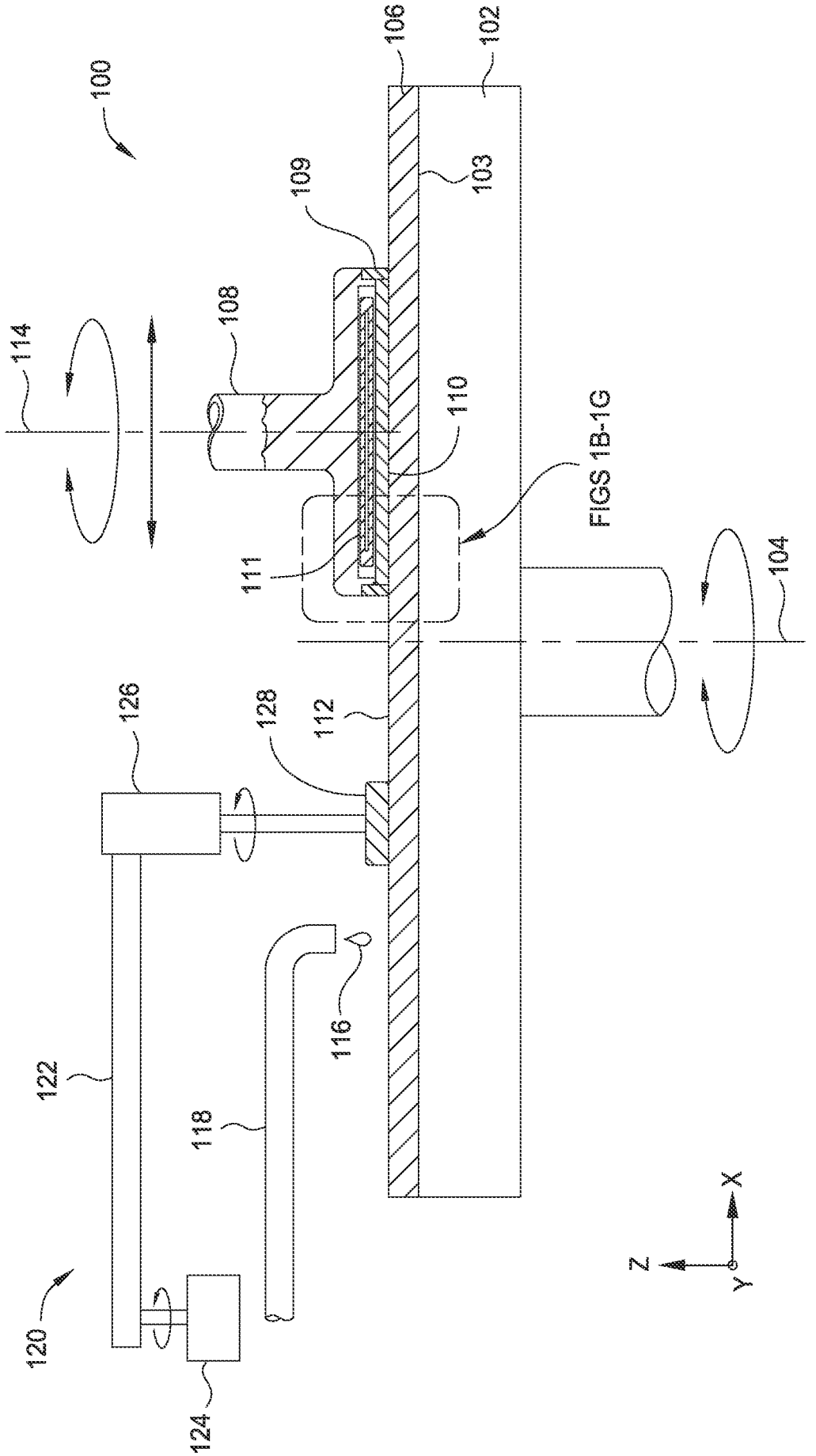
100
102
103
104
106
108
109
110
111
112
114
116
118
120
122
124
126
128
FIGS 1B-1G
X
Y
Z

FIG. 1A

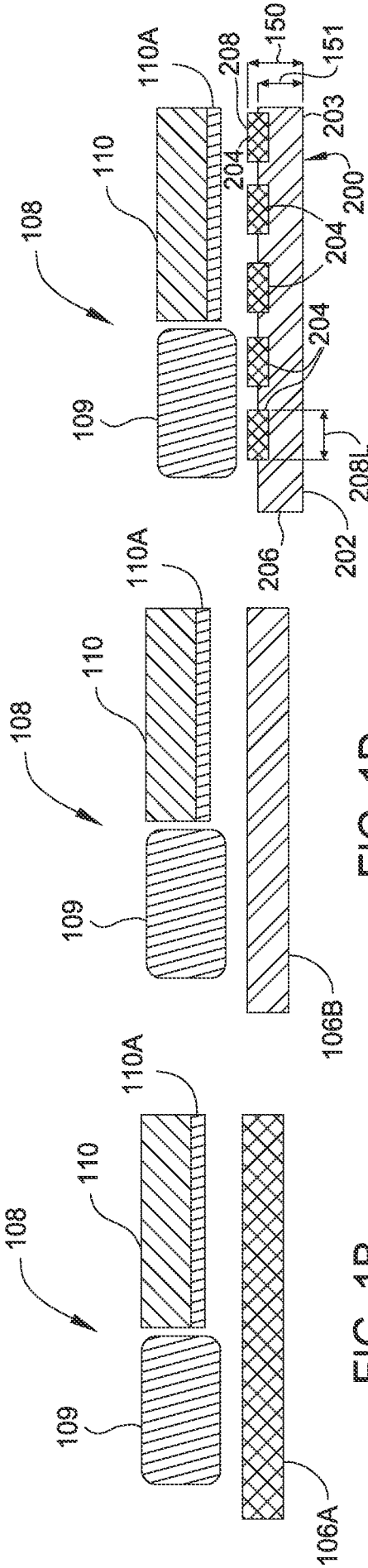

FIG. 1B
(PRIOR ART)

FIG. 1D
(PRIOR ART)

FIG. 1F

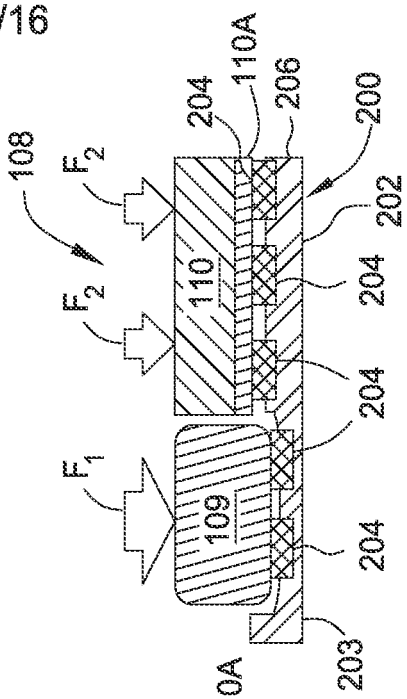

FIG. 1G

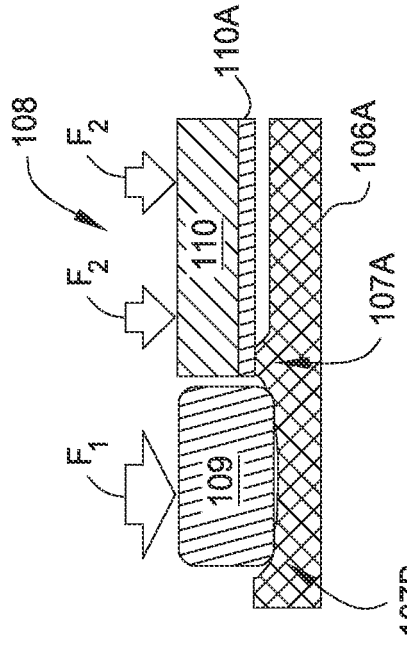

FIG. 1C
(PRIOR ART)

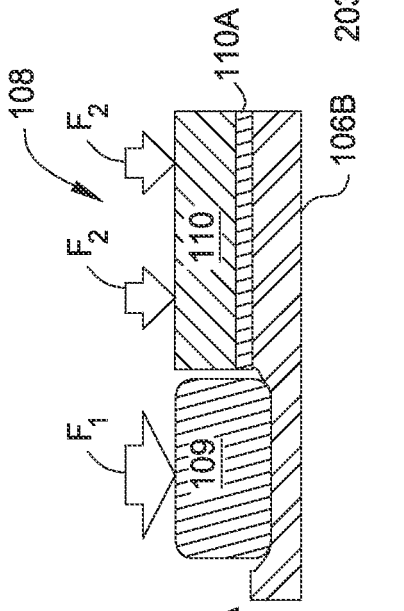

FIG. 1E
(PRIOR ART)

