

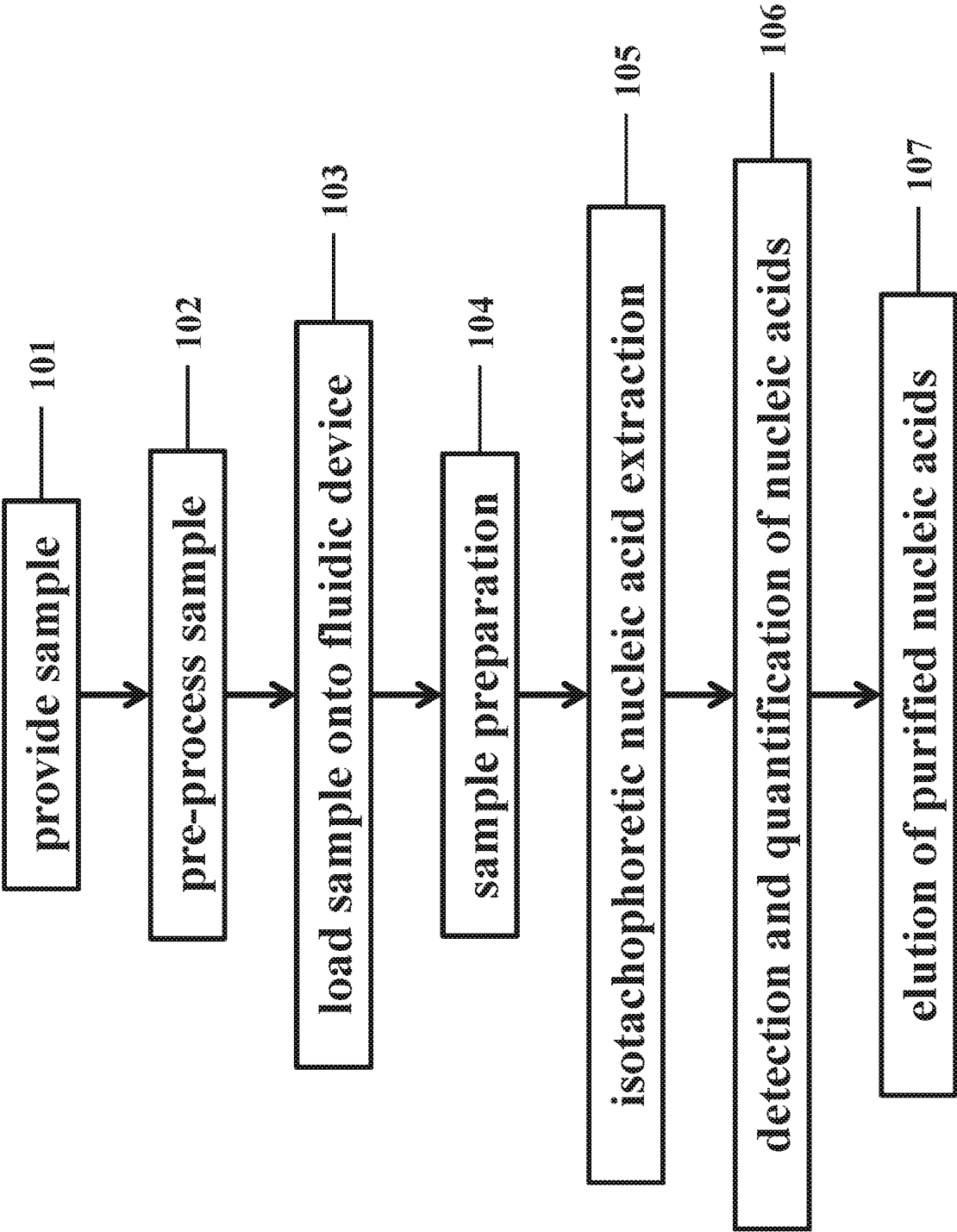


FIG. 1A

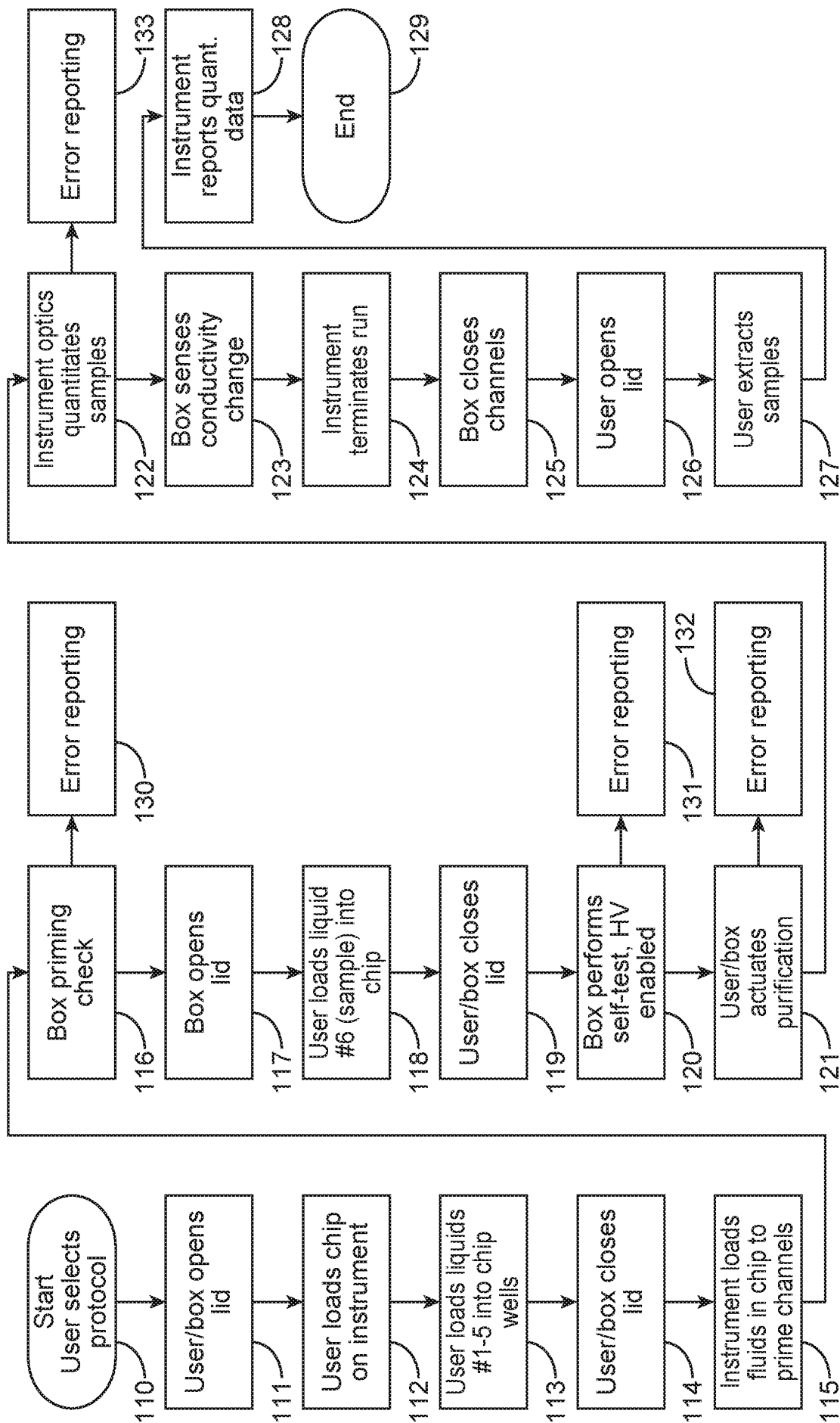


FIG. 1B

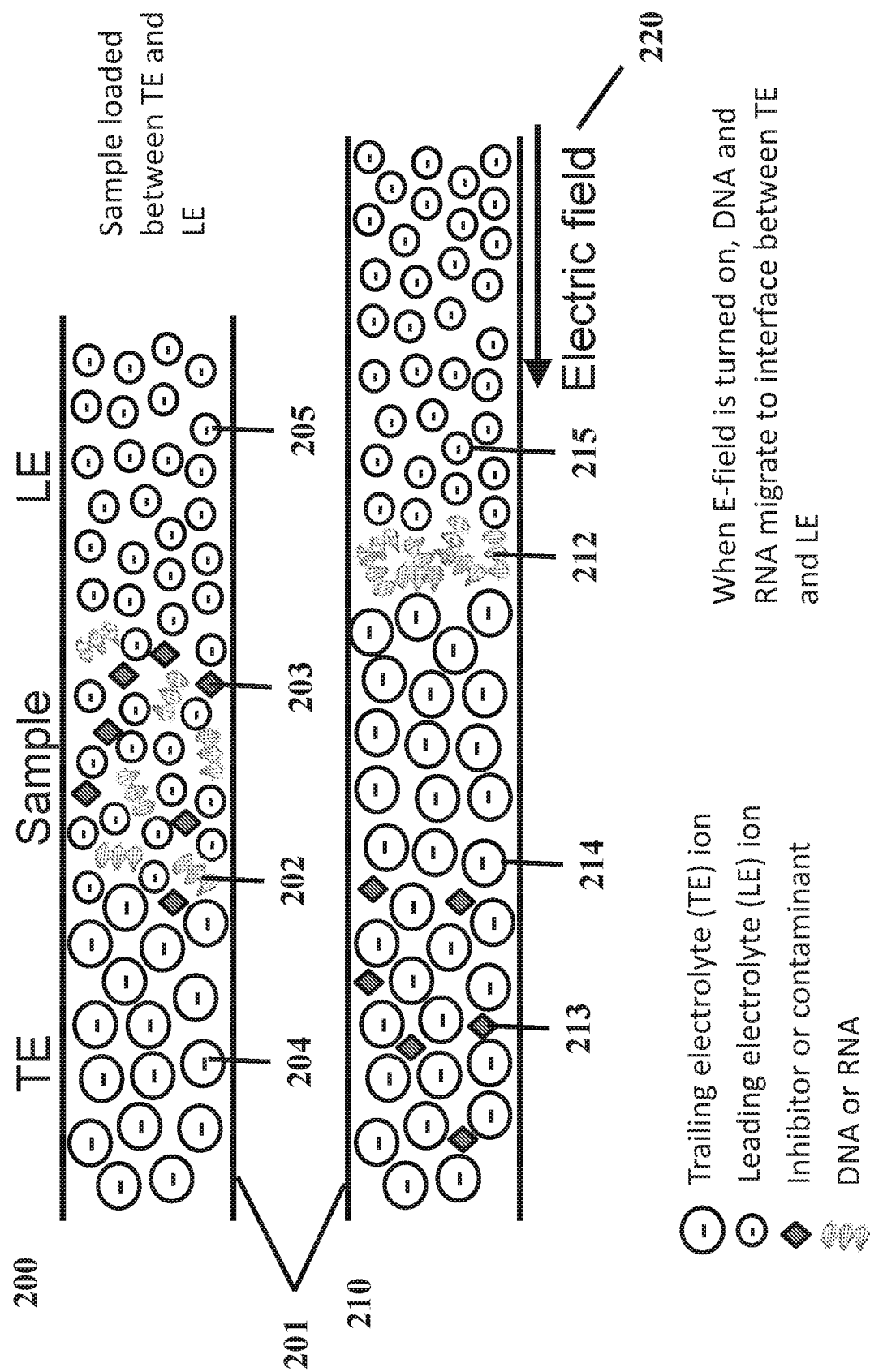


FIG. 2A

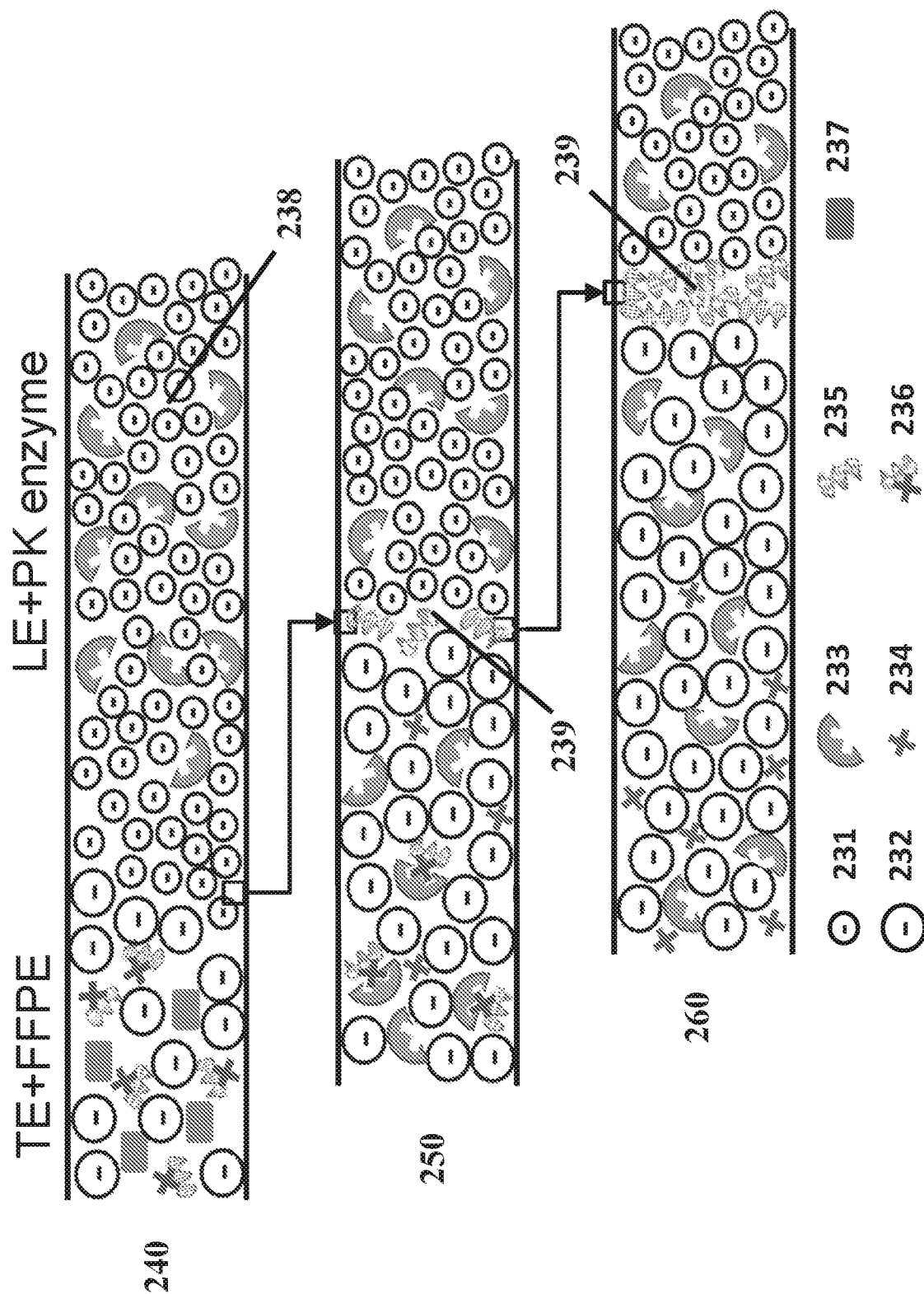


FIG. 2B

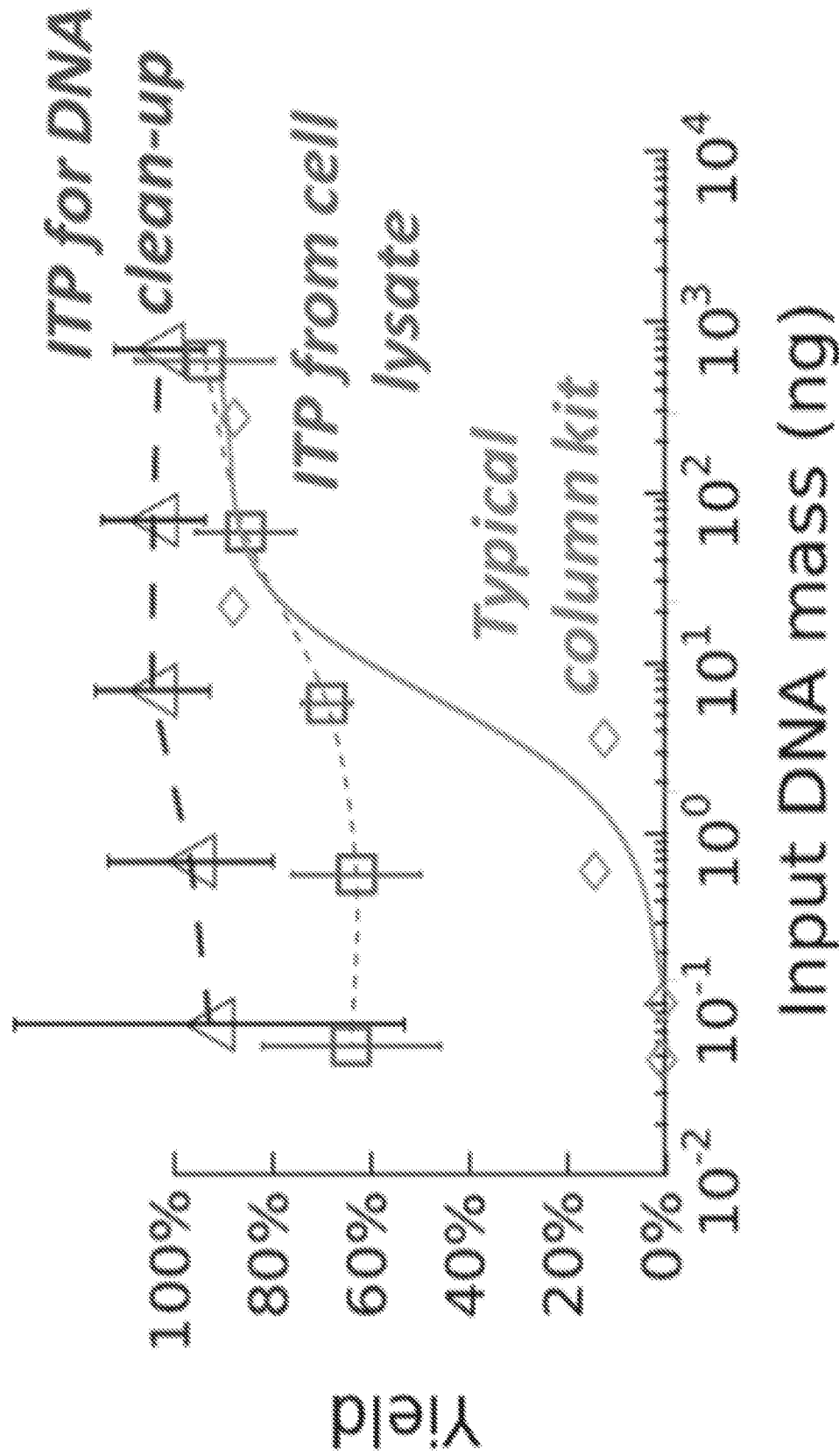


FIG. 3

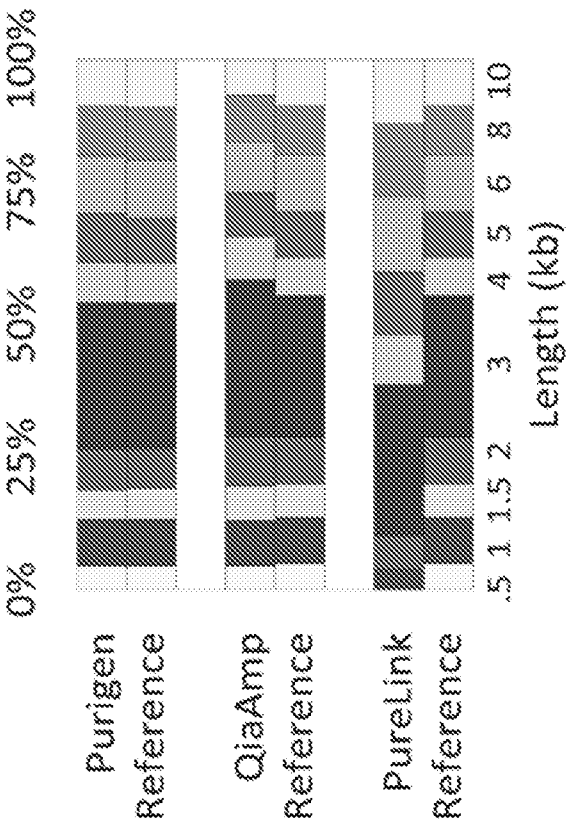


FIG. 4B

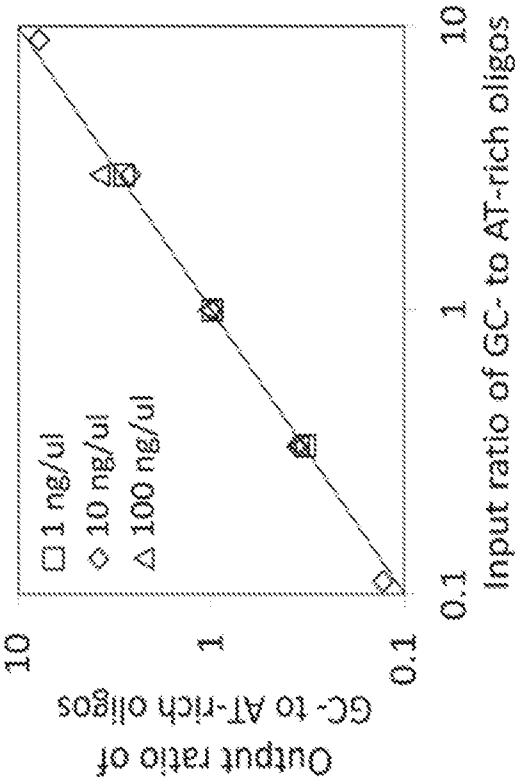
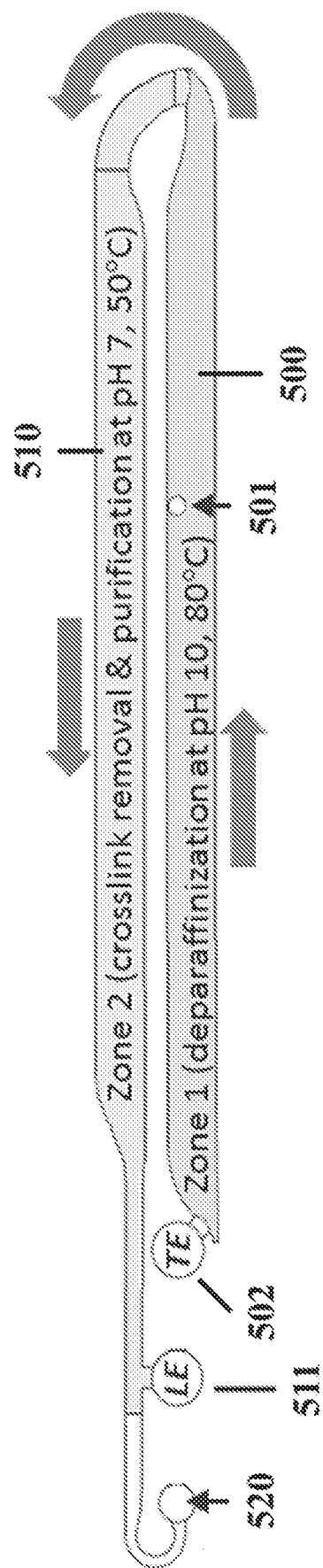


