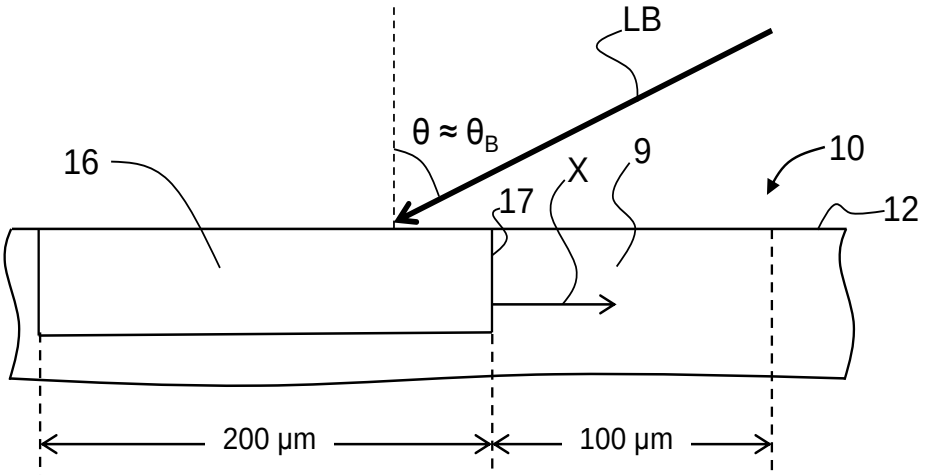
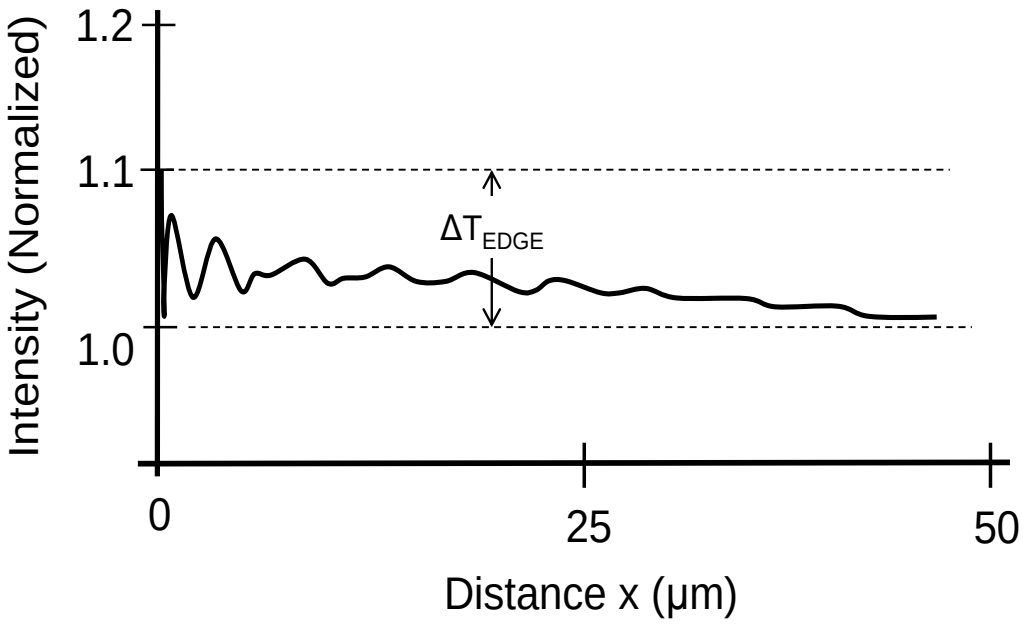