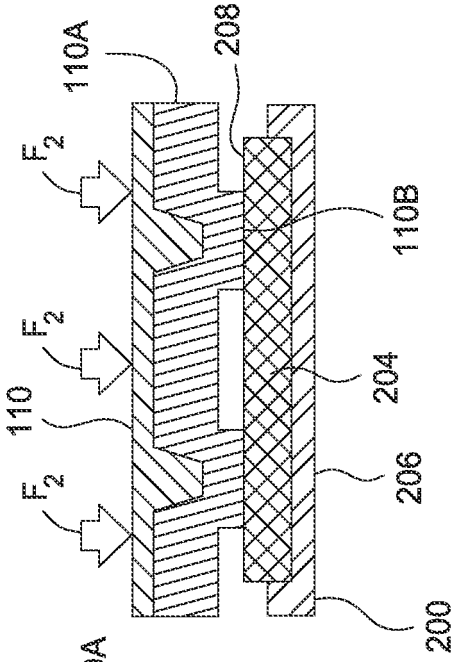

FIG. 1J

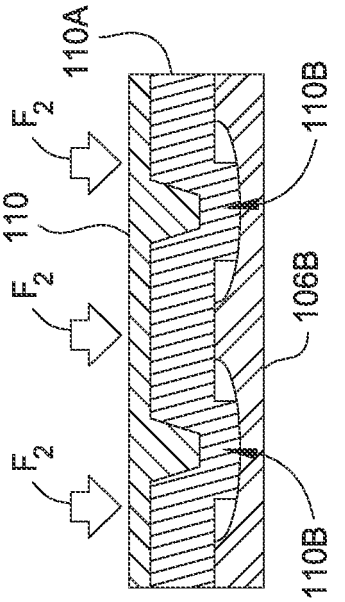

FIG. 1 I
(PRIOR ART)

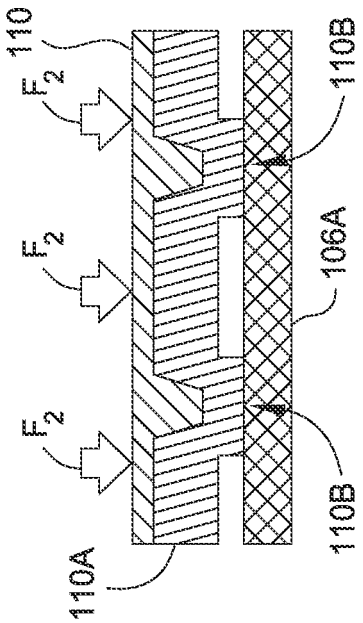

FIG. 1H
(PRIOR ART)

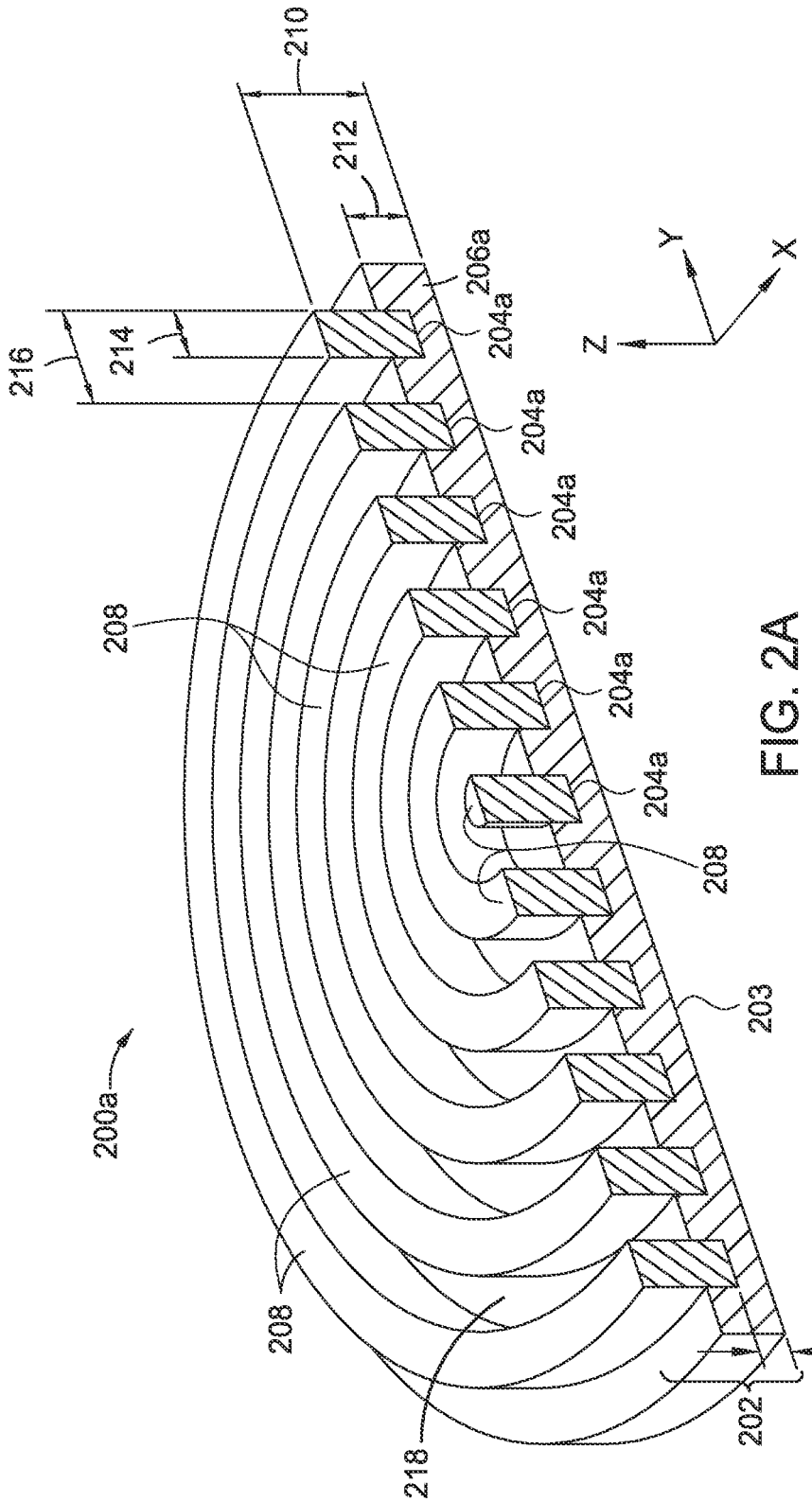

FIG. 2A

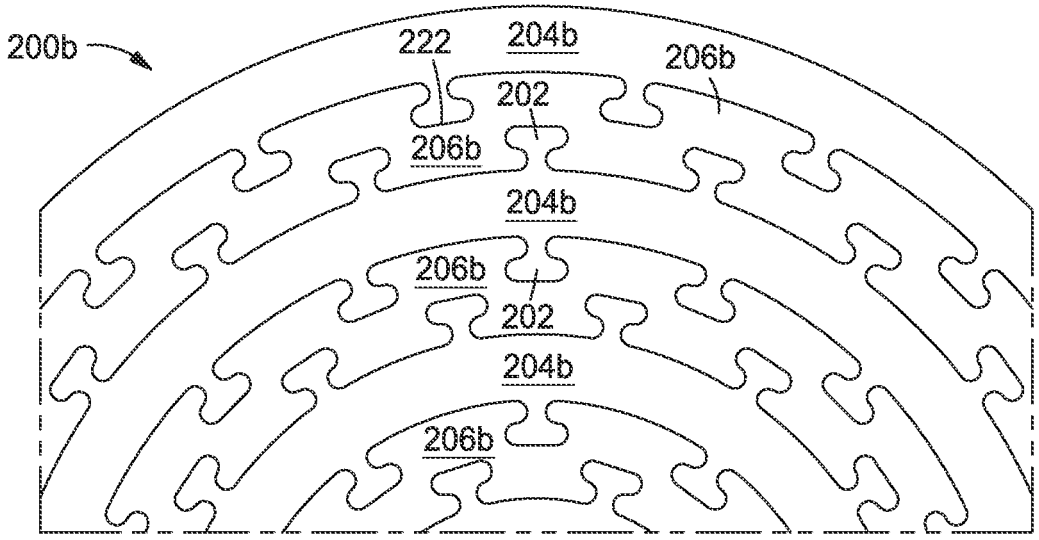
200b
222
204b
206b
202
206b
204b
206b
202
204b
206b