FIG. 4A



516

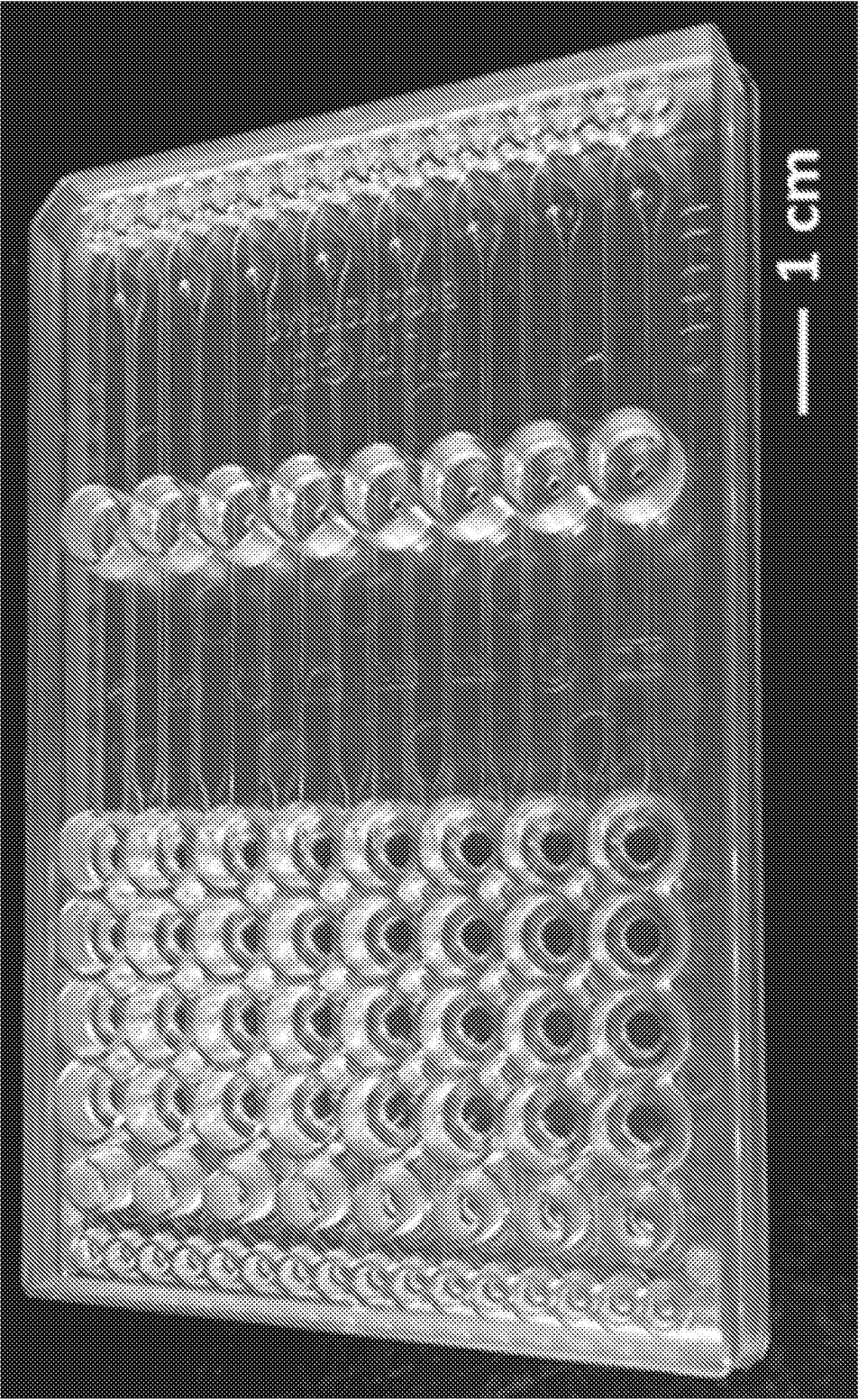


FIG. 5B

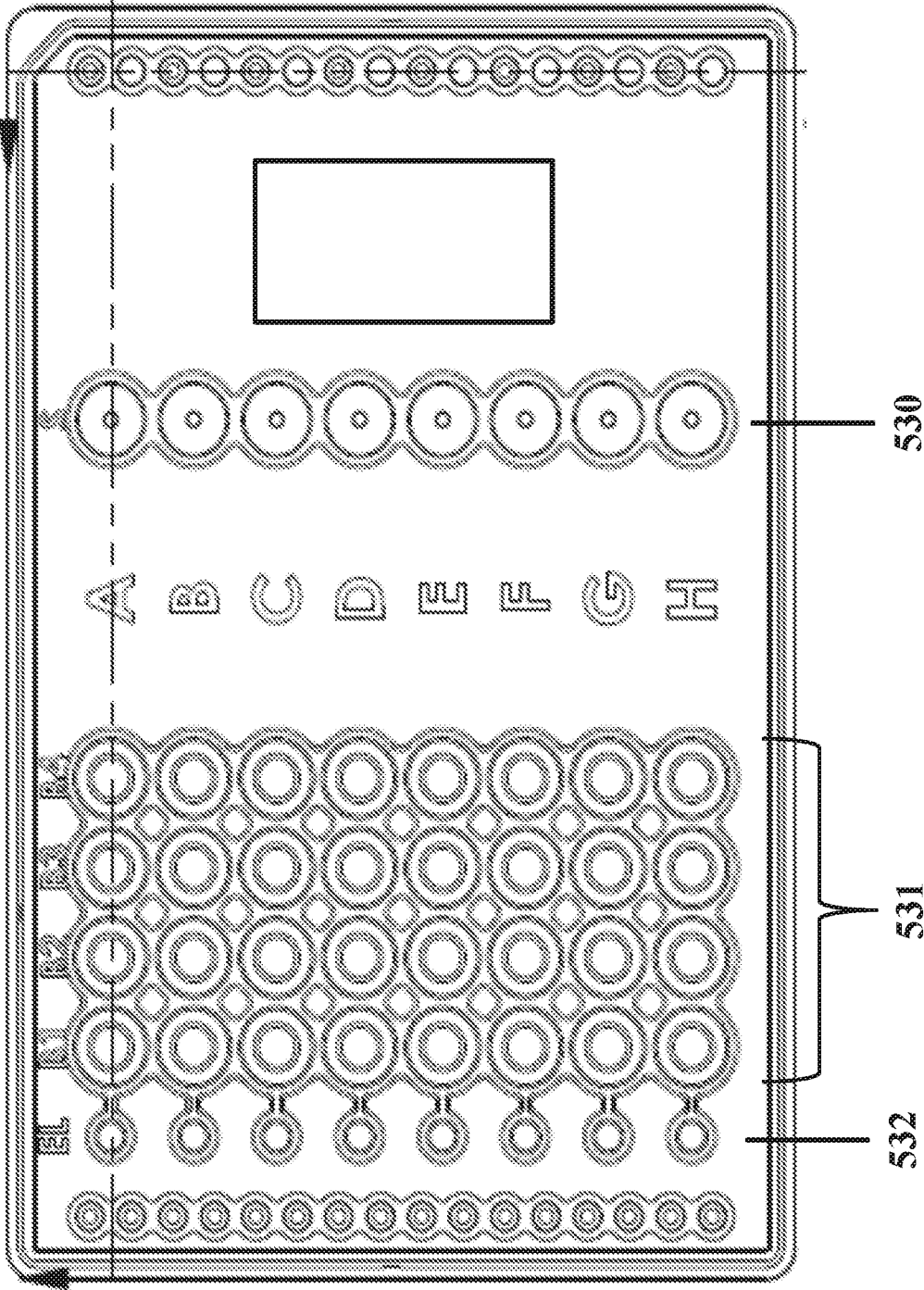


FIG. 5C

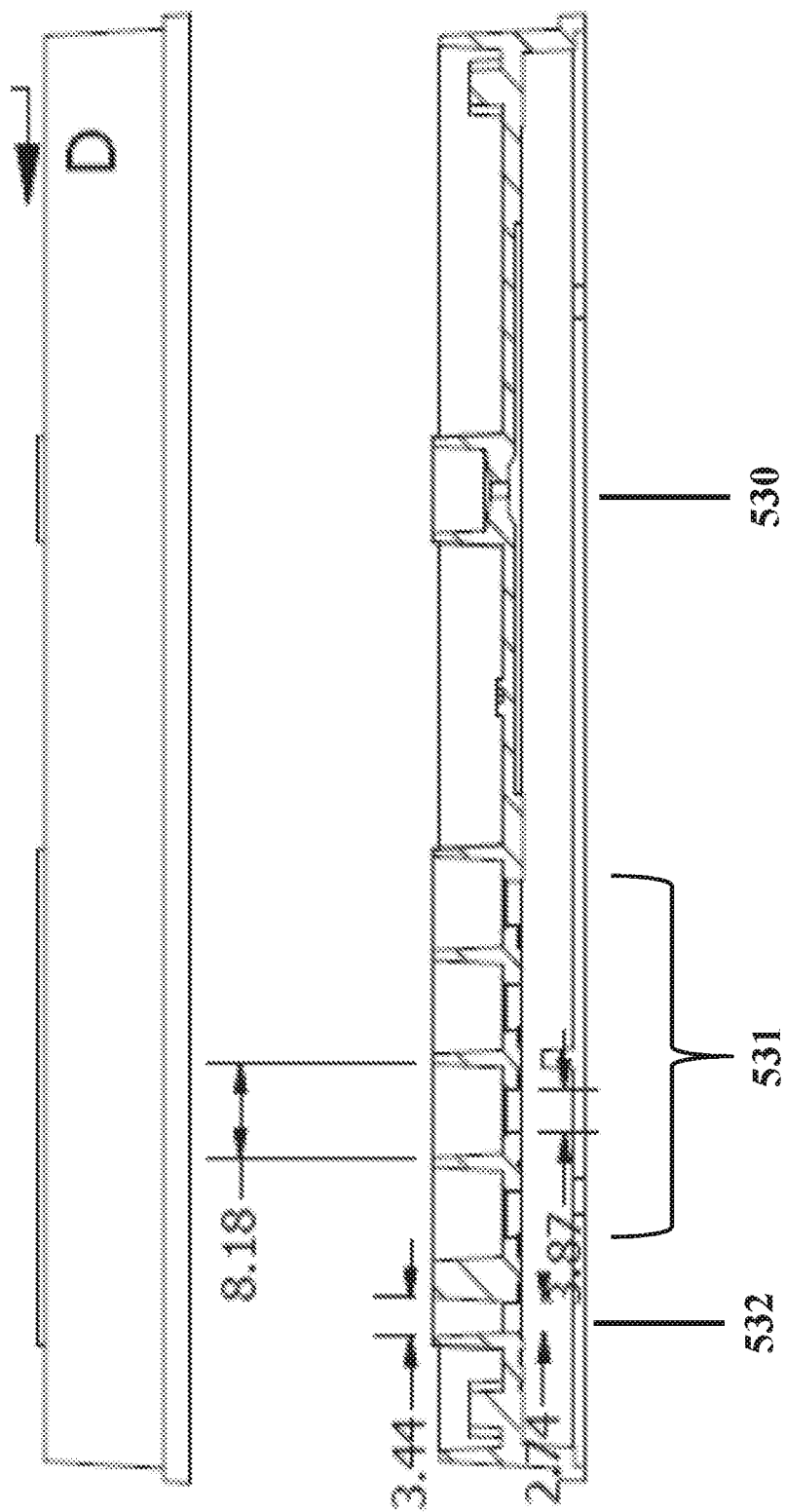


FIG. 5D

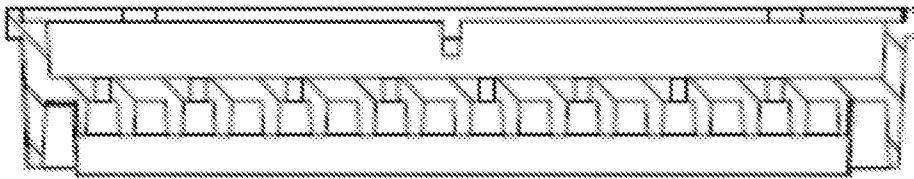


FIG. 5E

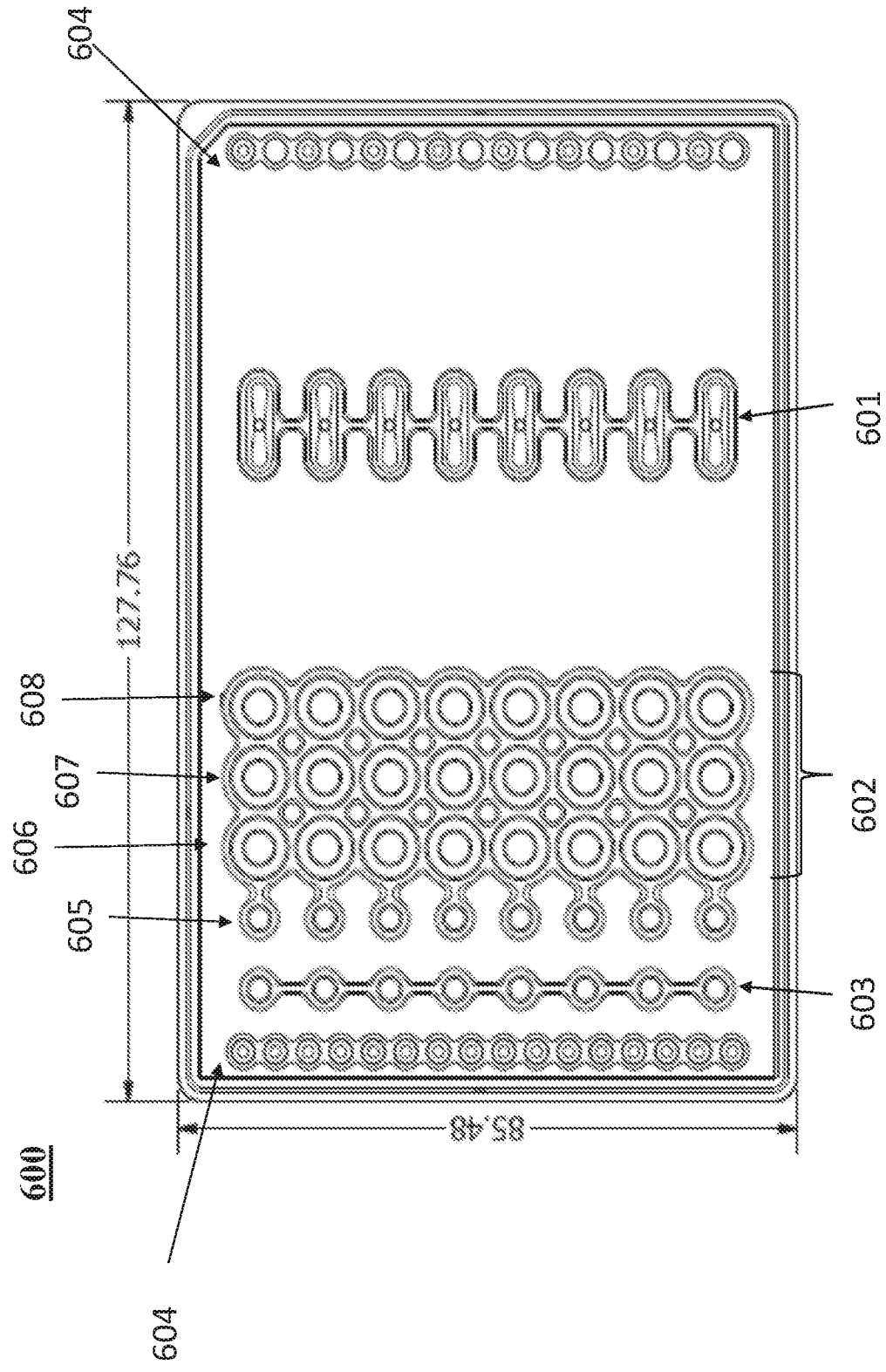


FIG. 6A

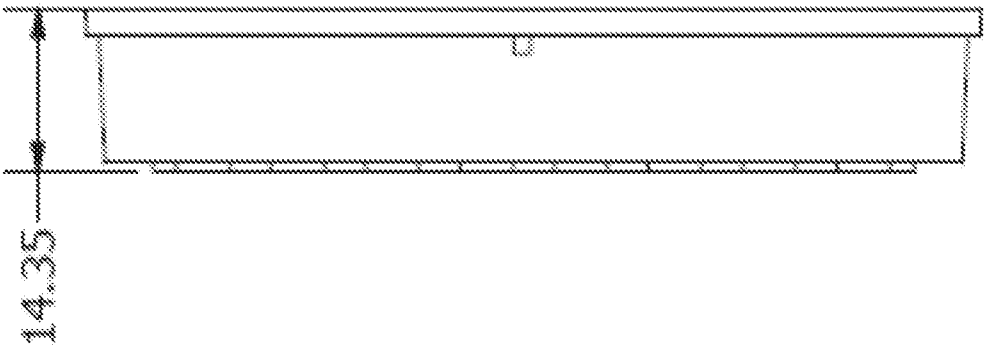


FIG. 6B

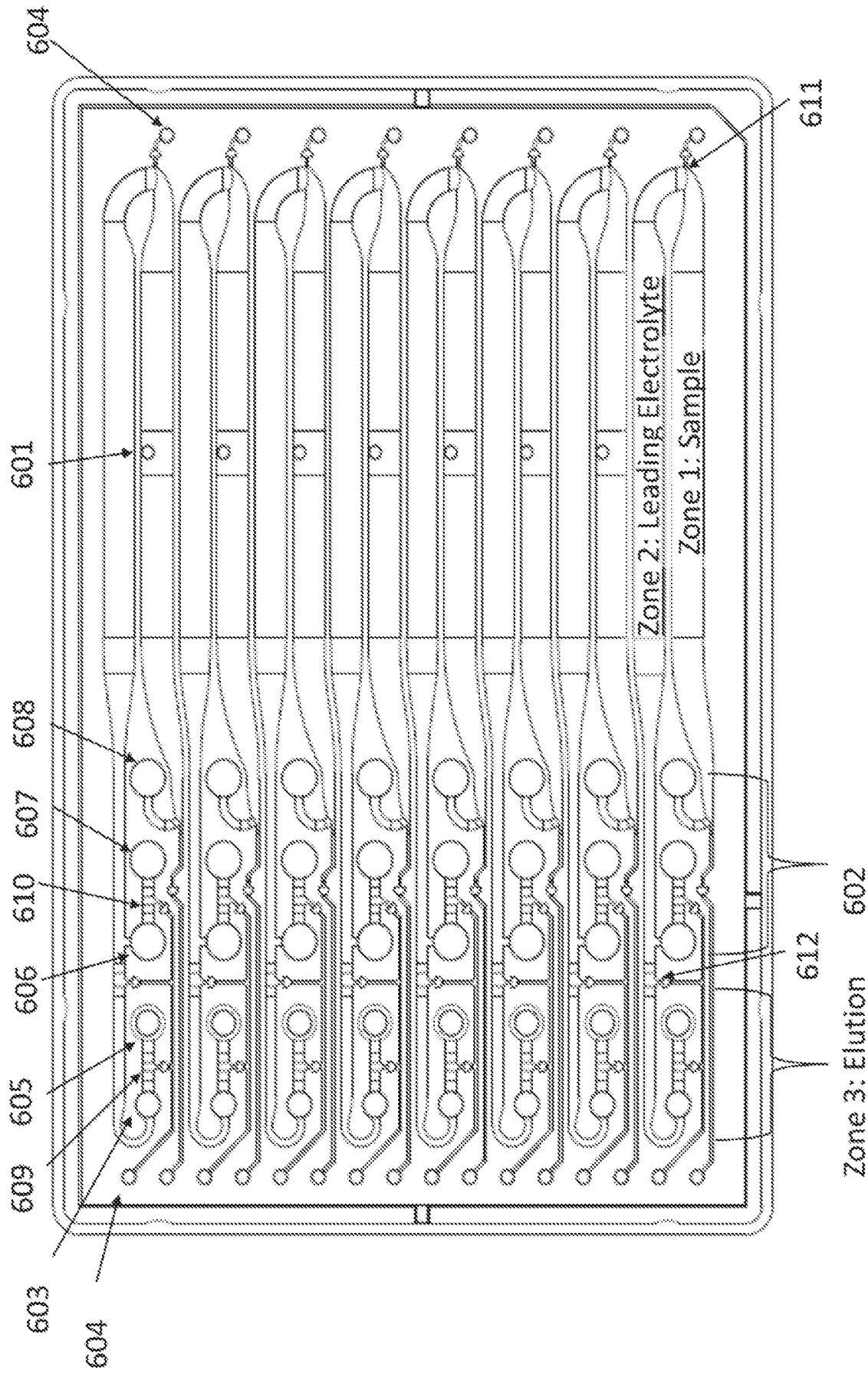


FIG. 6C

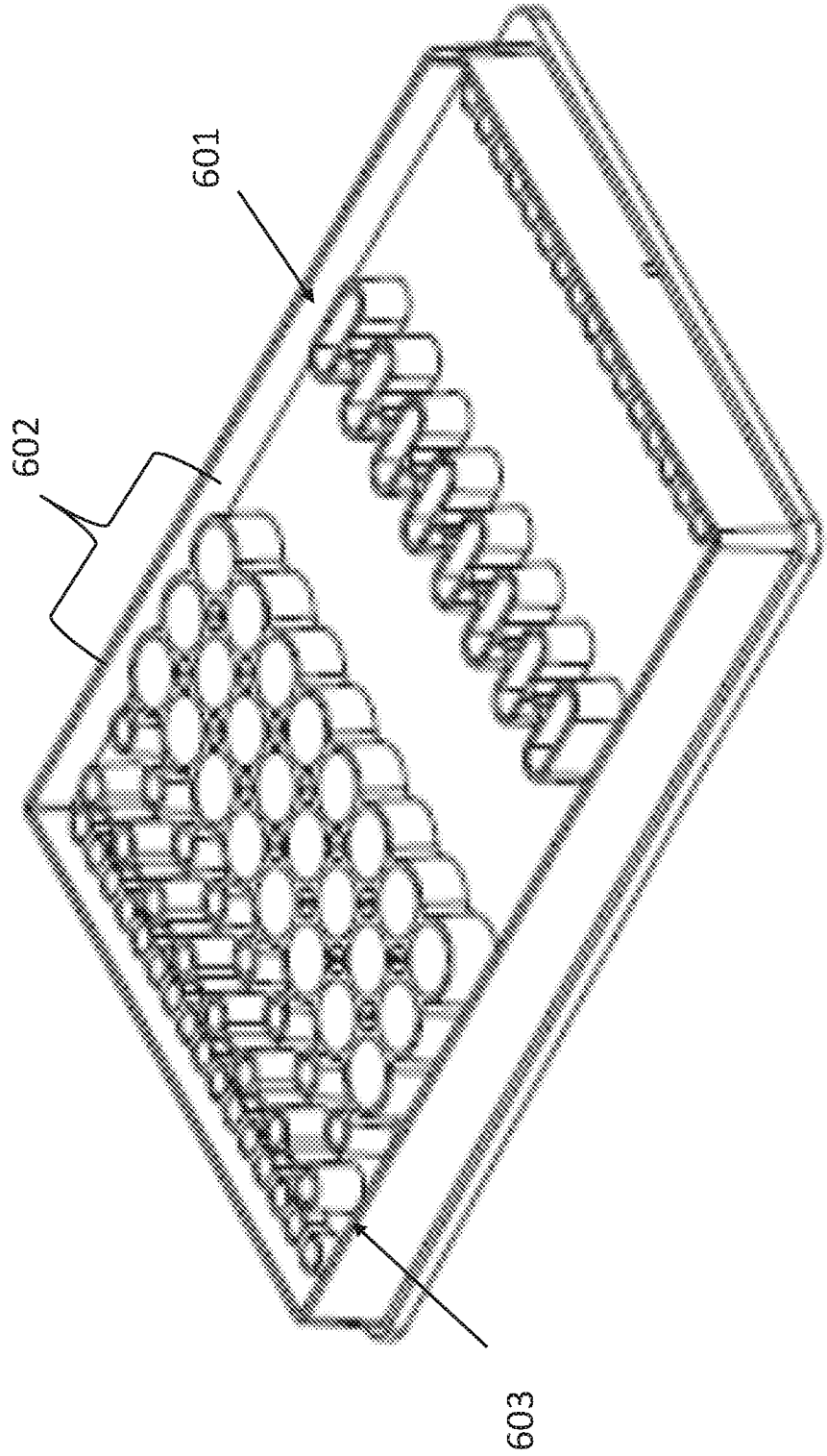


FIG. 6D

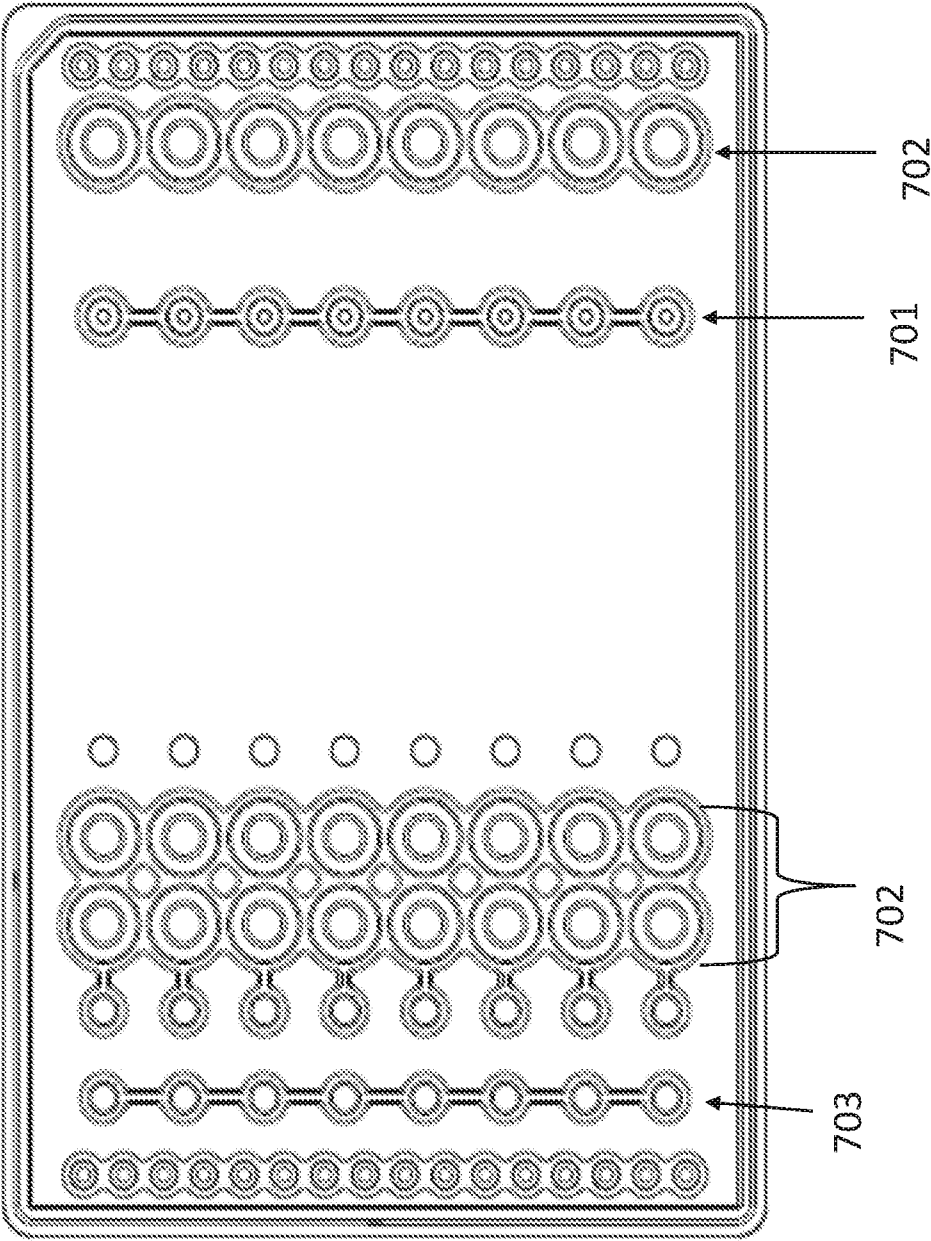


FIG. 7A

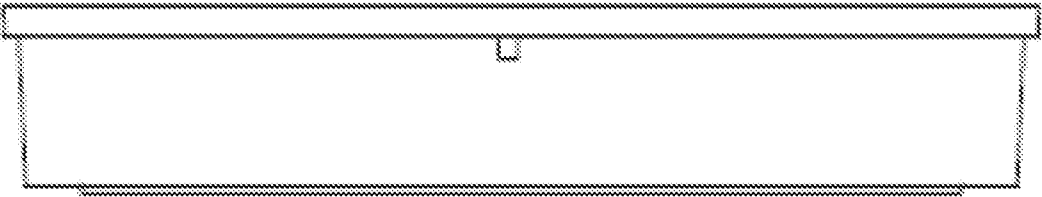


FIG. 7B

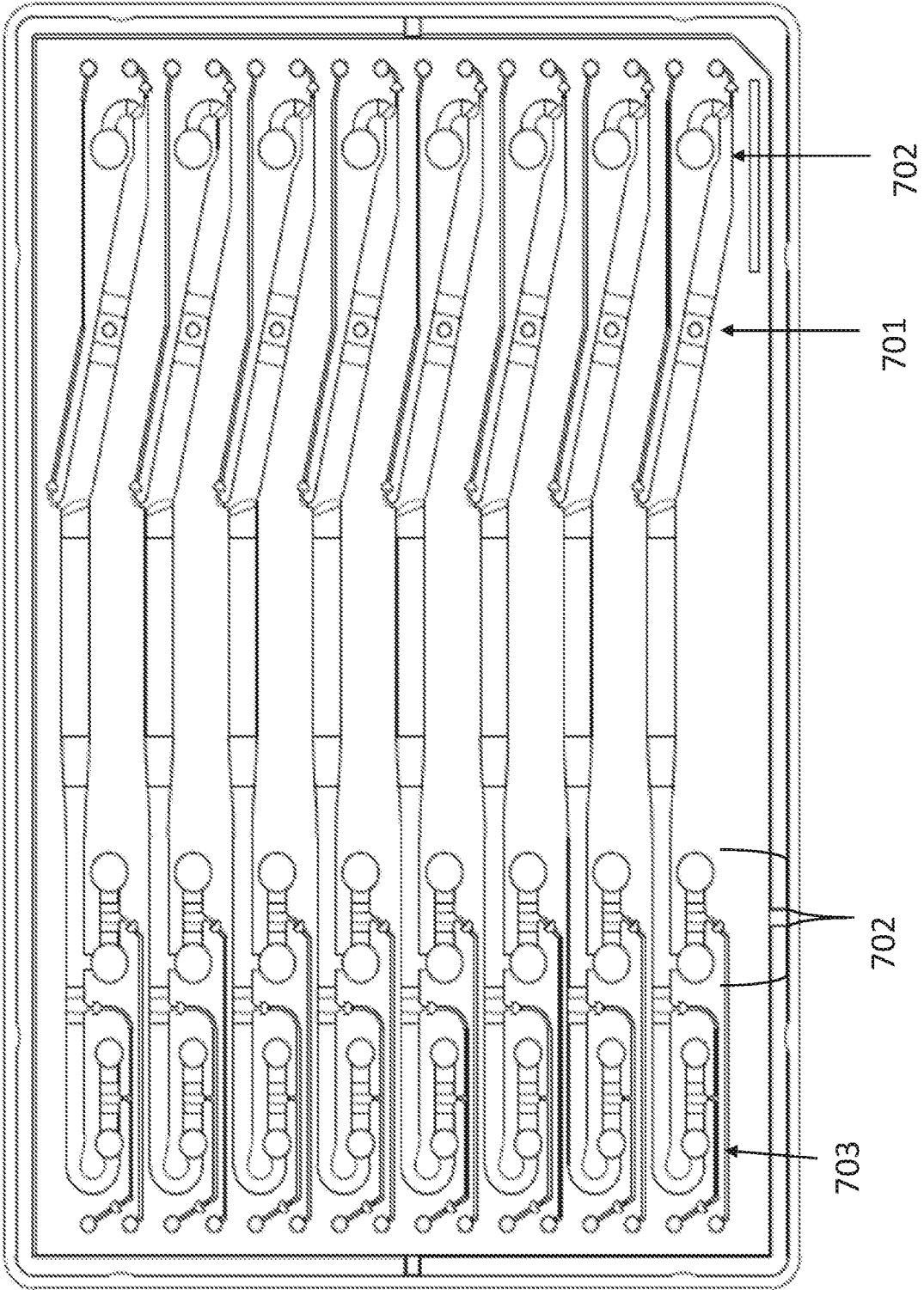


FIG. 7C

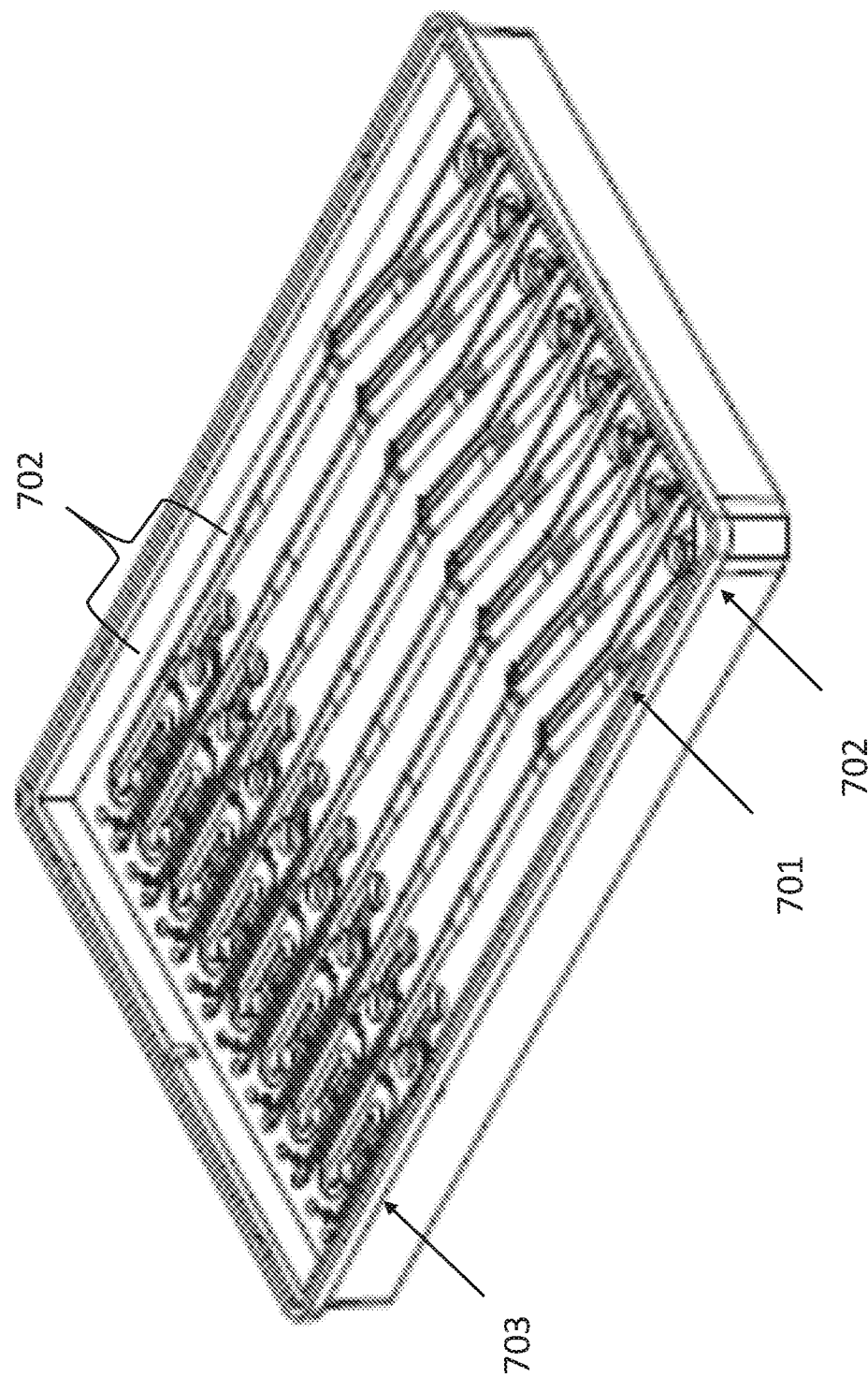


FIG. 7D

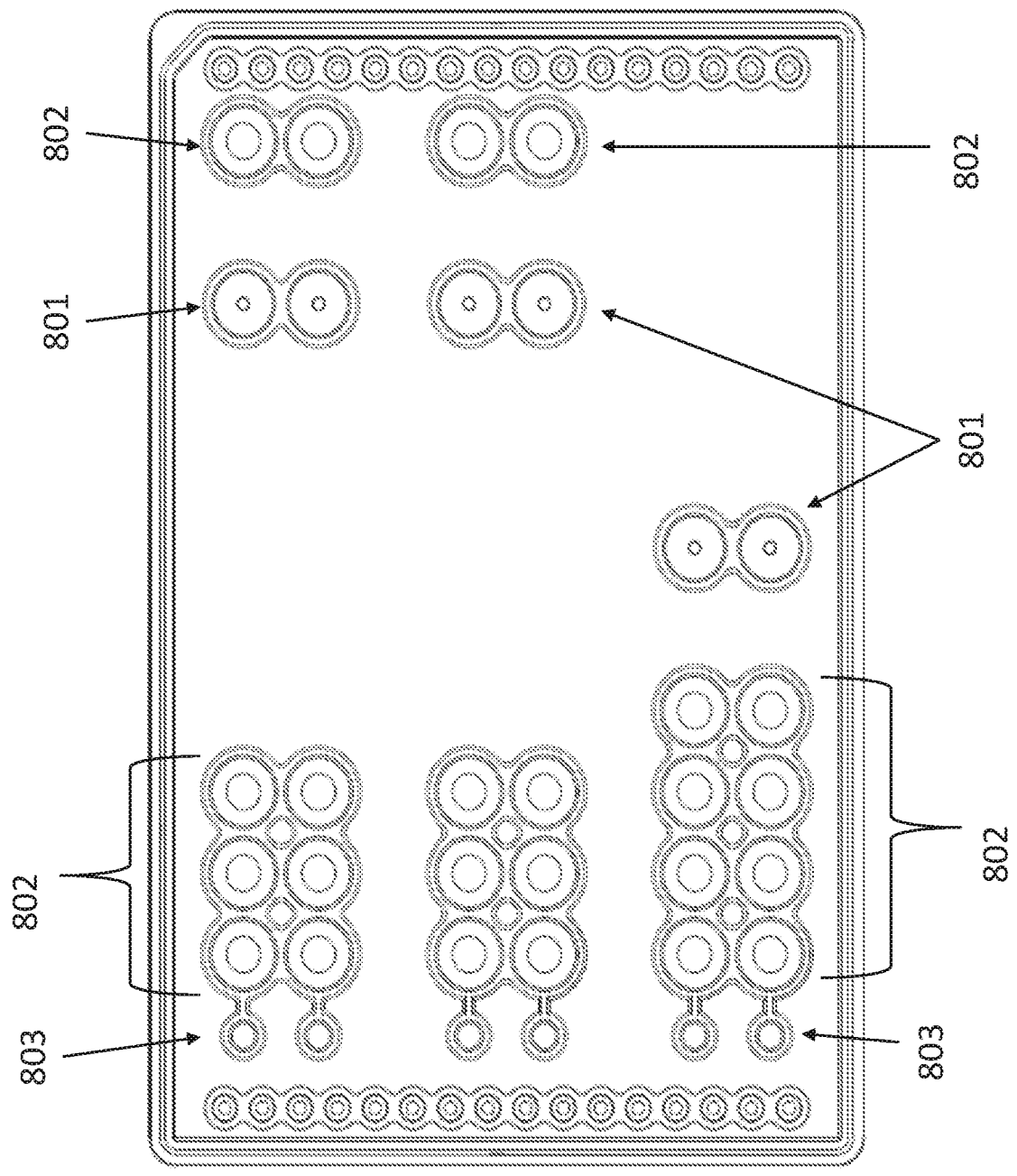


