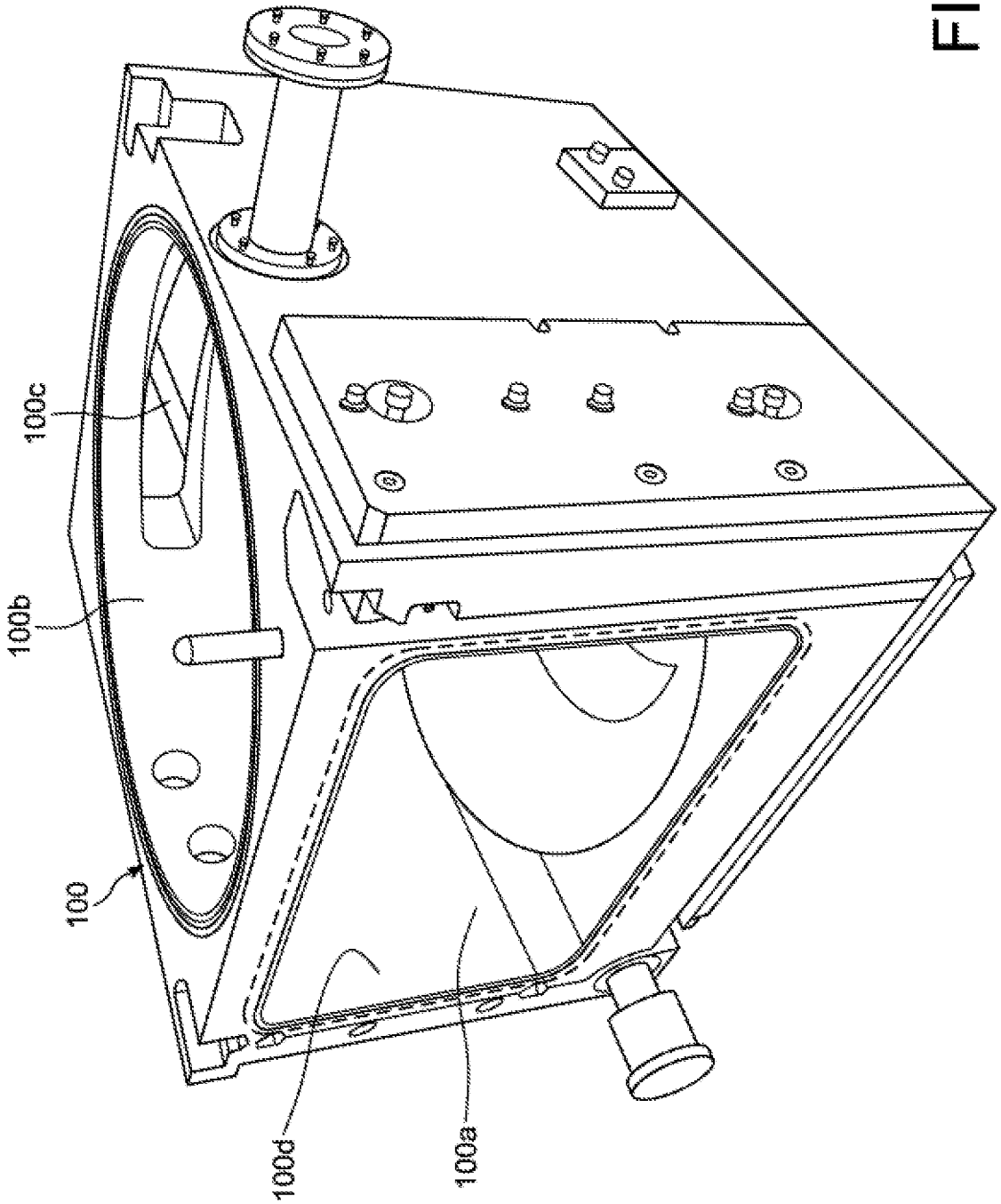
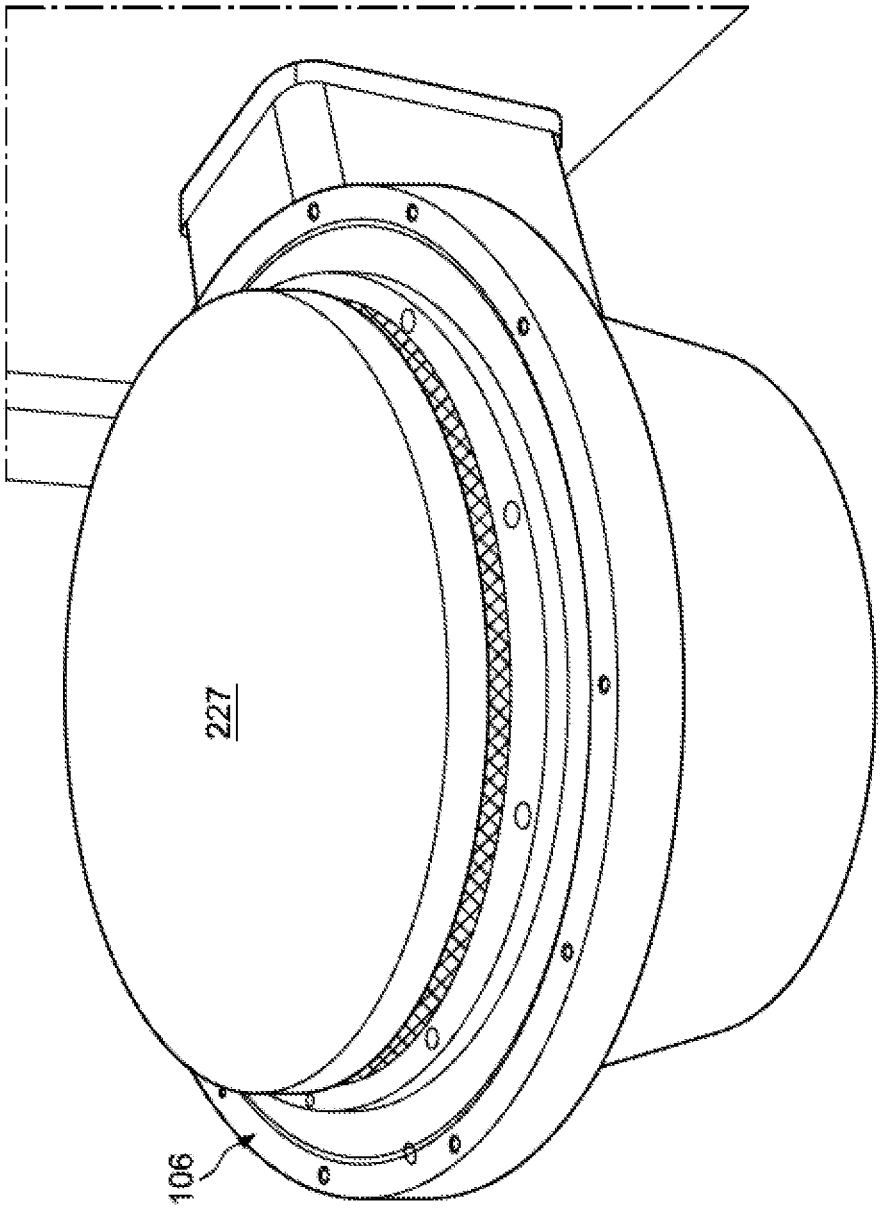