FIG. 2B

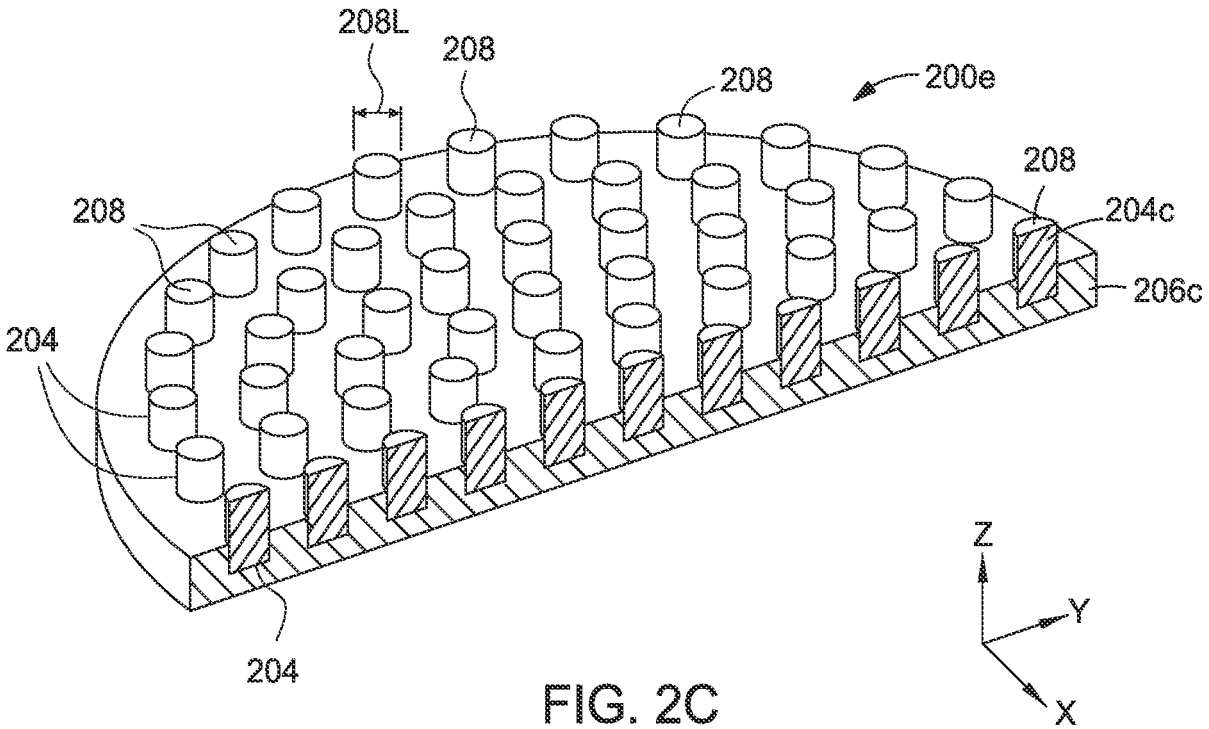
208L
208
208
200e
208
208
204c
206c
204
204
Z
Y
X