FIG. 8A



FIG. 8B

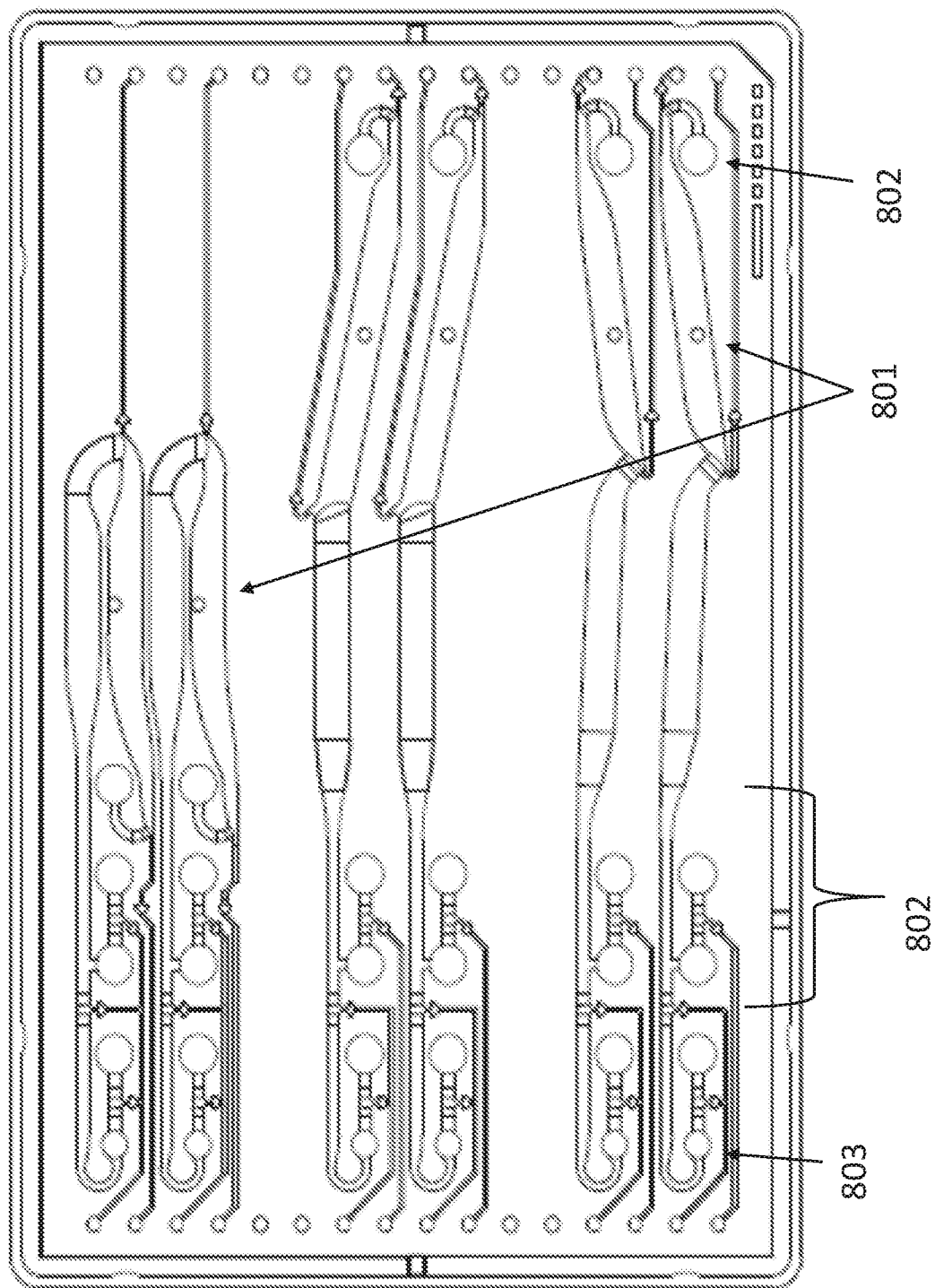


FIG. 8C

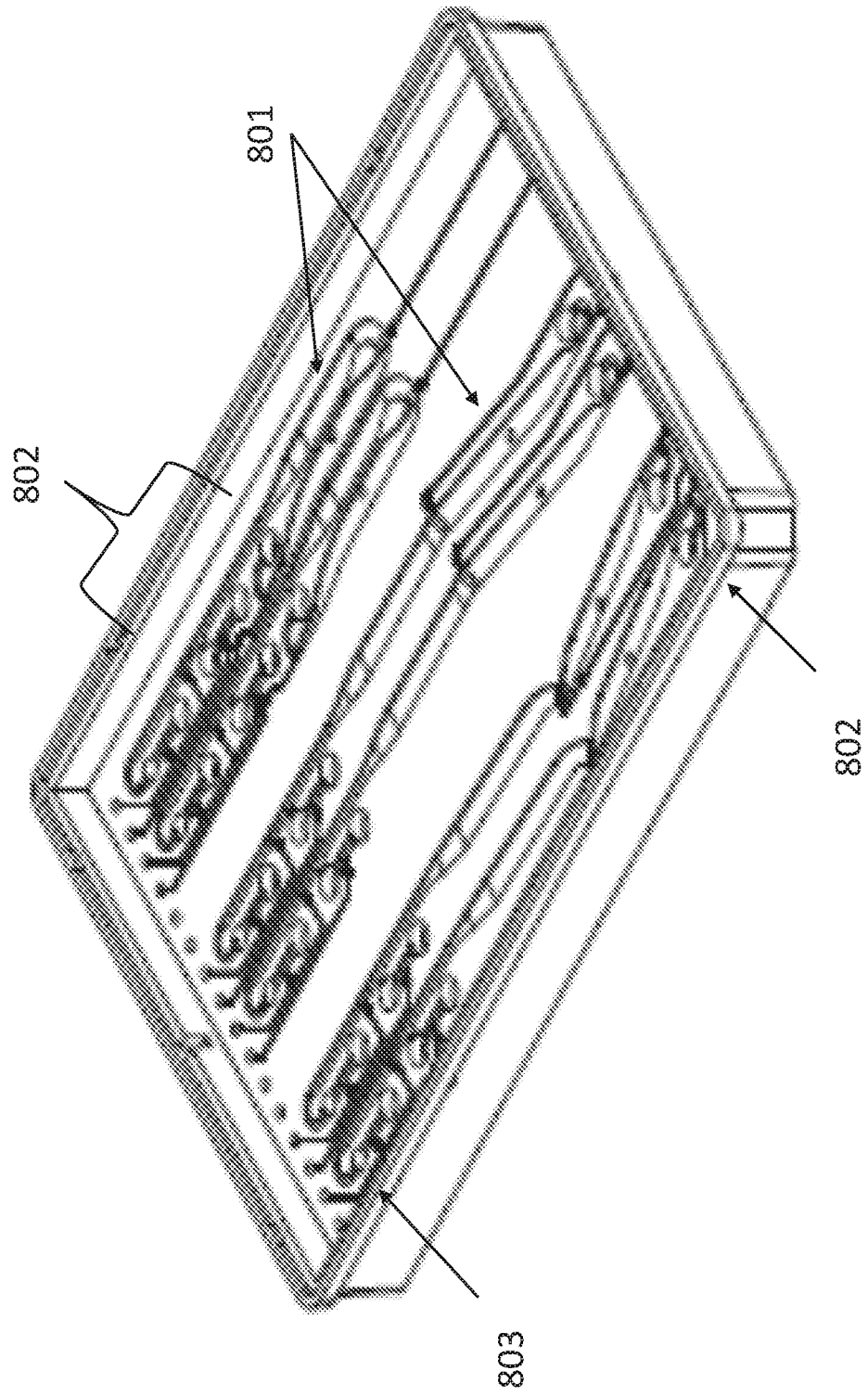


FIG. 8D

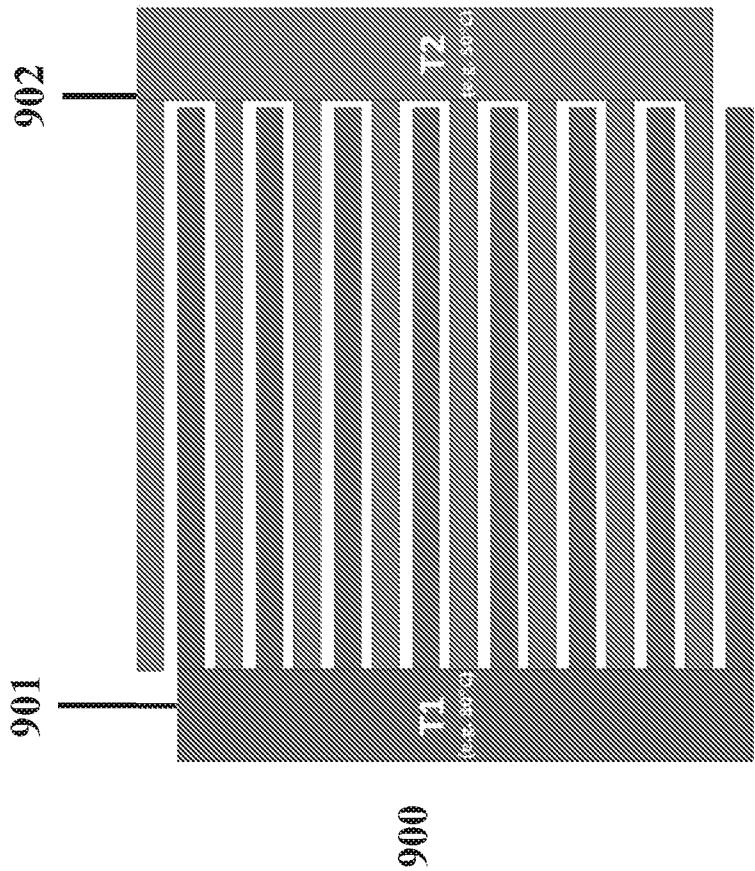


FIG. 9A

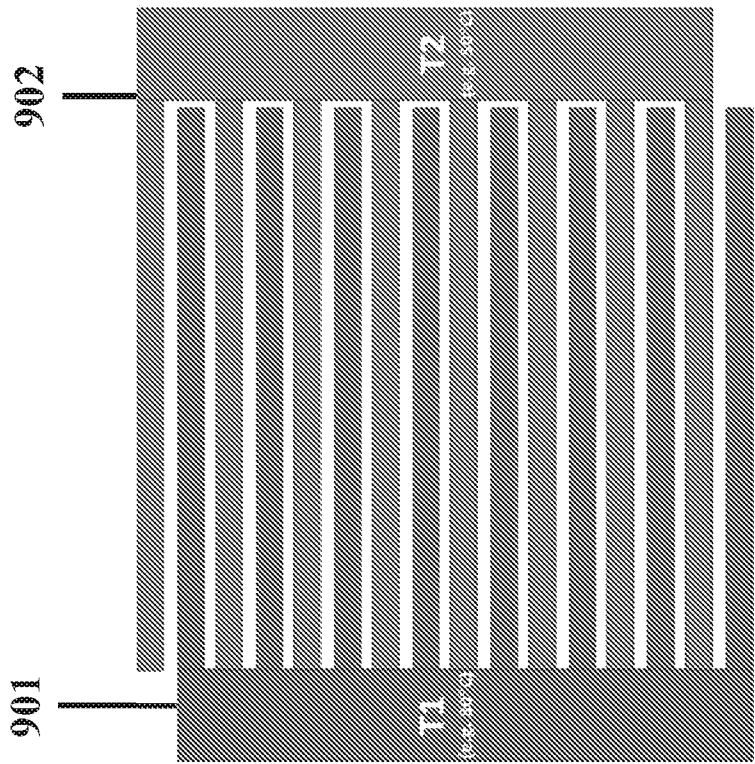


FIG. 9B

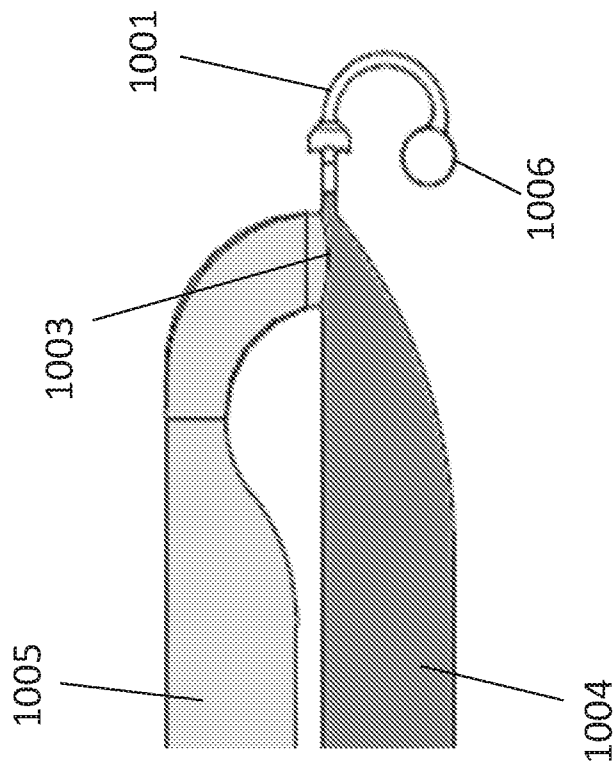


FIG. 10A

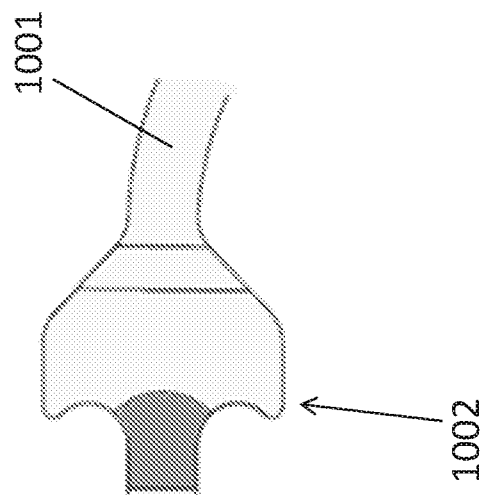


FIG. 10B

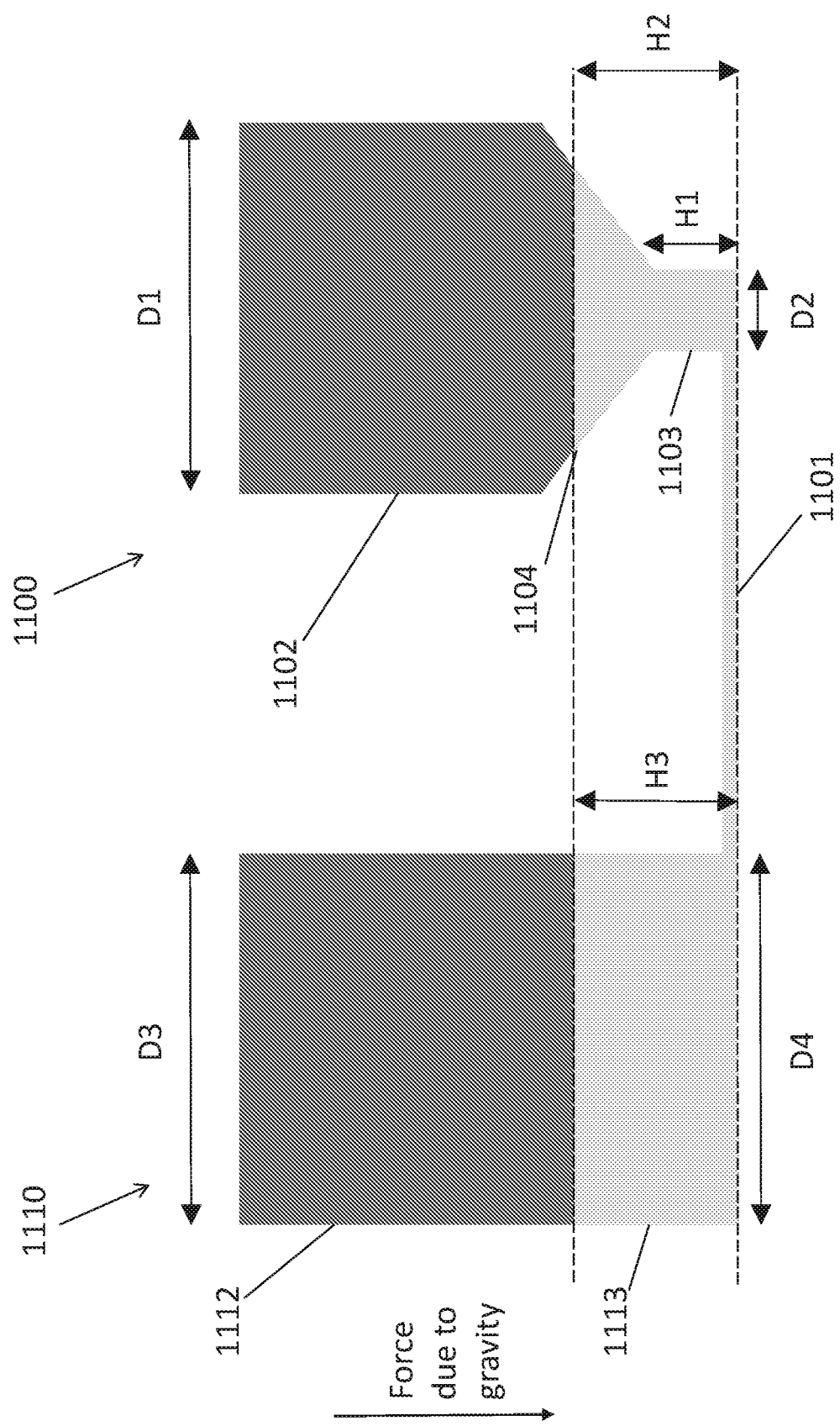


FIG. 11

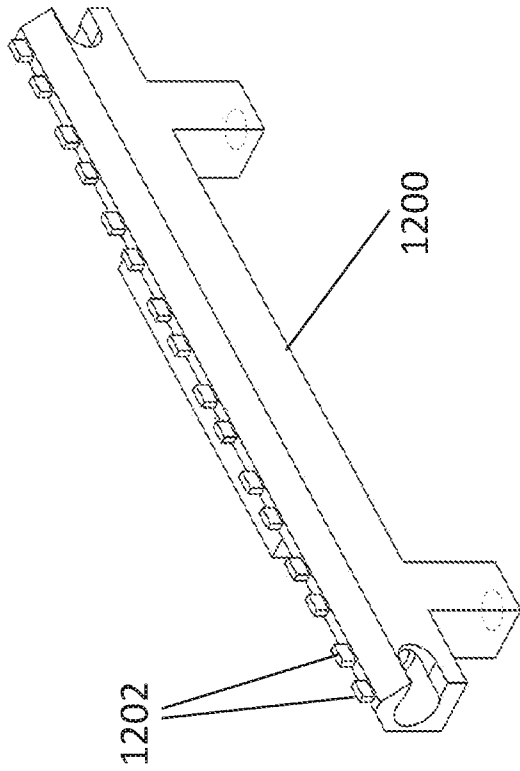


FIG. 12A

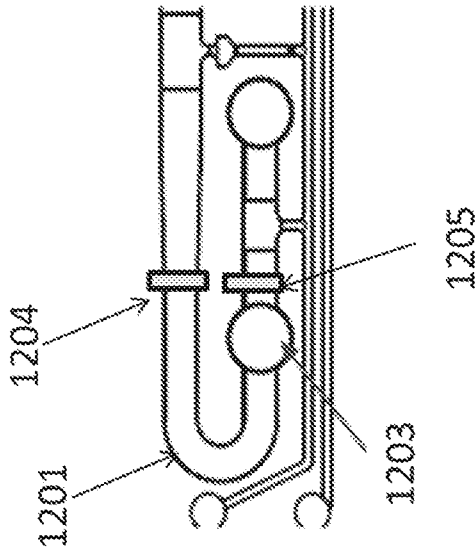


FIG. 12B

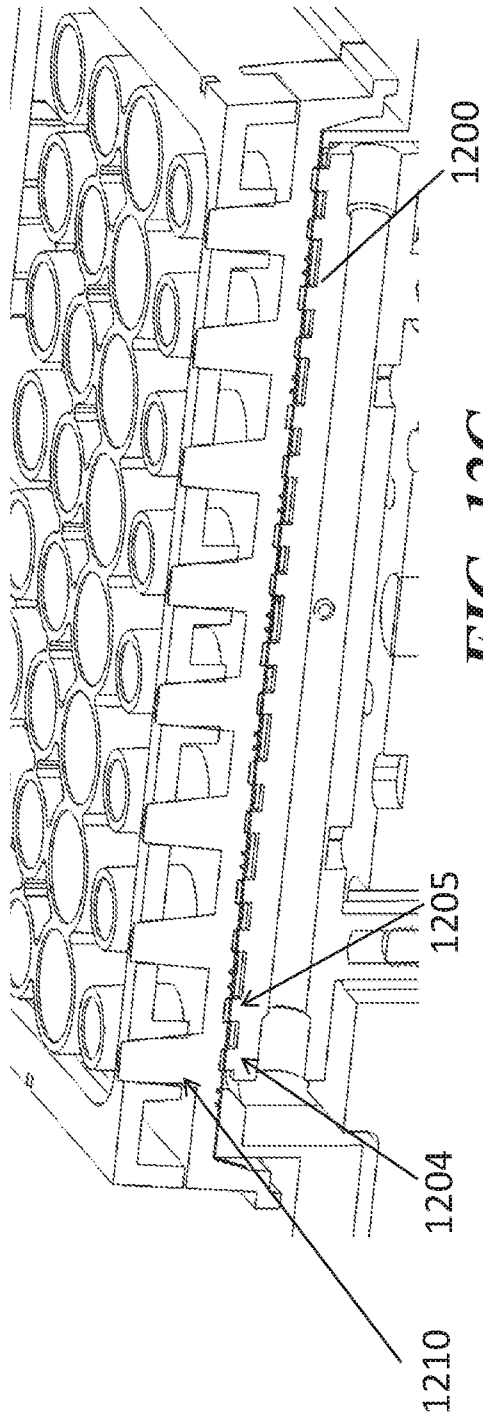


FIG. 12C

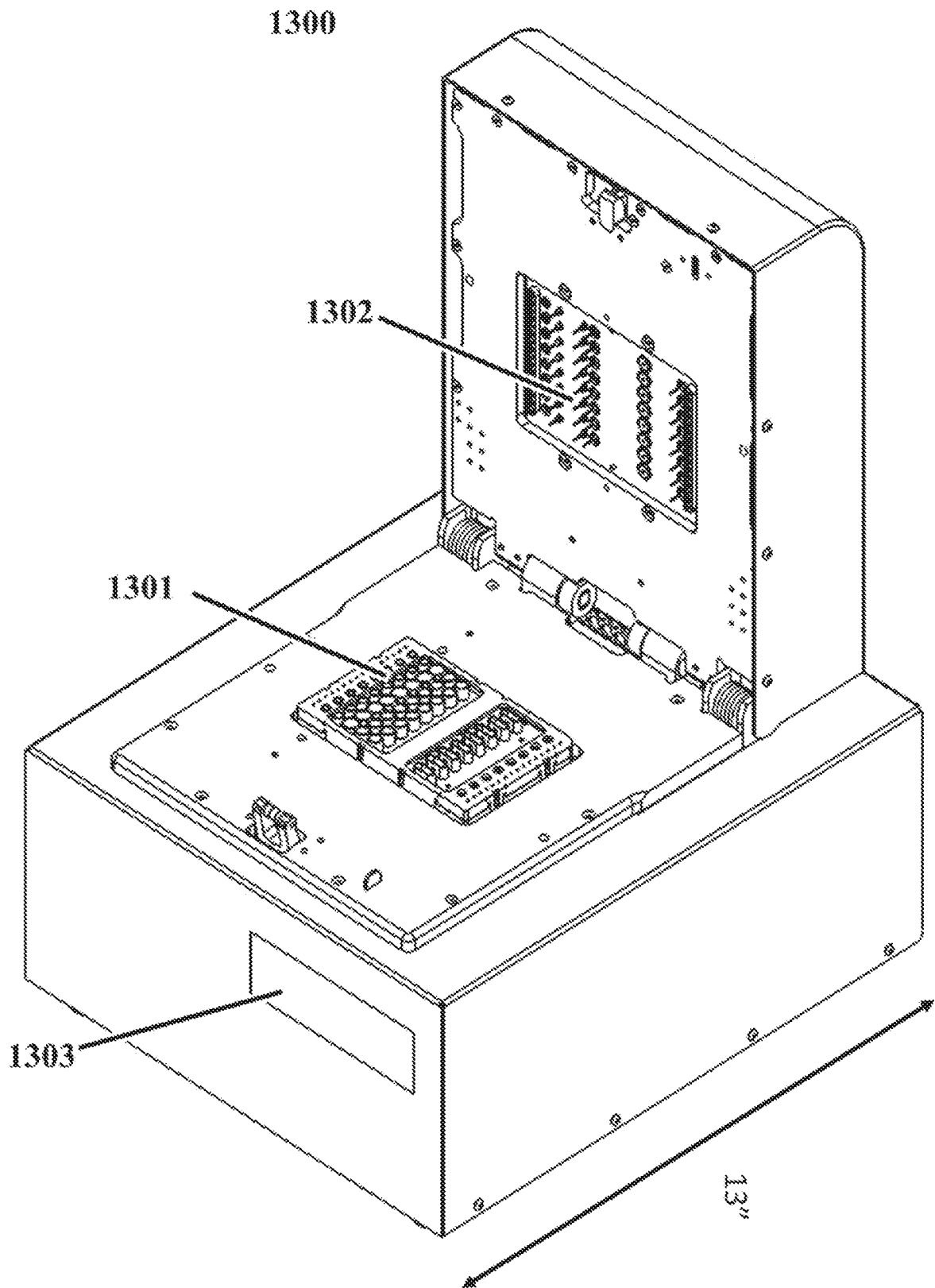


FIG. 13A

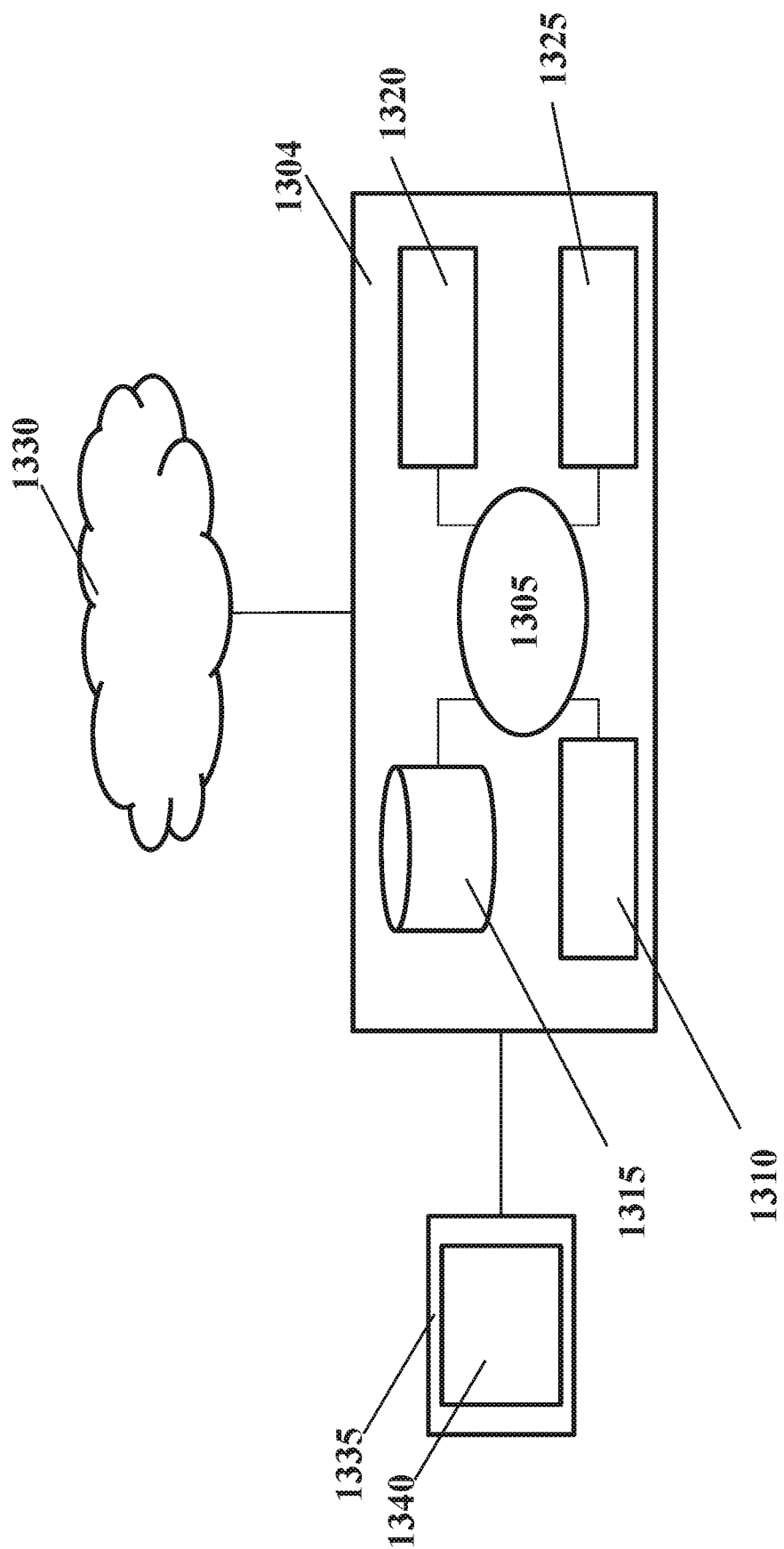


FIG. 13B