Prior Art

FIG. 1



Prior Art

FIG. 2

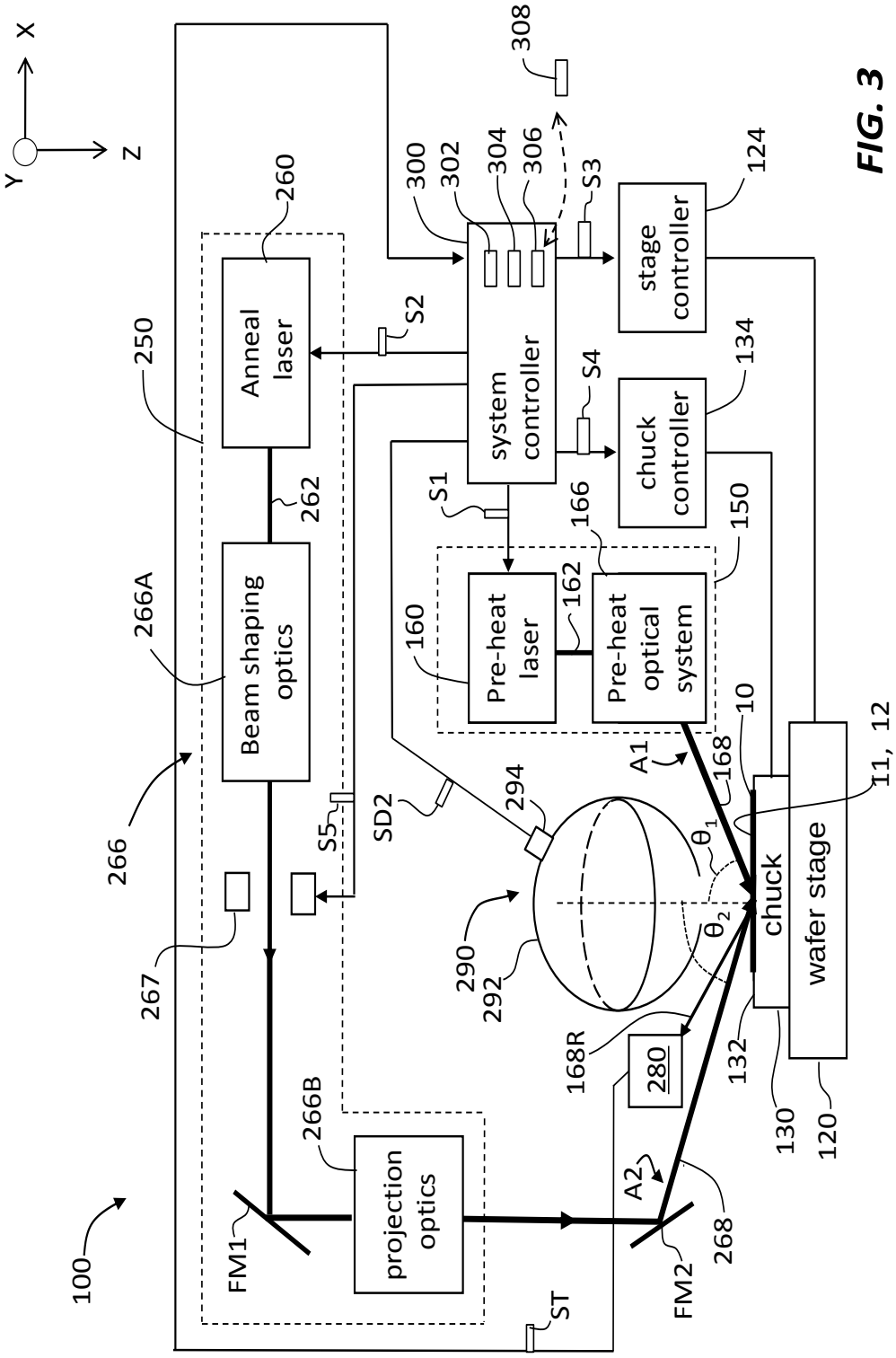

X
Y
Z
100
250
260
Anneal laser
262
266
266A
Beam shaping optics
267
266B
projection optics
FM1
FM2
ST
S1
S2
S3
S4
S5
300
302
304
306
308
system controller
stage controller
chuck controller
124
134
150
166
162
160
Pre-heat laser
Pre-heat optical system
SD2
294
290
292
A1
A2
168
168R
10
11, 12
chuck
wafer stage
130
132
120
268
280
θ1
θ2