FIG. 2C

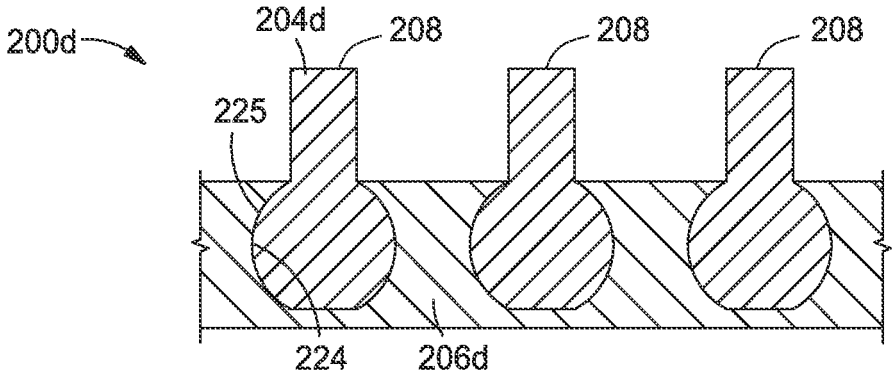
200d
204d
208
208
208
225
224
206d

FIG. 2D

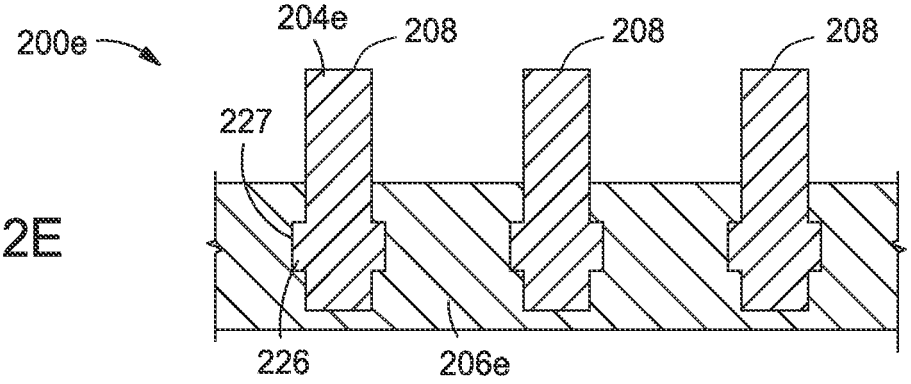
200e
204e
208
208
208
227
226
206e

FIG. 2E

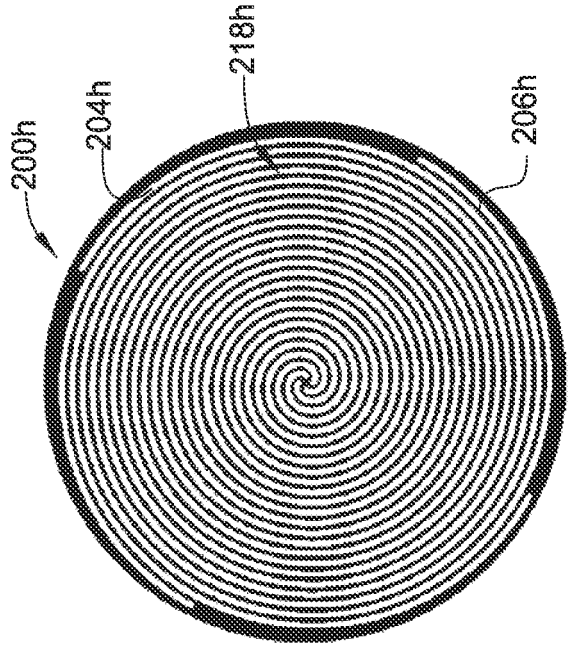

FIG. 2H

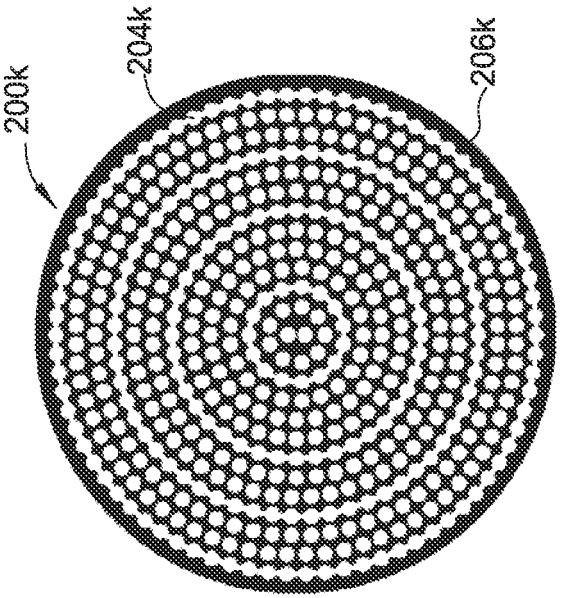

FIG. 2K

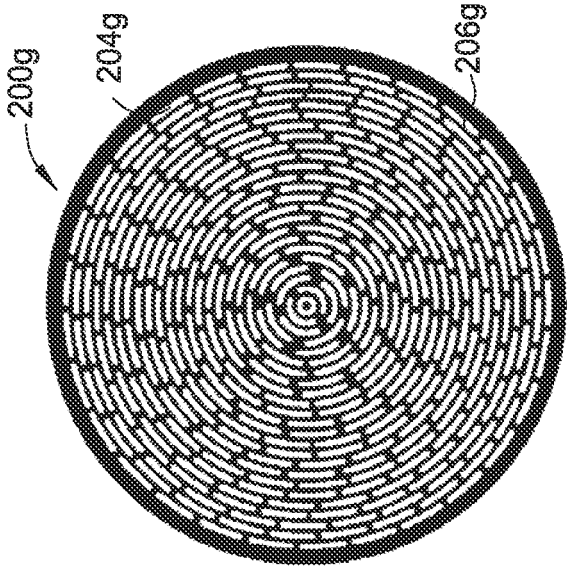

FIG. 2G

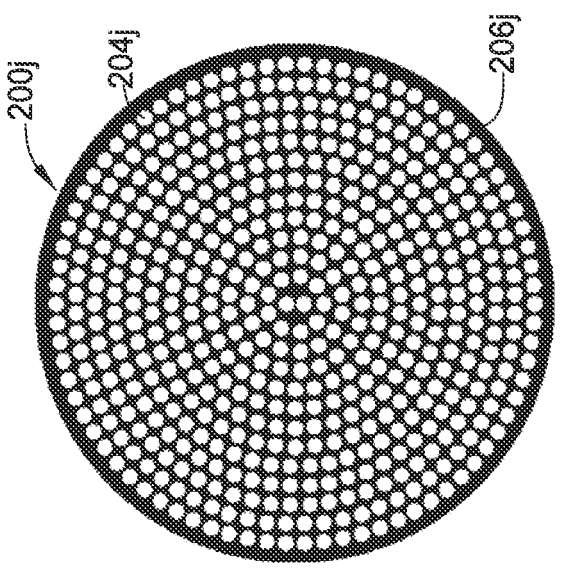

FIG. 2J

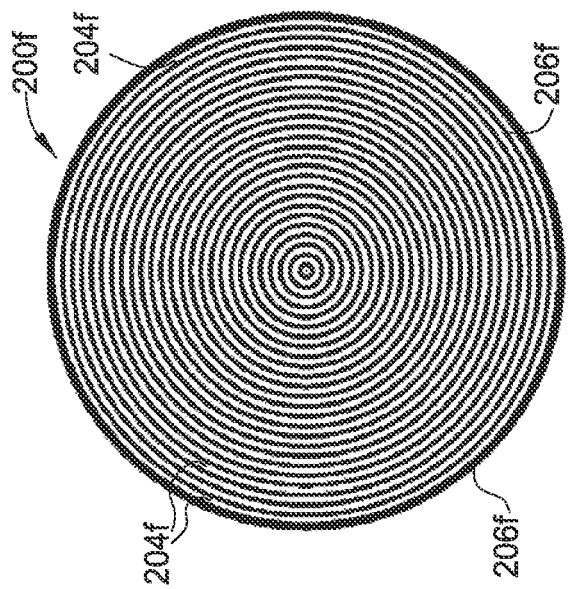

FIG. 2F

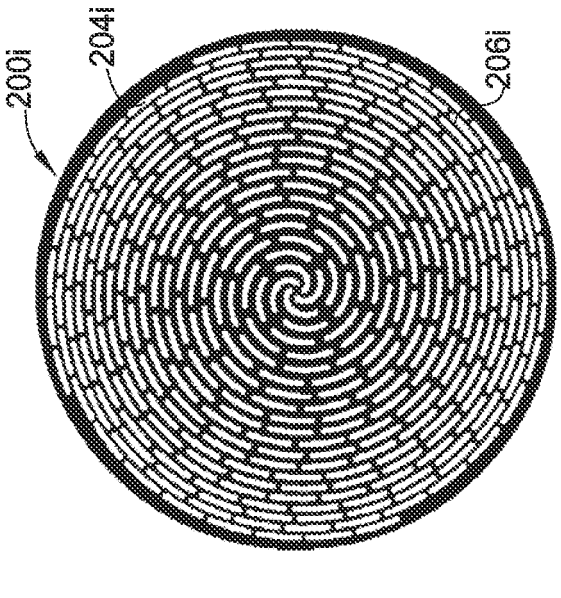

FIG. 2I

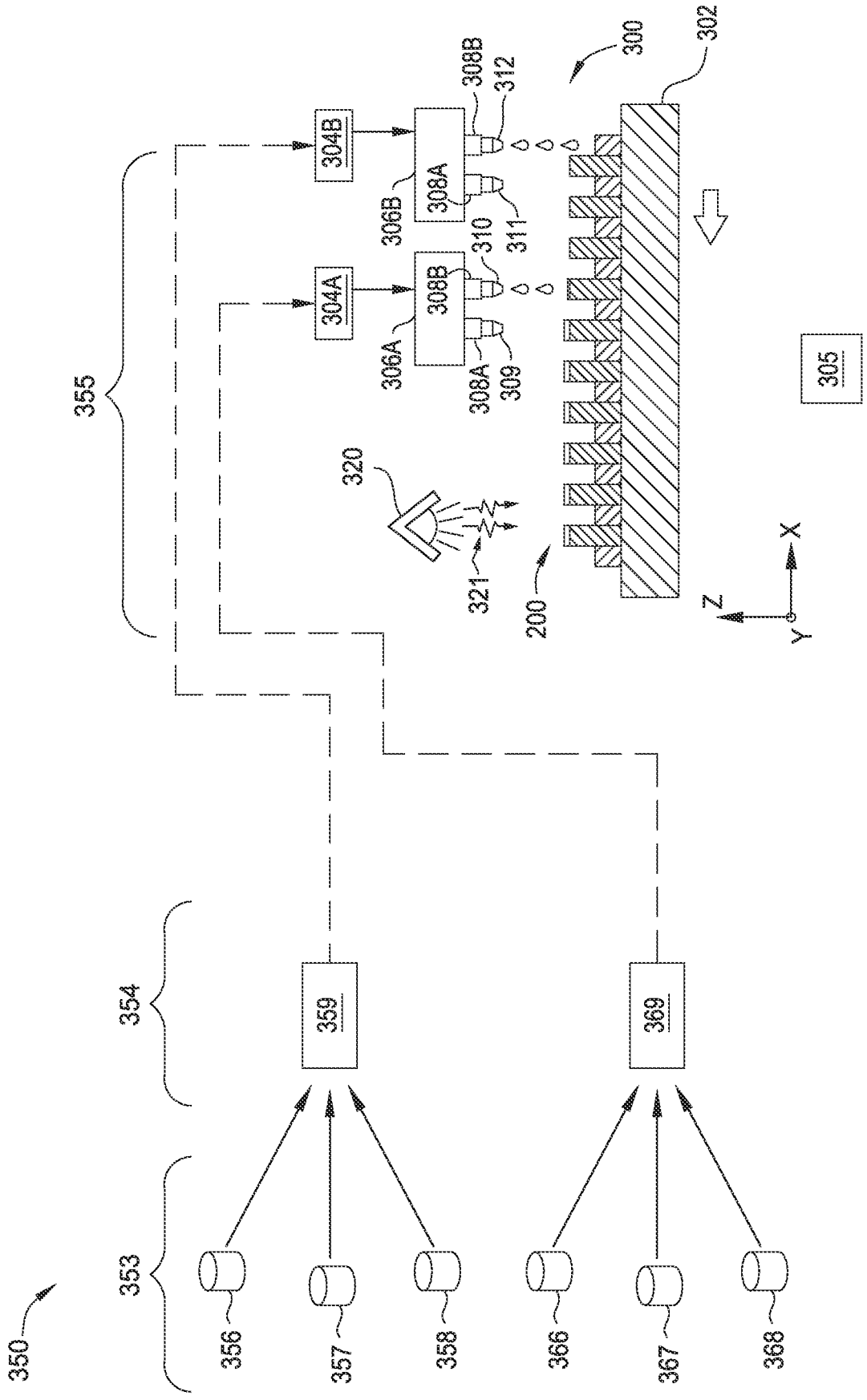
350
353
354
355
356
357
358
359
366
367
368
369
200
300
302
304A
304B
305
306A
306B
308A
308B
309
310
311
312
320
321
X
Y
Z