FIG. 1

FIG. 1a



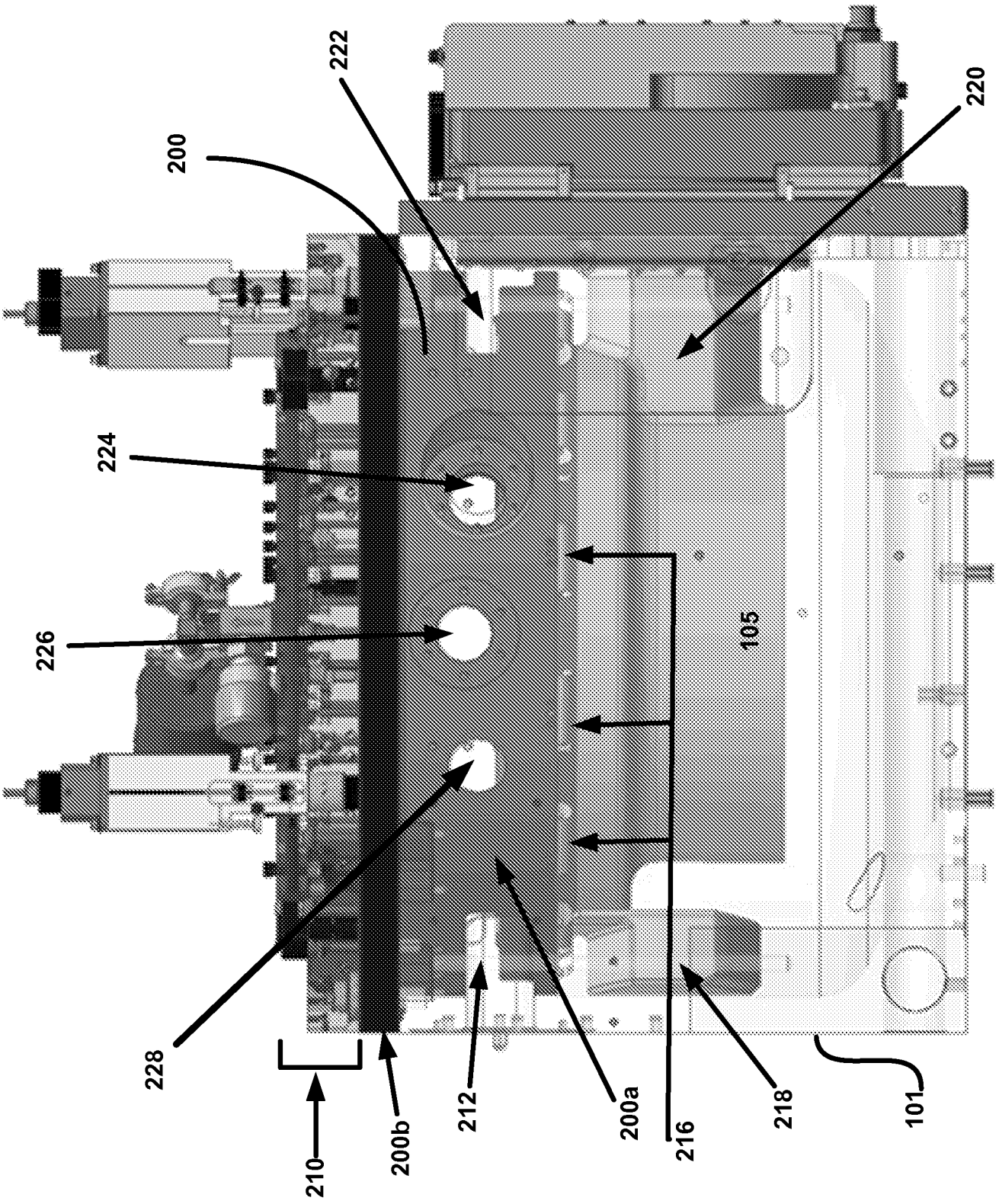


Figure 2

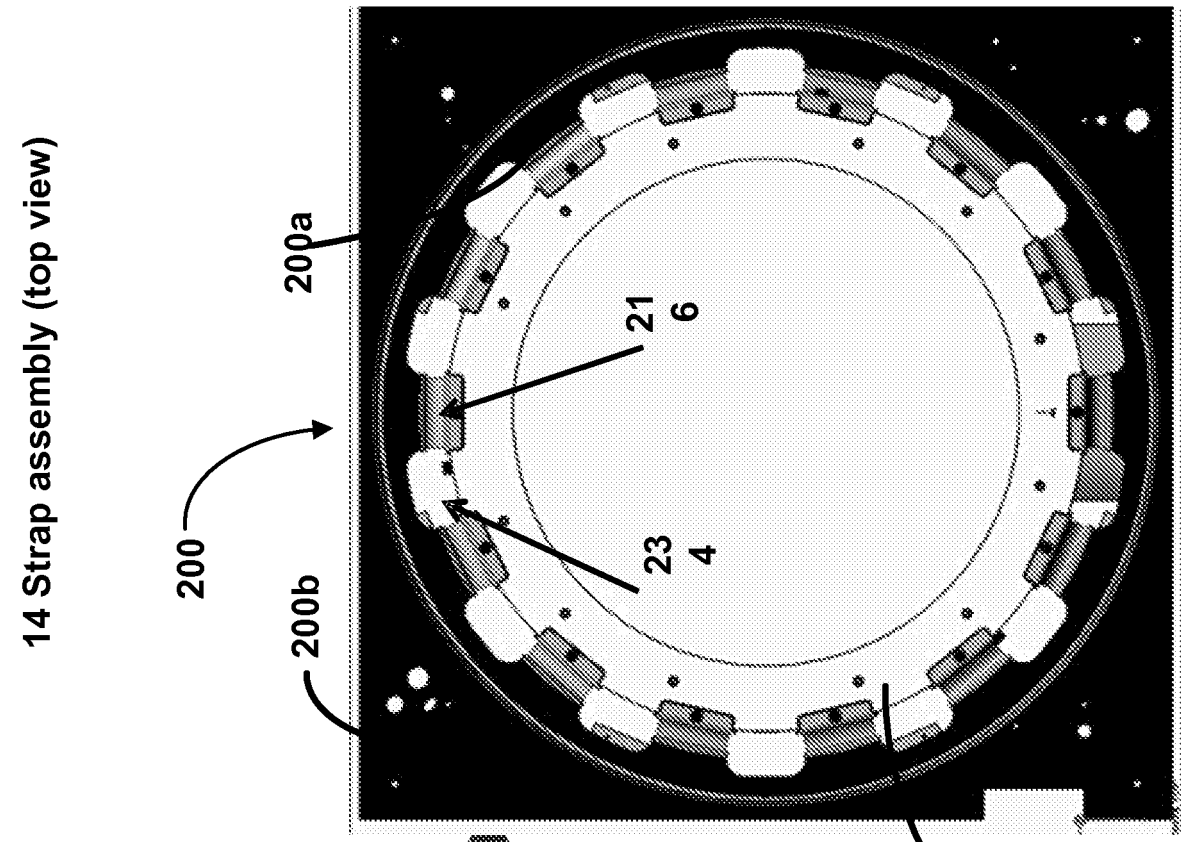