FIG. 3

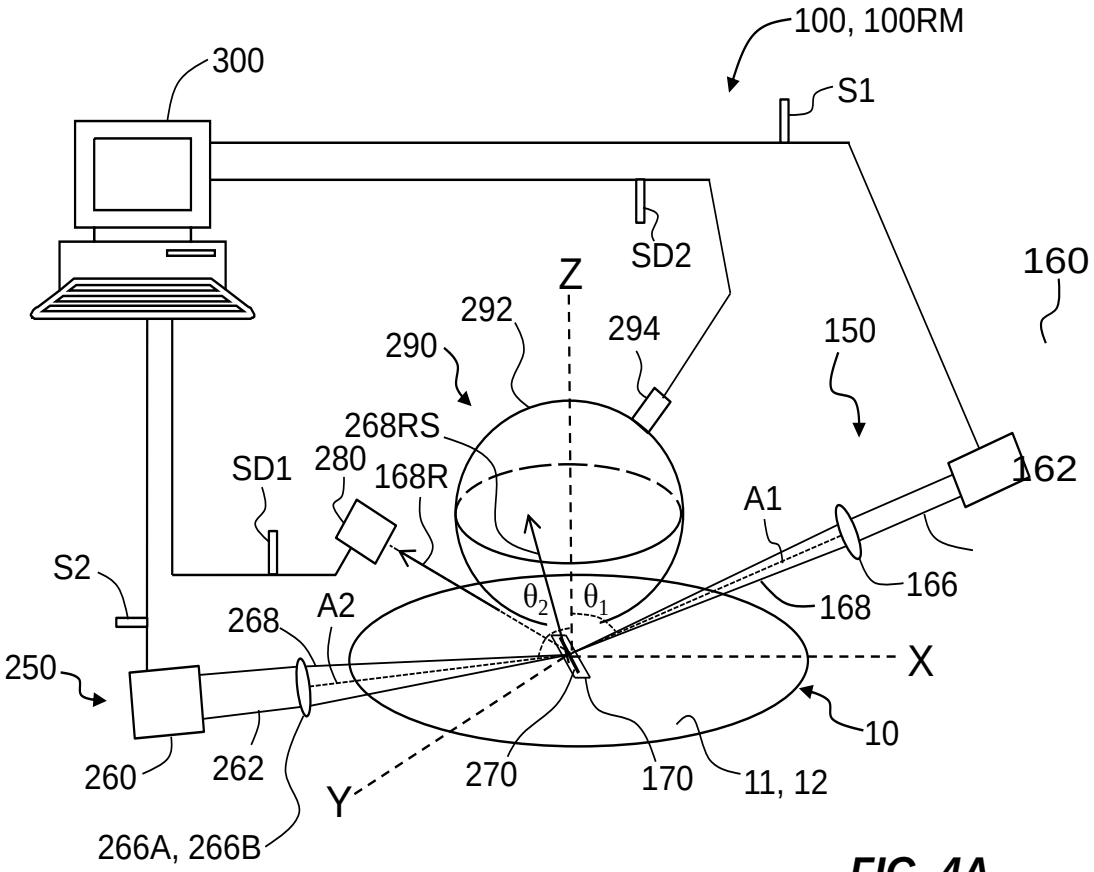

100, 100RM
300
S1
SD2
160
Z
292
290
294
150
268RS
SD1
280
168R
162
A1
S2
166
168
θ_2
θ_1
268
A2
X
250
10
260
262
270
170
11, 12
Y
266A, 266B