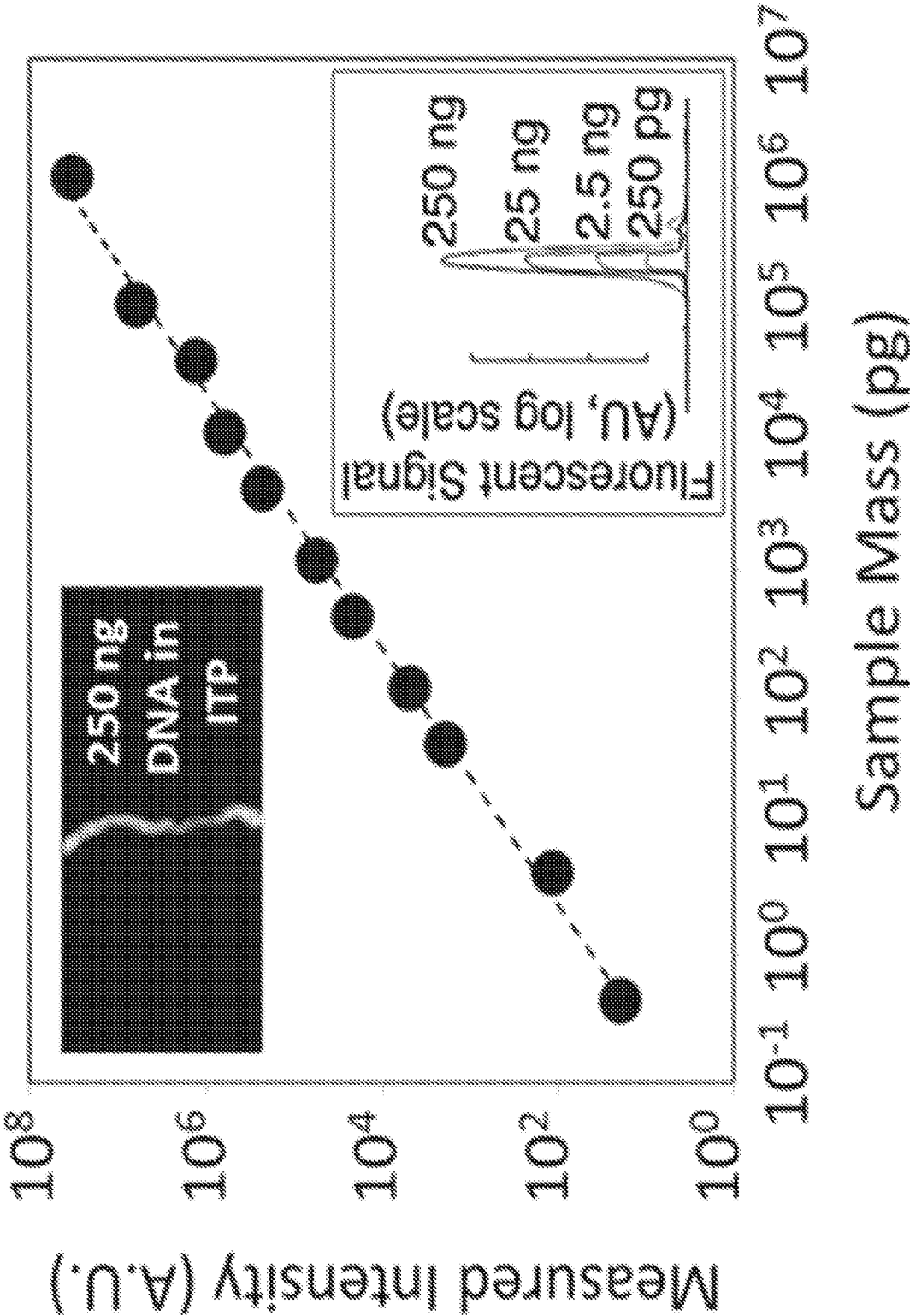


FIG. 14

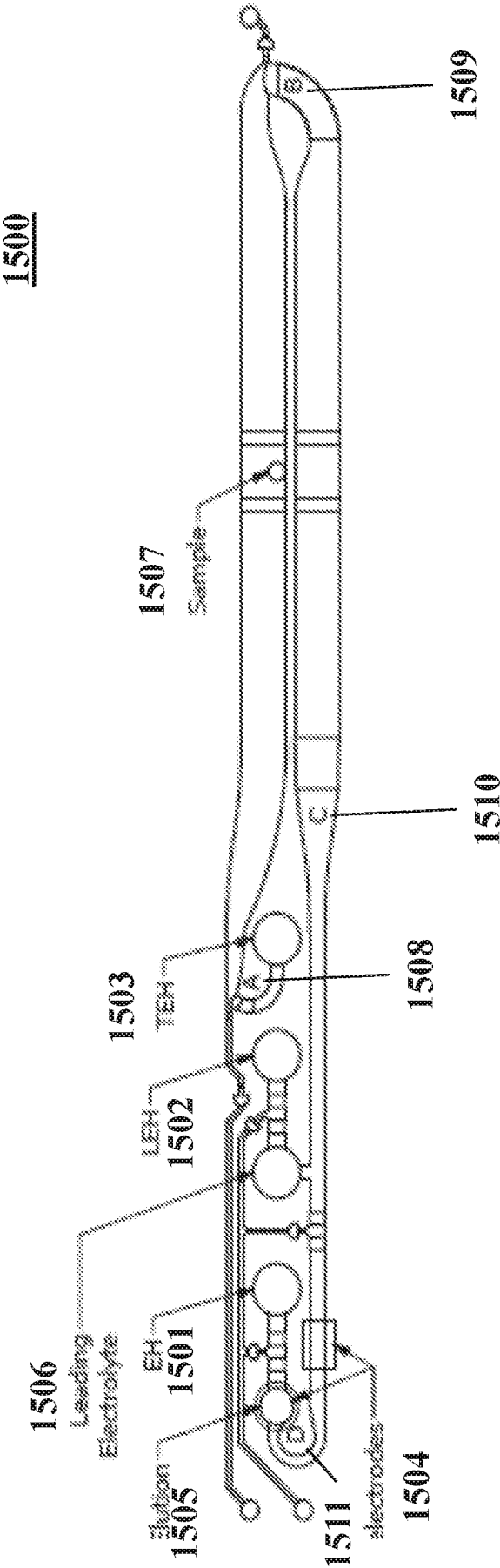


FIG. 15

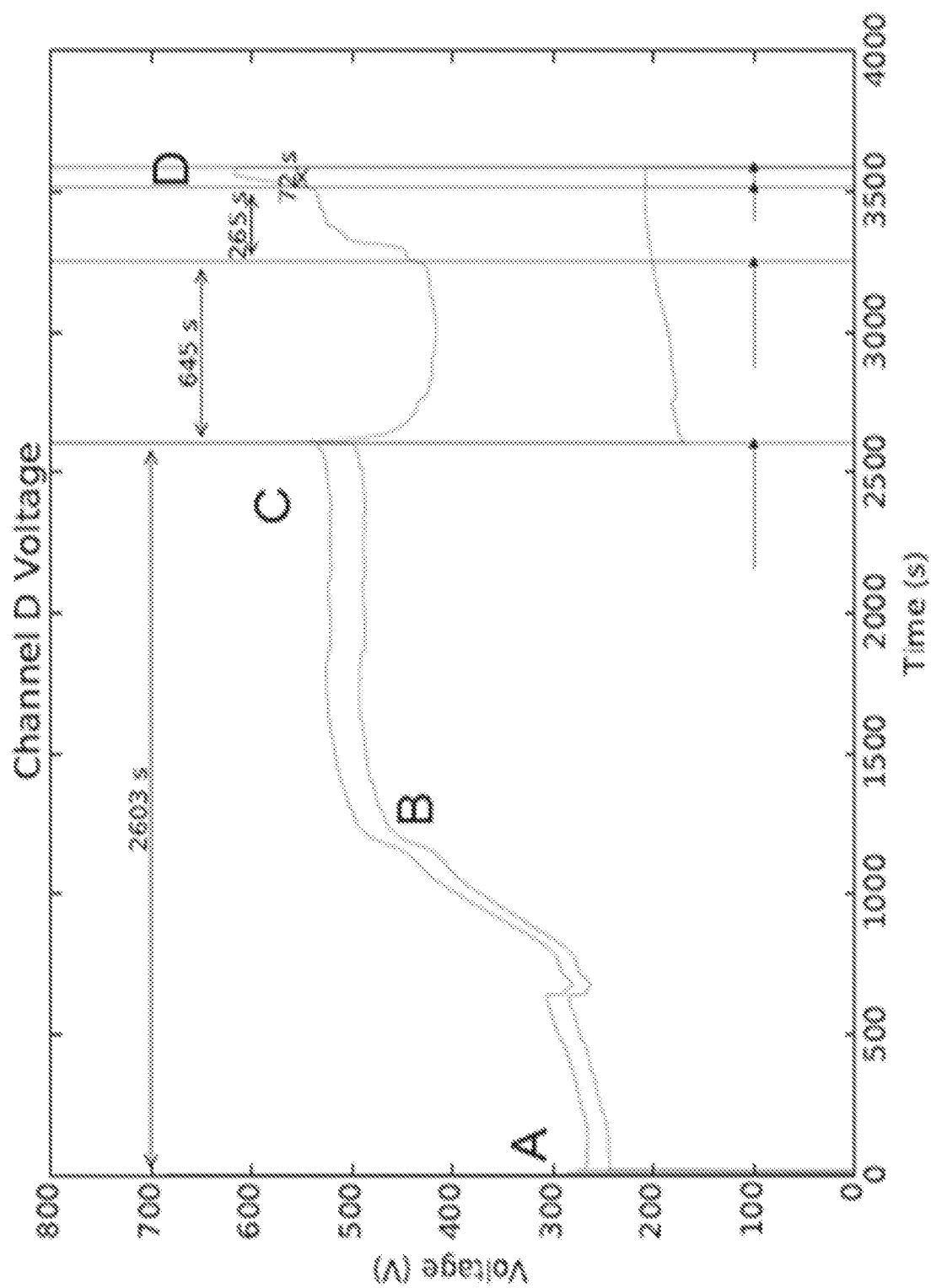


FIG. 16

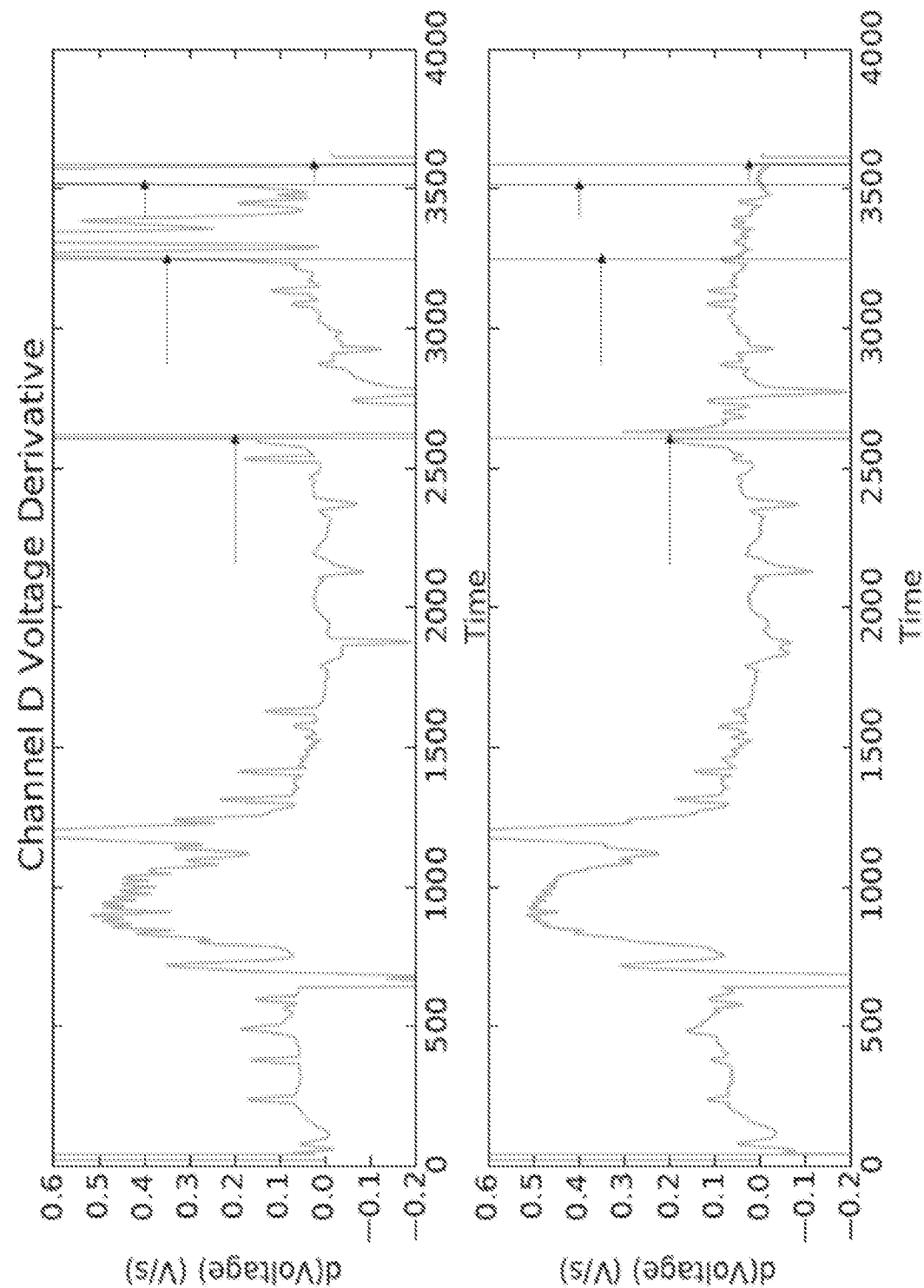


FIG. 17

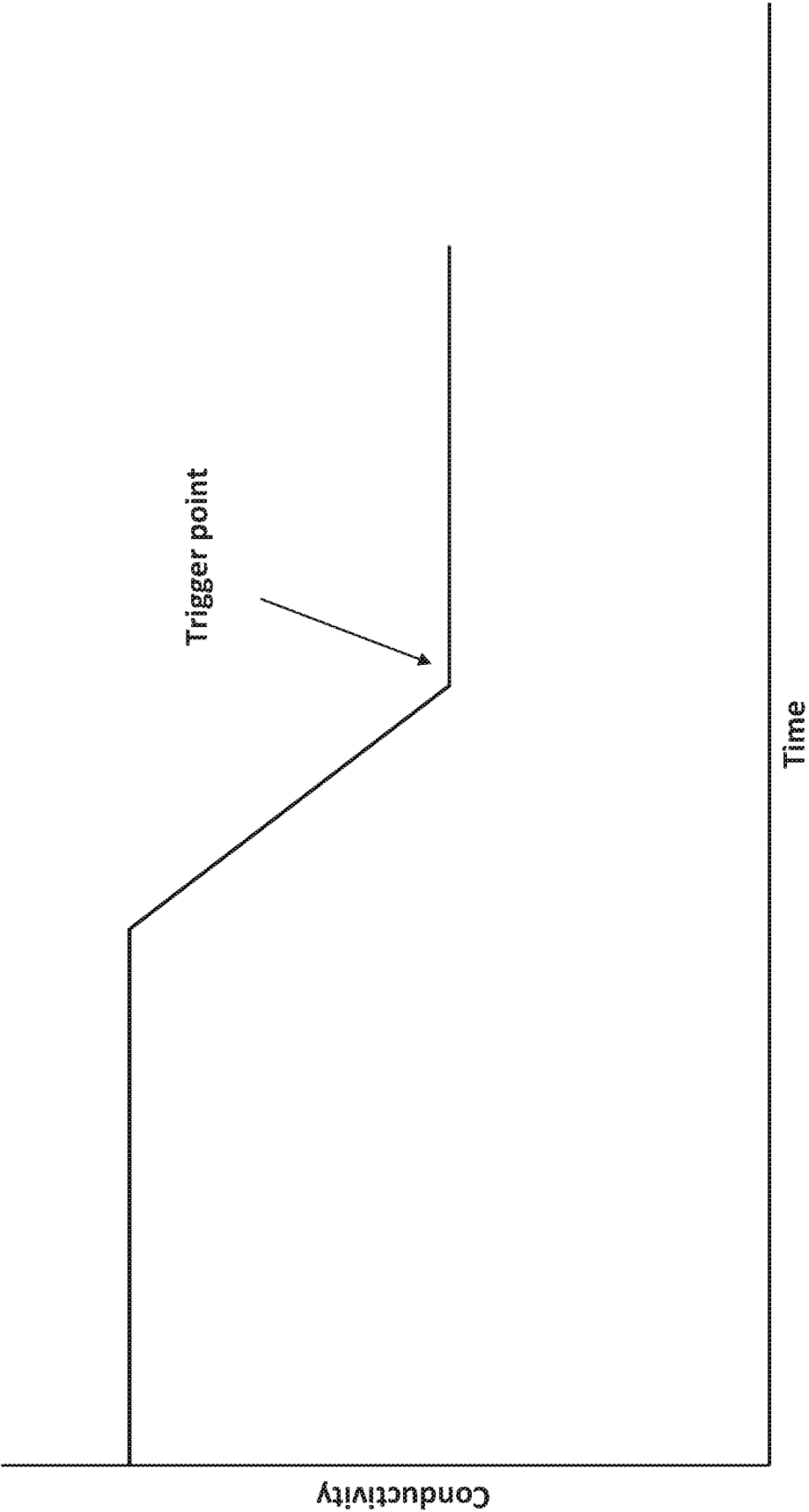


FIG. 18

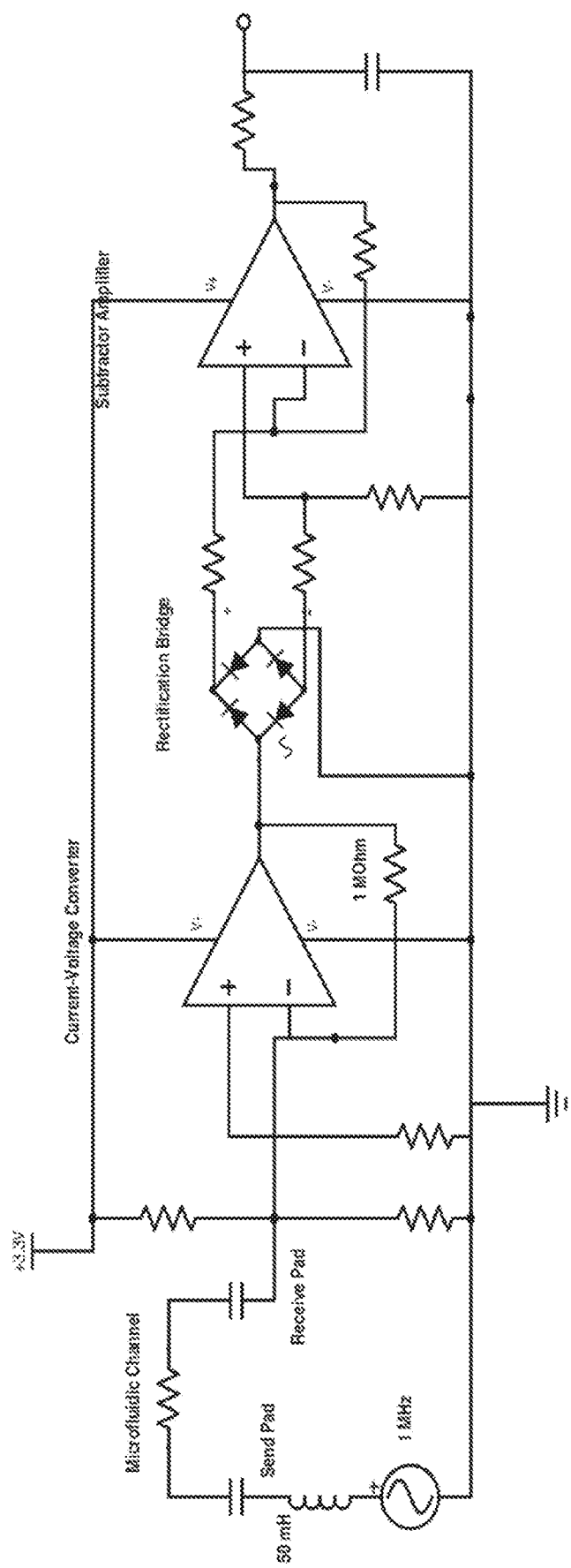


FIG. 19

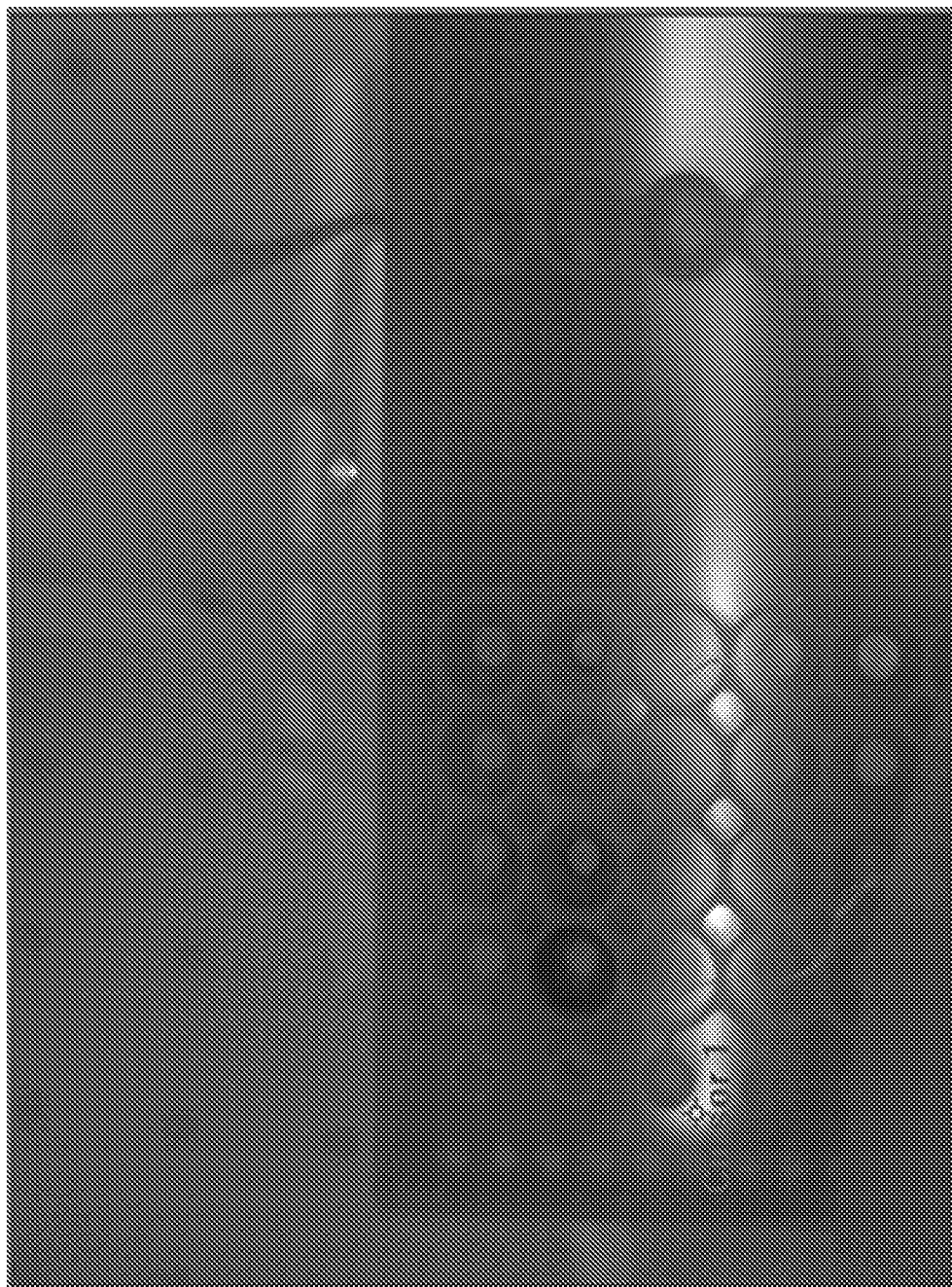


FIG. 20A

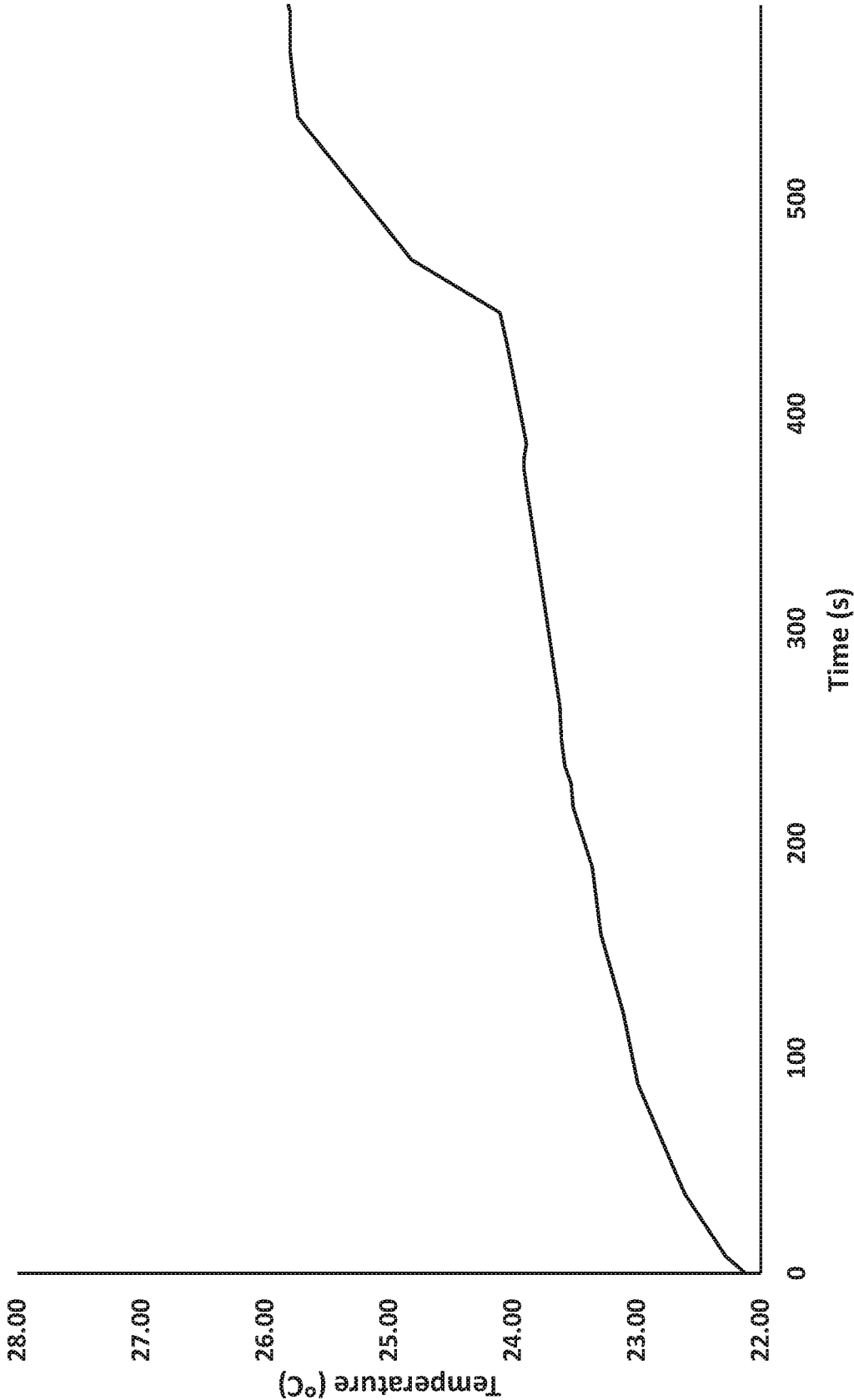


FIG. 20B

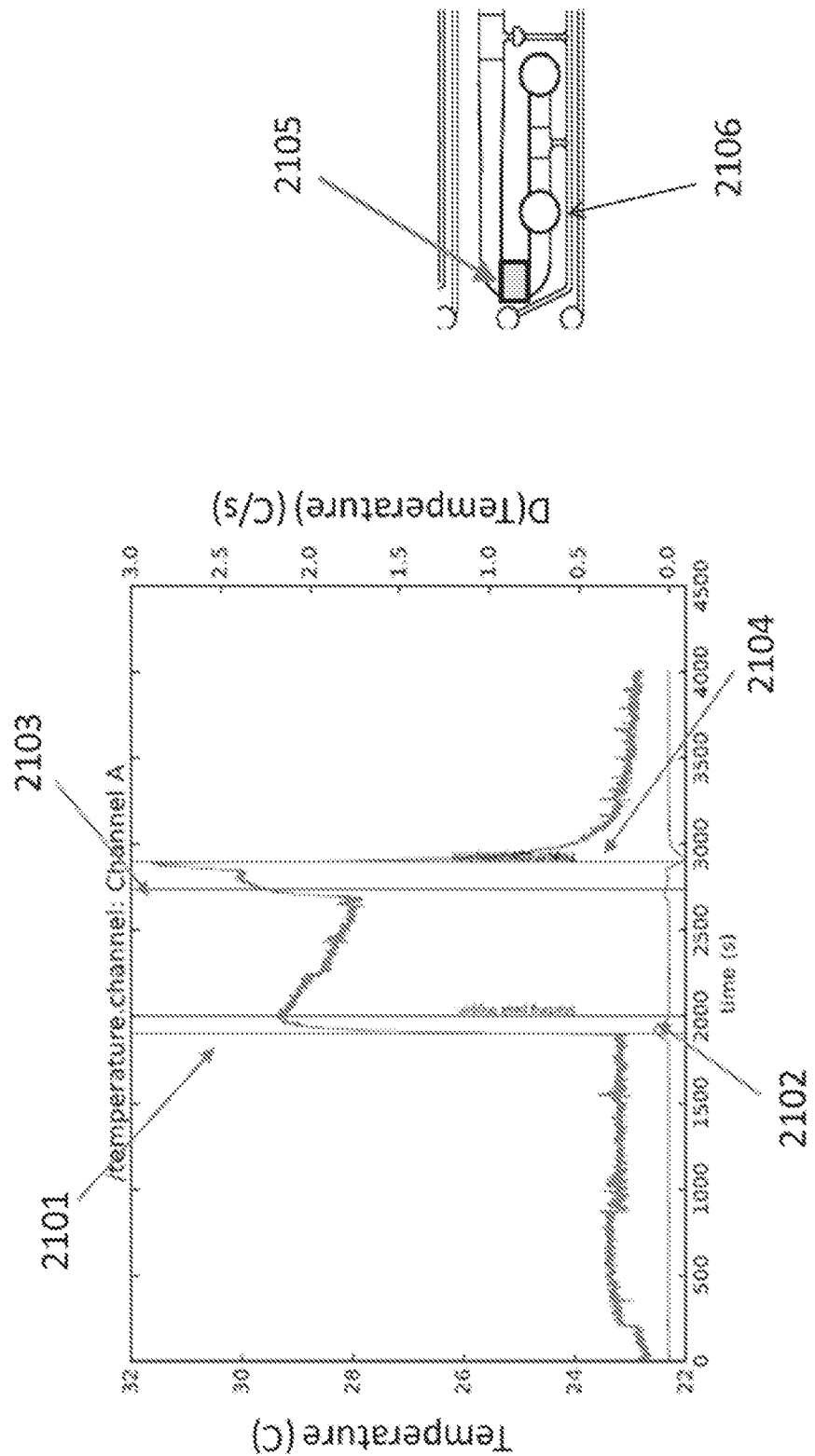


FIG. 21

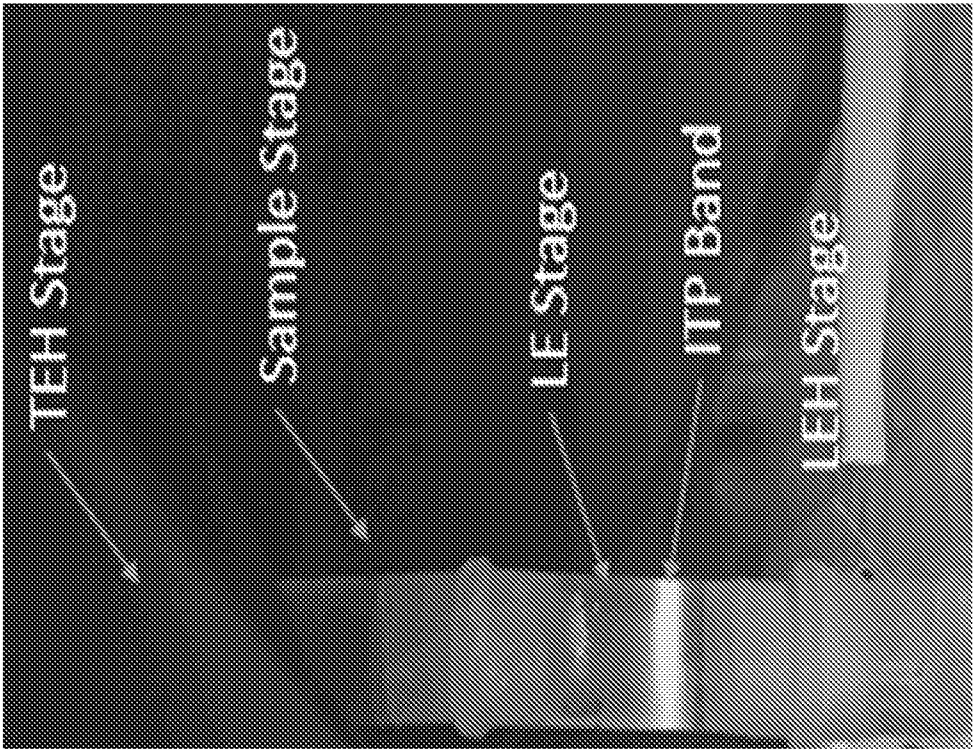


FIG. 22B

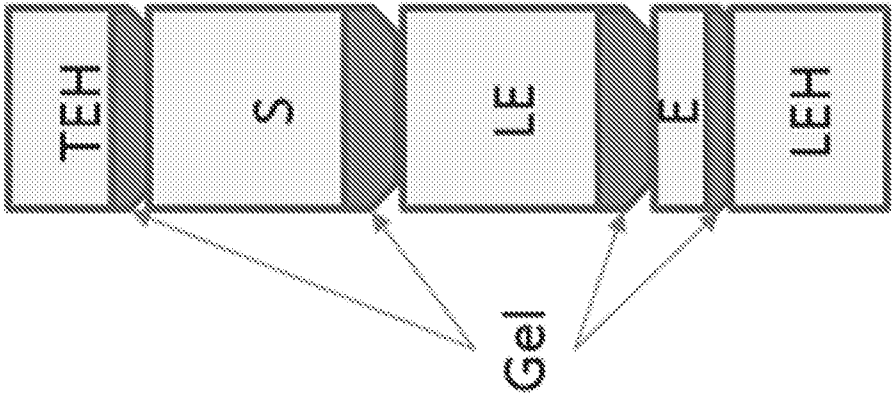


FIG. 22A

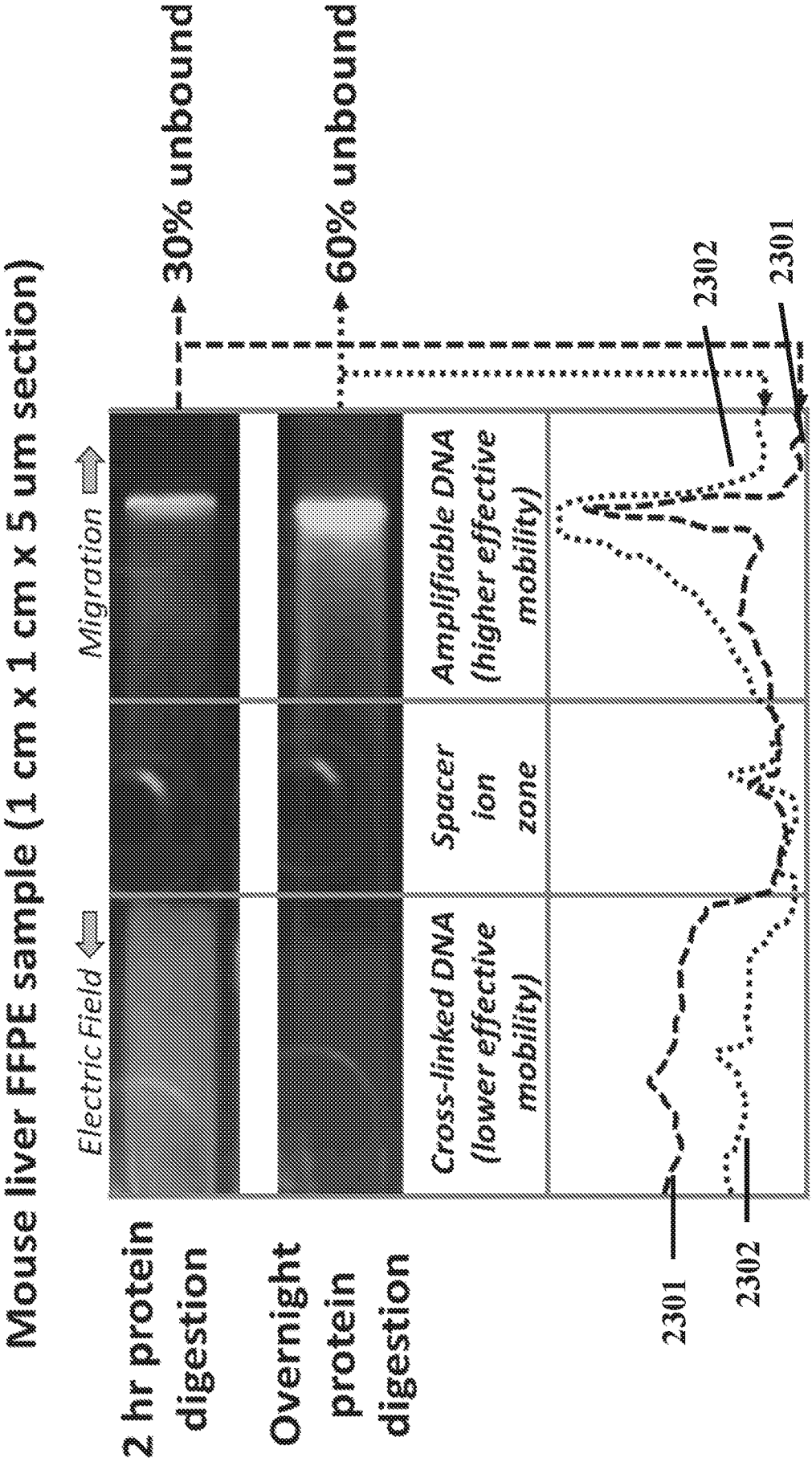


FIG. 23

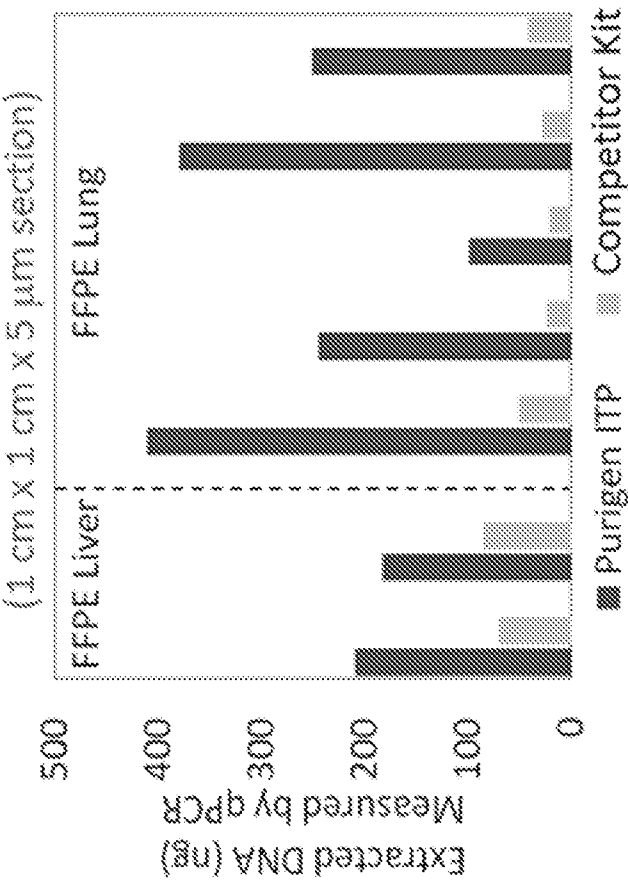


FIG. 24B