Figure 4

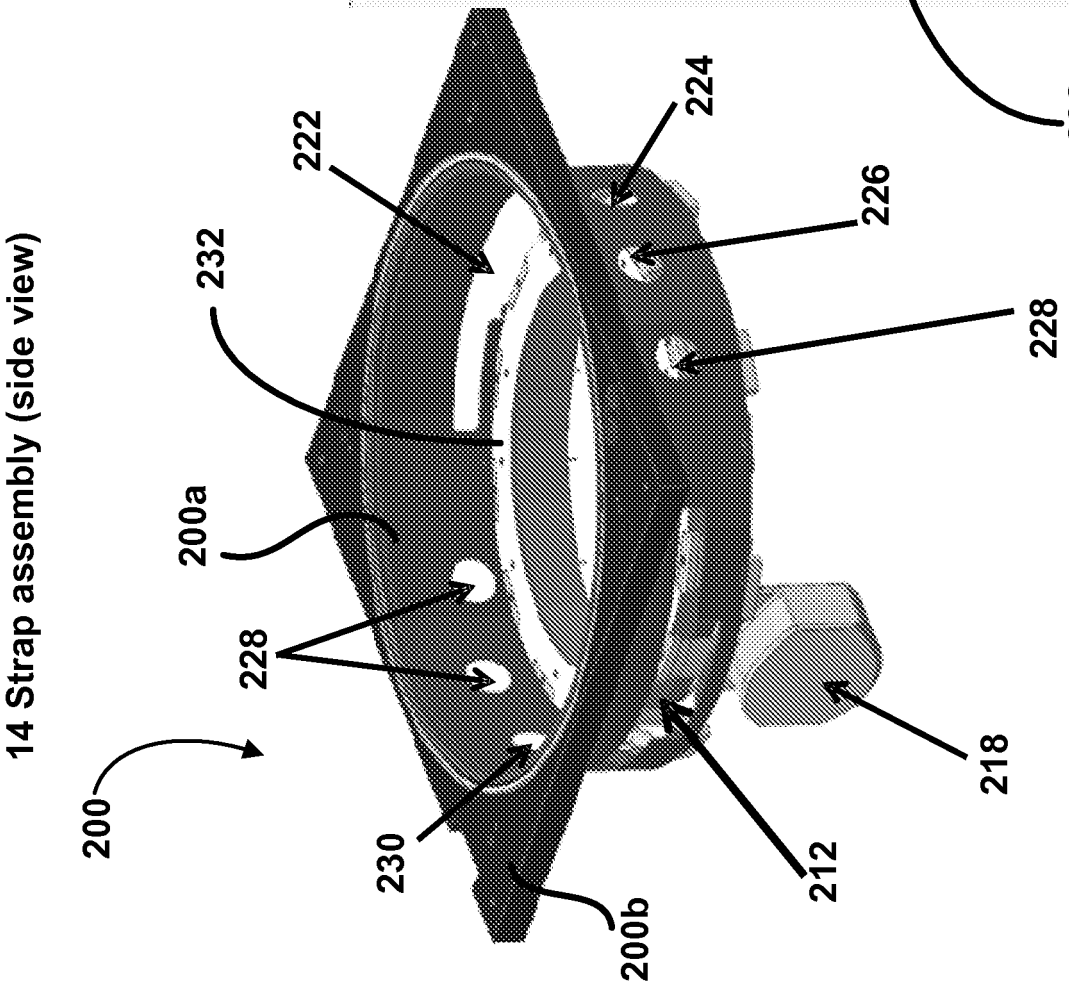


Figure 3

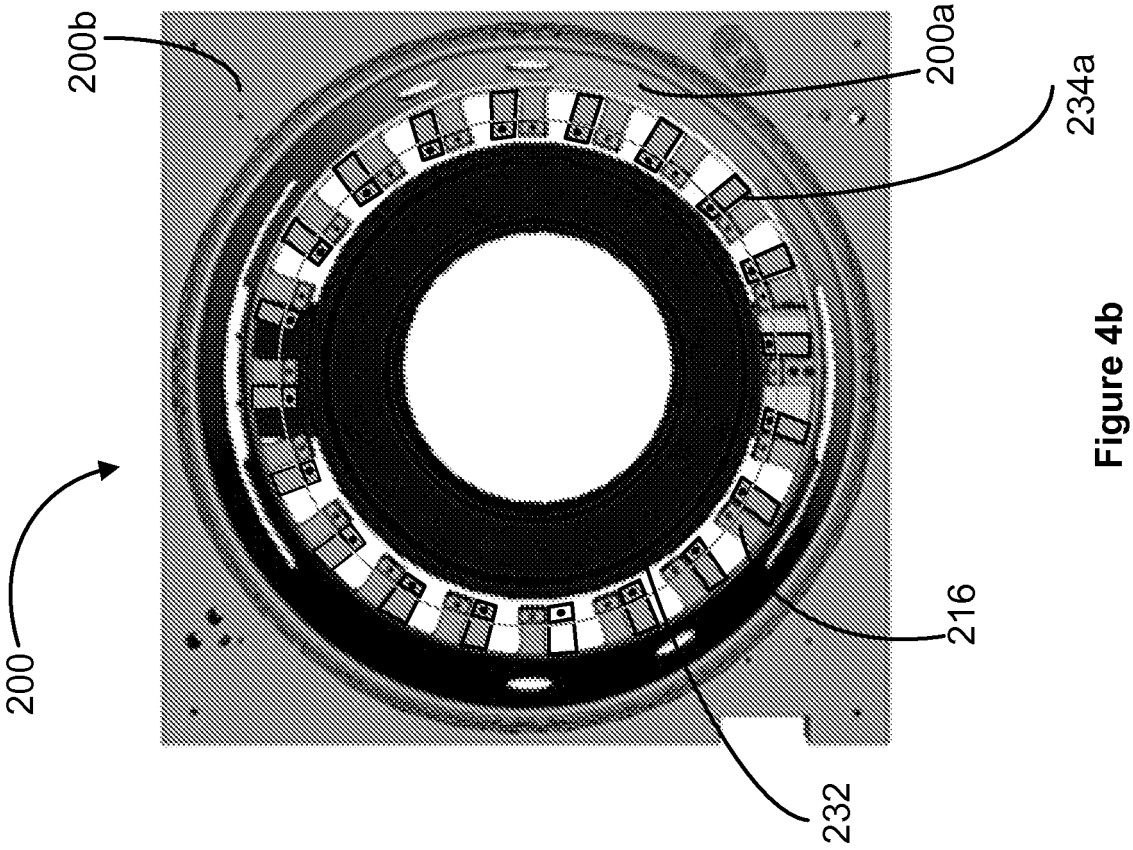