FIG. 4A

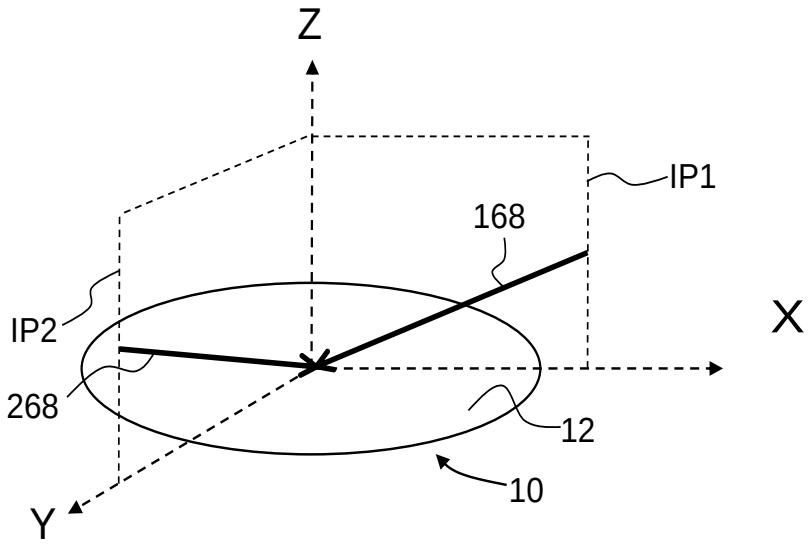

Z
IP1
168
X
IP2
268
12
10
Y

FIG. 4B

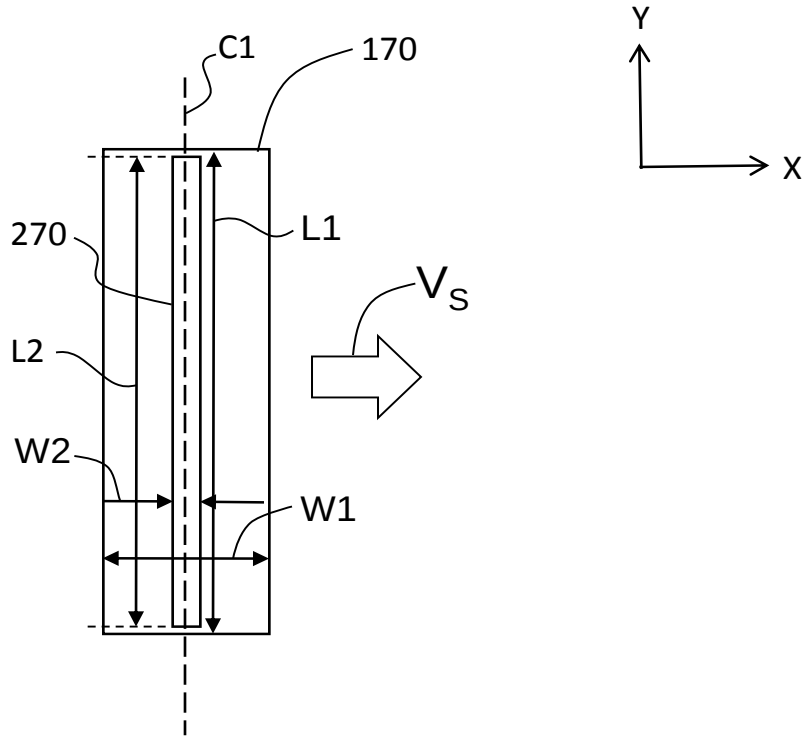


FIG. 5A

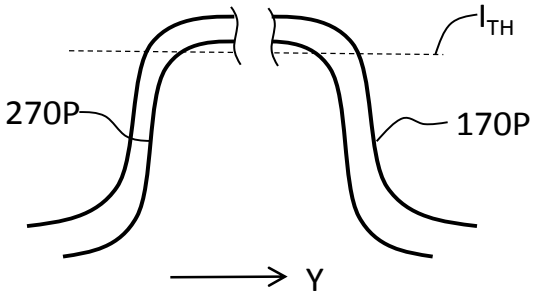


FIG. 5B

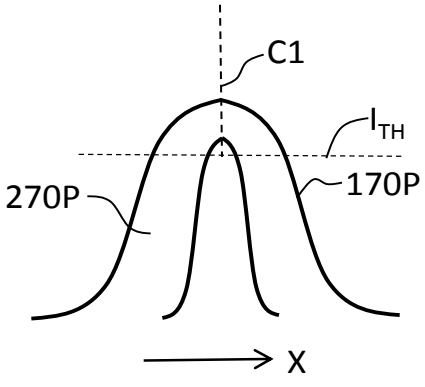


FIG. 5C

