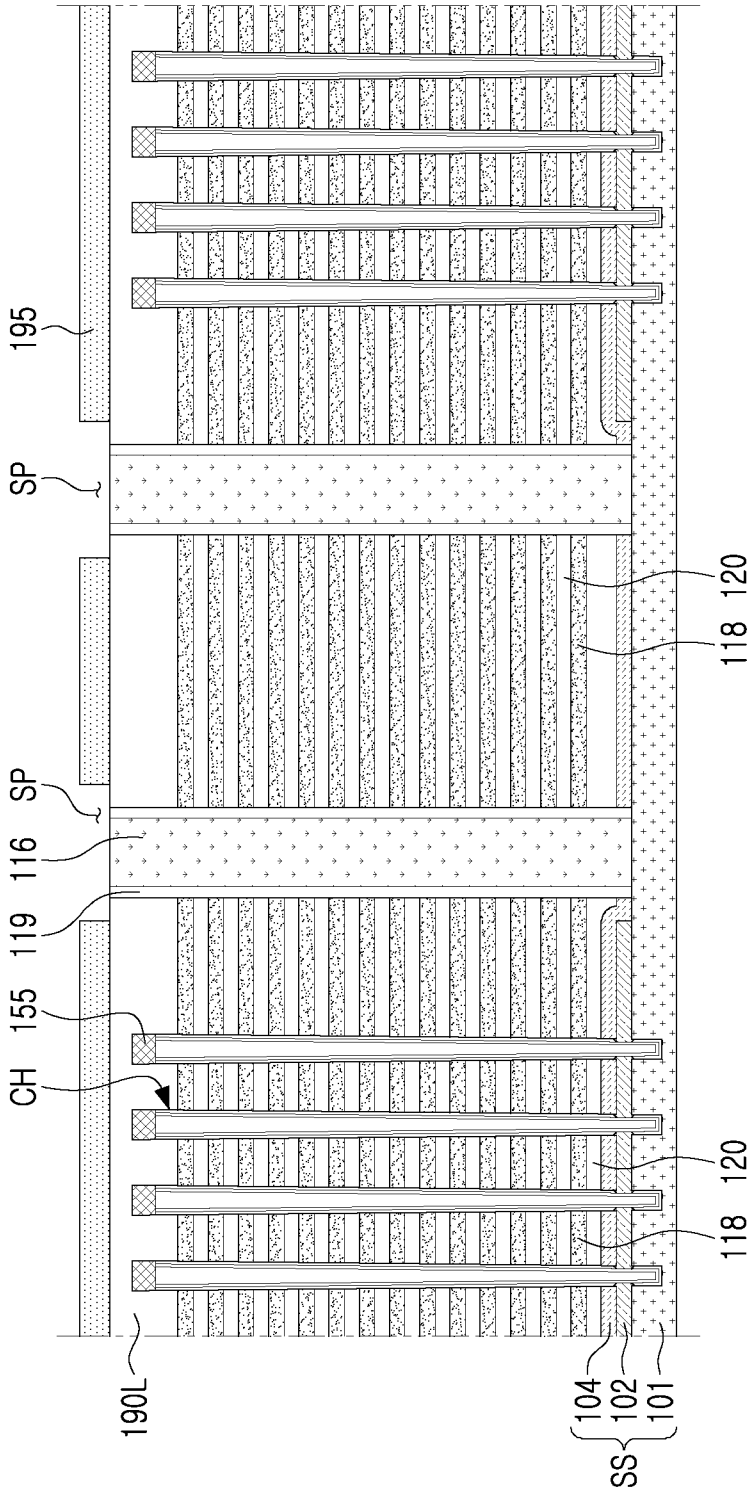

195
SP
SP
116
119
155
CH
190L
104
102
101
SS
118
120
118
120
III-III'
Z
X
Y

FIG. 17B

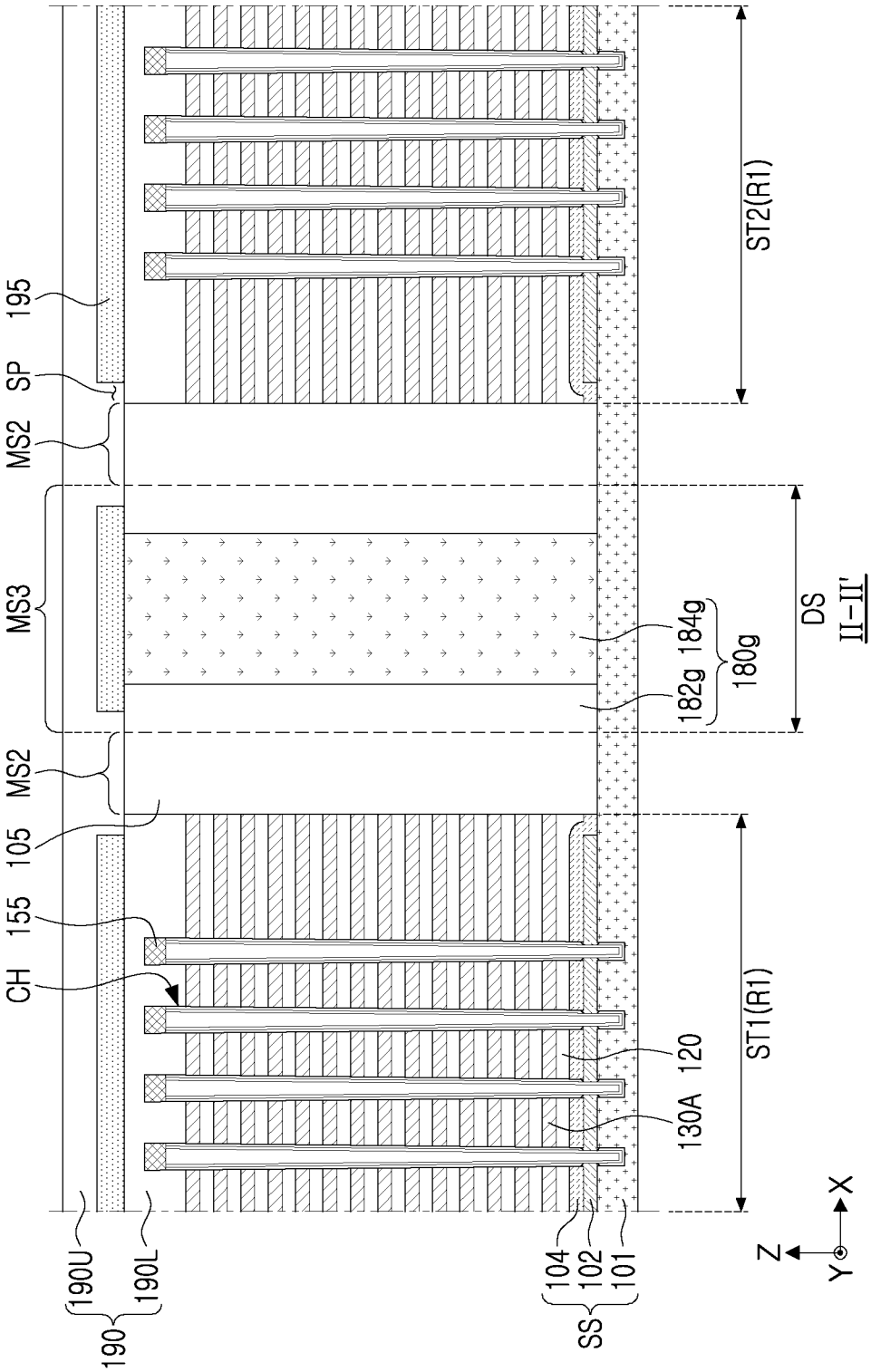

195
SP
MS2