Figure 4b

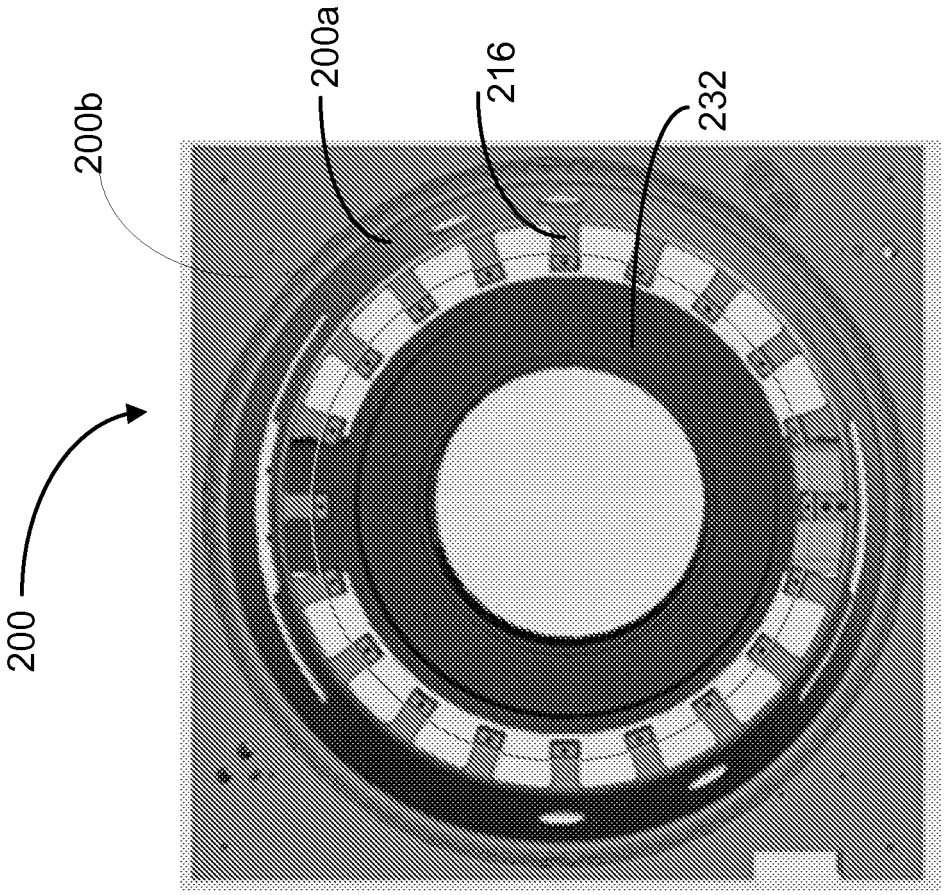
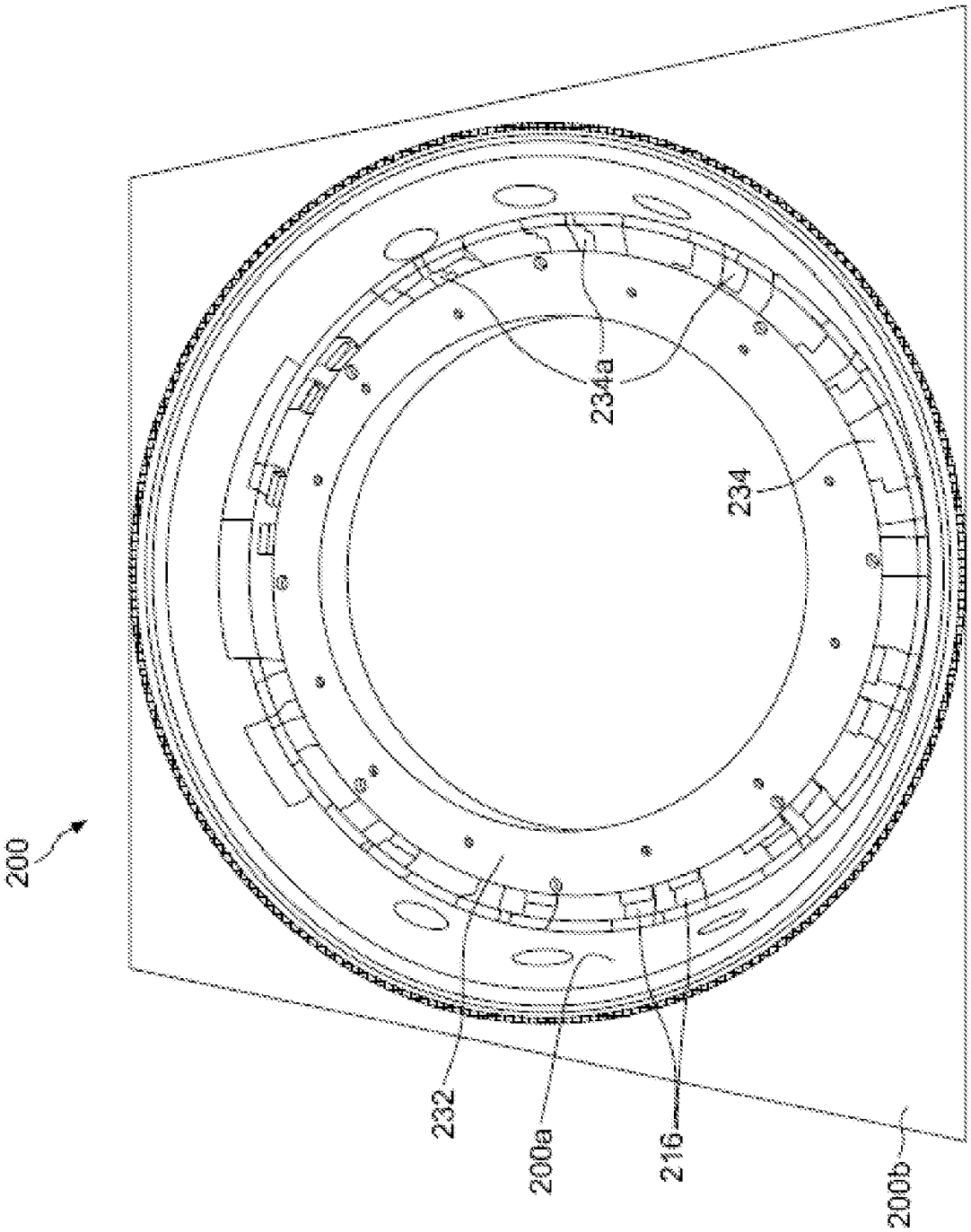