FIG. 3A

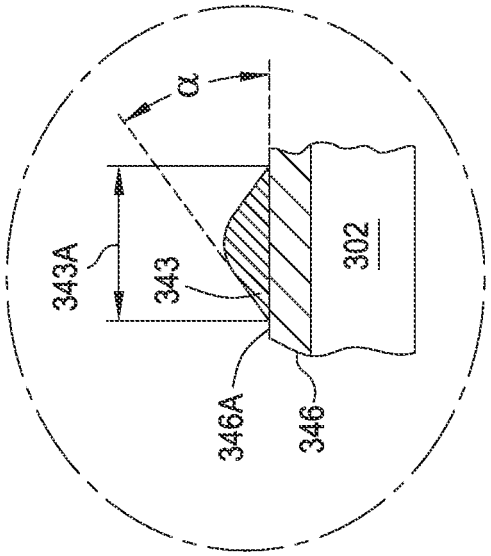
343A
343
α
302
346A
346

FIG. 3C

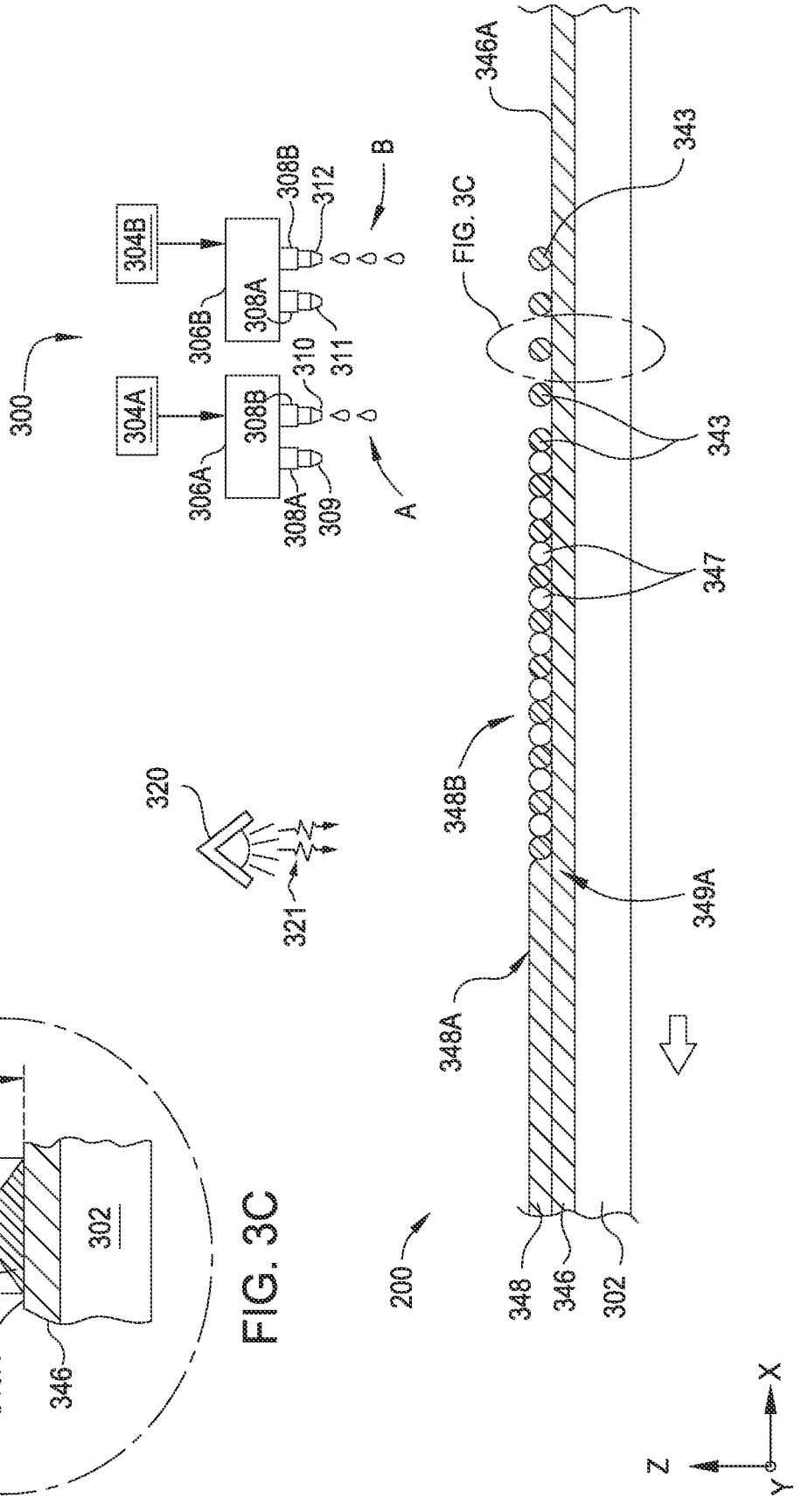
300
304A
304B
306A
306B
308A
308B
309
310
311
312
A
B
320
321
FIG. 3C
346A
343
343
347
348B
349A
348A
200
348
346
302
X
Y
Z