MS3
MS2
105
155
CH
190U
190L
190
104
102
101
SS
130A
120
182g
184g
180g
DS
II-II'
ST1(R1)
ST2(R1)
Z
X
Y

FIG. 18A

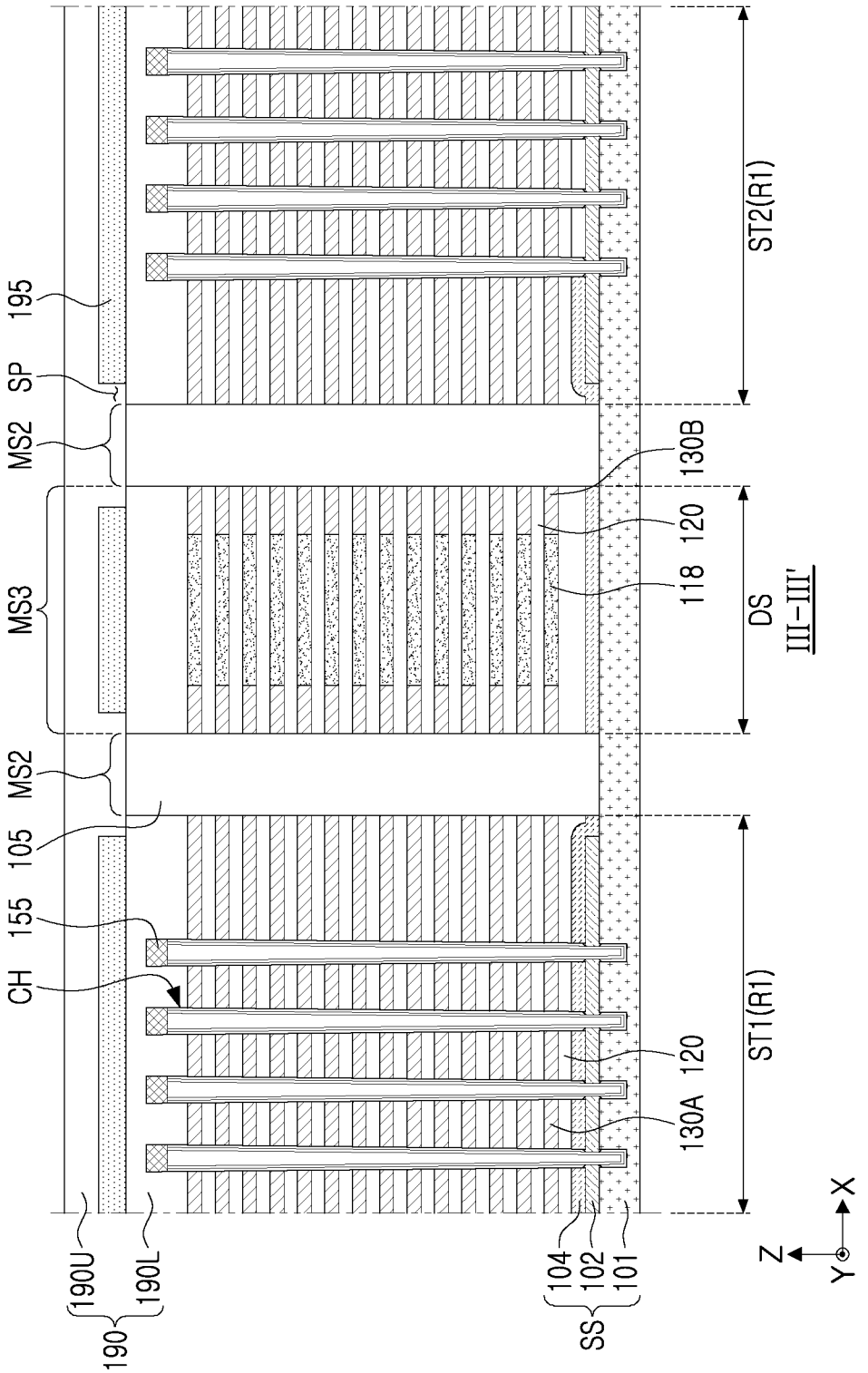

190U
190L
190
104
102