Figure 4a

Figure 4C



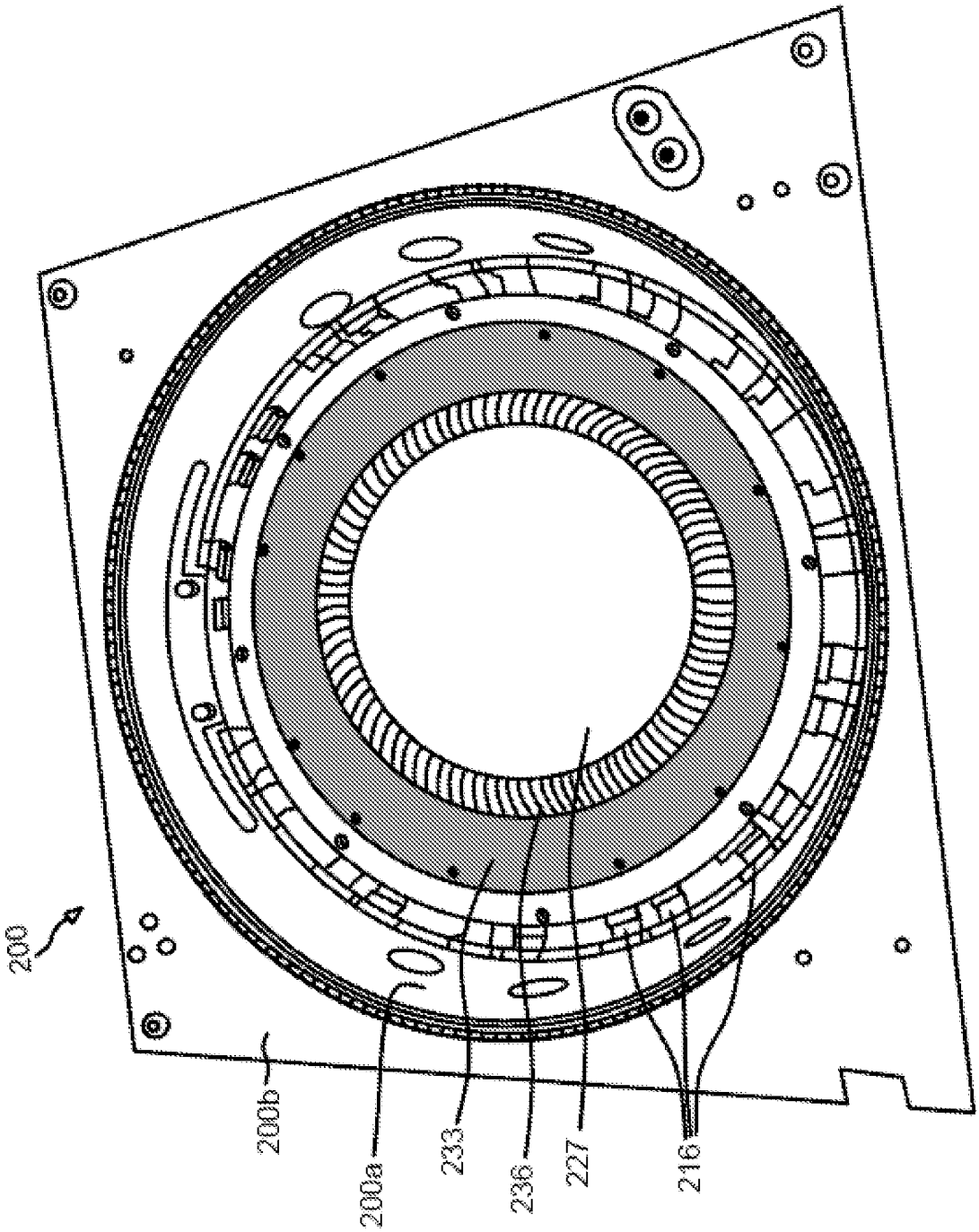


Figure 4d

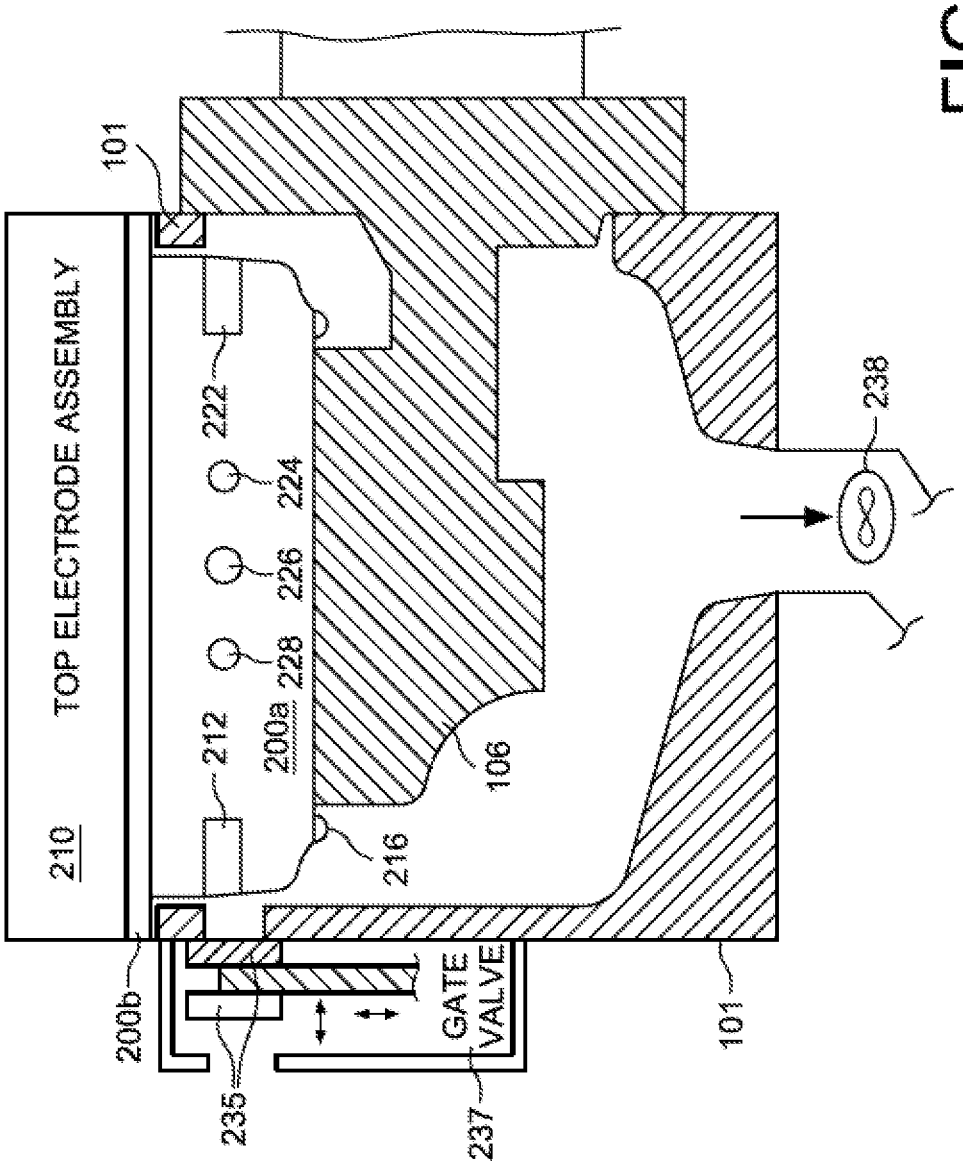

TOP ELECTRODE ASSEMBLY
210
101
222
224
226
228
200a
212
216
106
238
200b
235
237
GATE VALVE
101

FIG. 5a

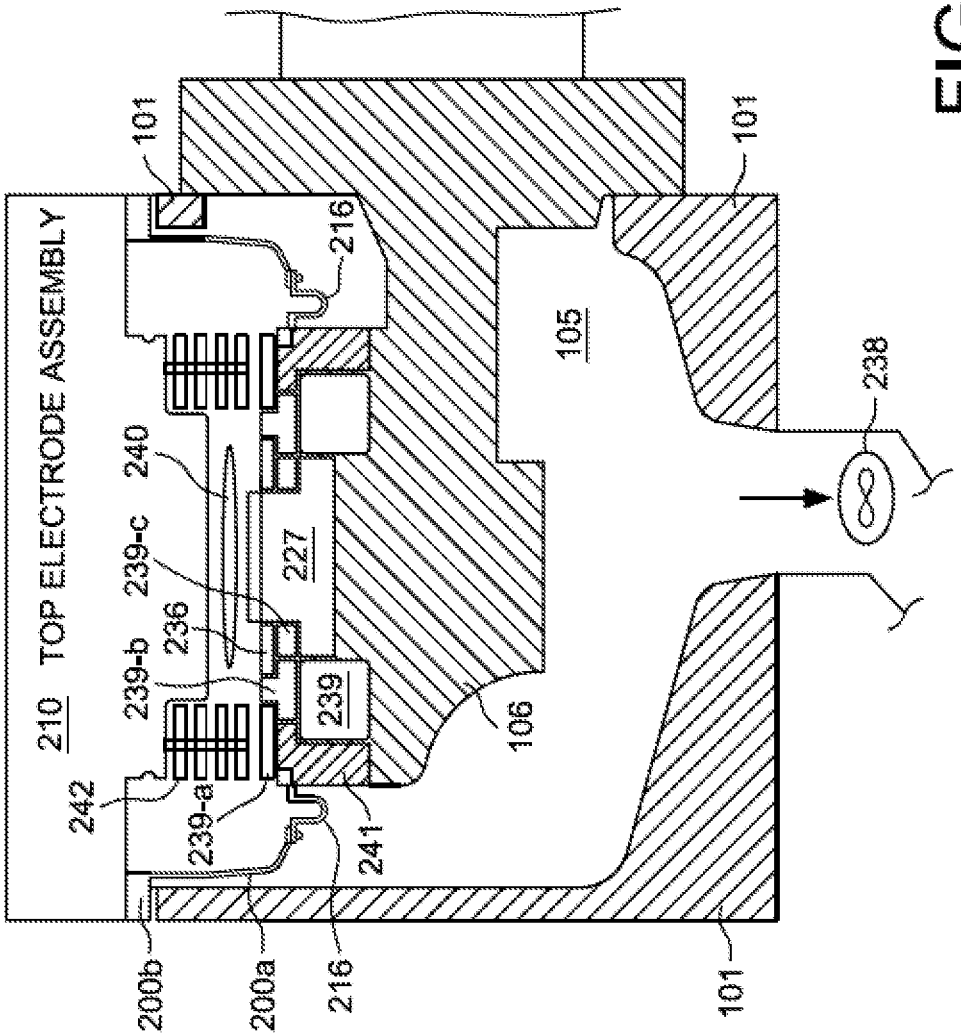

210 TOP ELECTRODE ASSEMBLY
101
216
240
239-c
236
239-b
227
239
242
239-a
241
106
105
238
200b
200a
216
101

FIG. 5b

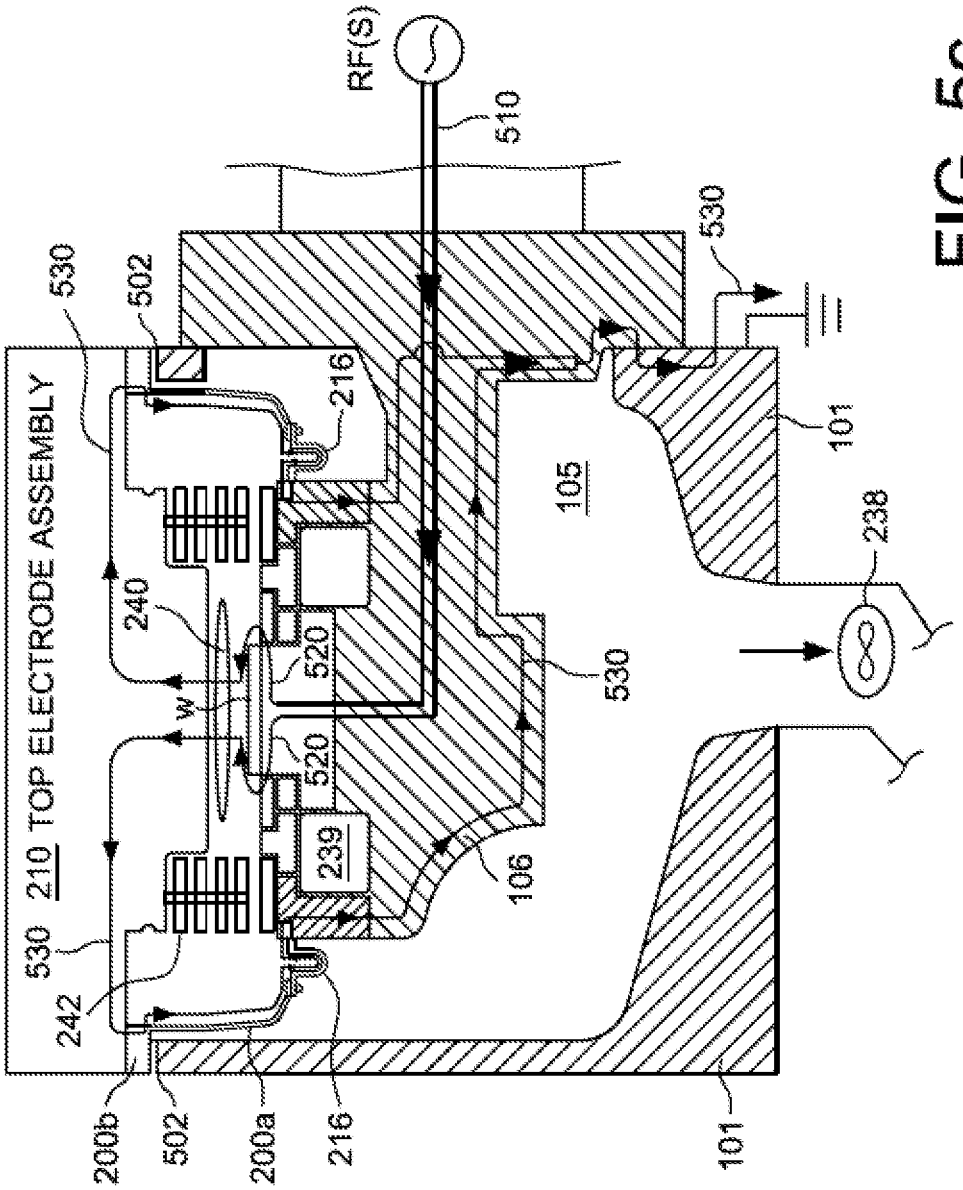

RF(S)
510
530
502
530
216
101
105
238
240
520
530
w
520
239
106
530 210 TOP ELECTRODE ASSEMBLY
242
200b
502
200a
216
101

FIG. 5c

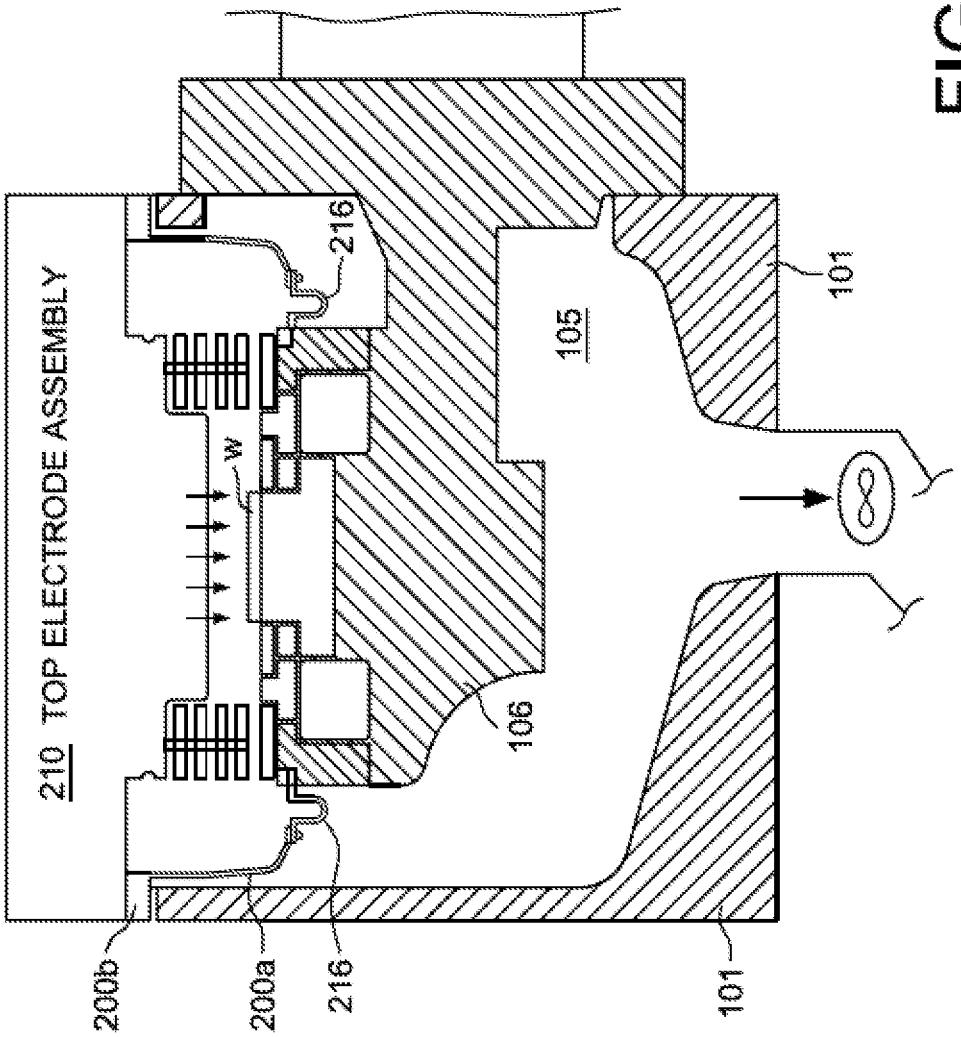

210 TOP ELECTRODE ASSEMBLY
216
w
105
101
106
200b
200a
216
101

FIG. 5d

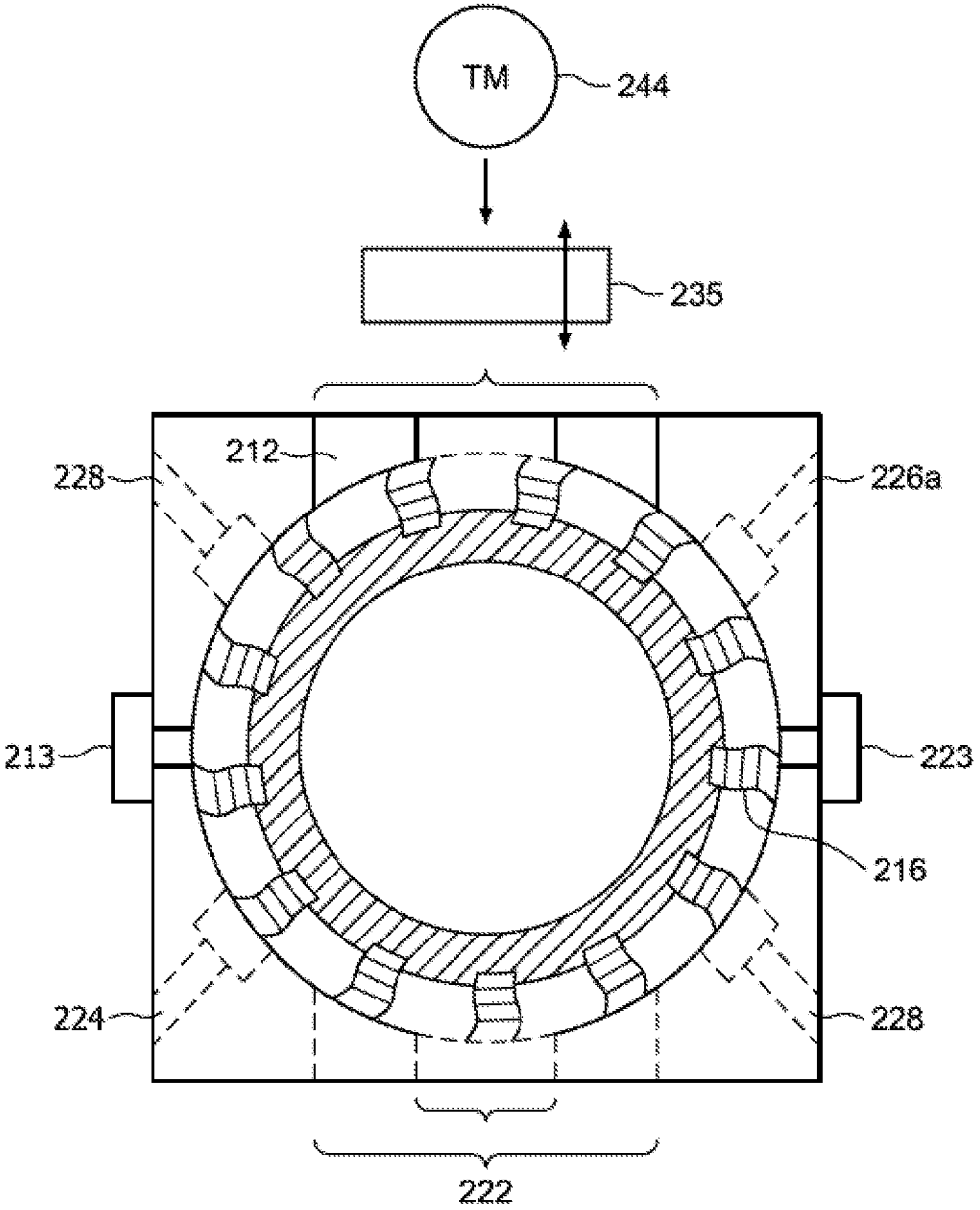


FIG. 6

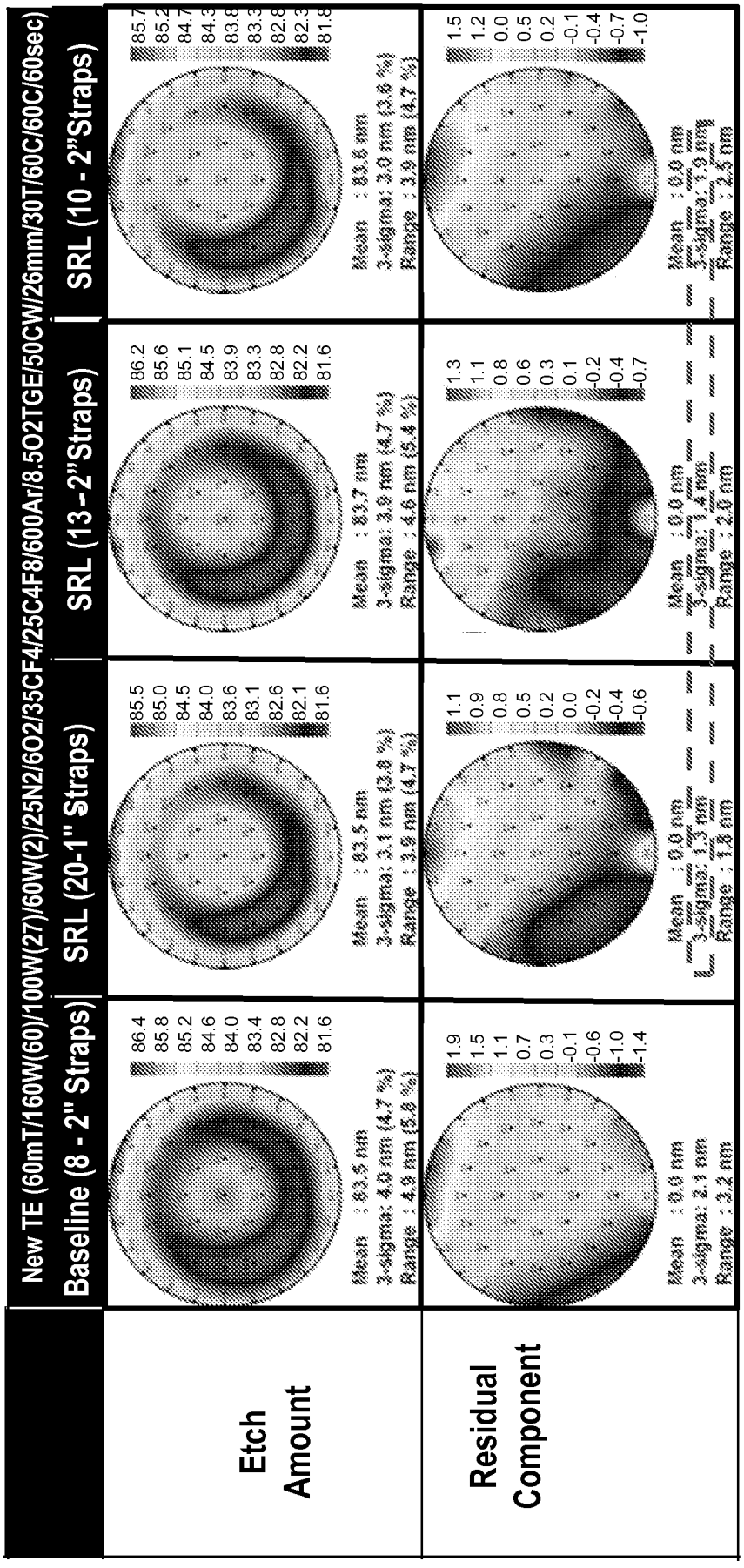

Etch Rate Azimuthal uniformity Improves with all SRL Config.