FIG. 3B

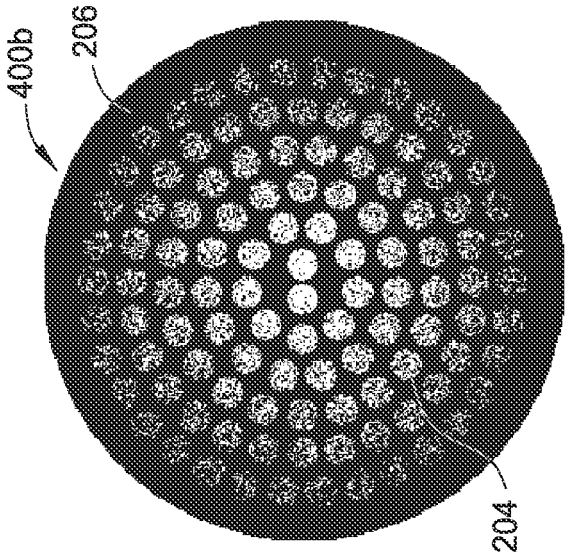

FIG. 4B

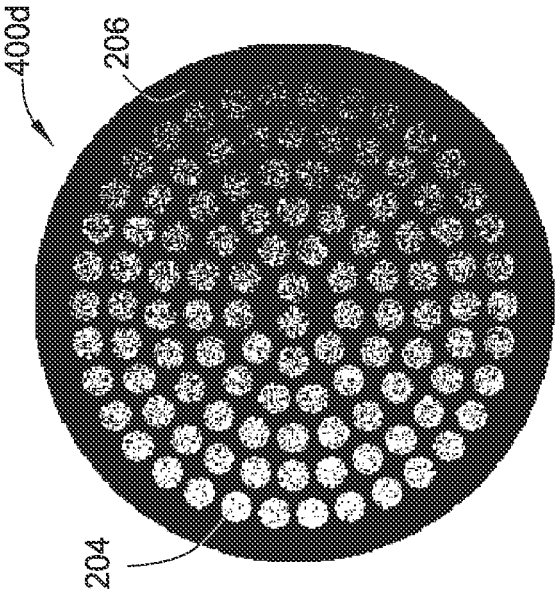

FIG. 4D

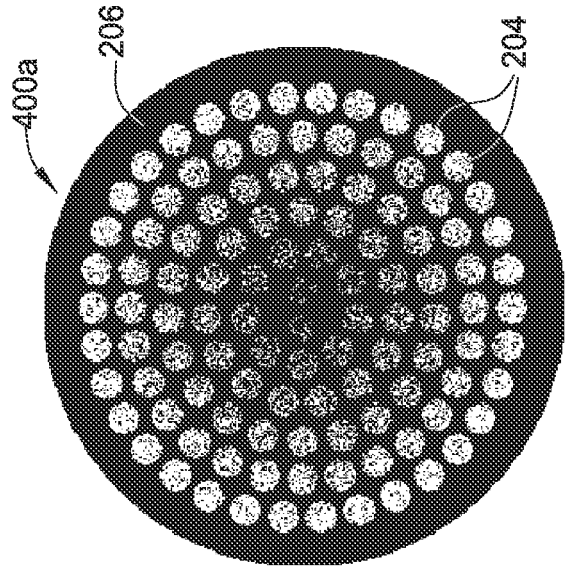

FIG. 4A

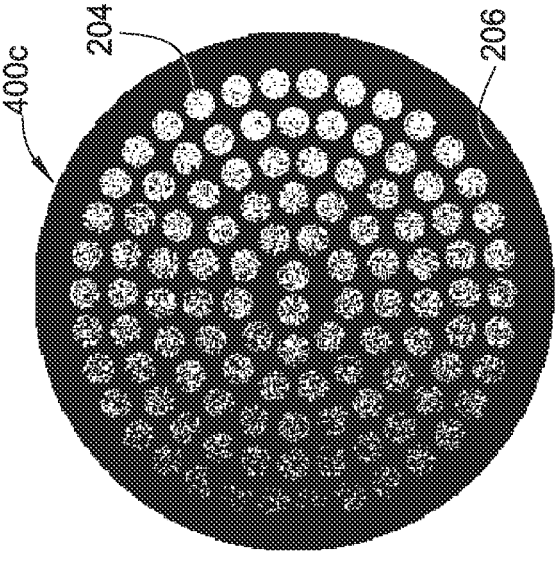

FIG. 4C

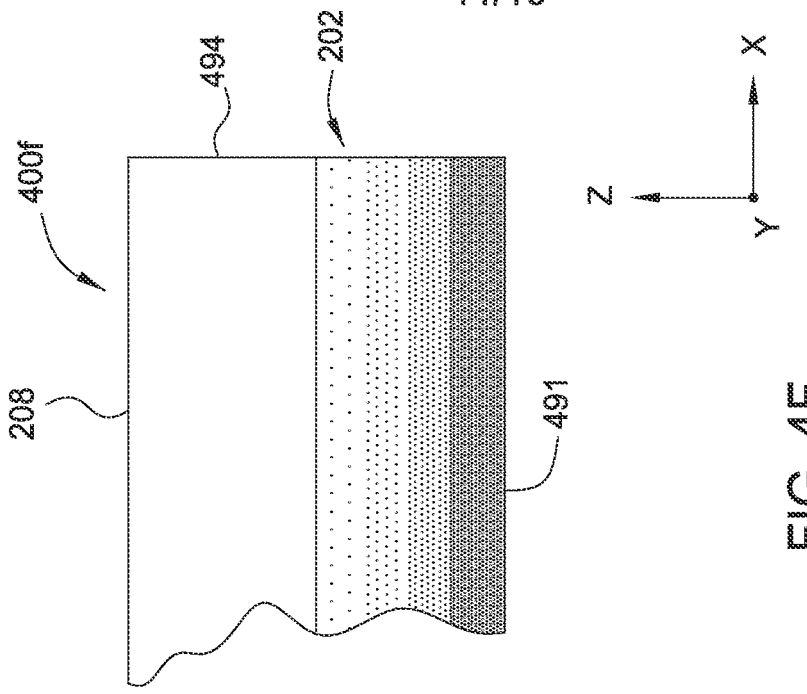

FIG. 4F

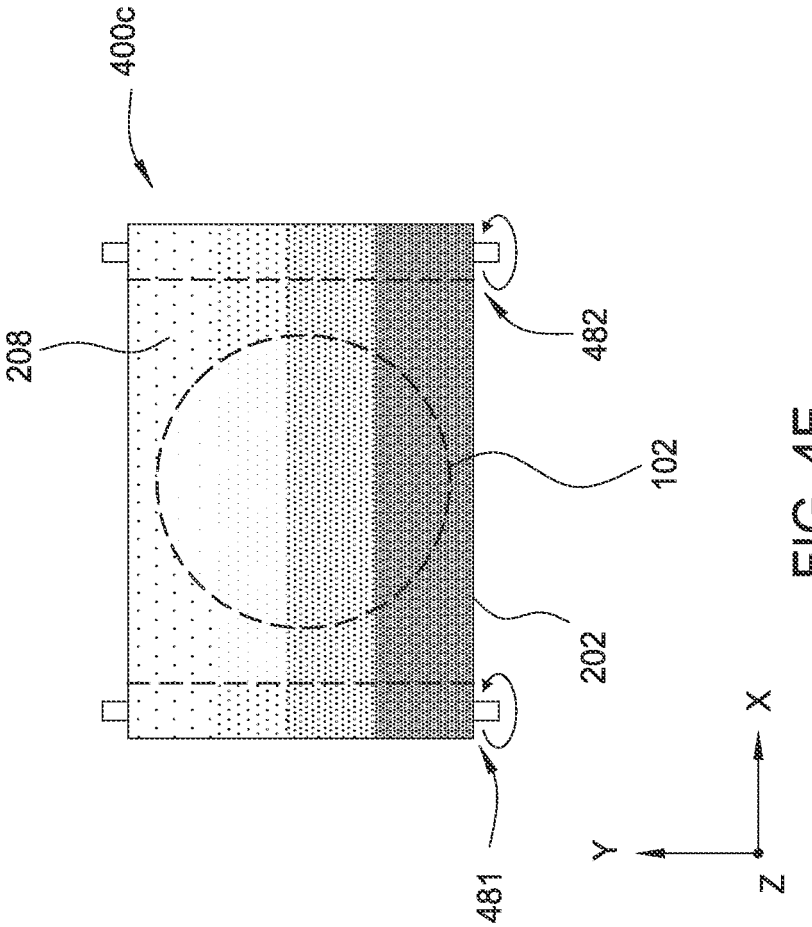

FIG. 4E

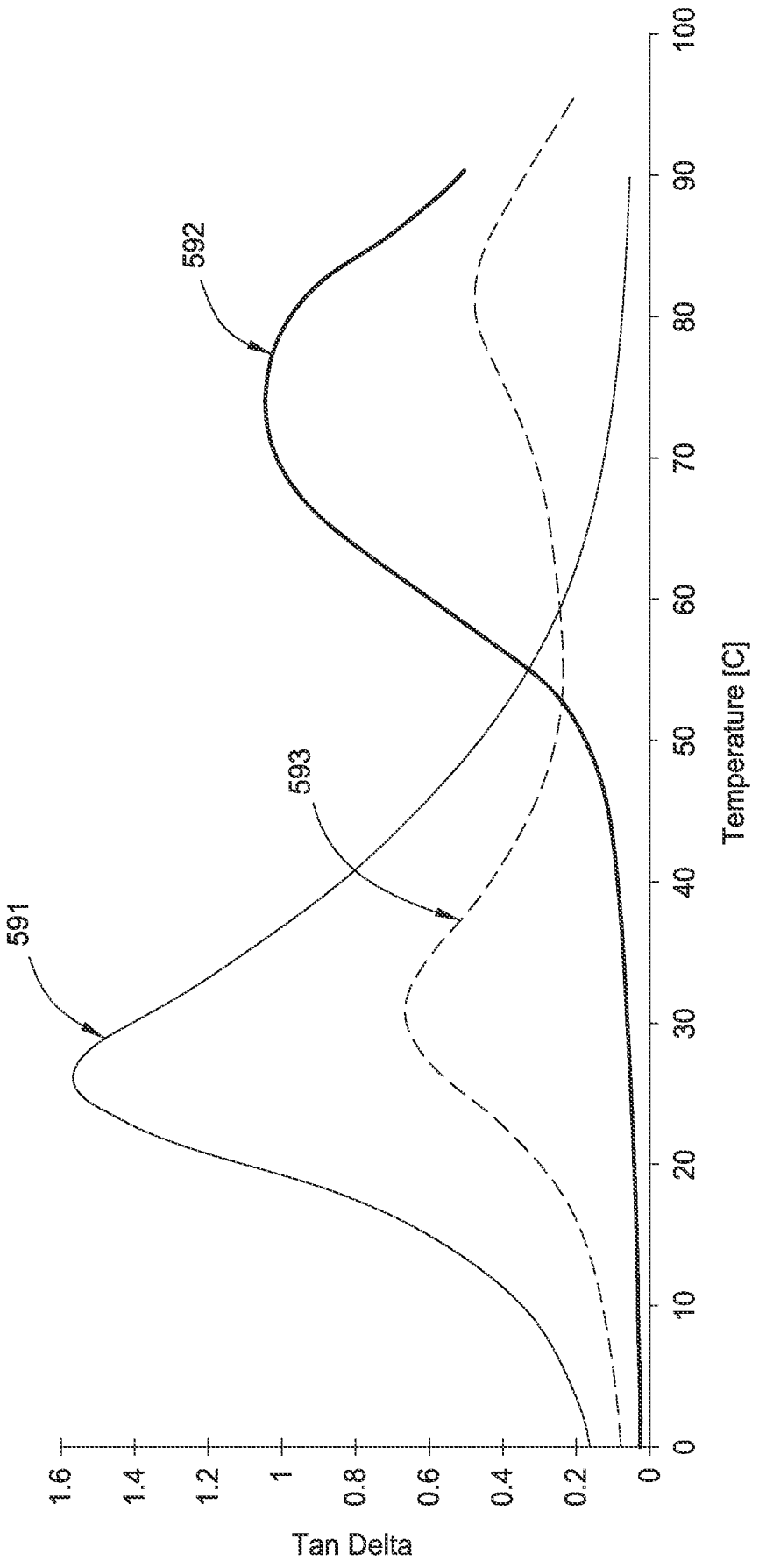
591
592
593
Tan Delta
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
10
20
30
40
50
60
70
80
90
100
Temperature [C]