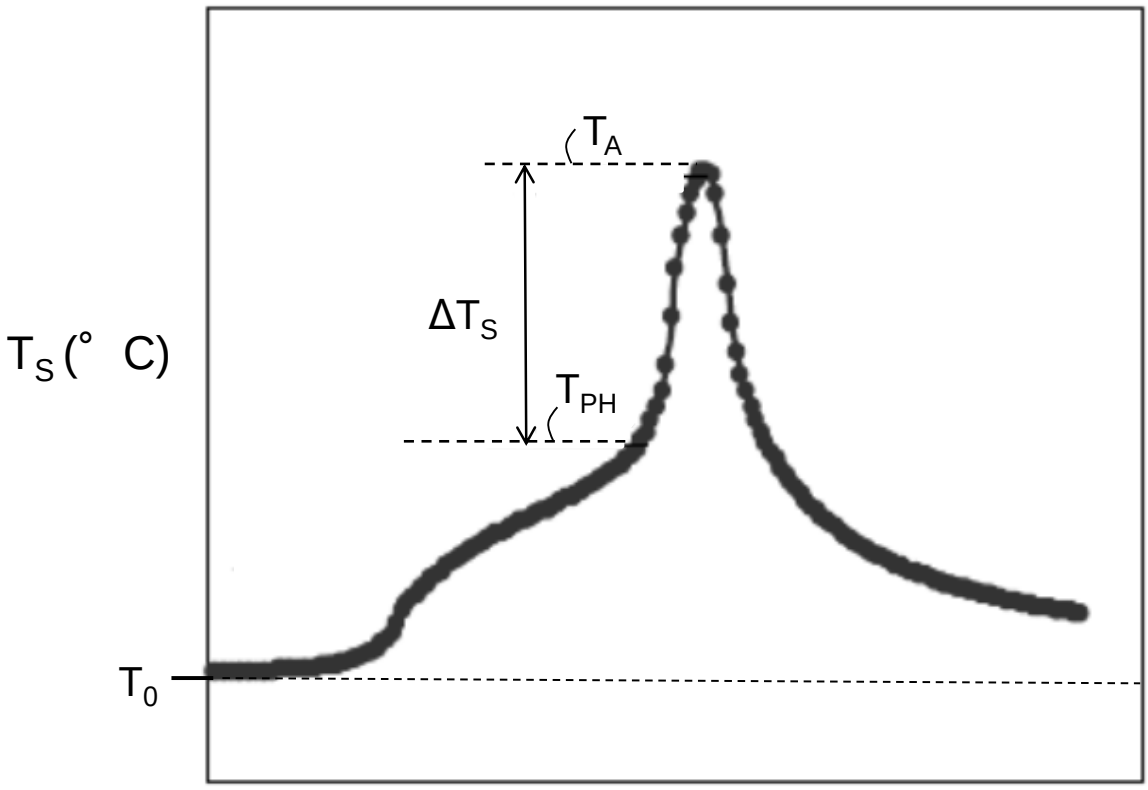


FIG. 5D

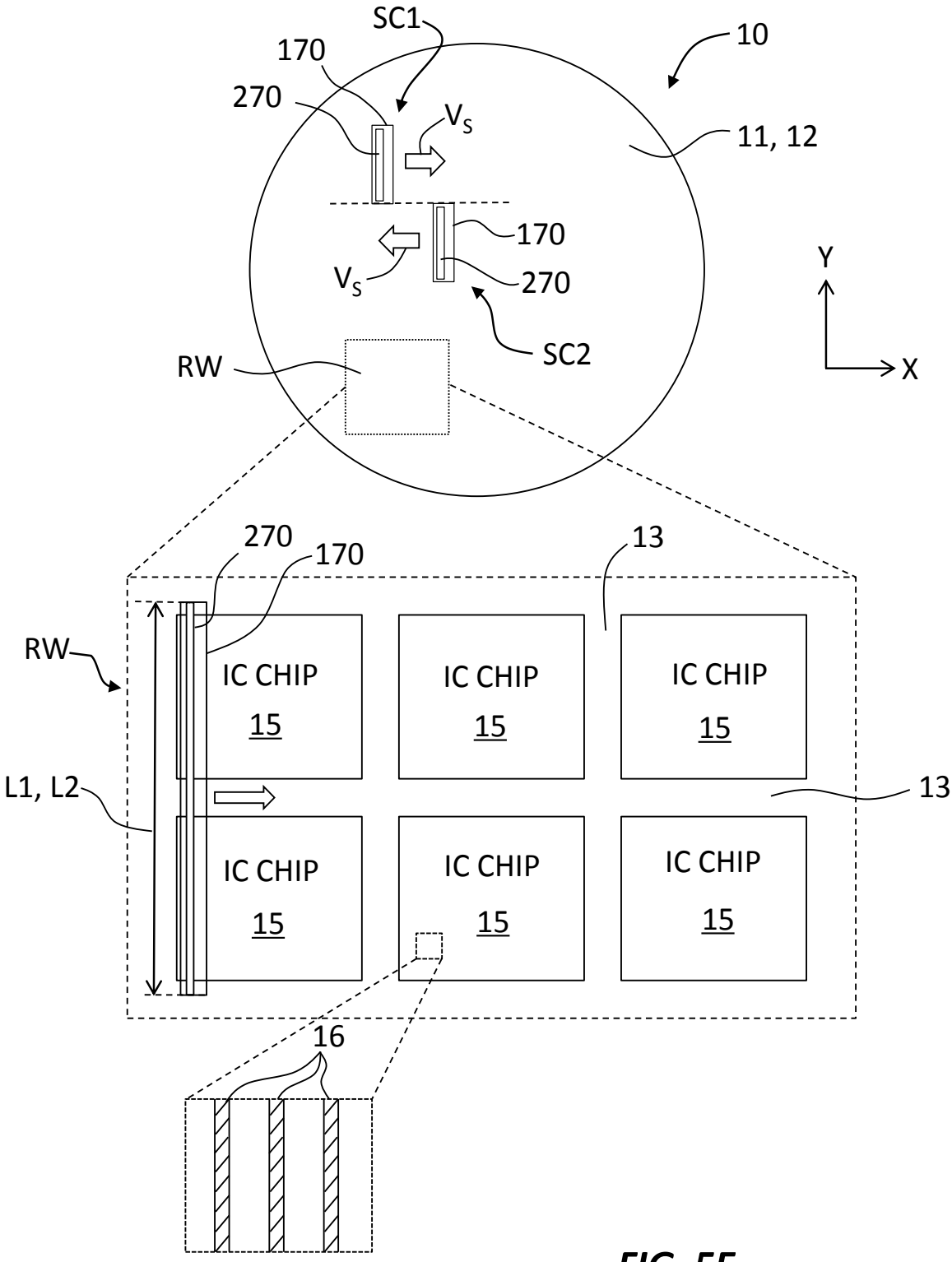

SC1
10
170
270
V_S
11, 12
170
V_S
270
Y
SC2
X
RW
270
170
13
RW
IC CHIP
15
IC CHIP
15
IC CHIP
15
L1, L2
13
IC CHIP
15
IC CHIP
15
IC CHIP
15
16