New TE (60mT/160W(60)/100W(27)/60W(2)/25N2/6O2/35CF4/25C4F8/600Ar/8.5O2TGE/50CW/26mm/30T/60C/60C/60sec)
Baseline (8 - 2" Straps)
SRL (20-1" Straps)
SRL (13 -2"Straps)
SRL (10 - 2"Straps)
Etch Amount
Residual Component
Mean : 83.5 nm
3-sigma: 4.0 nm (4.7 %)
Range : 4.9 nm (5.8 %)
86.4
85.8
85.2
84.6
84.0
83.4
82.8
82.2
81.6
Mean : 83.5 nm
3-sigma: 3.1 nm (3.8 %)
Range : 3.9 nm (4.7 %)
85.5
85.0
84.5
84.0
83.6
83.1
82.6
82.1
81.6
Mean : 83.7 nm
3-sigma: 3.9 nm (4.7 %)
Range : 4.6 nm (5.4 %)
86.2
85.6
85.1
84.5
83.9
83.3
82.8
82.2
81.6
Mean : 83.6 nm
3-sigma: 3.0 nm (3.6 %)
Range : 3.9 nm (4.7 %)
85.7
85.2
84.7
84.3
83.8
83.3
82.8
82.3
81.8
Mean : 0.0 nm
3-sigma: 2.1 nm
Range : 3.2 nm
1.9
1.5
1.1
0.7
0.3
-0.1
-0.6
-1.0
-1.4
Mean : 0.0 nm
3-sigma: 1.3 nm
Range : 1.8 nm
1.1
0.9
0.8
0.5
0.2
0.0
-0.2
-0.4
-0.6
Mean : 0.0 nm
3-sigma: 1.4 nm
Range : 2.0 nm
1.3
1.1
0.8
0.6
0.3