FIG. 5A

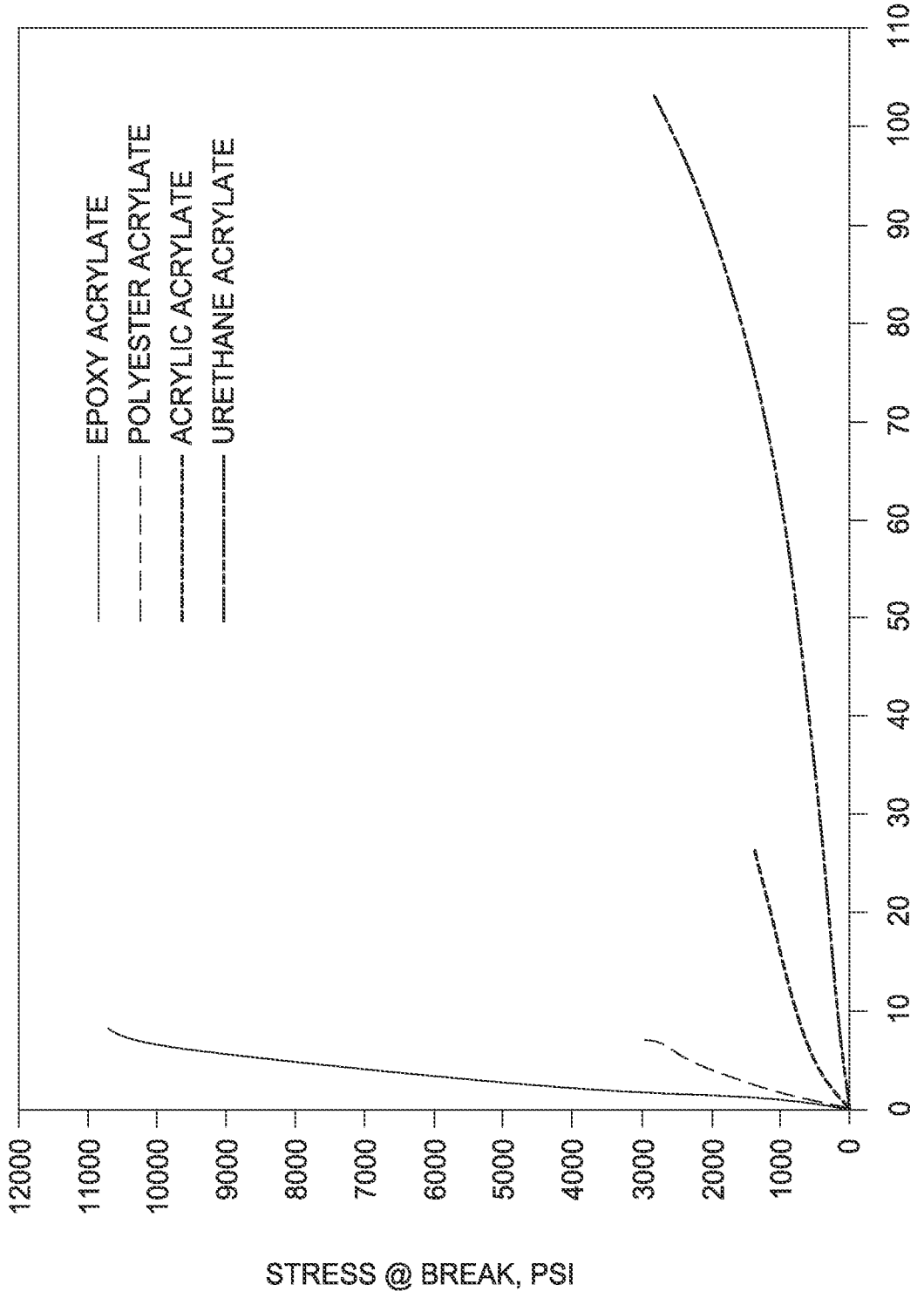
EPOXY ACRYLATE
POLYESTER ACRYLATE
ACRYLIC ACRYLATE
URETHANE ACRYLATE
STRESS @ BREAK, PSI
12000
11000
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
% STRAIN @ BREAK
0
10
20
30
40
50
60
70
80
90
100
110

FIG. 5B

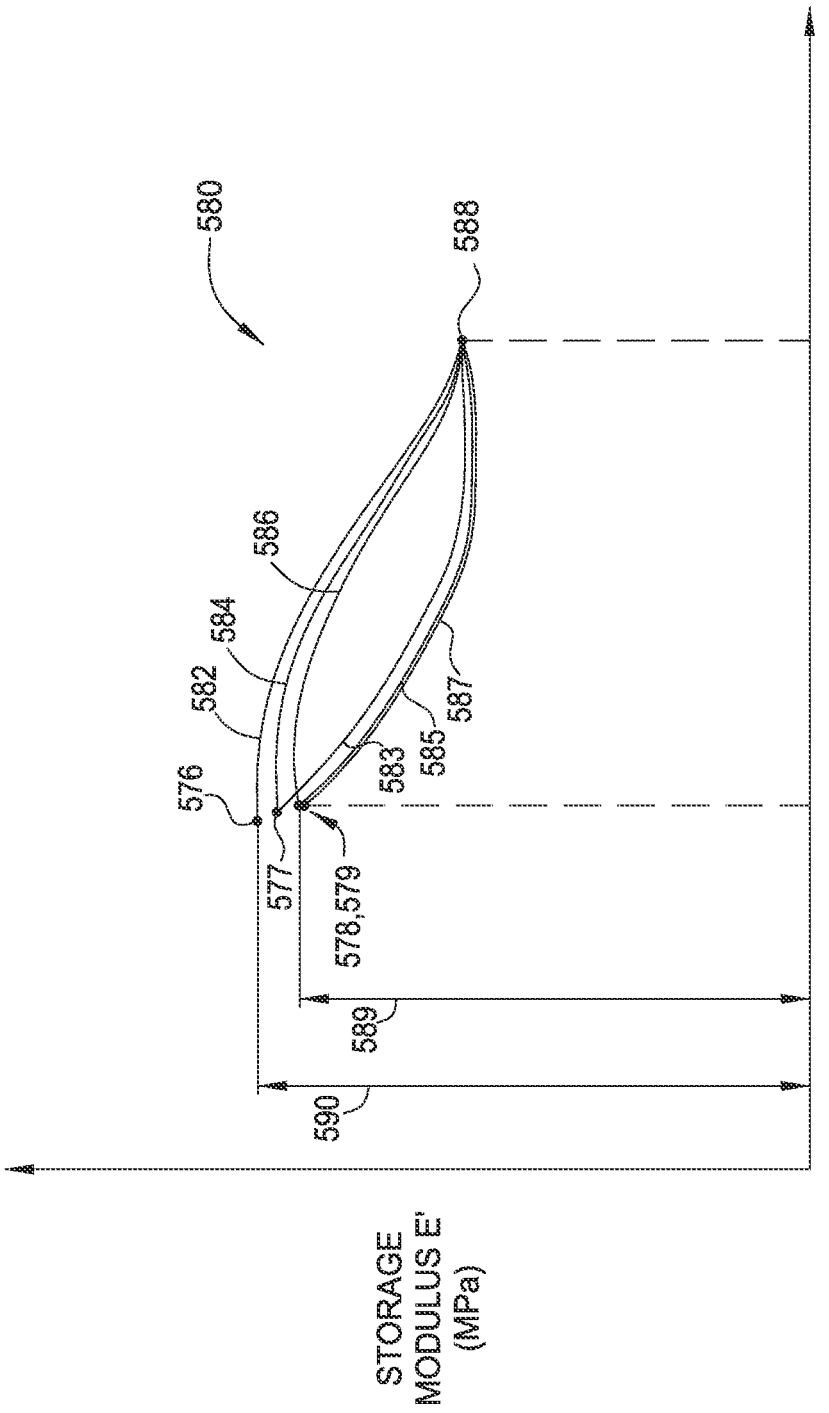
580
588
586
584
582
576
577
578,579
587
585
583
589
590
90°C
30°C
TEMPERATURE (°C)
STORAGE MODULUS E' (MPa)