8 mm

FIG. 24A

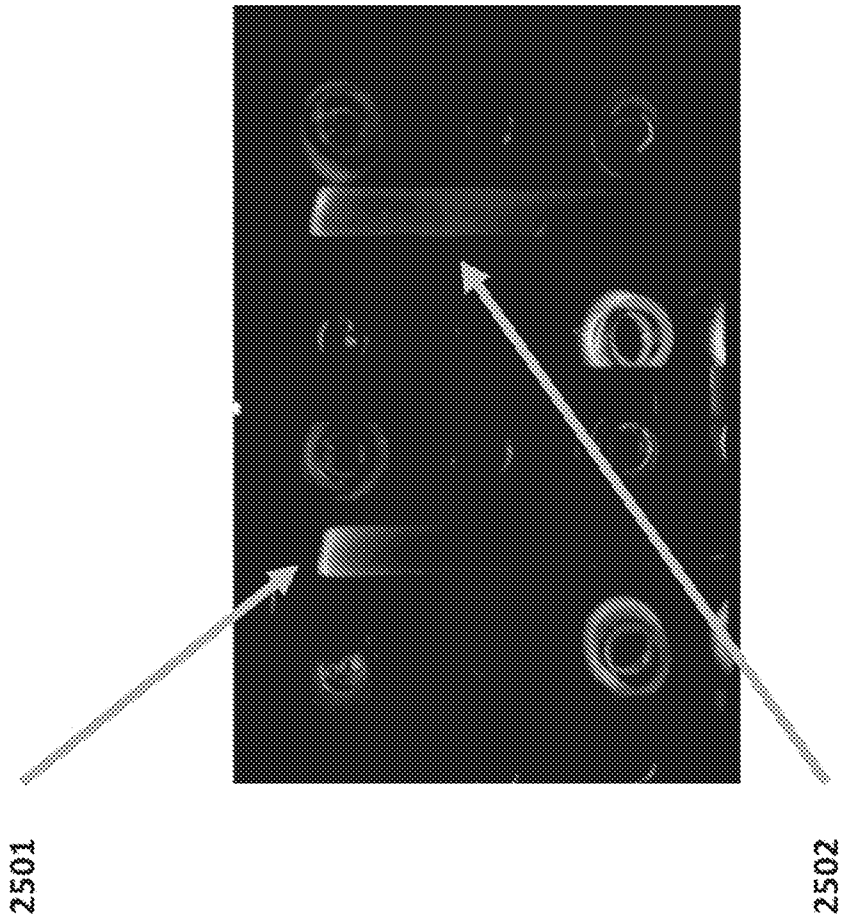


FIG. 25B

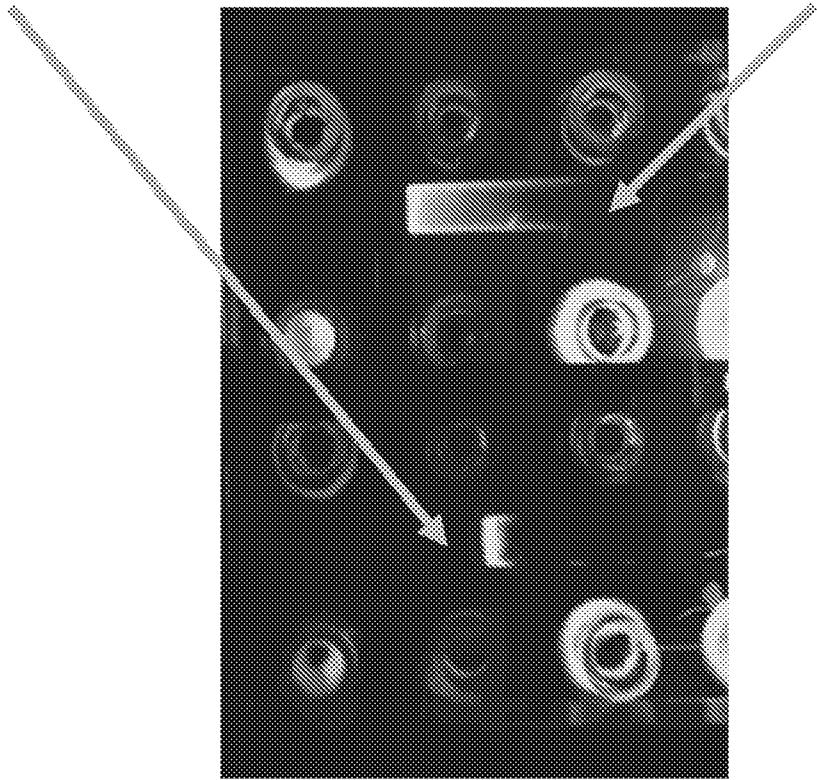


FIG. 25A

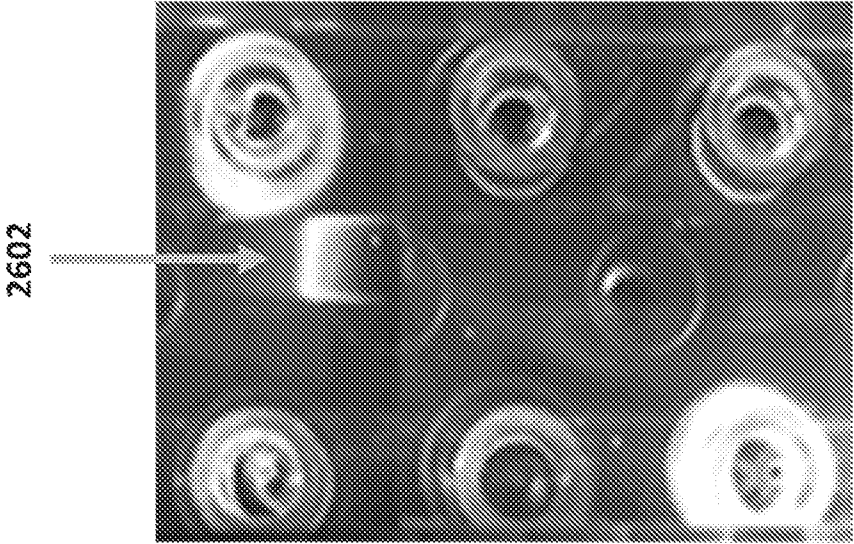


FIG. 26B

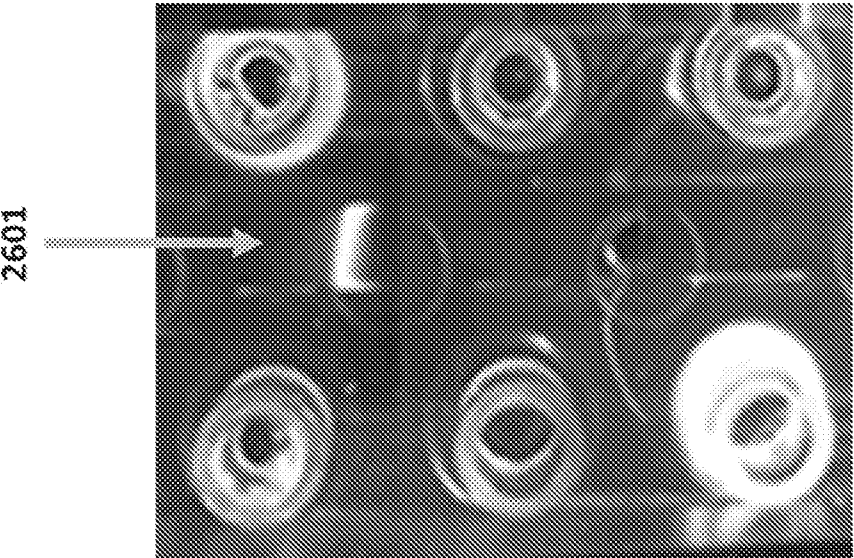


FIG. 26A

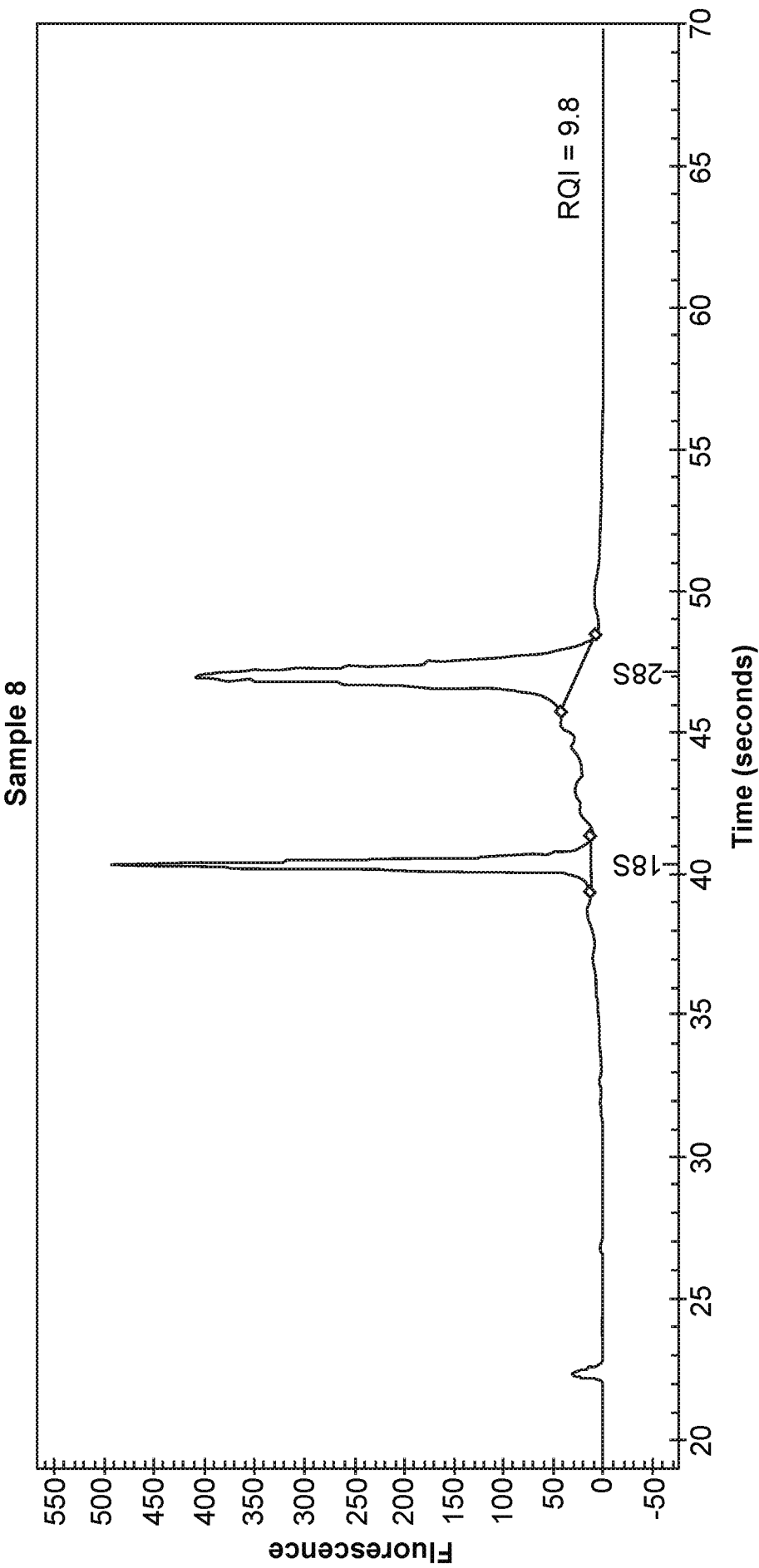


FIG. 26C

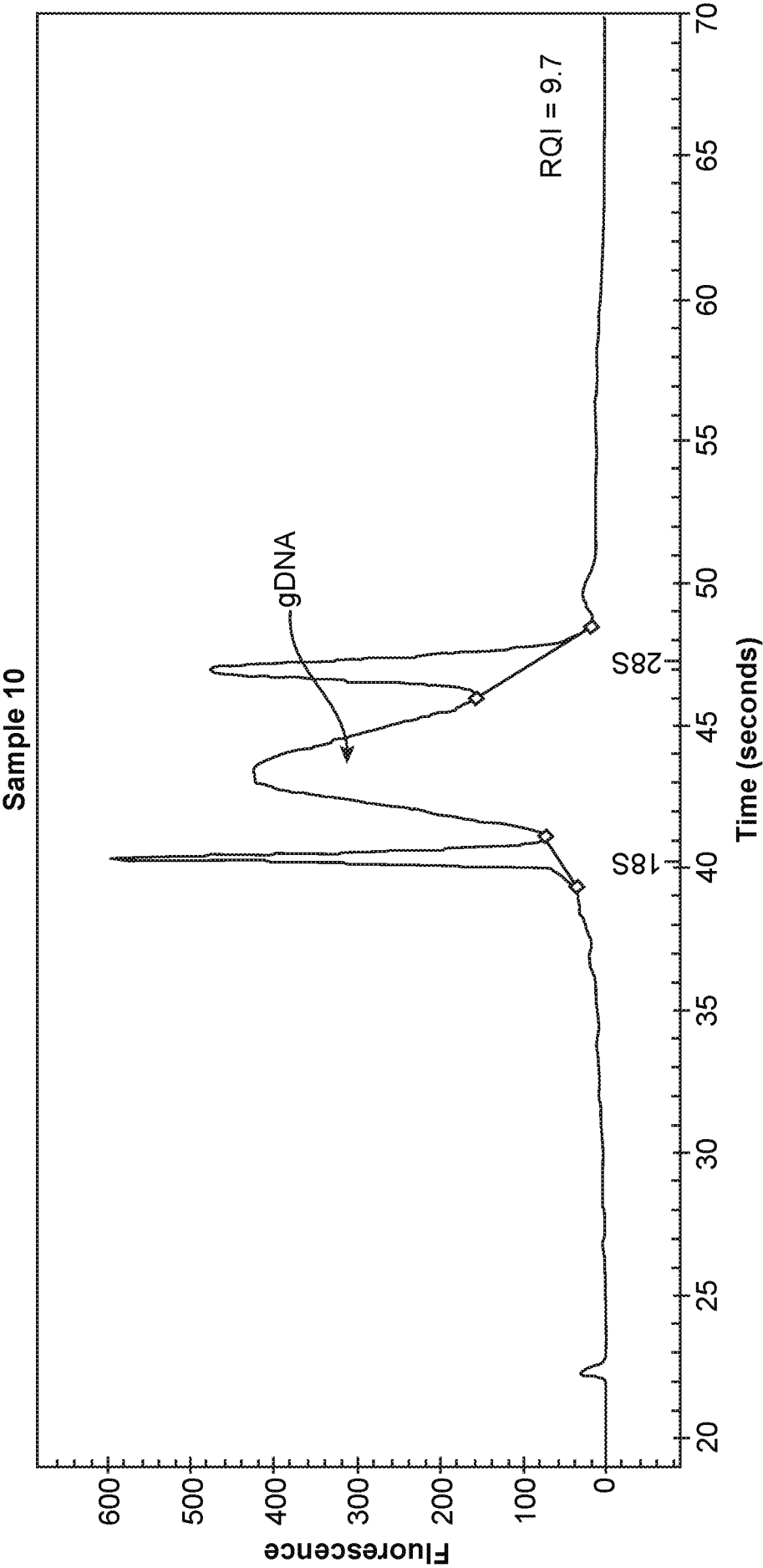


FIG. 26D

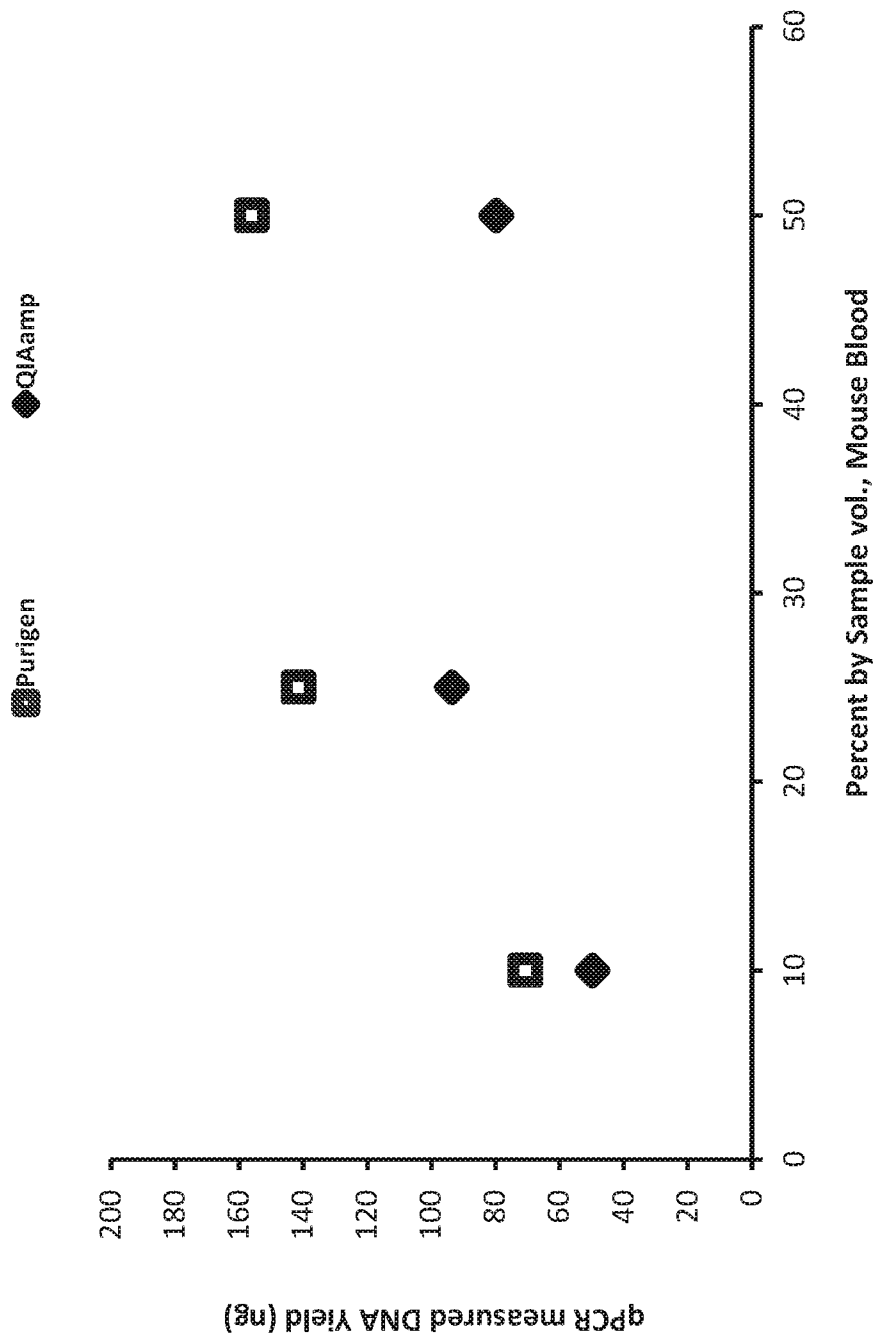


FIG. 27A

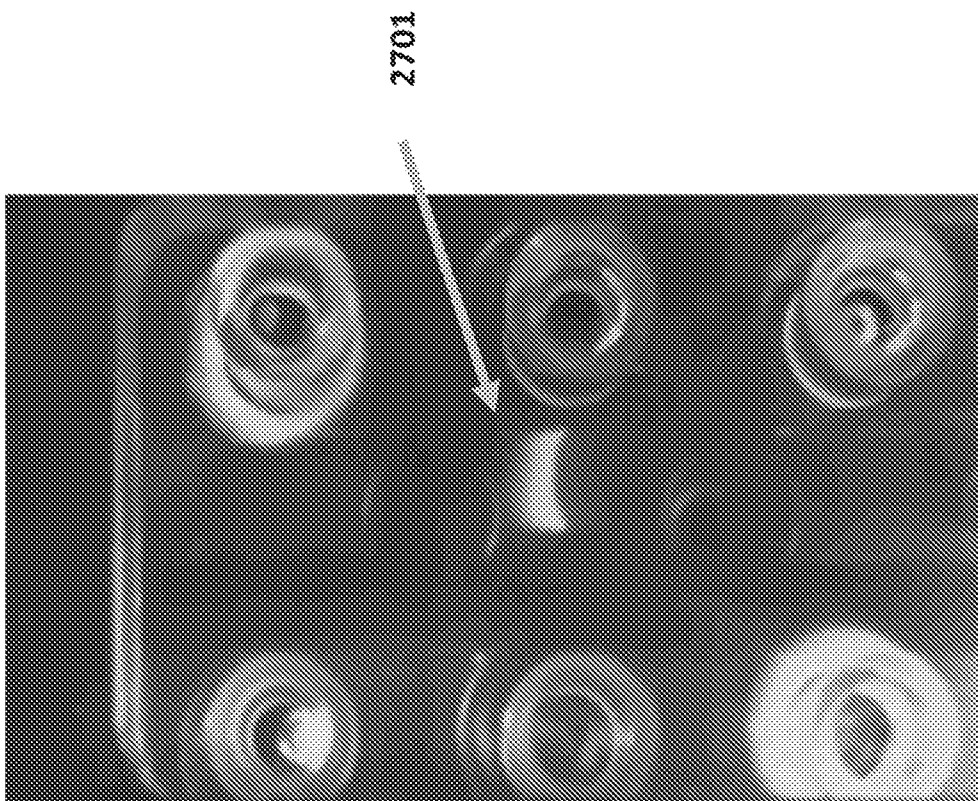


FIG. 27B

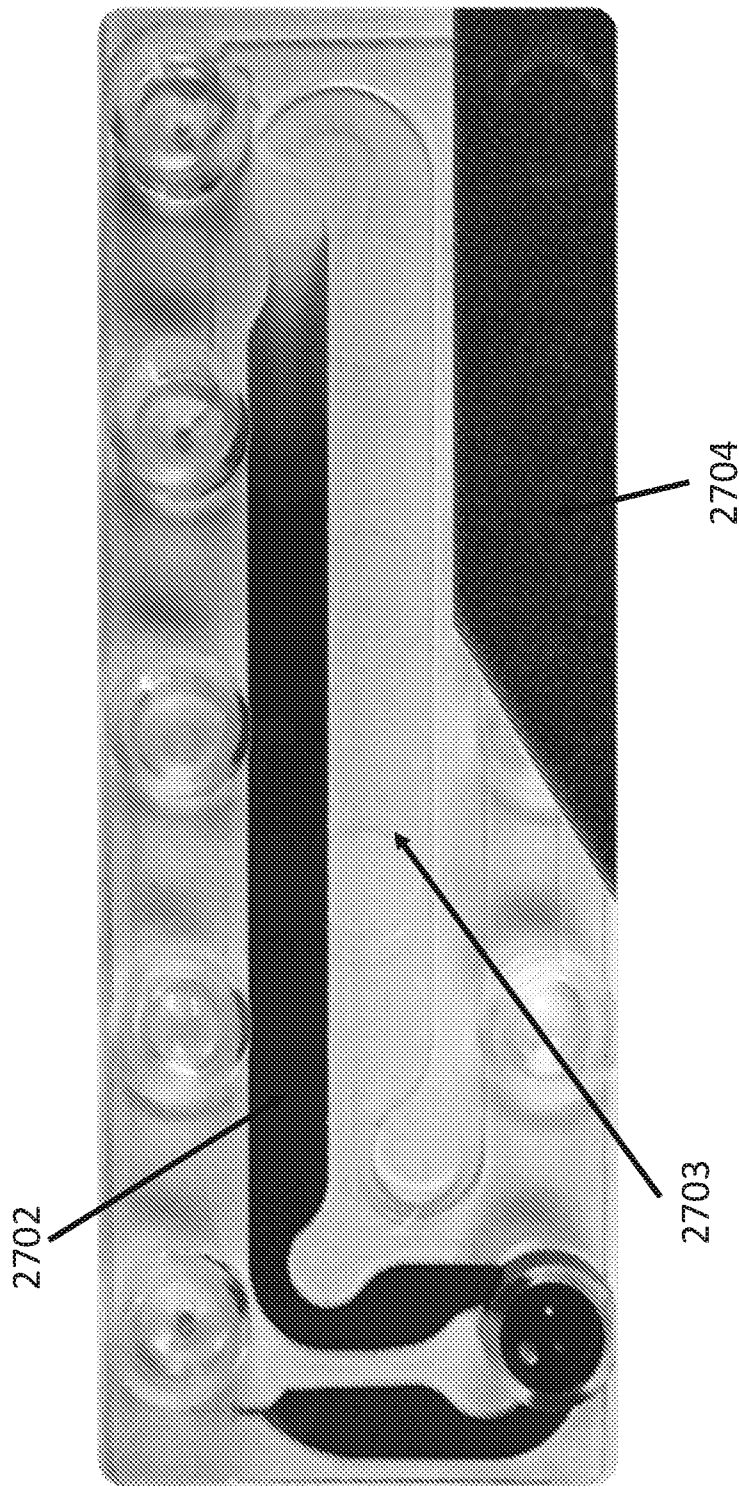


FIG. 27C

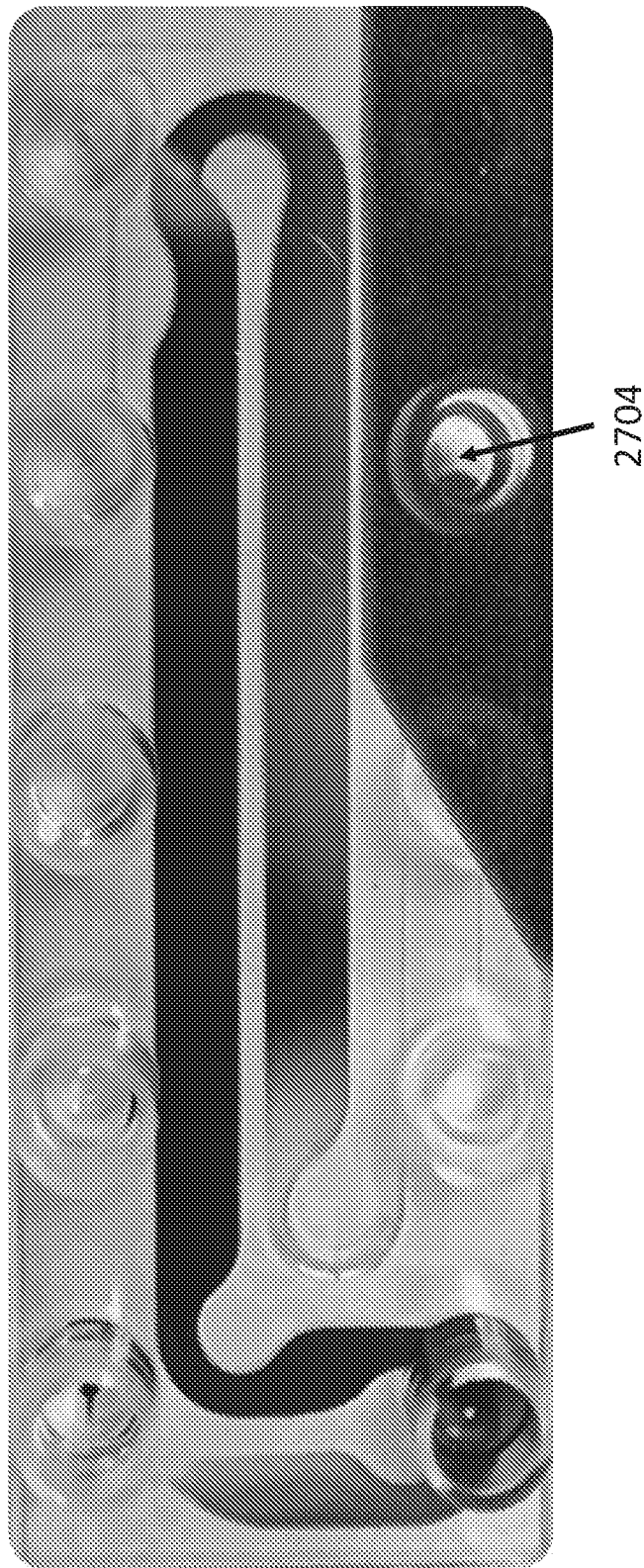


FIG. 27D

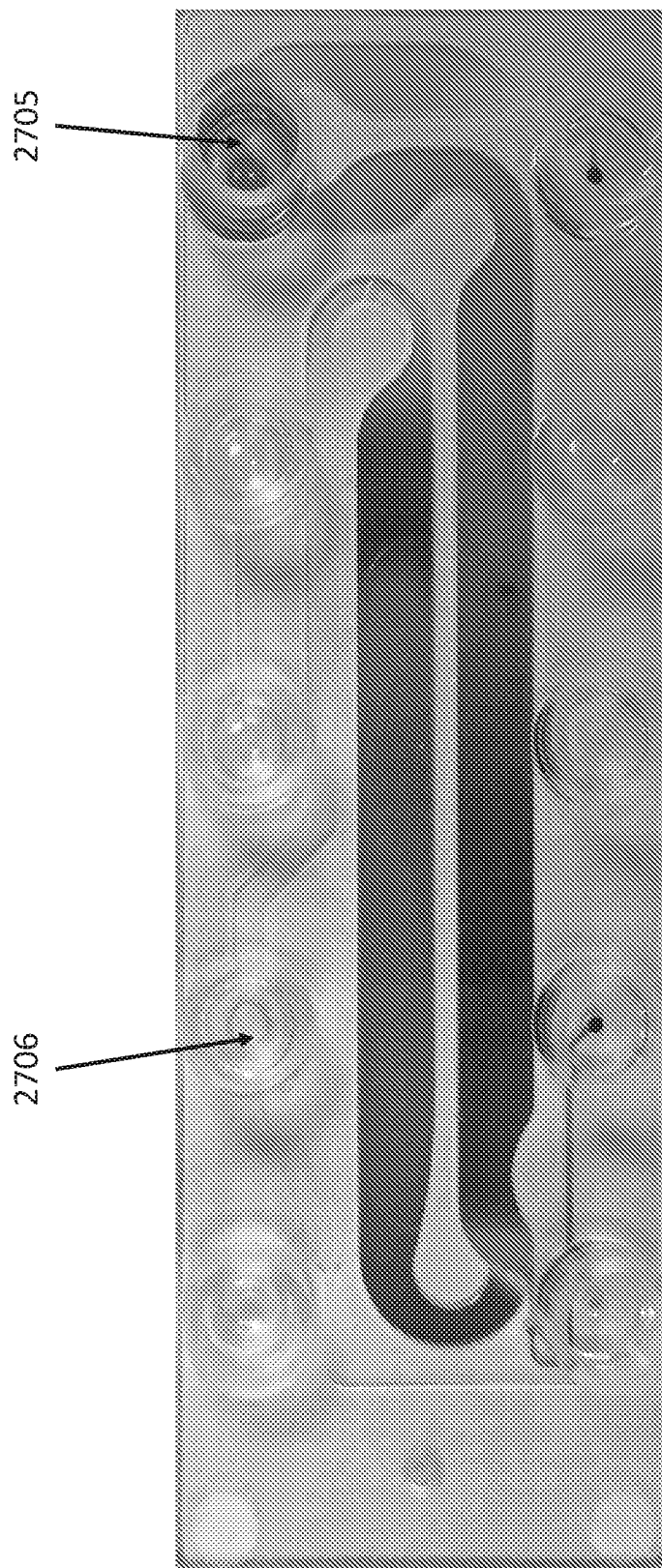


FIG. 27E

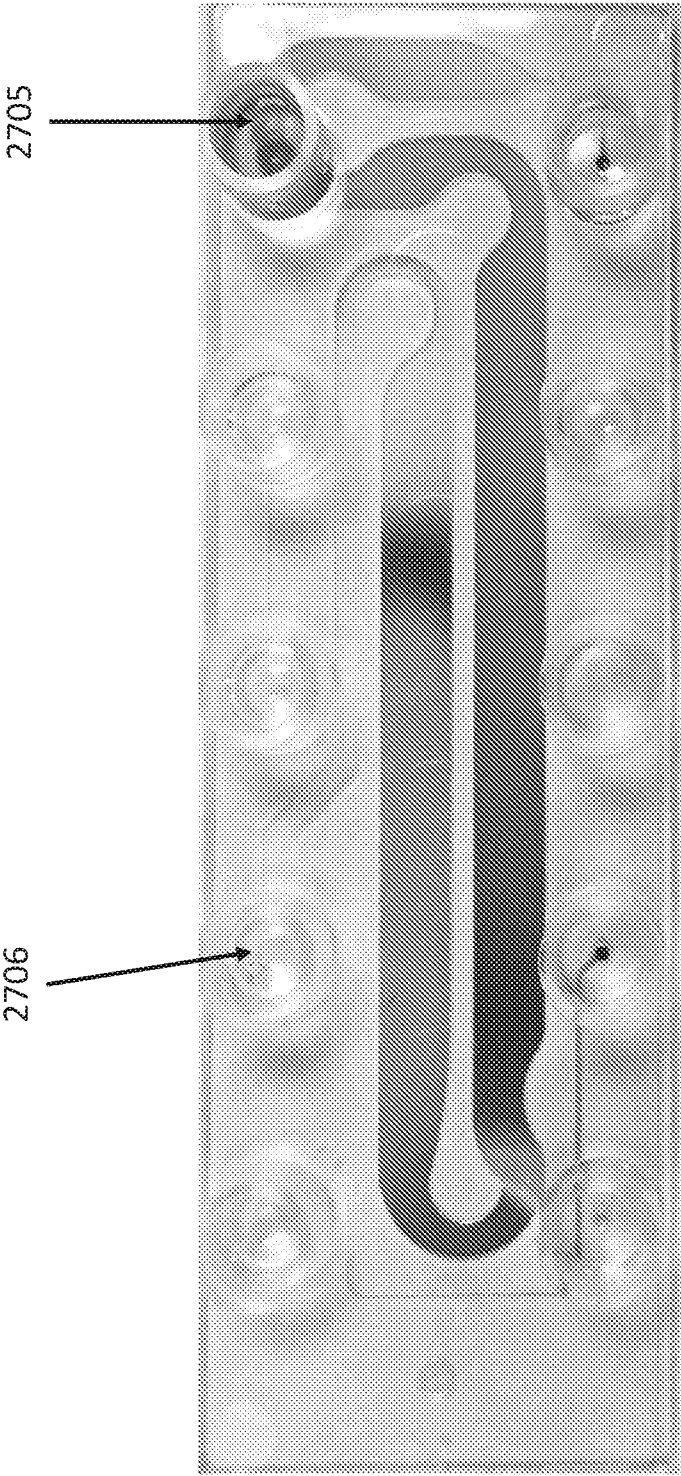


FIG. 27F