0.1
-0.2
-0.4
-0.7
Mean : 0.0 nm
3-sigma: 1.9 nm
Range : 2.5 nm
1.5
1.2
0.0
0.5
0.2
-0.1
-0.4
-0.7
-1.0

Figure 7

Etch Rate Azimuthal Uniformity Improves with all SRL Config.

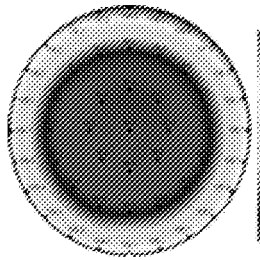
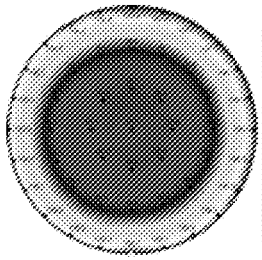
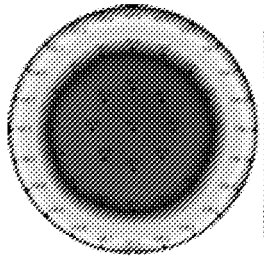
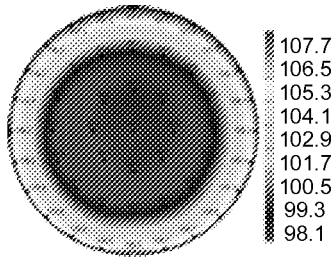
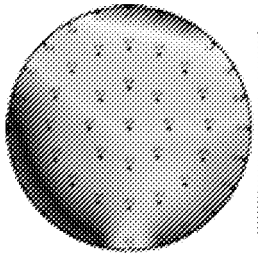
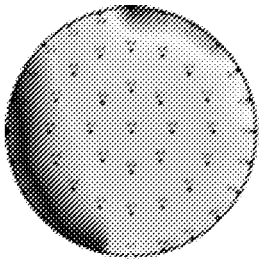
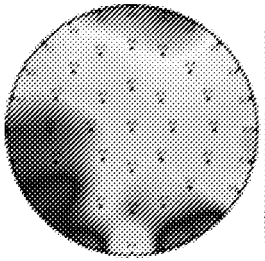
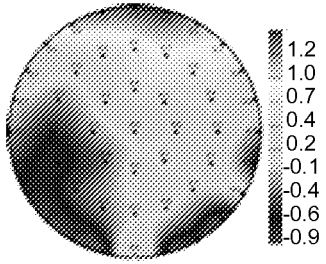
	Old Trench Etch((60mT/200W(60)/ 200W(27)/100N2/4O2/35CF4/25C4F8/600Ar/50CW/23.4mm/30T/60C/60C/60sec)			
	Baseline (8 - 2"Straps)	SRL (20 - 1"Straps)	SRL (13 - 2"Straps)	SRL (10 - 2" Straps)
Etch Amount	 Mean : 101.7 nm 3-sigma: 12.9 nm (12.7 %) Range : 11.4 nm (11.2 %)	 Mean : 102.1 nm 3-sigma: 11.8 nm (11.5 %) Range : 9.8 nm (9.6 %)	 Mean : 102.4 nm 3-sigma: 12.2 nm (11.9 %) Range : 9.9 nm (9.7 %)	 Mean : 102.6 nm 3-sigma: 11.6 nm (11.3 %) Range : 9.6 nm (9.3 %)