FIG. 5E

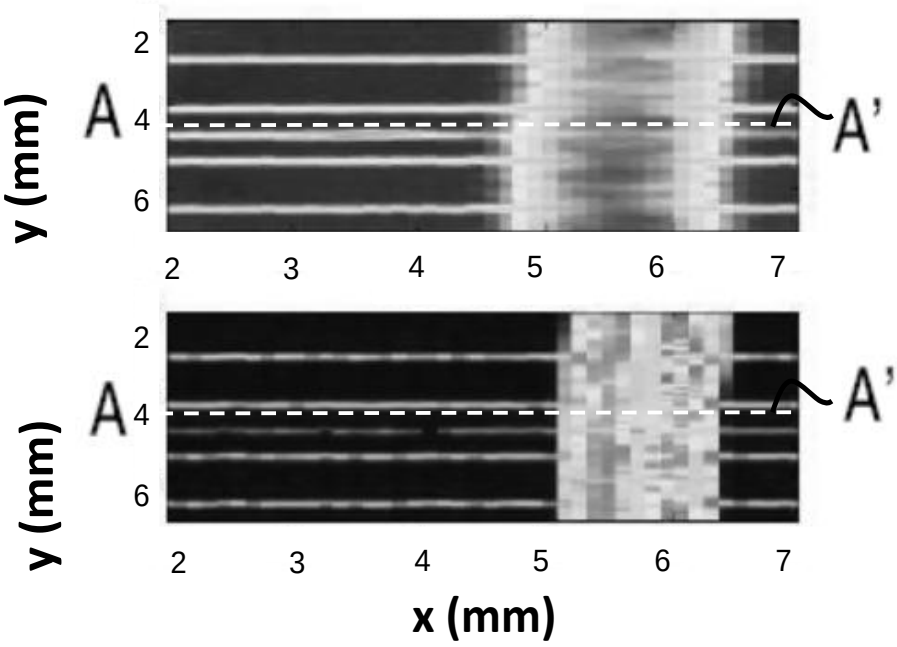


FIG. 6A

FIG. 6B

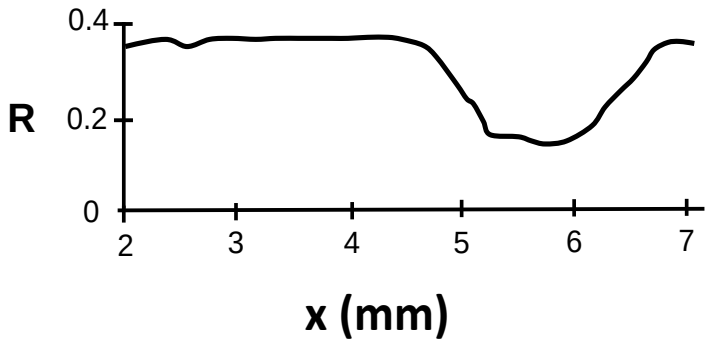


FIG. 7A

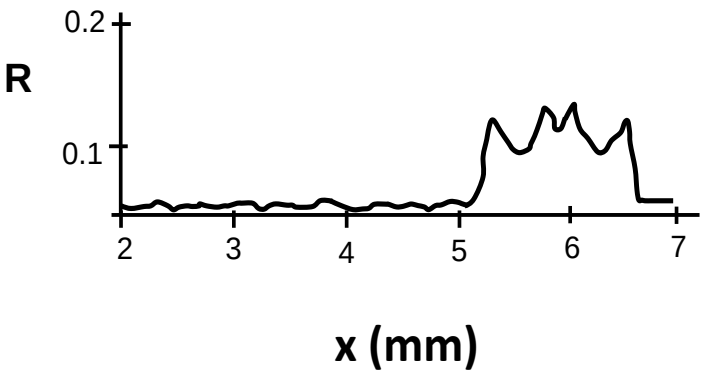


FIG. 7B