FIG. 5C

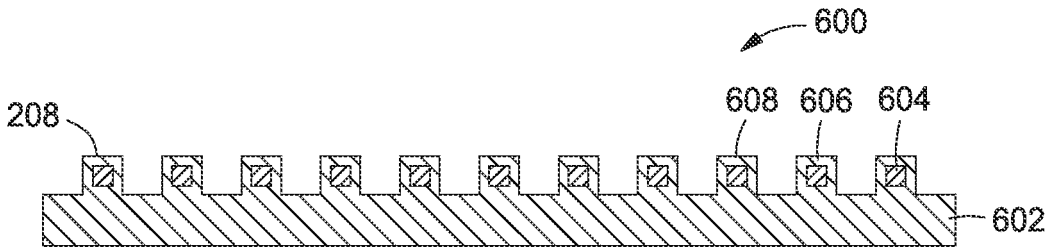

FIG. 6

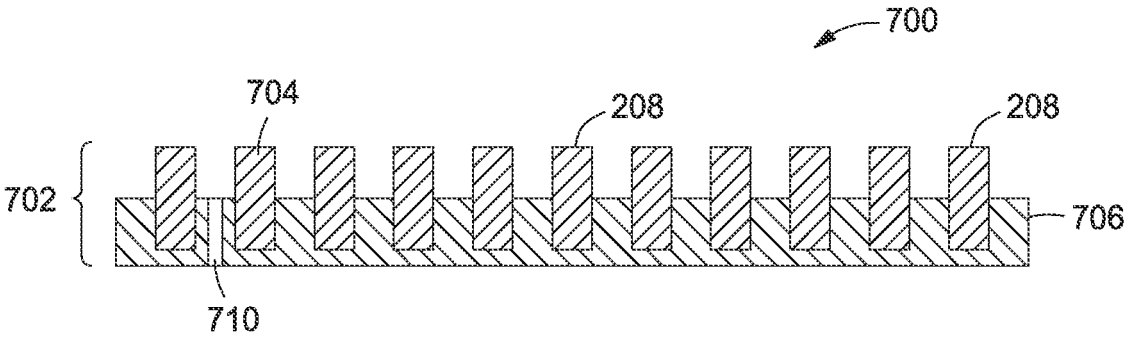

FIG. 7

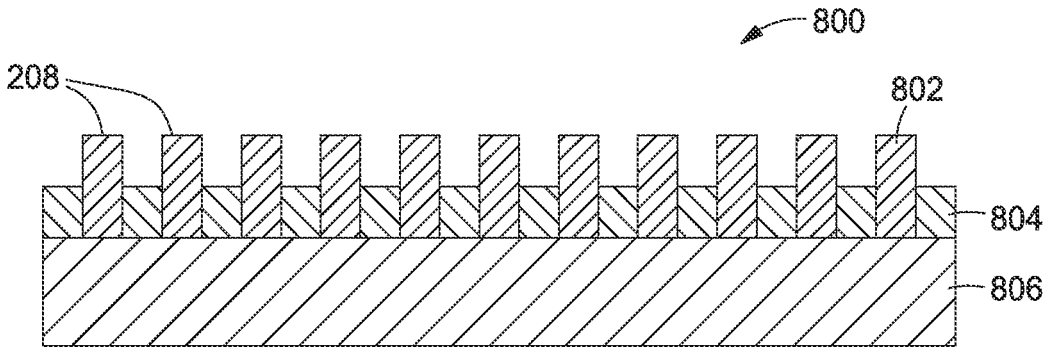

FIG. 8

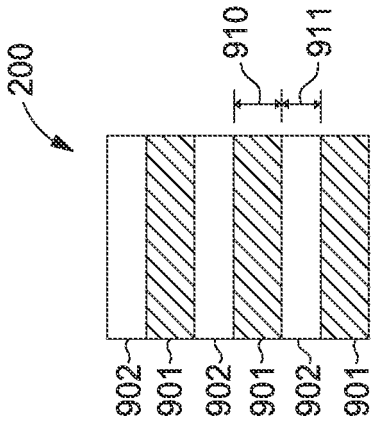

FIG. 9B

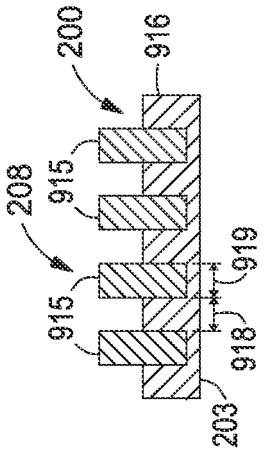

FIG. 9C

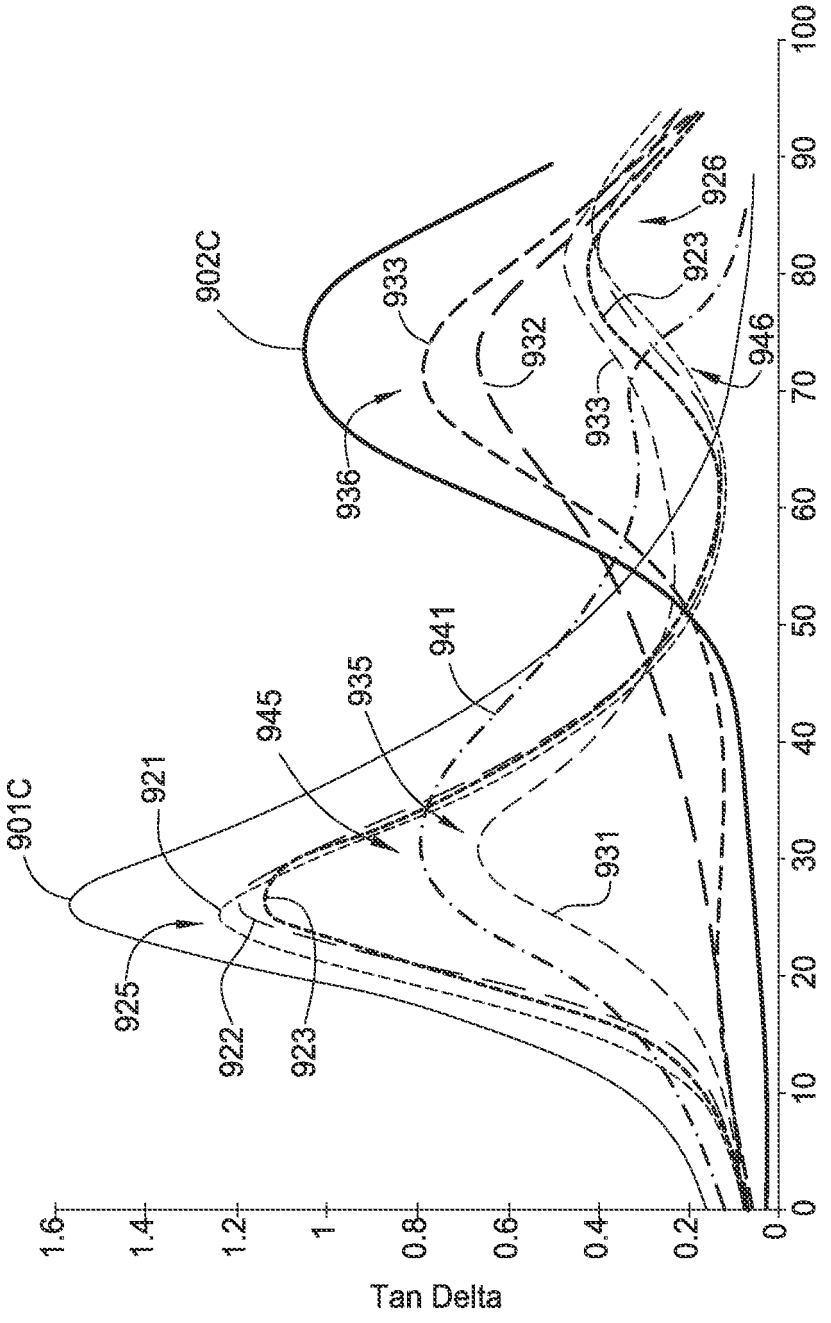

FIG. 9A