Residual Component	 Mean : 0.0 nm 3-sigma: 2.7 nm Range : 3.8 nm	 Mean : 0.0 nm 3-sigma: 1.9 nm Range : 2.7 nm	 Mean : 0.0 nm 3-sigma: 1.5 nm Range : 1.8 nm	 Mean : 0.0 nm 3-sigma: 1.7 nm Range : 2.1 nm

Figure 8

All SRL Strap Configuration Show Improved Plasma Confinement Performance

	Baseline (8 – 2" Straps)		SRL (20 – 1" Straps)		SRL (13 – 2" Straps)		SRL (10 – 2" Straps)	
	2-27	2-60	2-27	2-60	2-27	2-60	2-27	2-60
Run 1	1000 Ar	975 Ar	1350 Ar	1000 Ar	1350 Ar	1000 Ar	1350 Ar	1000 Ar
Run 2	1000 Ar	975 Ar	1350 Ar	950 Ar	1350 Ar	1000 Ar	1350 Ar	1000 Ar
Run 3	1000 Ar	800 Ar	1350 Ar	1000 Ar	1350 Ar	950 Ar	1350 Ar	1000 Ar

2MHz-27MHz Spec: >1000 Ar
2MHz-60MHz Spec: >750 Ar

2MHz-27MHz and 2MHz-60MHz Confinement Test

Figure 9