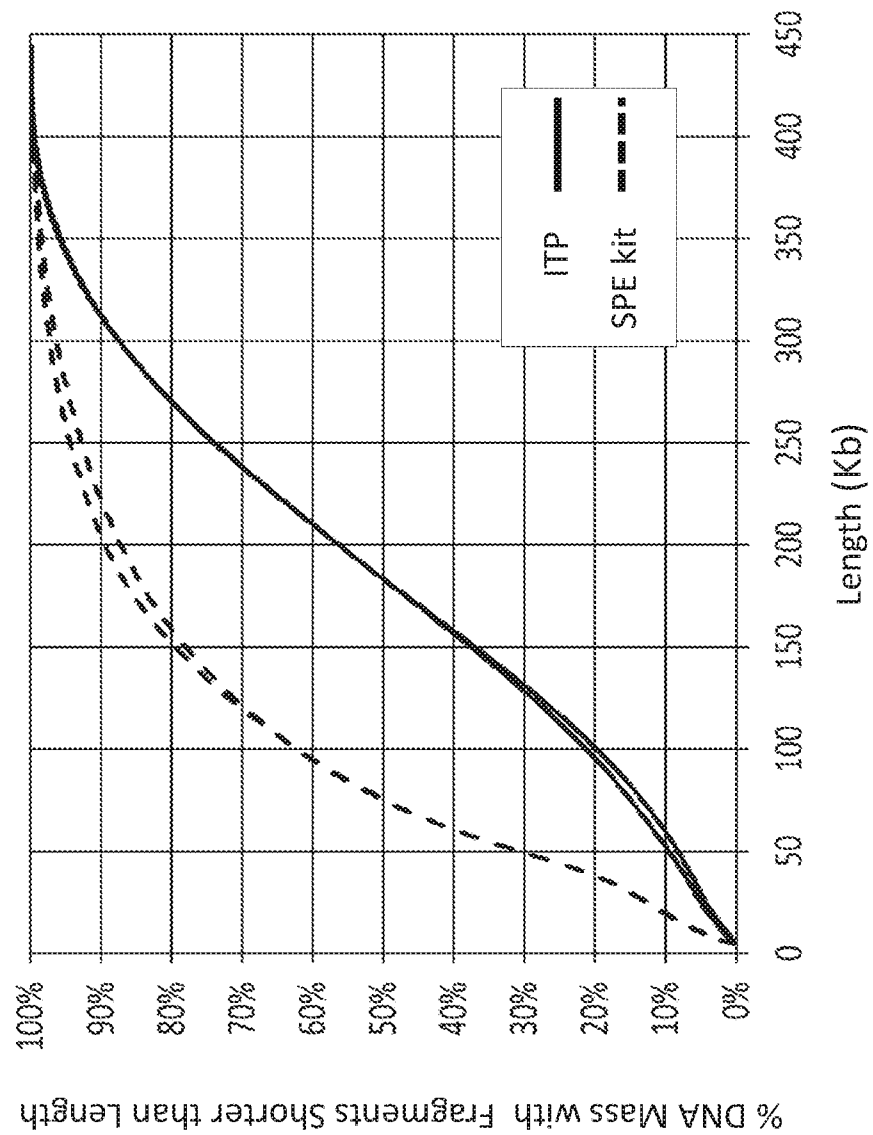


FIG. 28

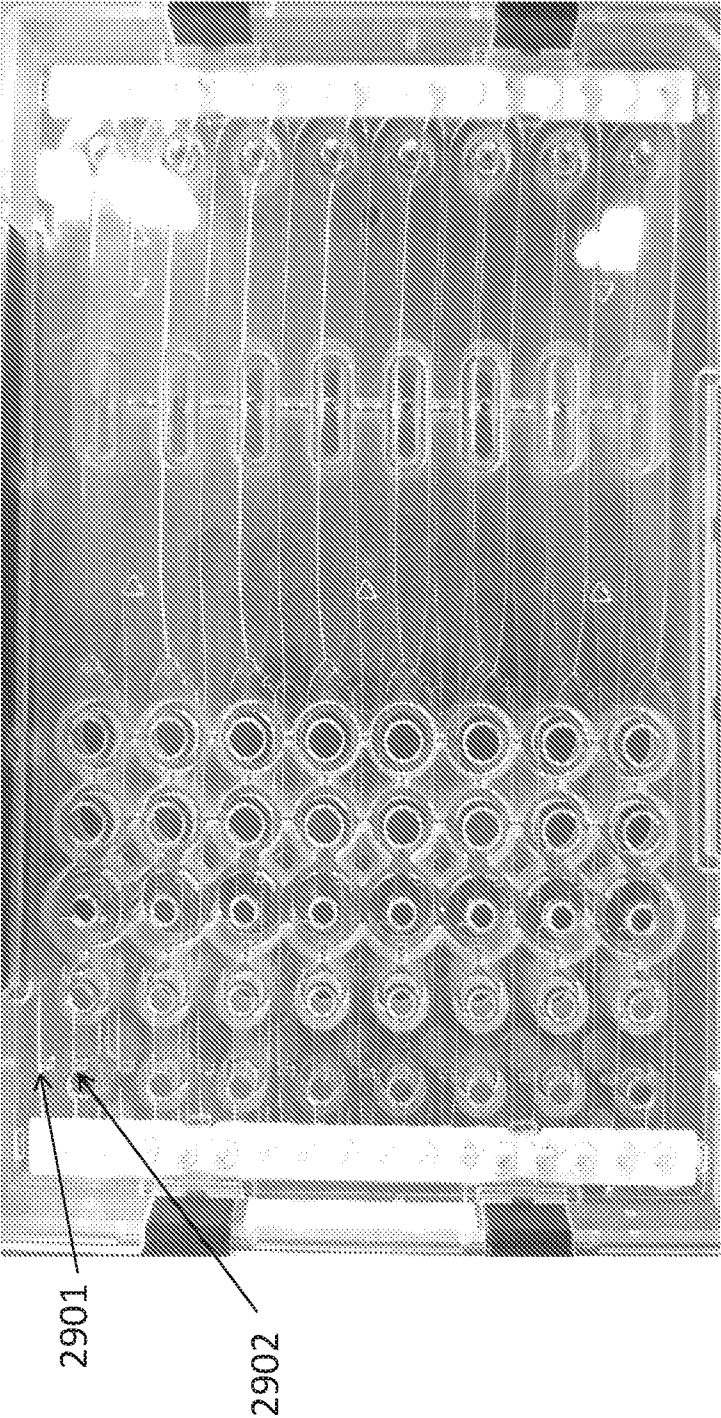


FIG. 29A

↑
2903

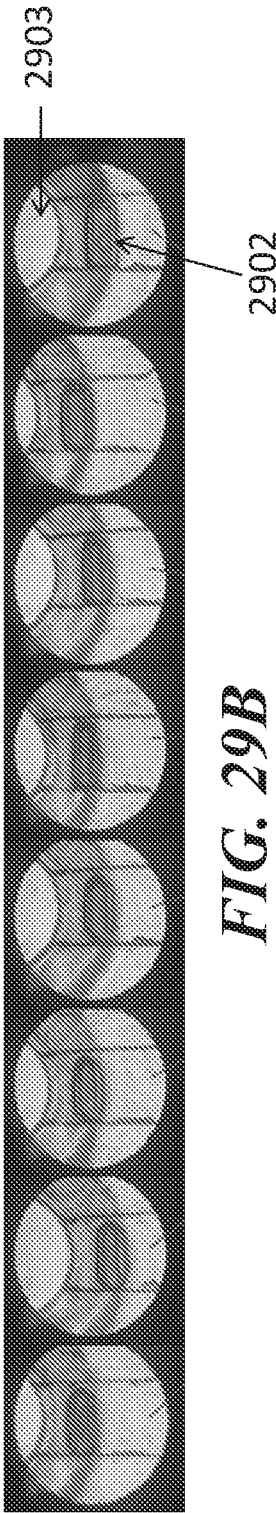


FIG. 29B

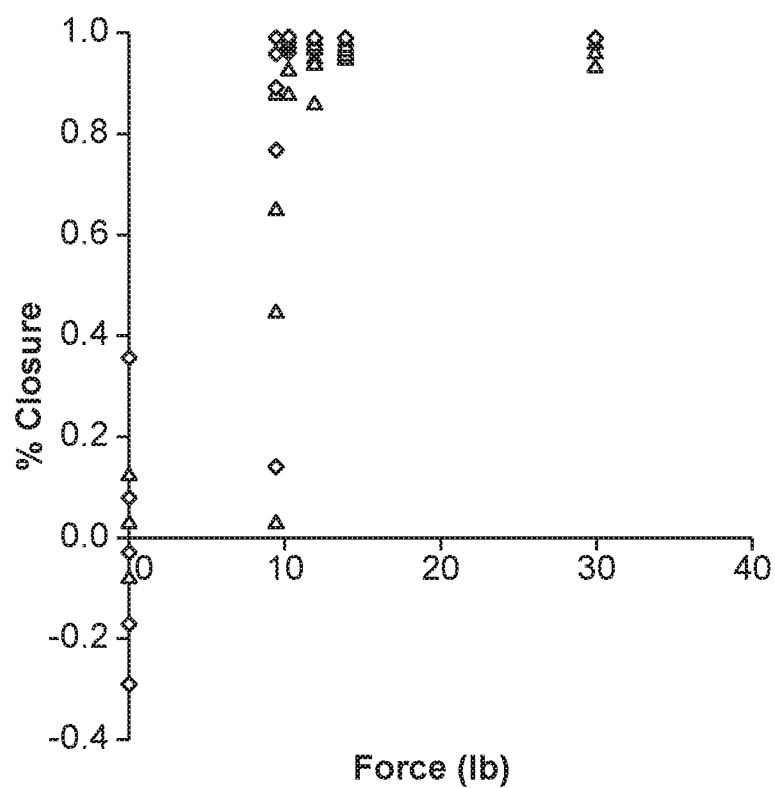


FIG. 29C

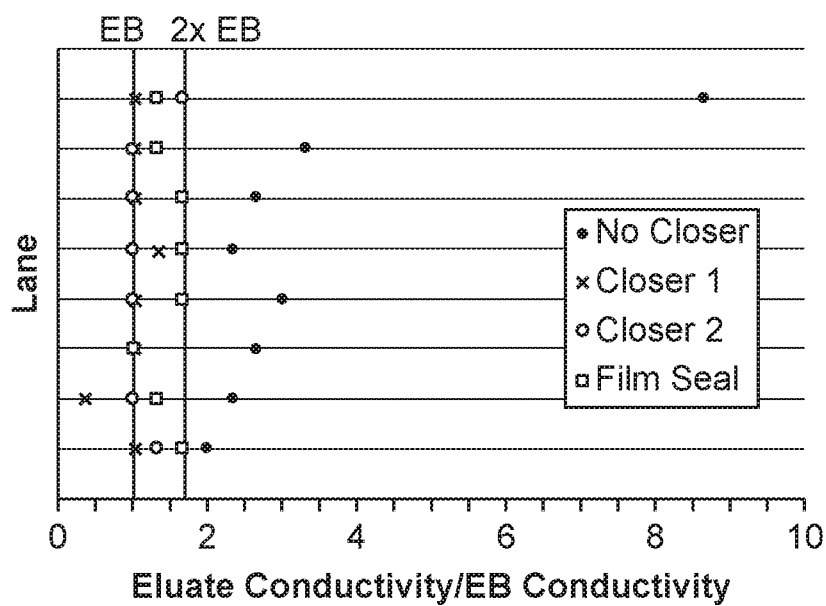


FIG. 29D

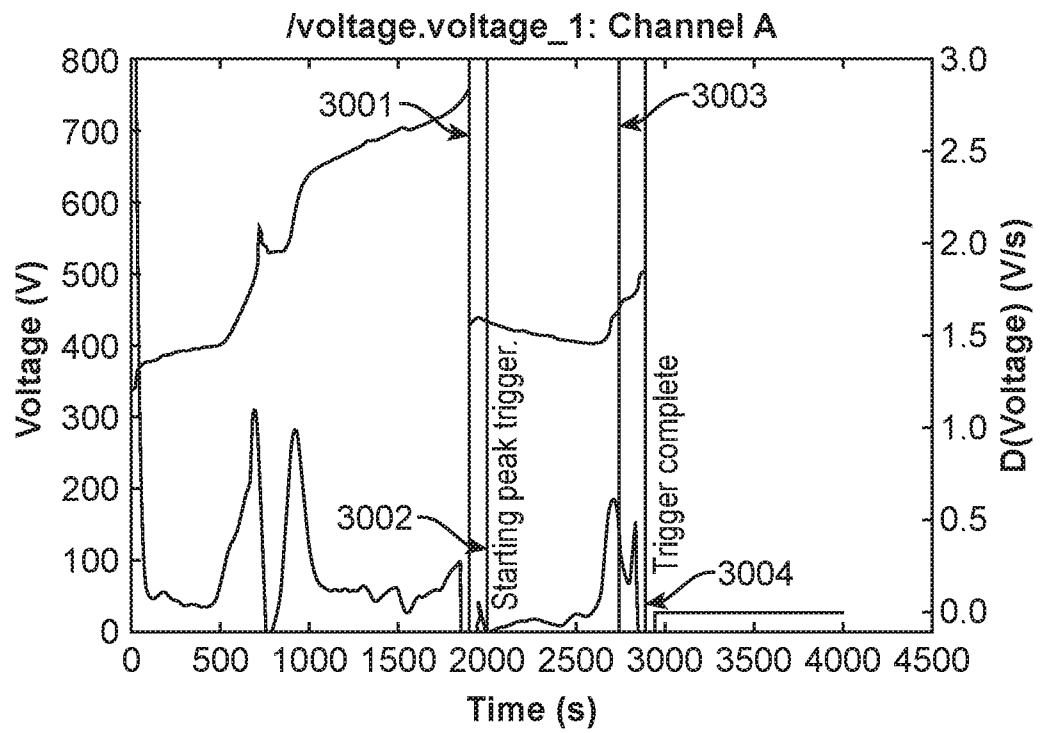
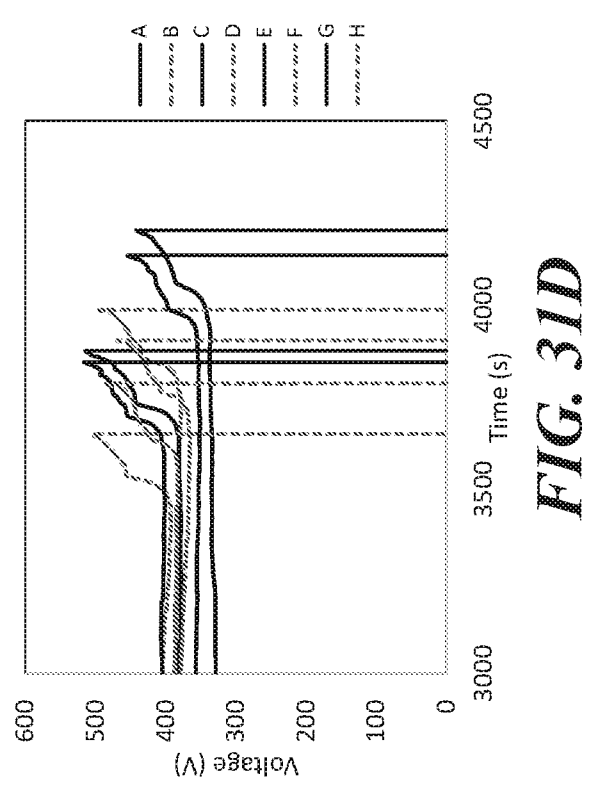
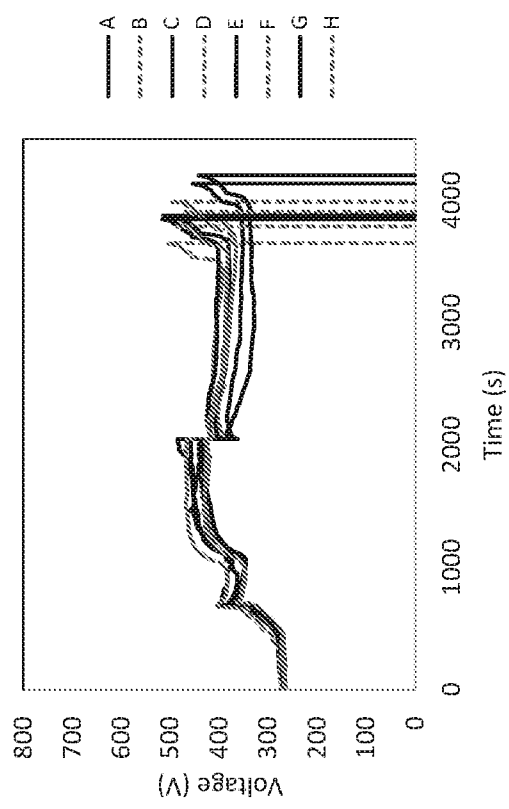
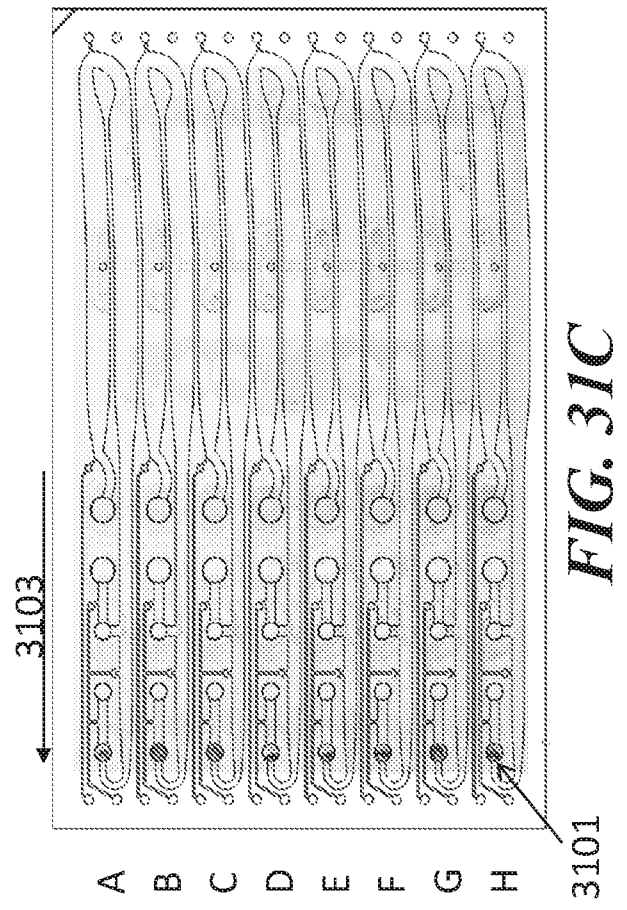
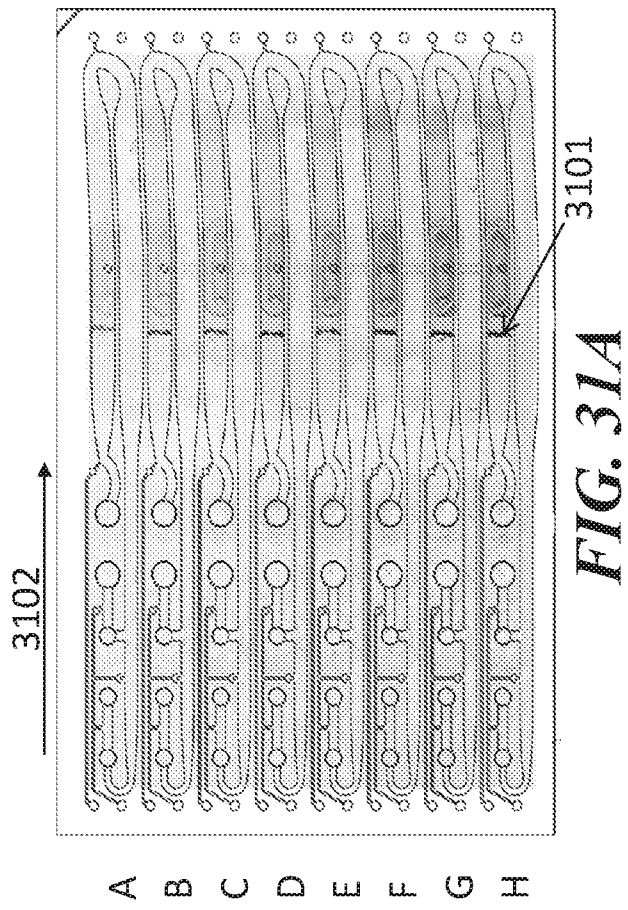
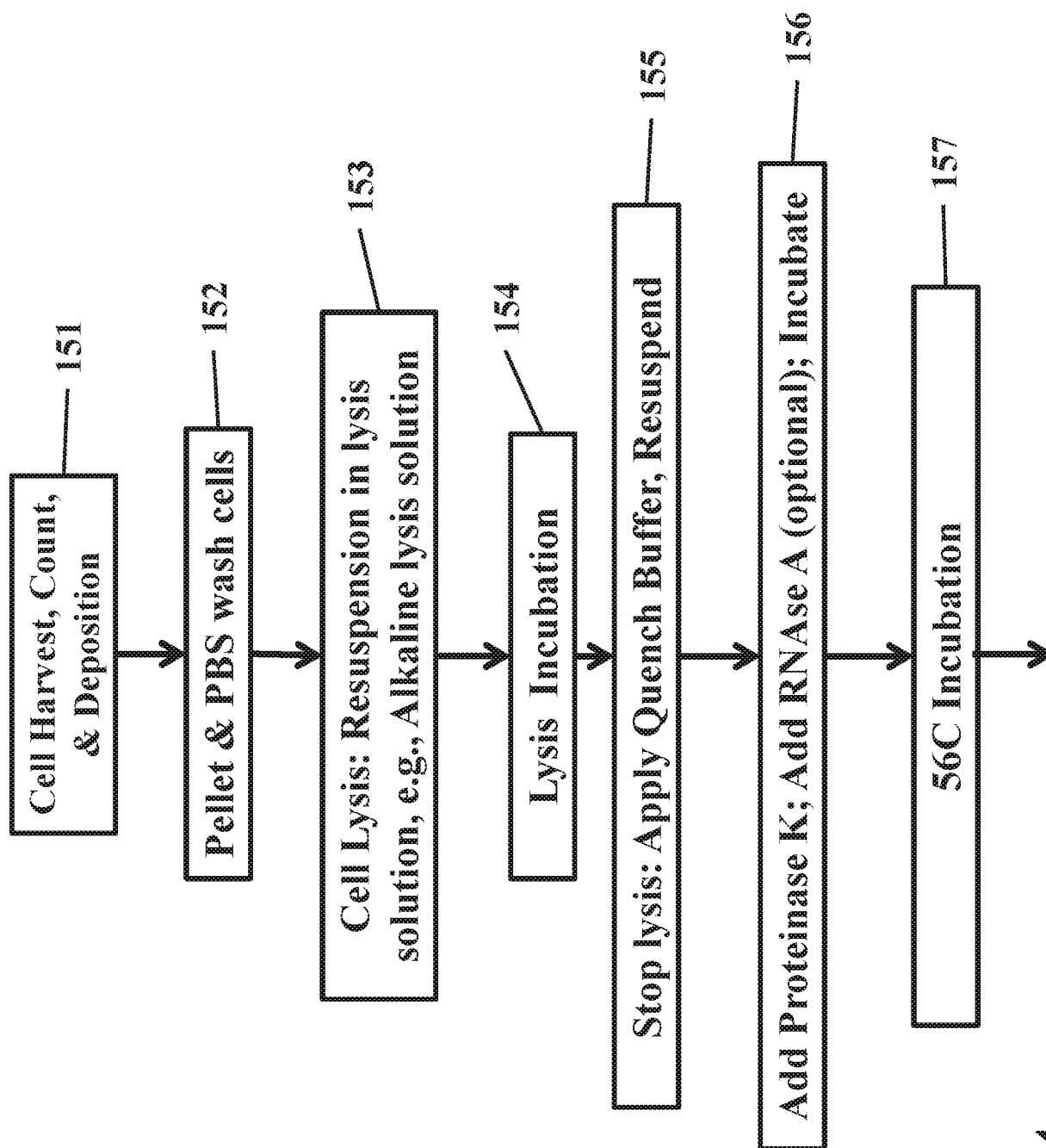
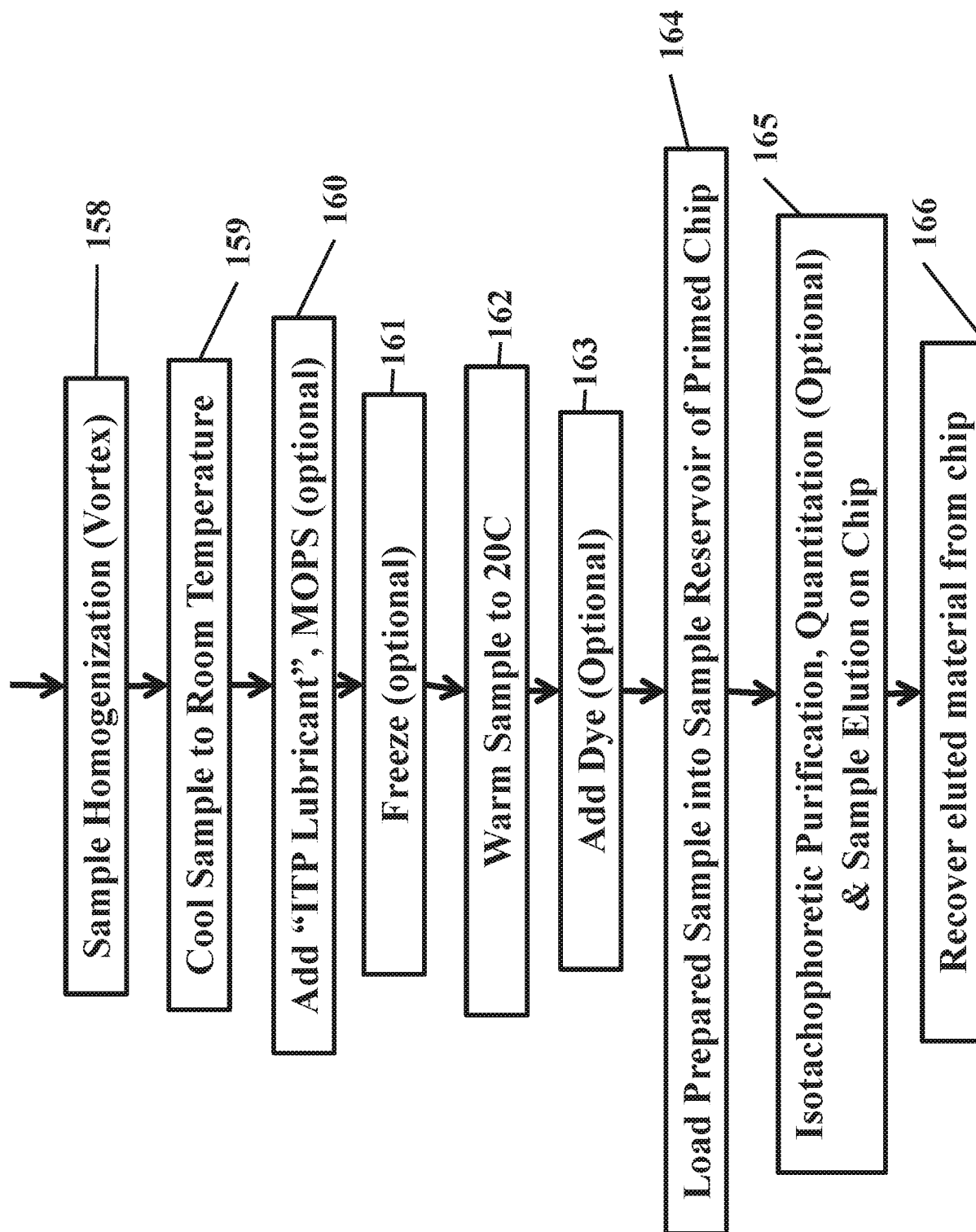


FIG. 30



**FIG. 32A**

*FIG. 32A cont.*

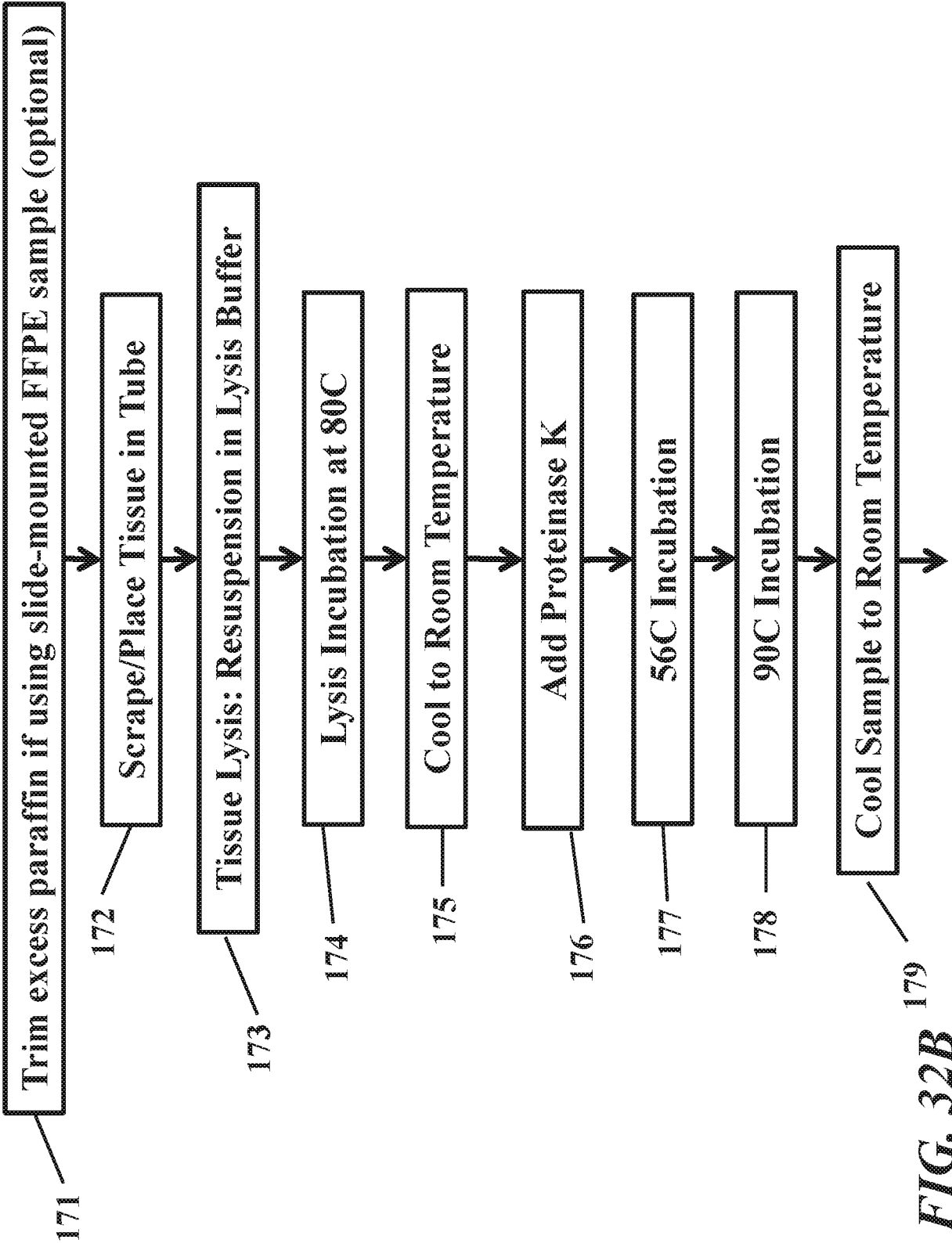
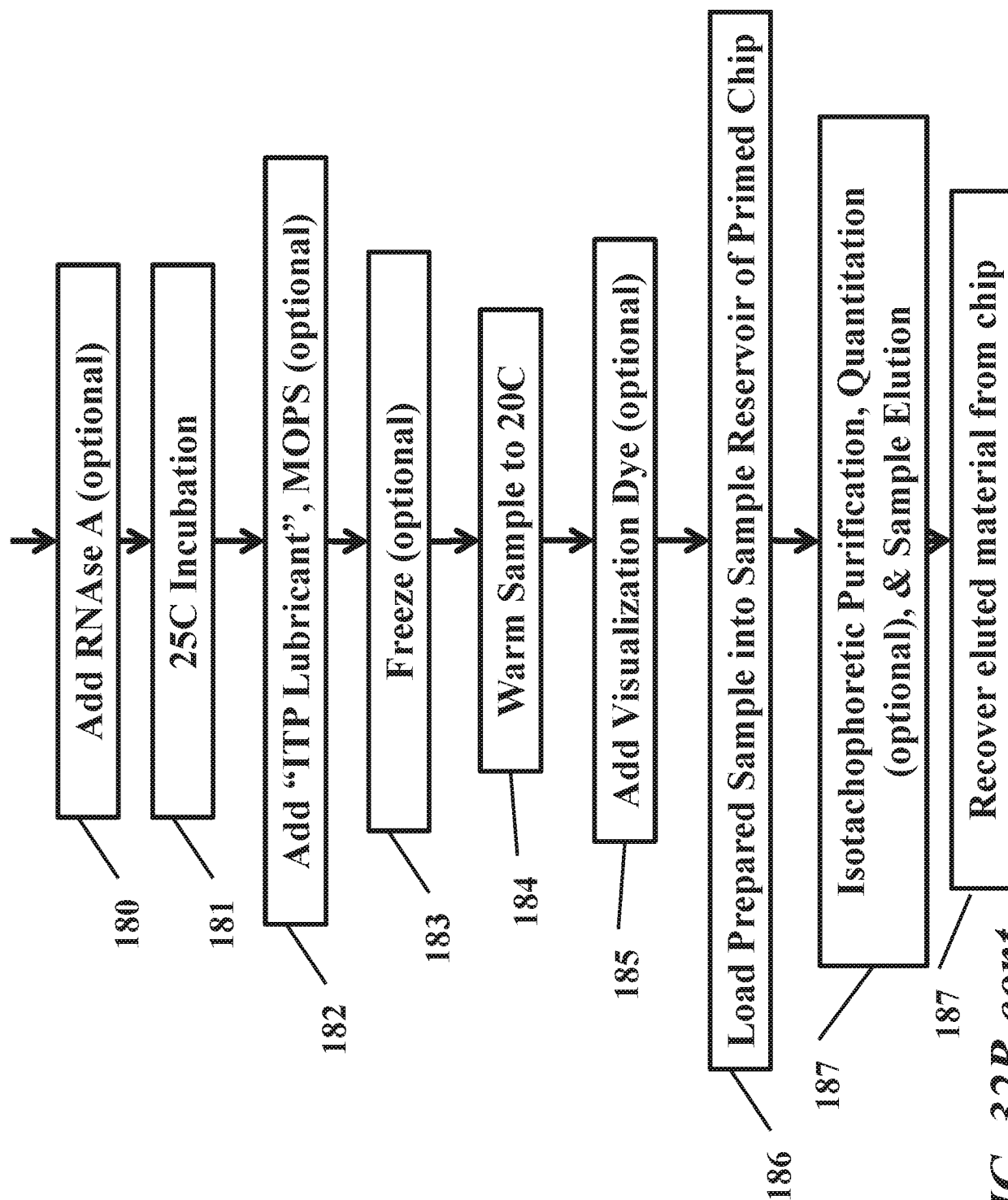