101
SS
CH
155
105
MS2
MS3
MS2
SP
195
ST1(R1)
ST2(R1)
130A
120
118
120
130B
DS
III-III'
Z
Y
X

FIG. 18B

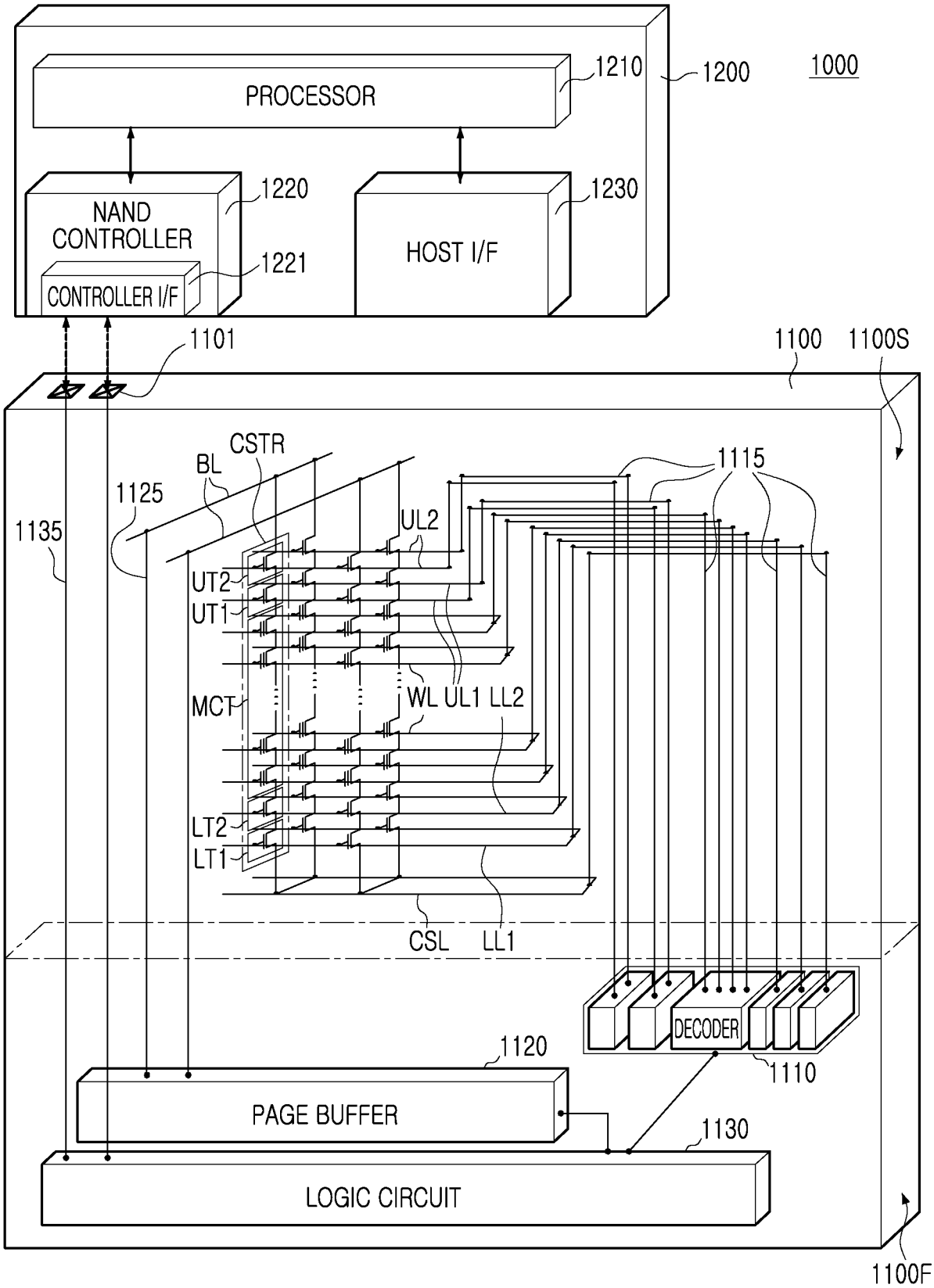

PROCESSOR
1210
1200
1000
NAND CONTROLLER
1220
CONTROLLER I/F
1221
HOST I/F
1230
1101
1100
1100S
CSTR
BL
1125
1135
1115
UL2
UT2
UT1
MCT
WL UL1 LL2
LT2
LT1
CSL
LL1
DECODER
1120
1110
PAGE BUFFER
1130
LOGIC CIRCUIT
1100F