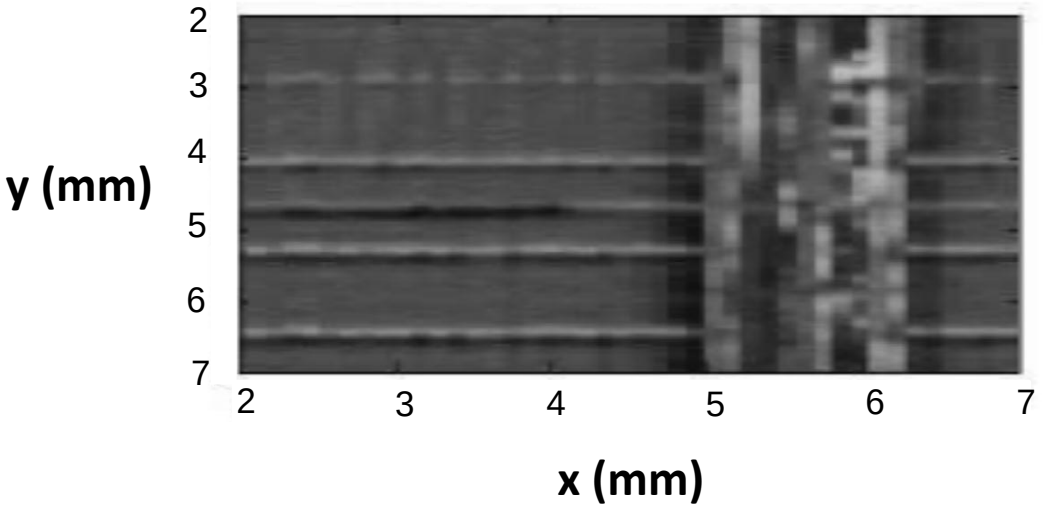


FIG. 8B

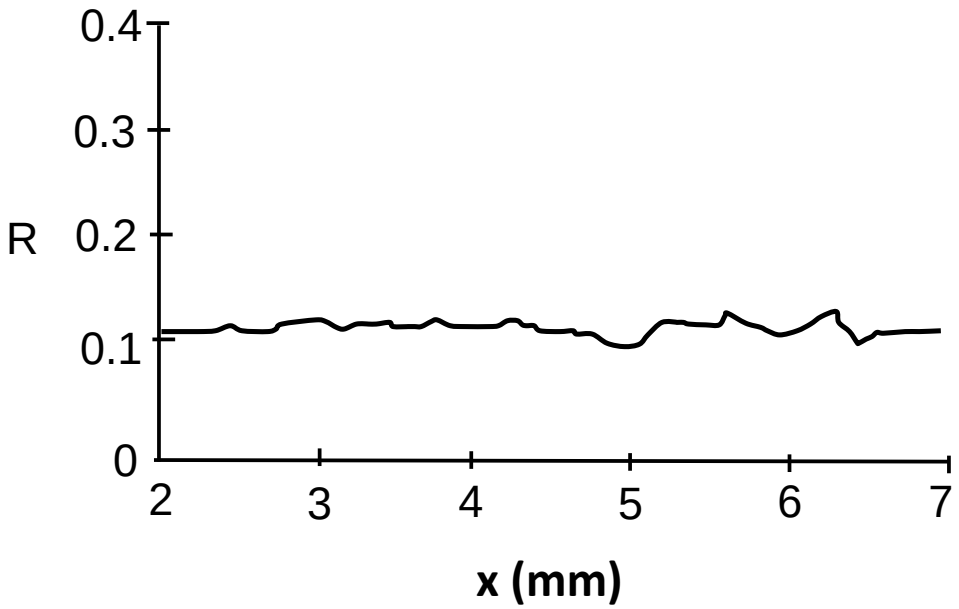


FIG. 8A

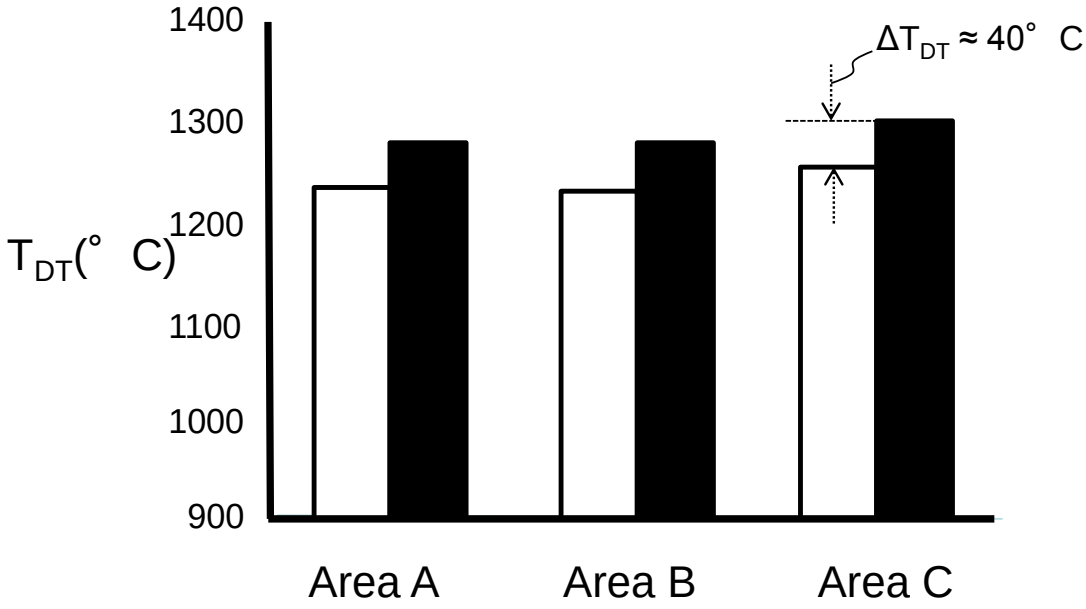

1400
1300
1200
1100
1000
900
T_{DT}(° C)