FIG. 32B

**FIG. 32B cont.**

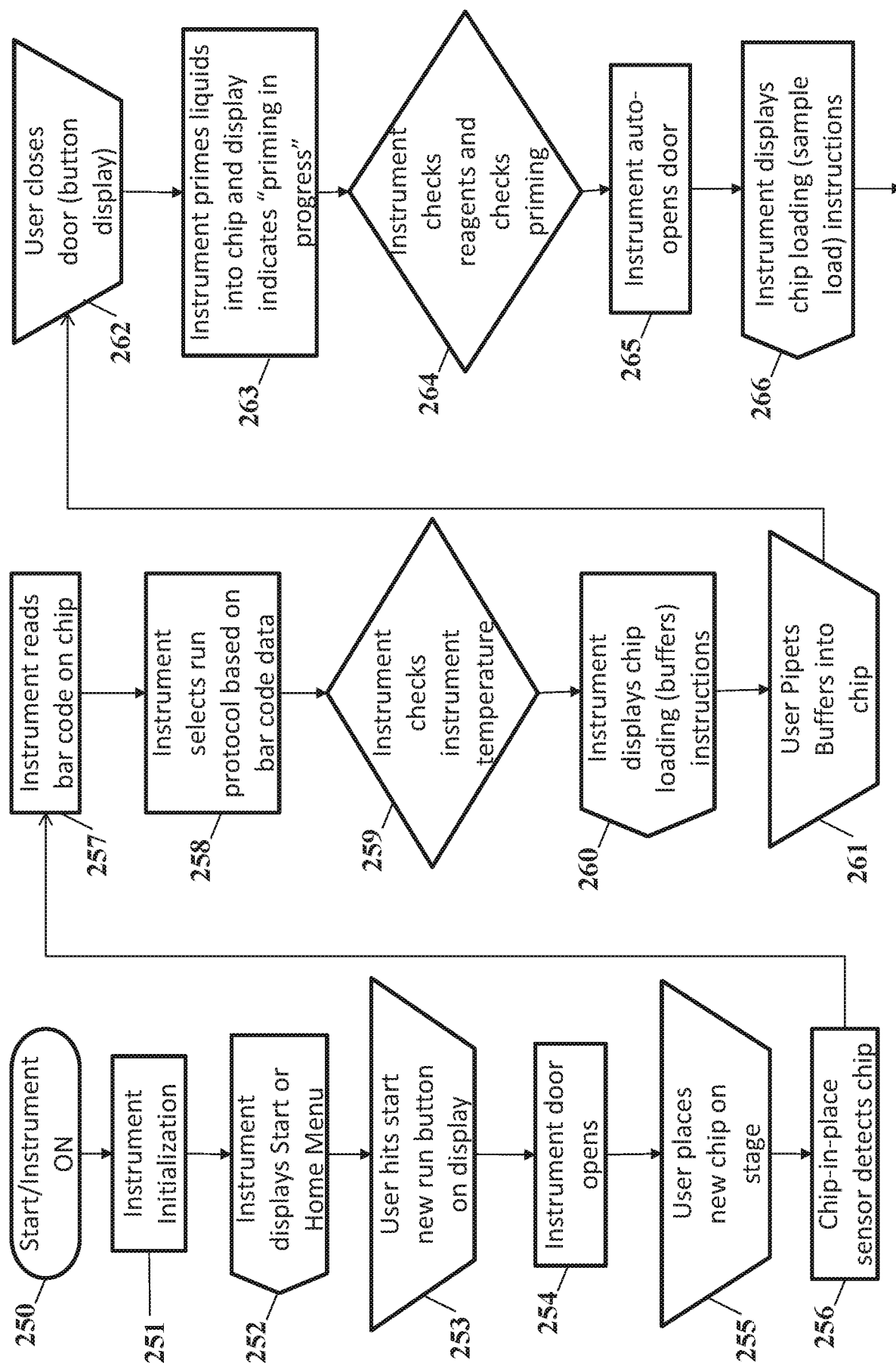


FIG. 33

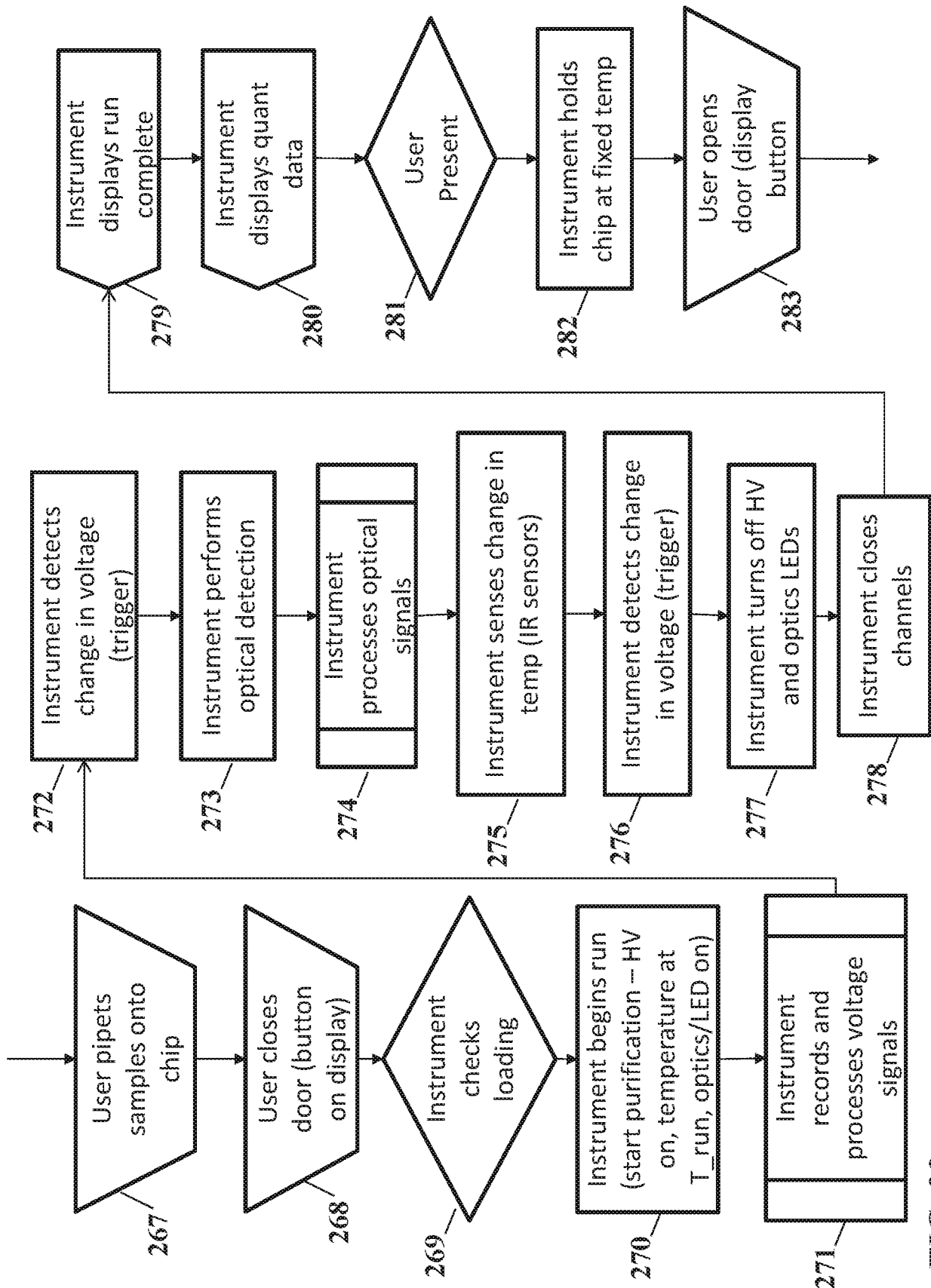
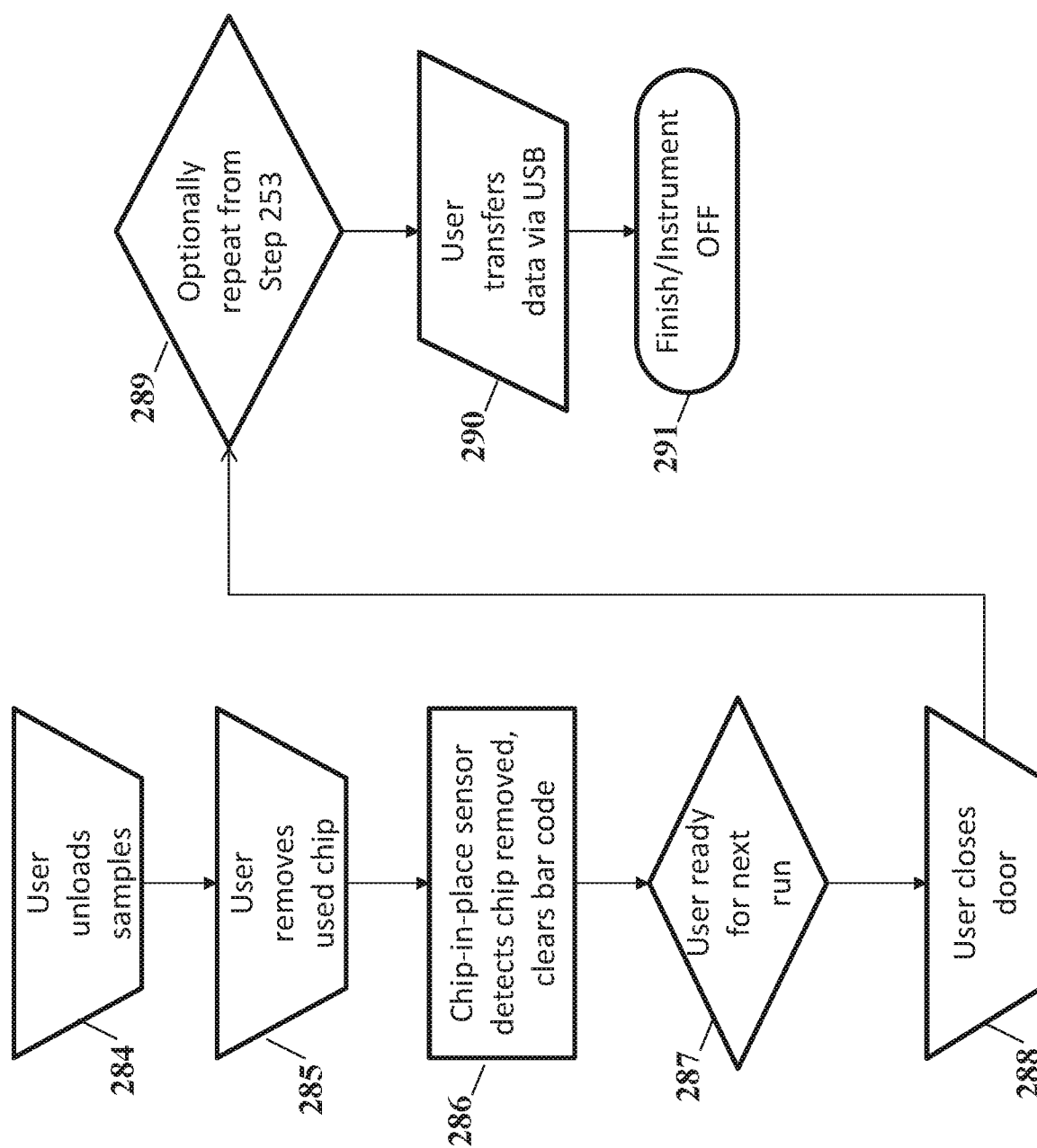


FIG. 33 cont.