FIG. 19

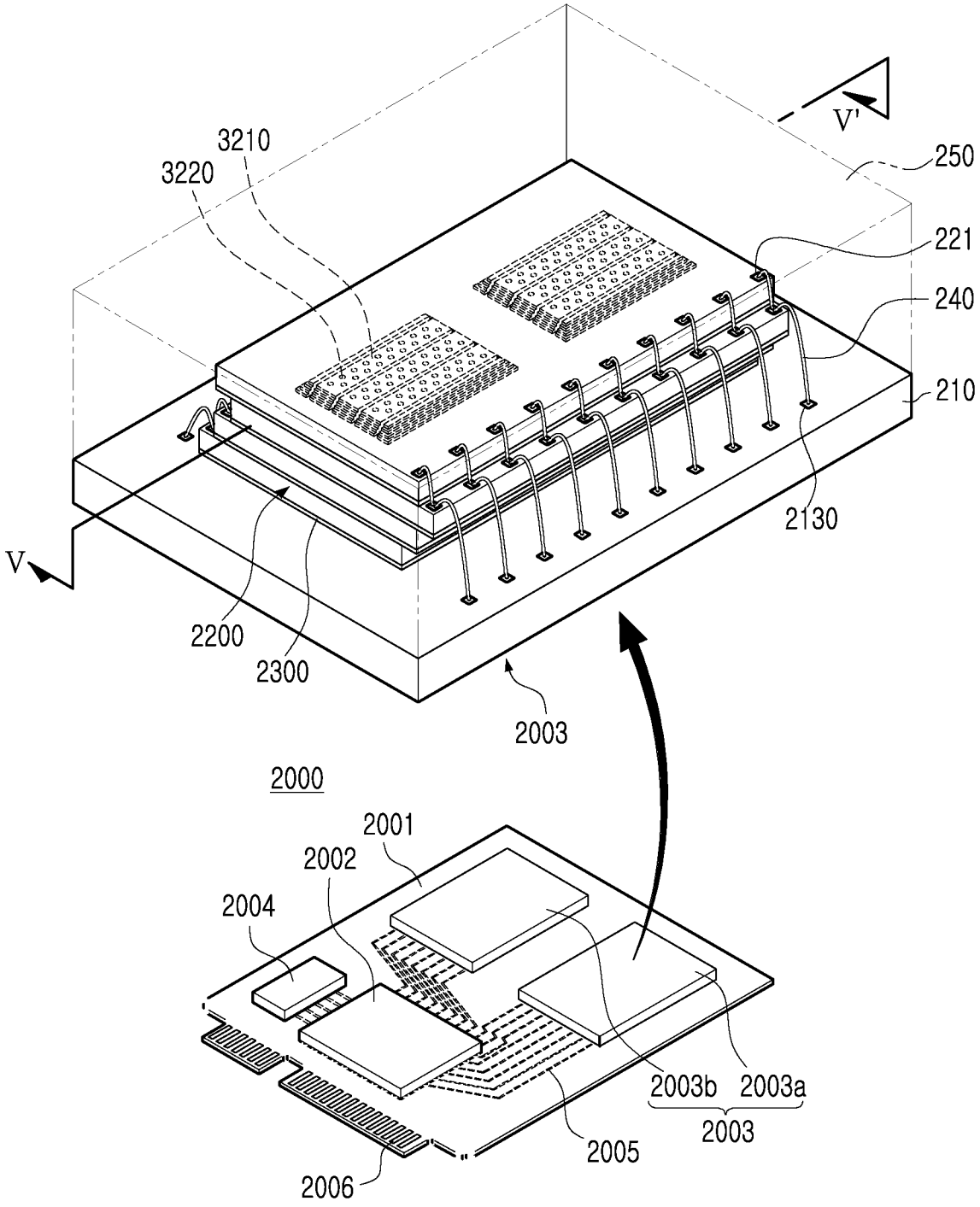
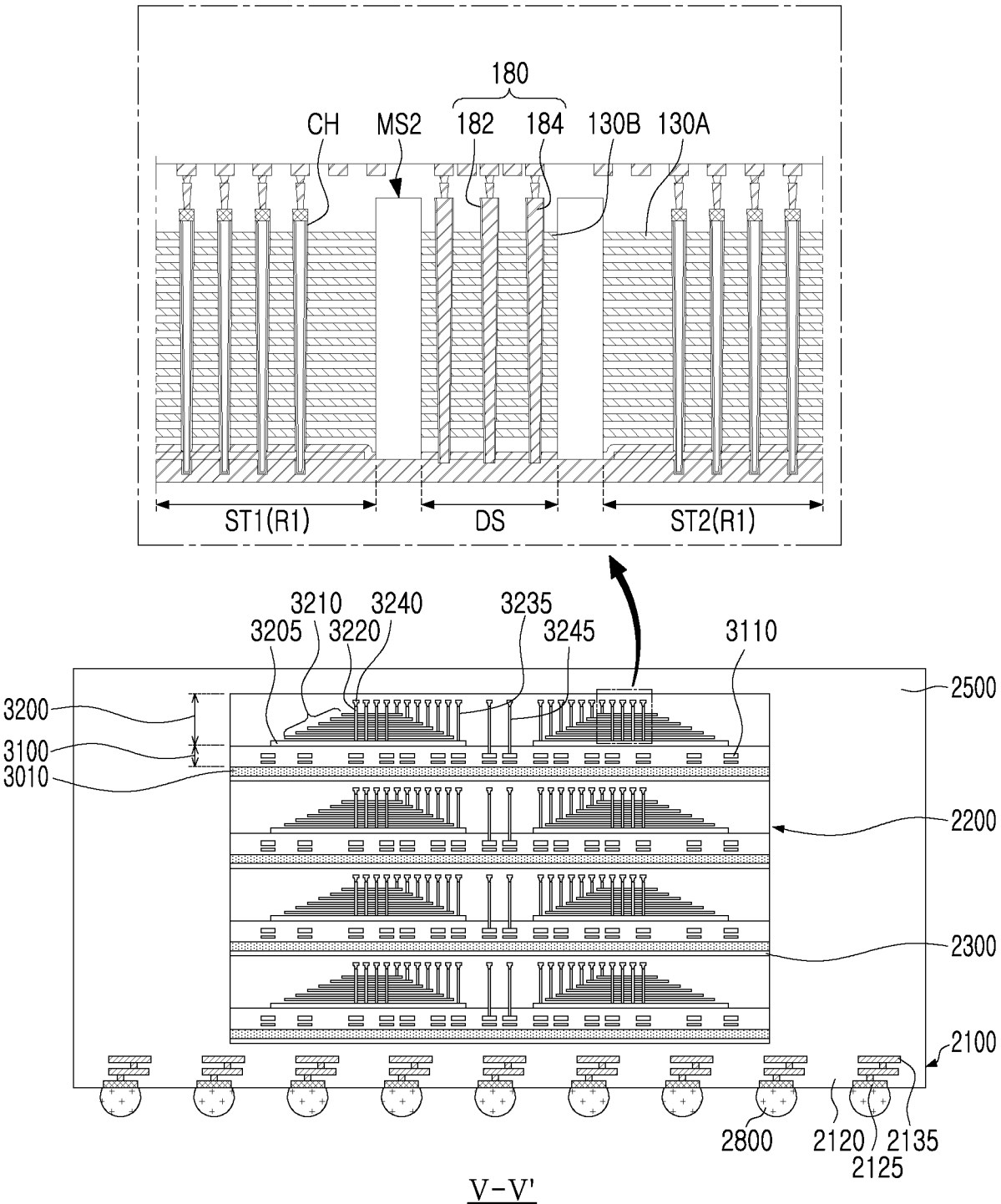

V'
3210
3220
250
221
240
210
2130
V
2200
2300
2003
2000
2001
2002
2004
2003b
2003a
2003
2005
2006

FIG. 20


180
CH
MS2
182
184
130B
130A
ST1(R1)
DS
ST2(R1)
3210
3240
3235
3205
3220
3245
3110
3200
3100
3010
2500
2200
2300
2100
2800
2120
2135
2125

V-V'

FIG. 21