$\Delta T_{DT} \approx 40$° C
Area A
Area B
Area C

FIG. 9

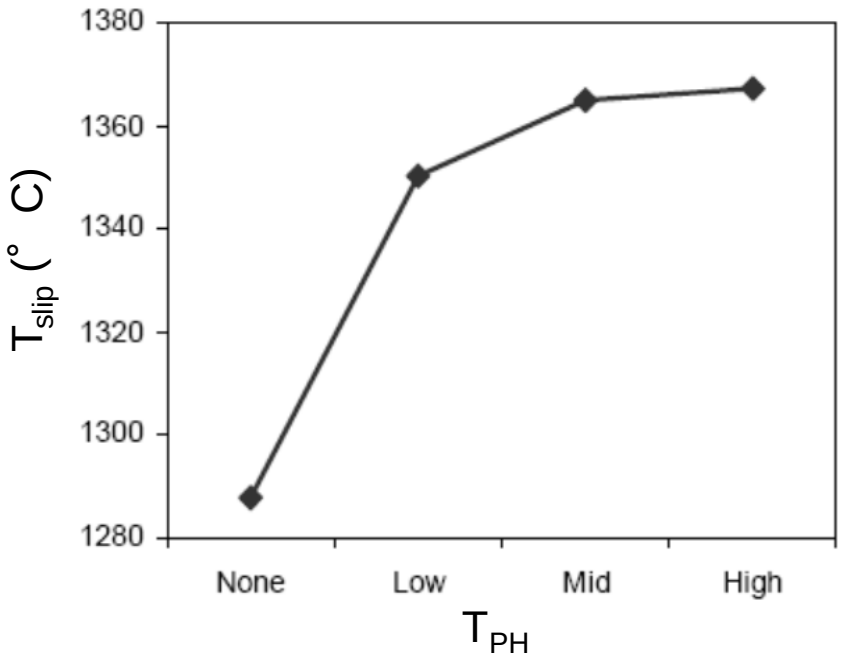

1380
1360
1340
1320
1300
1280
T_{slip} (° C)
None
Low
Mid
High
T_{PH}

FIG. 10