*FIG. 33 cont.*

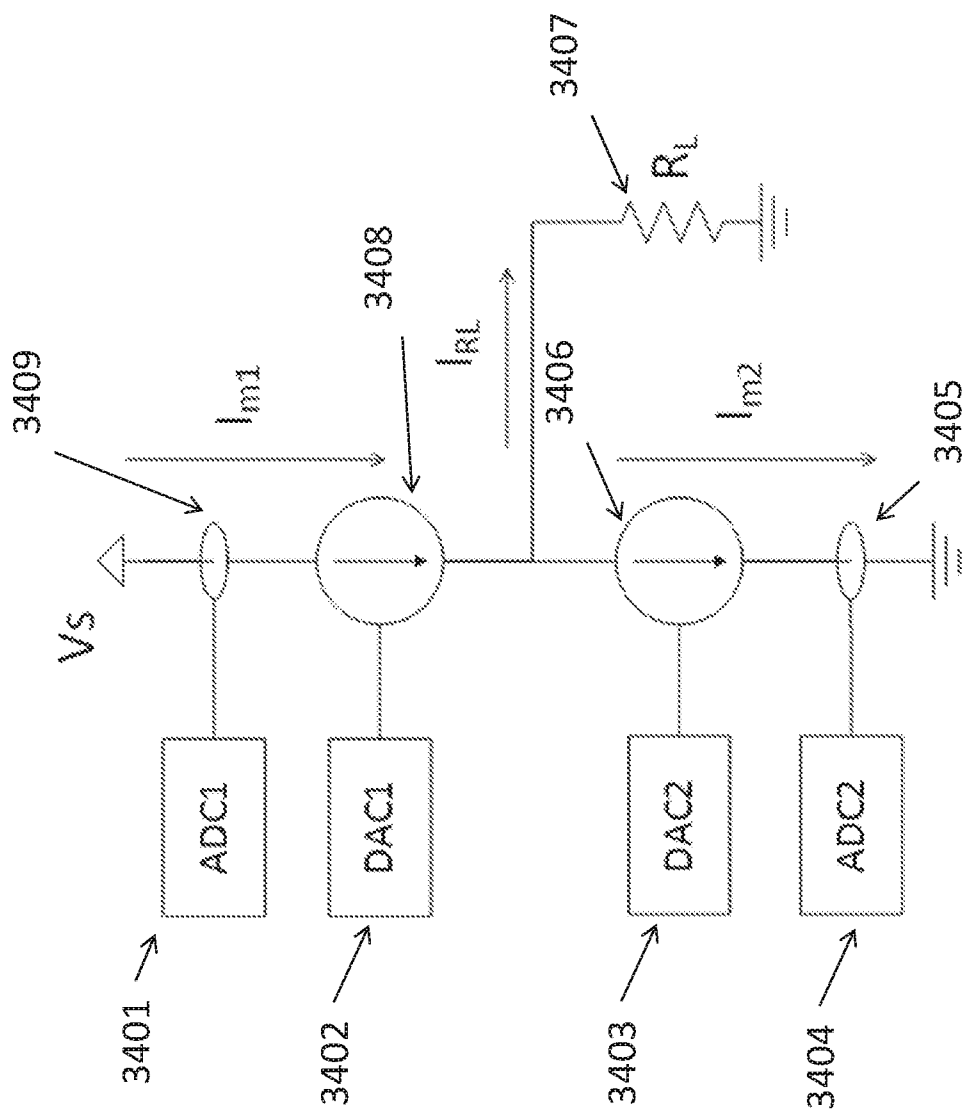


FIG. 34

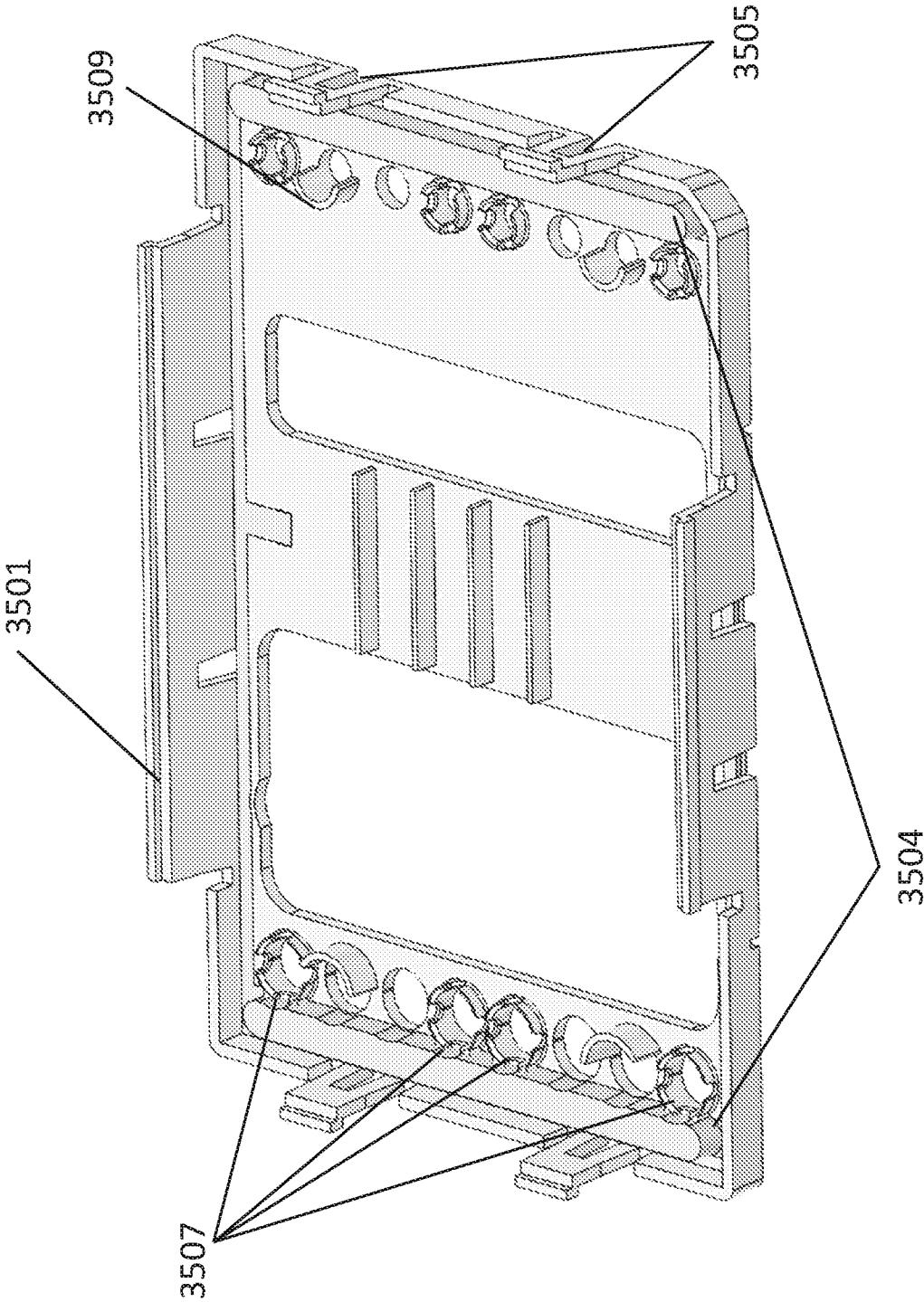


FIG. 35A

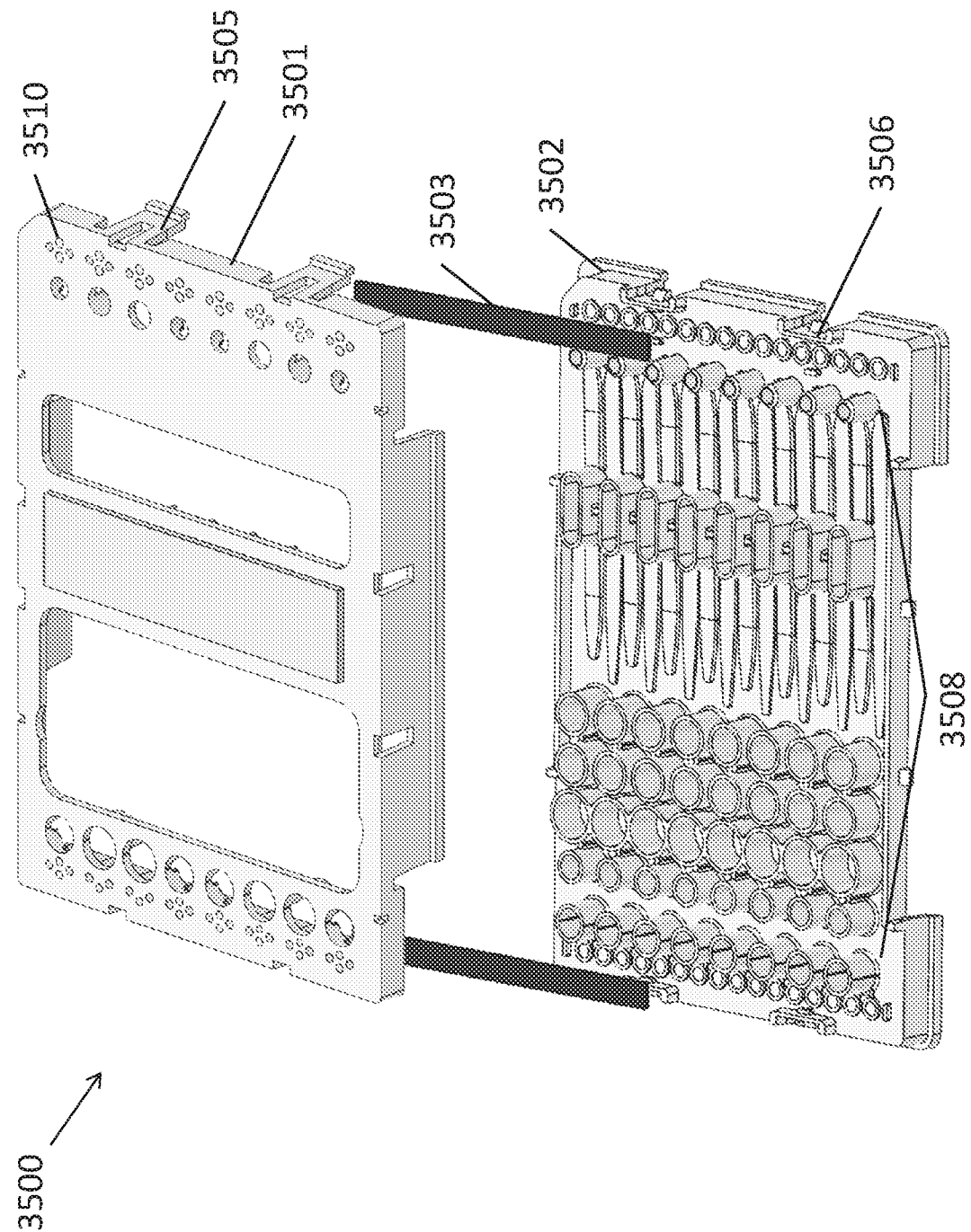


FIG. 35B

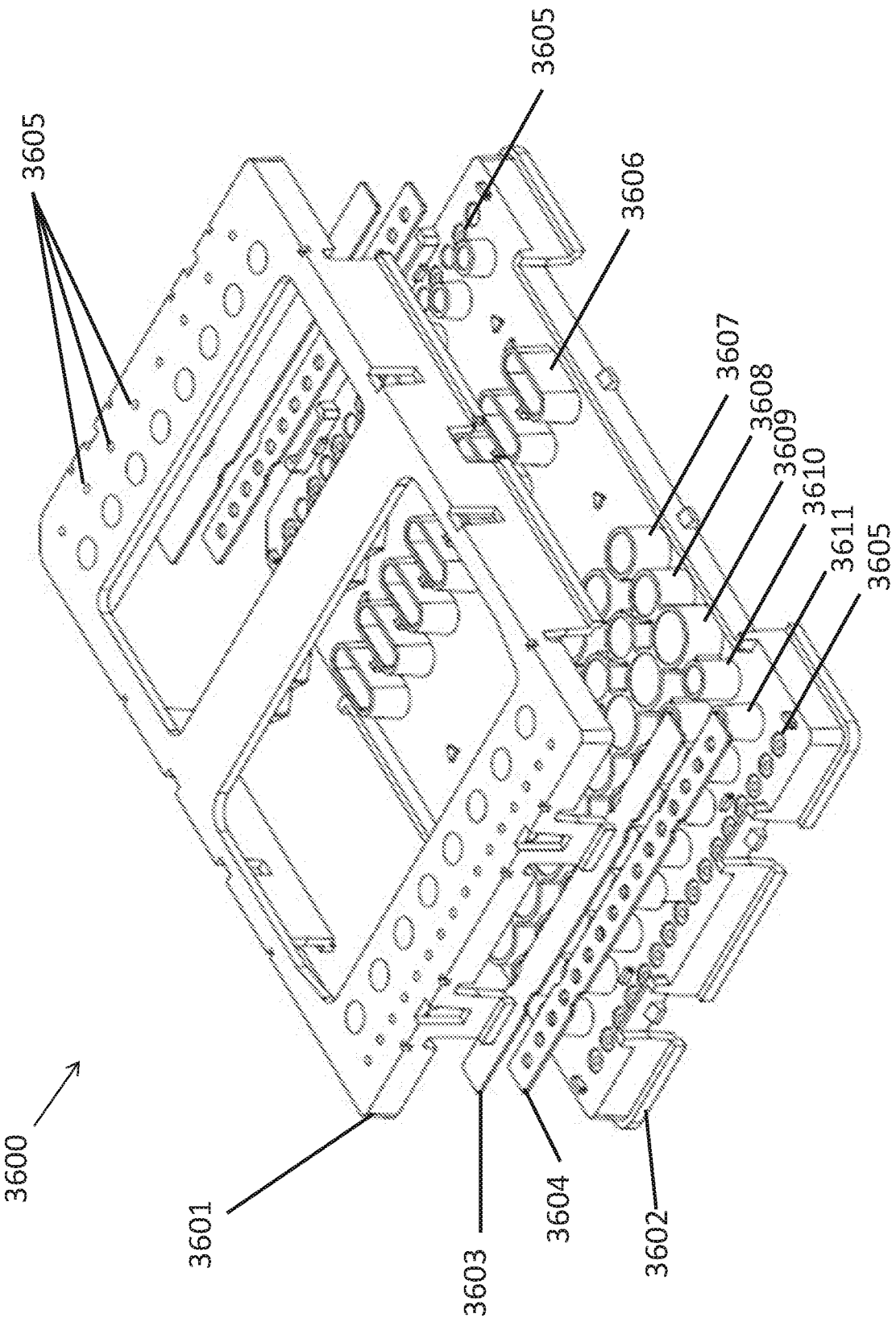


FIG. 36A

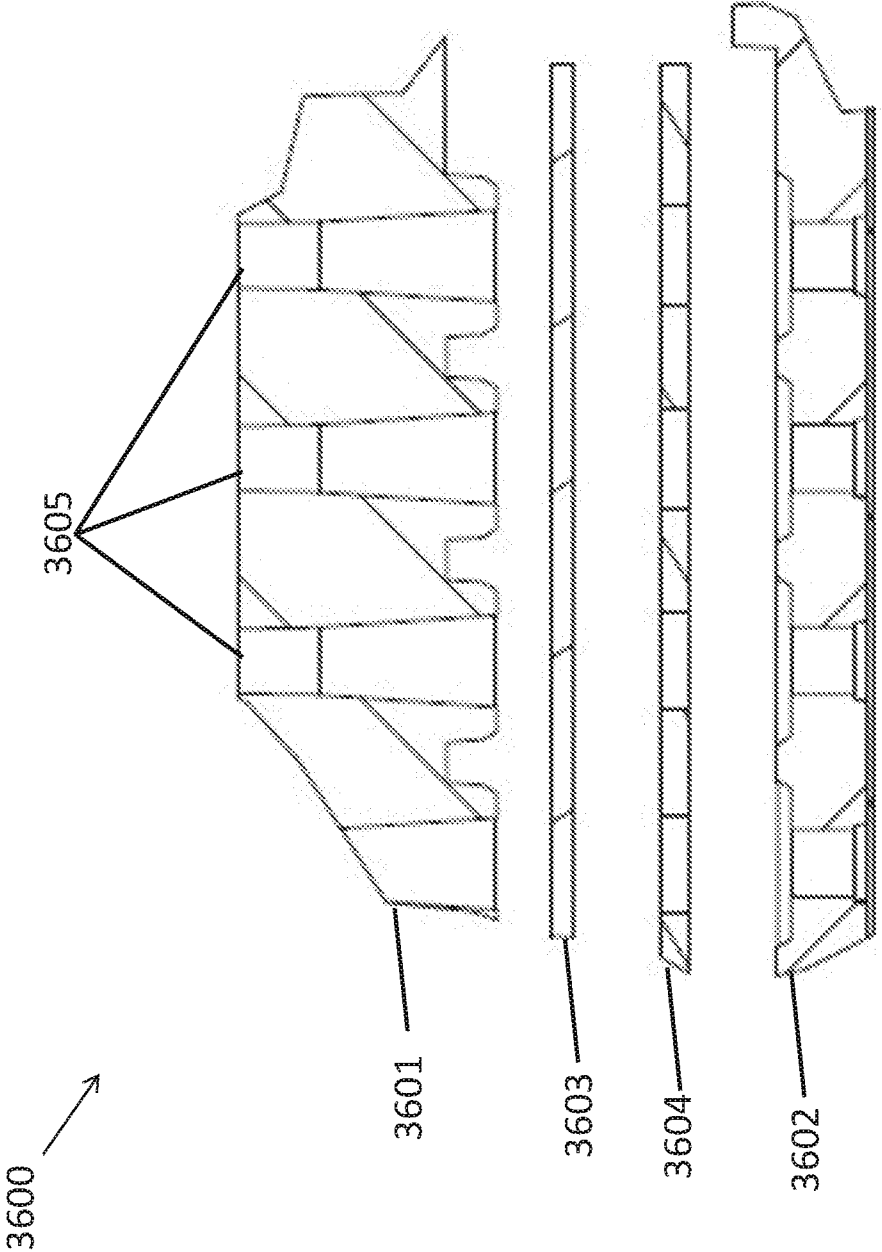


FIG. 36B

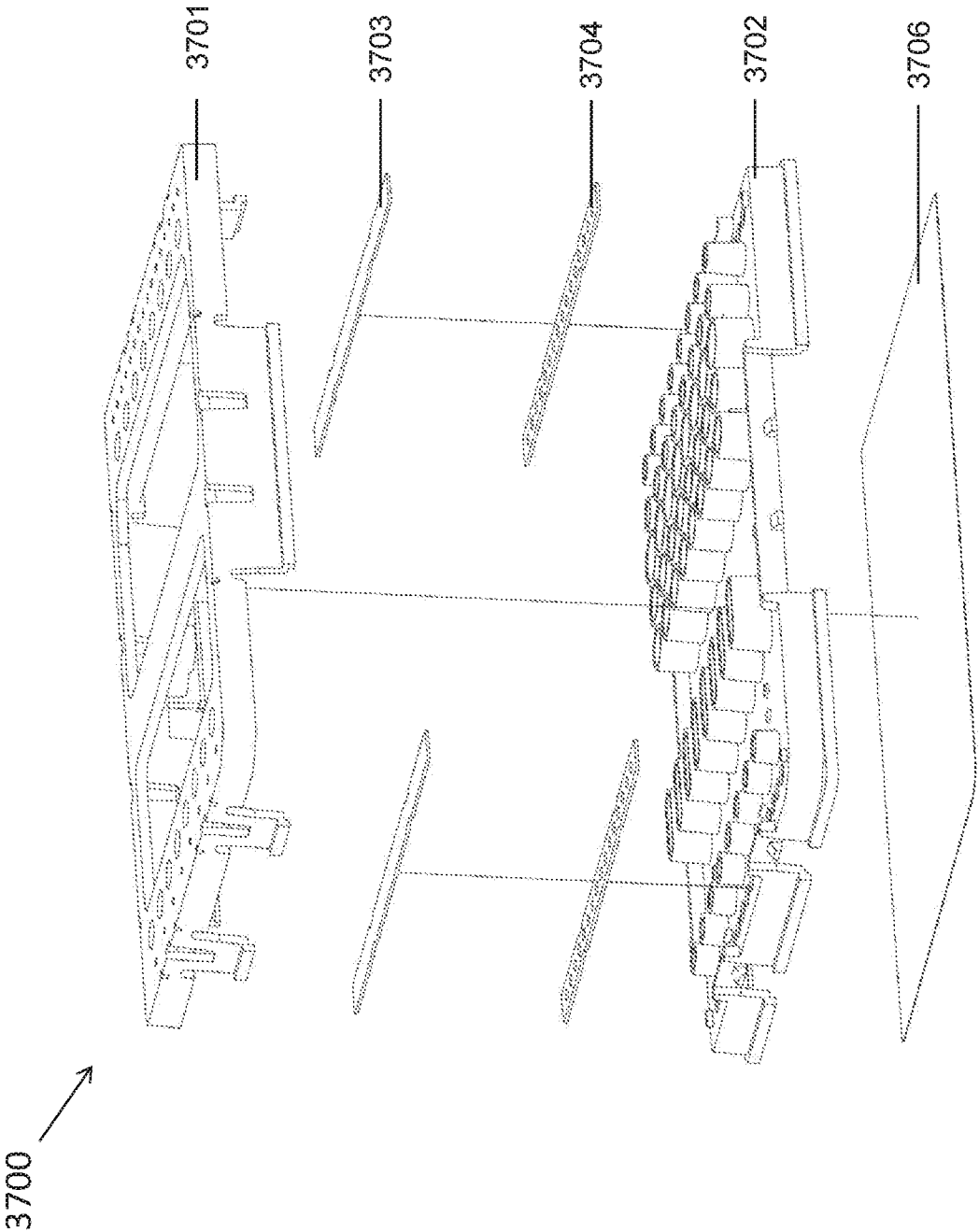


FIG. 37A

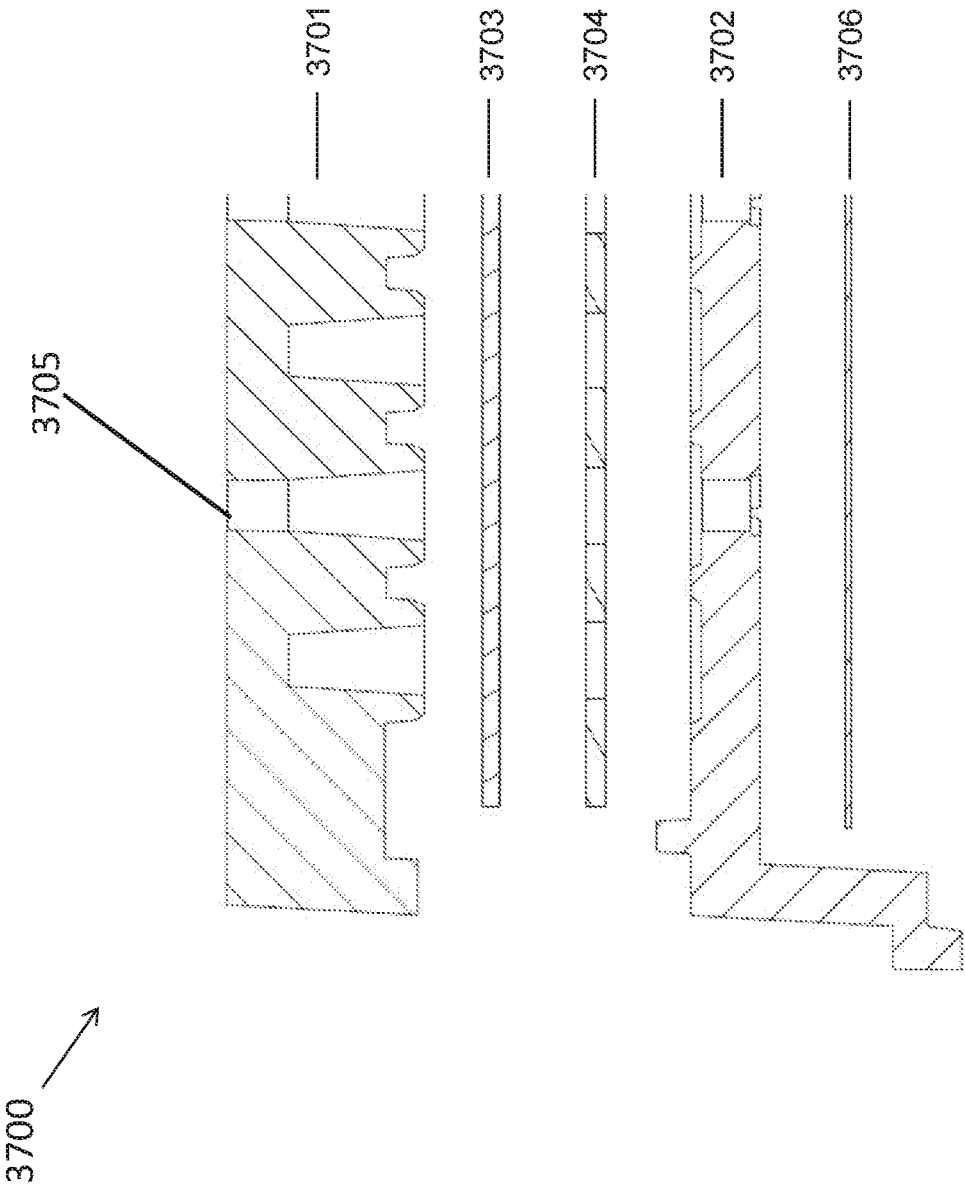


FIG. 37B

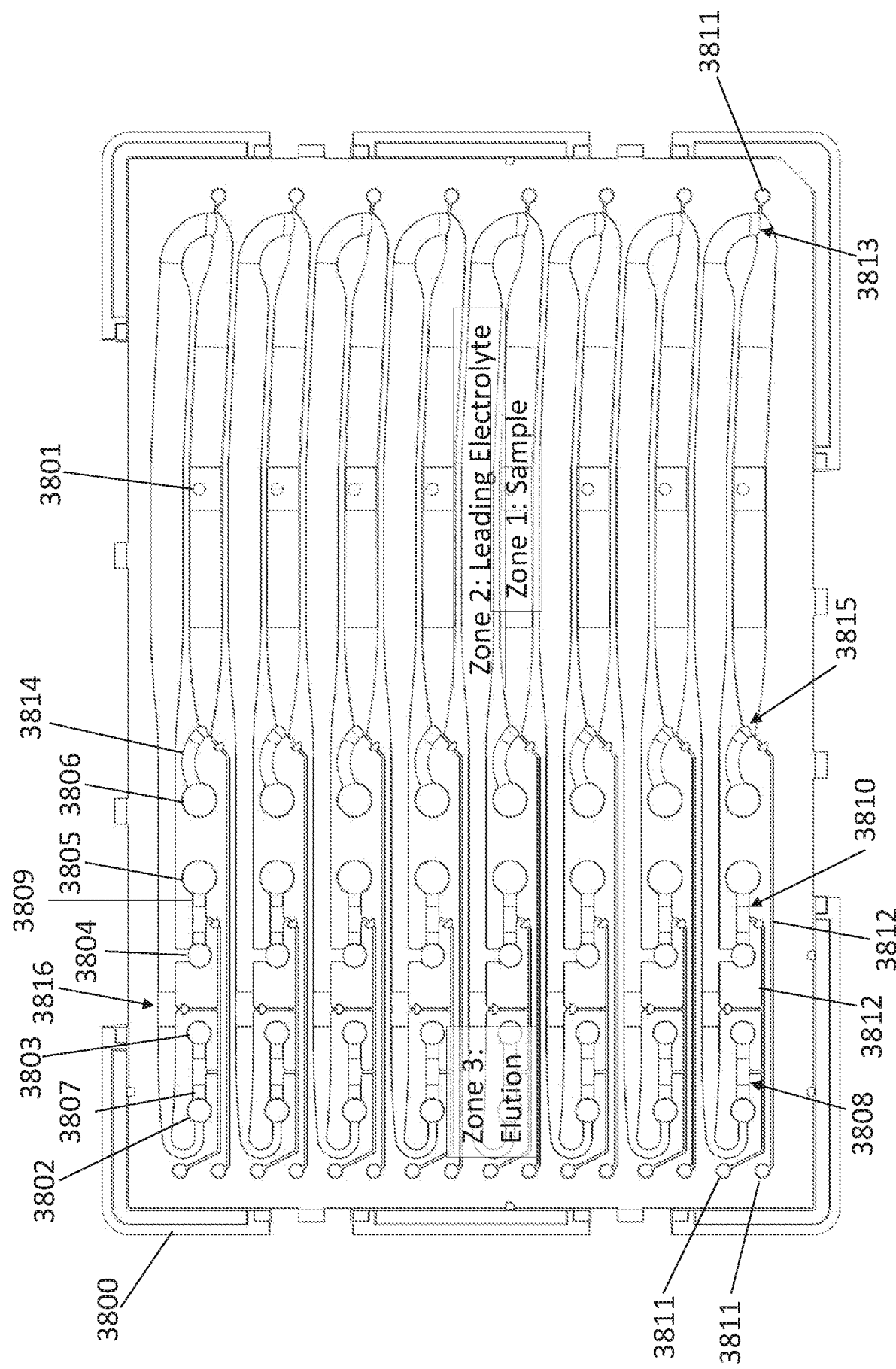


FIG. 38

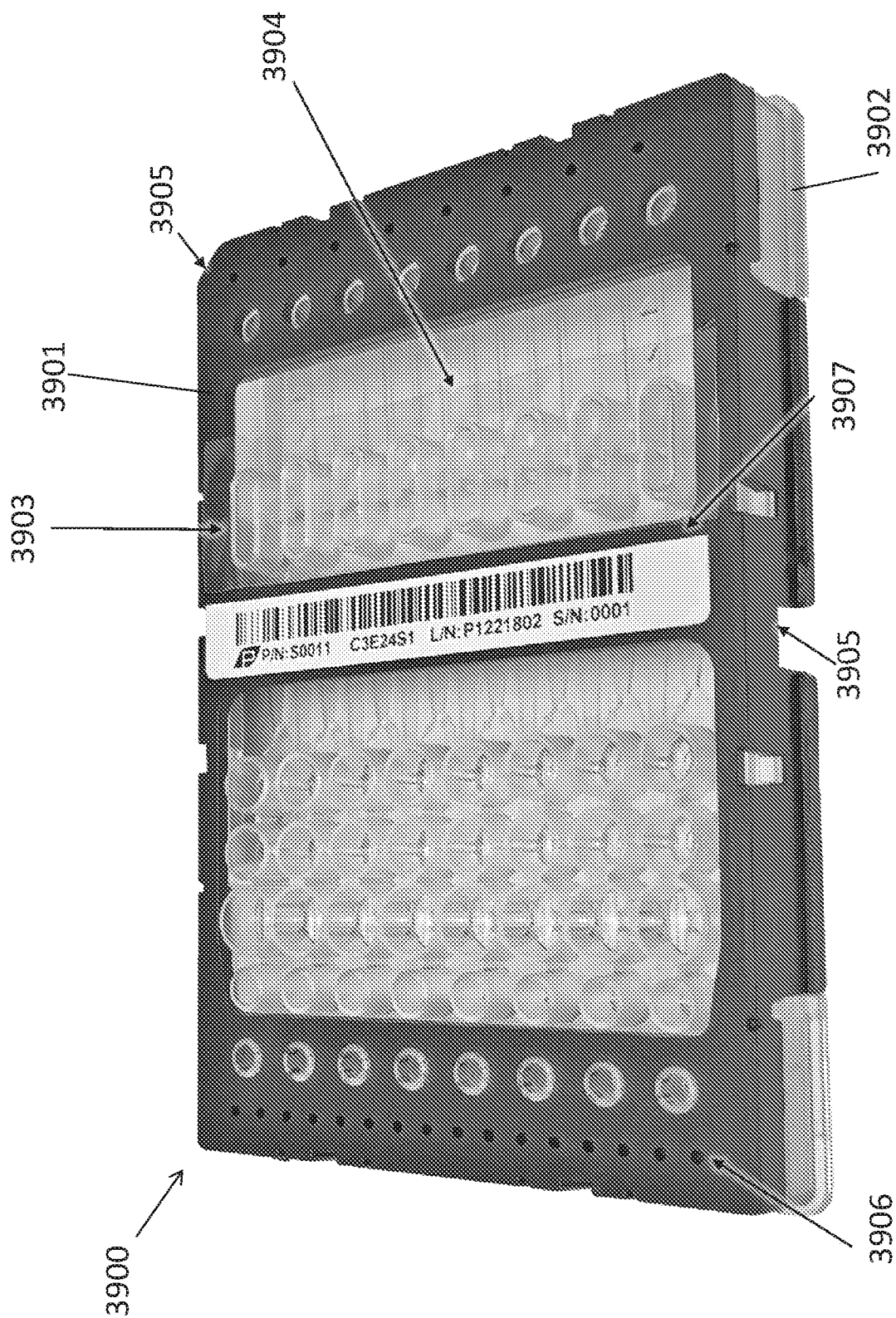


FIG. 39

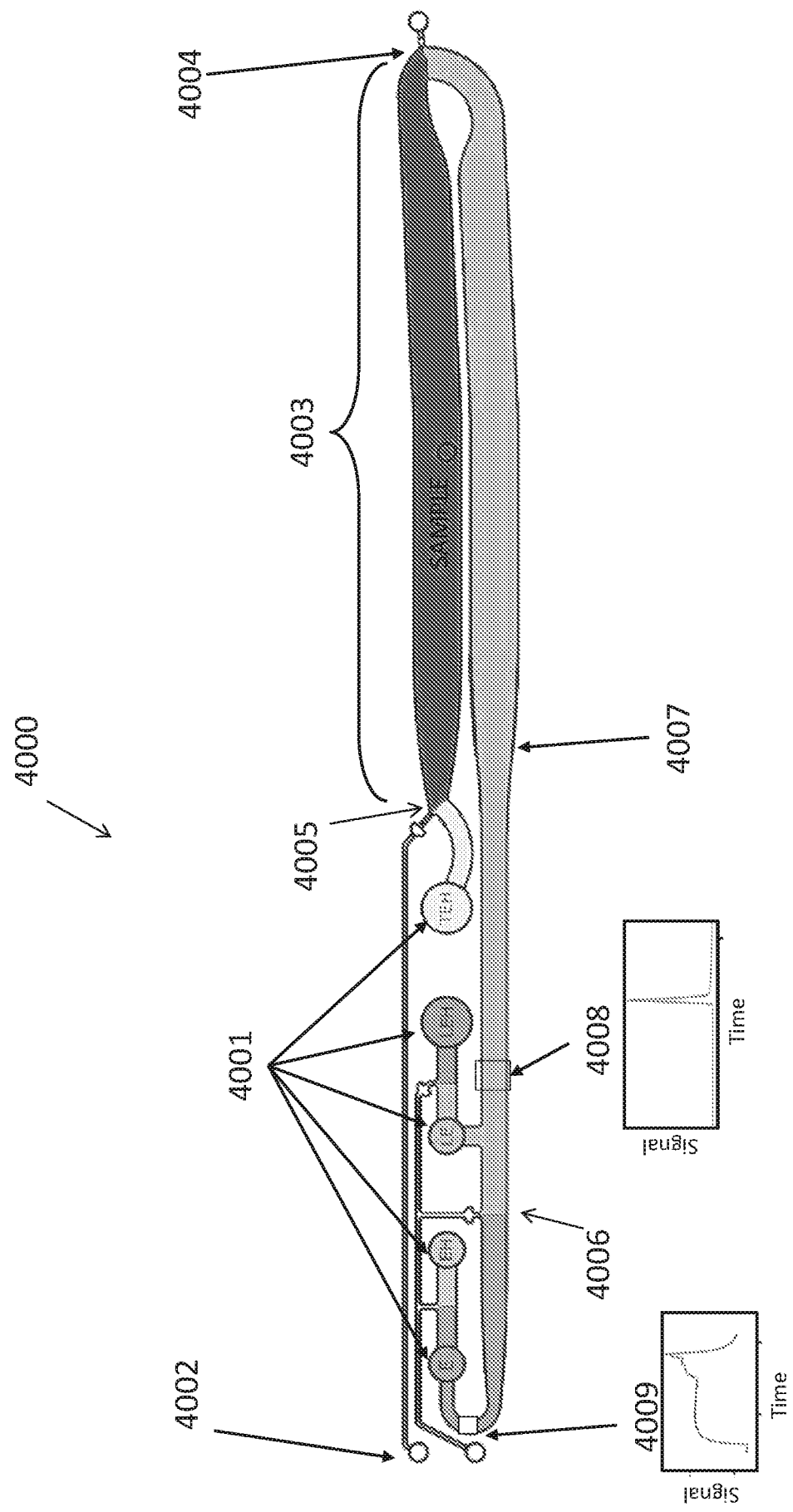


FIG. 40

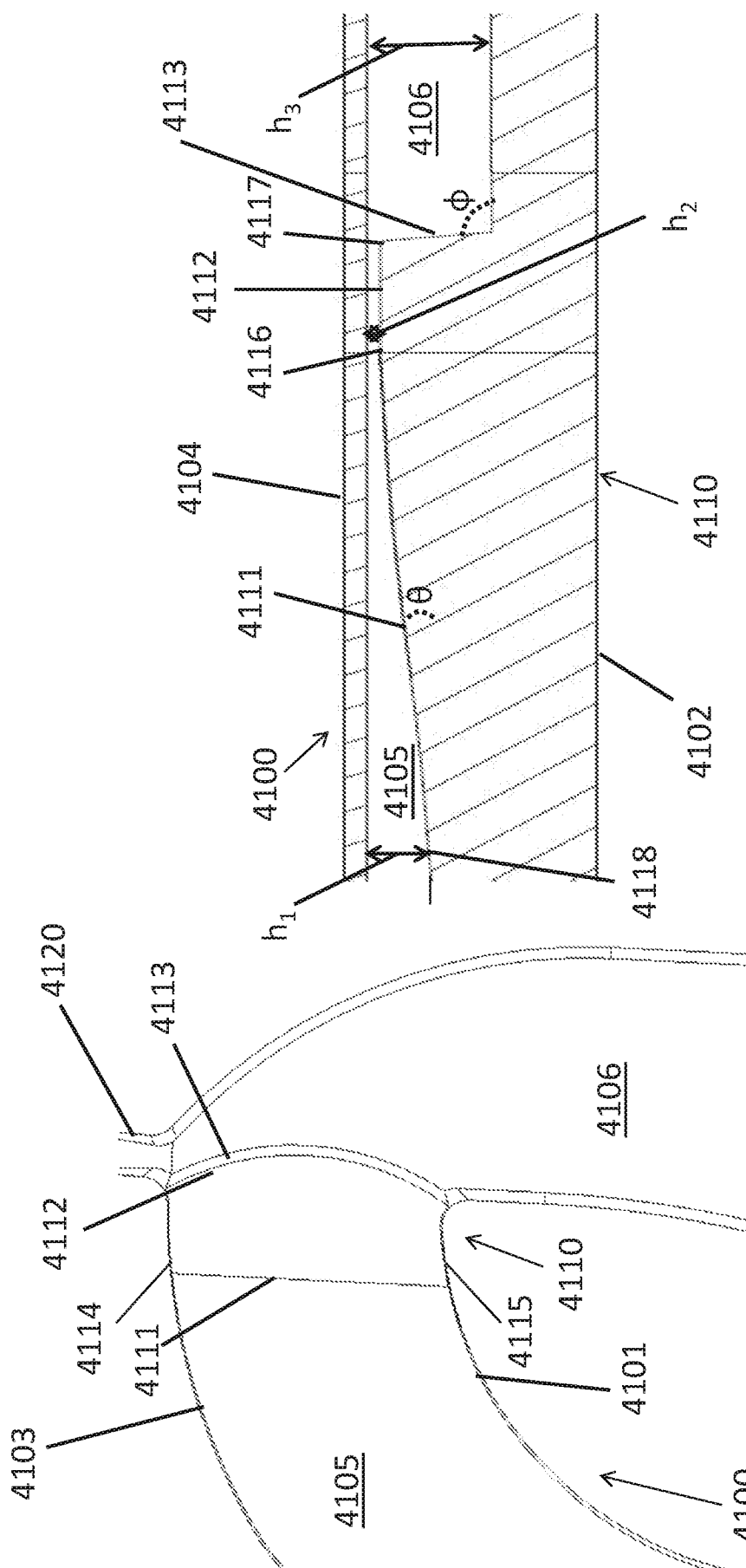


FIG. 41B

FIG. 41A

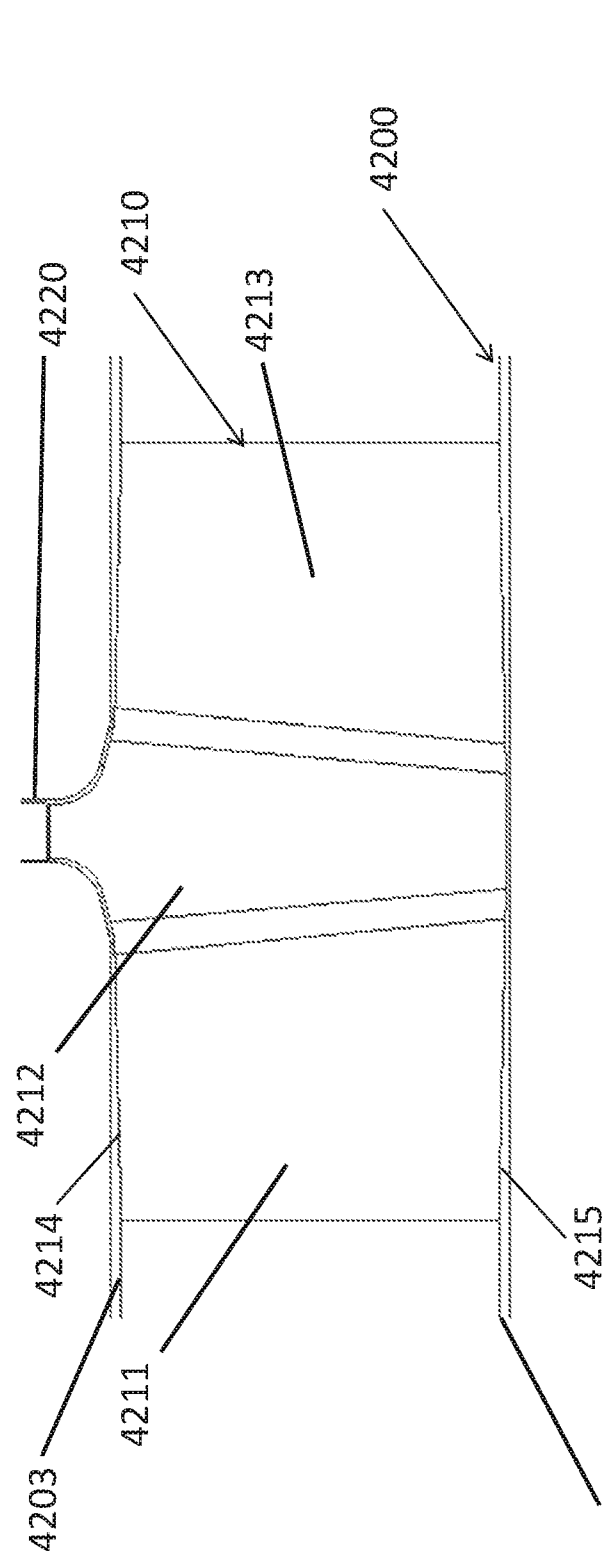


FIG. 42A

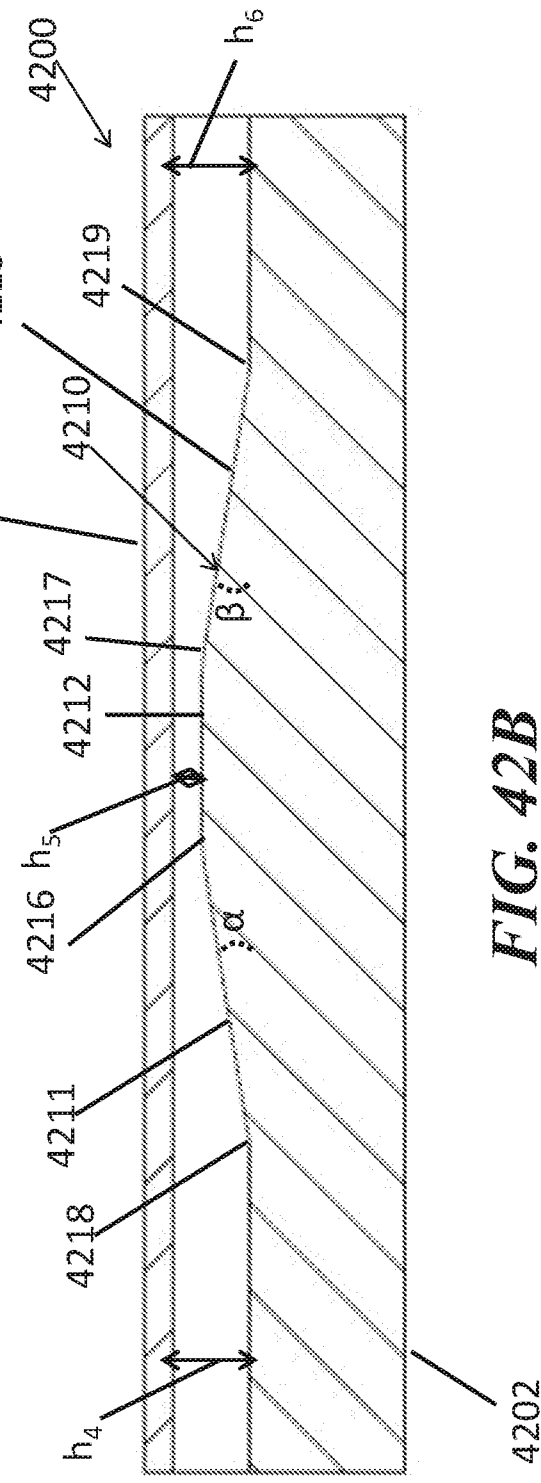


FIG. 42B

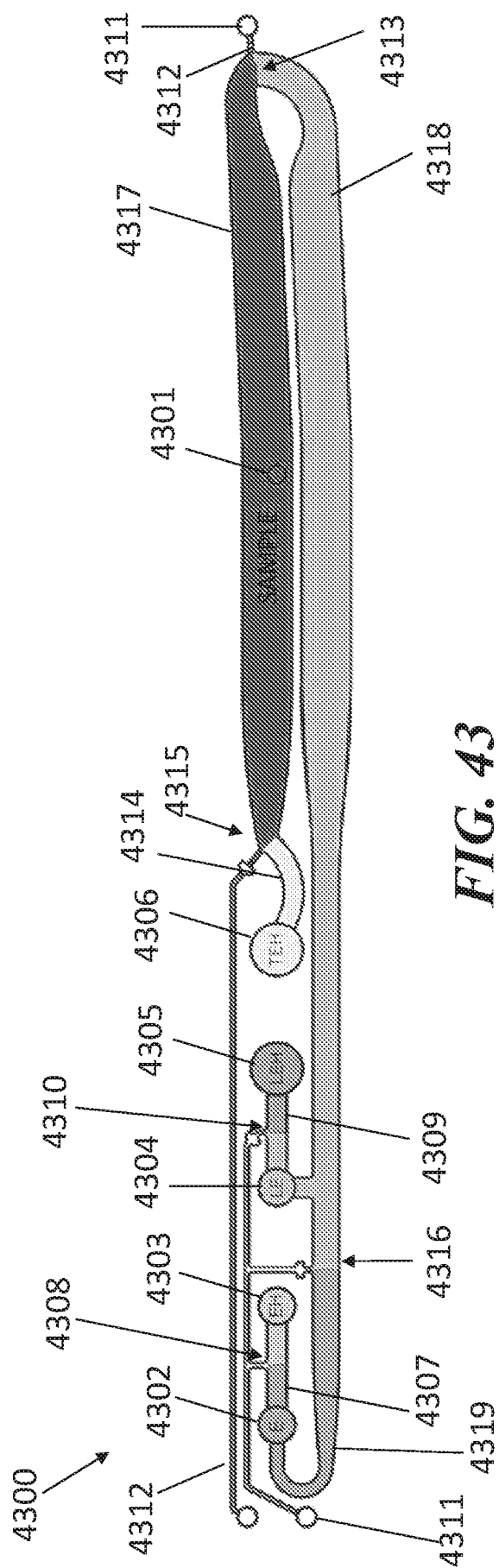


FIG. 43

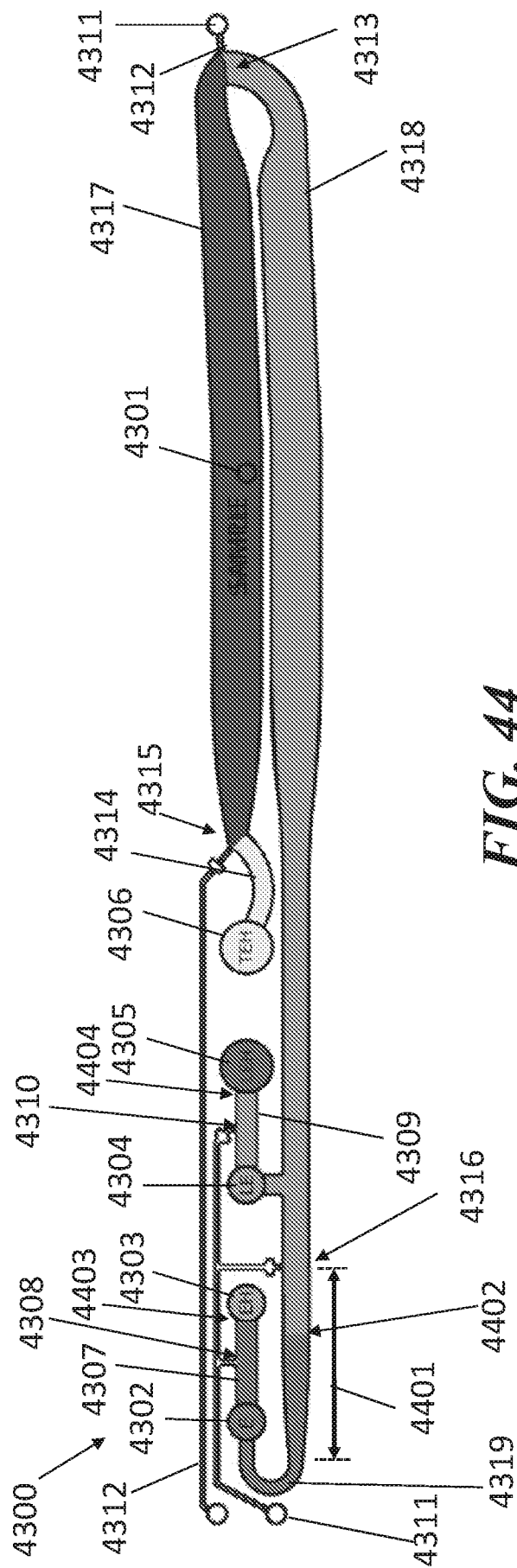


FIG. 44

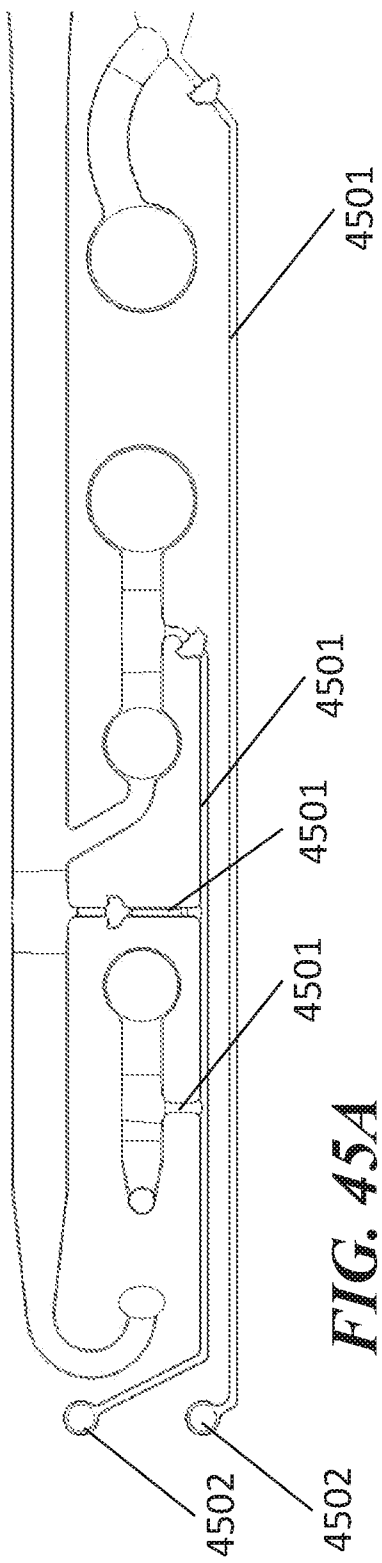


FIG. 45A

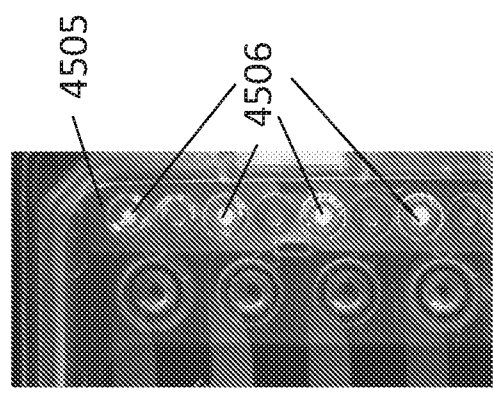


FIG. 45C

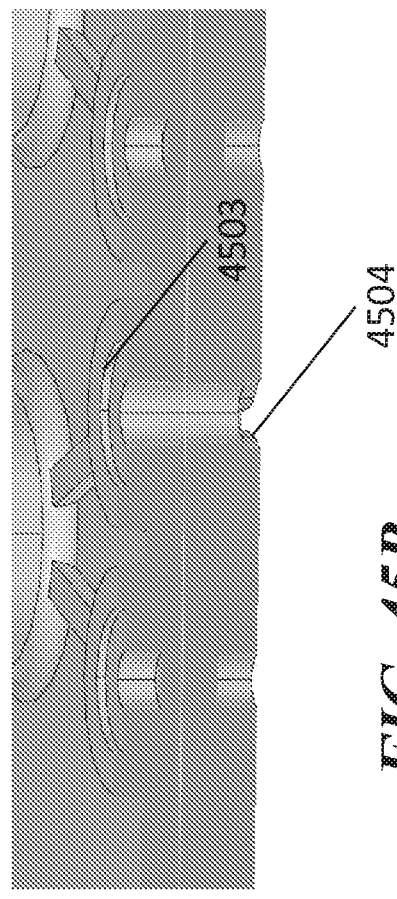


FIG. 45B

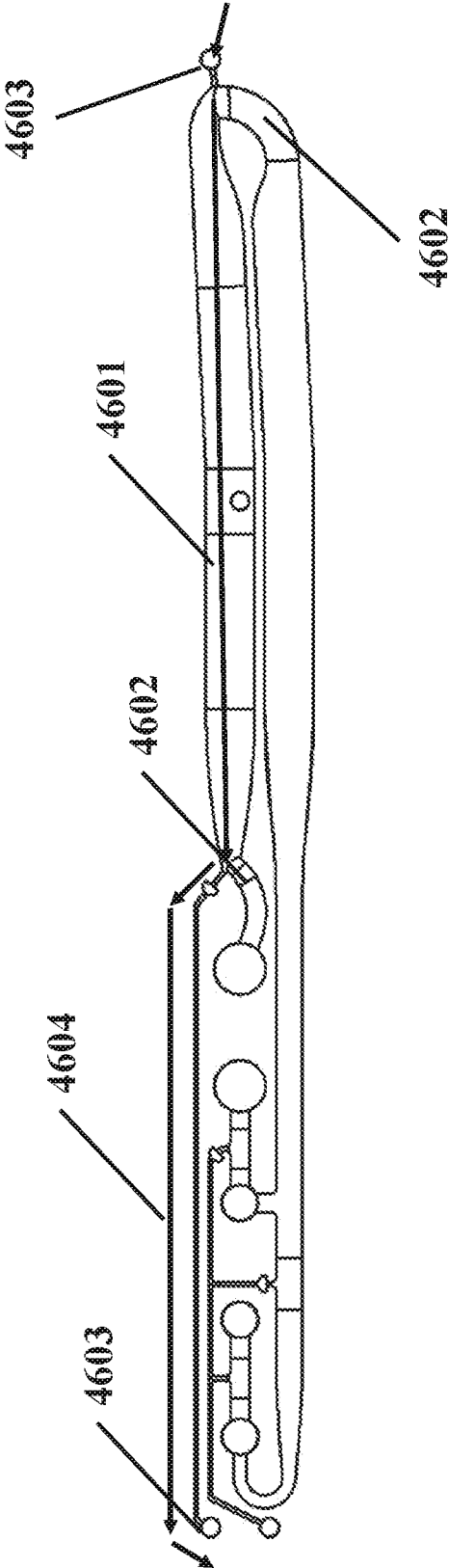


FIG. 46A

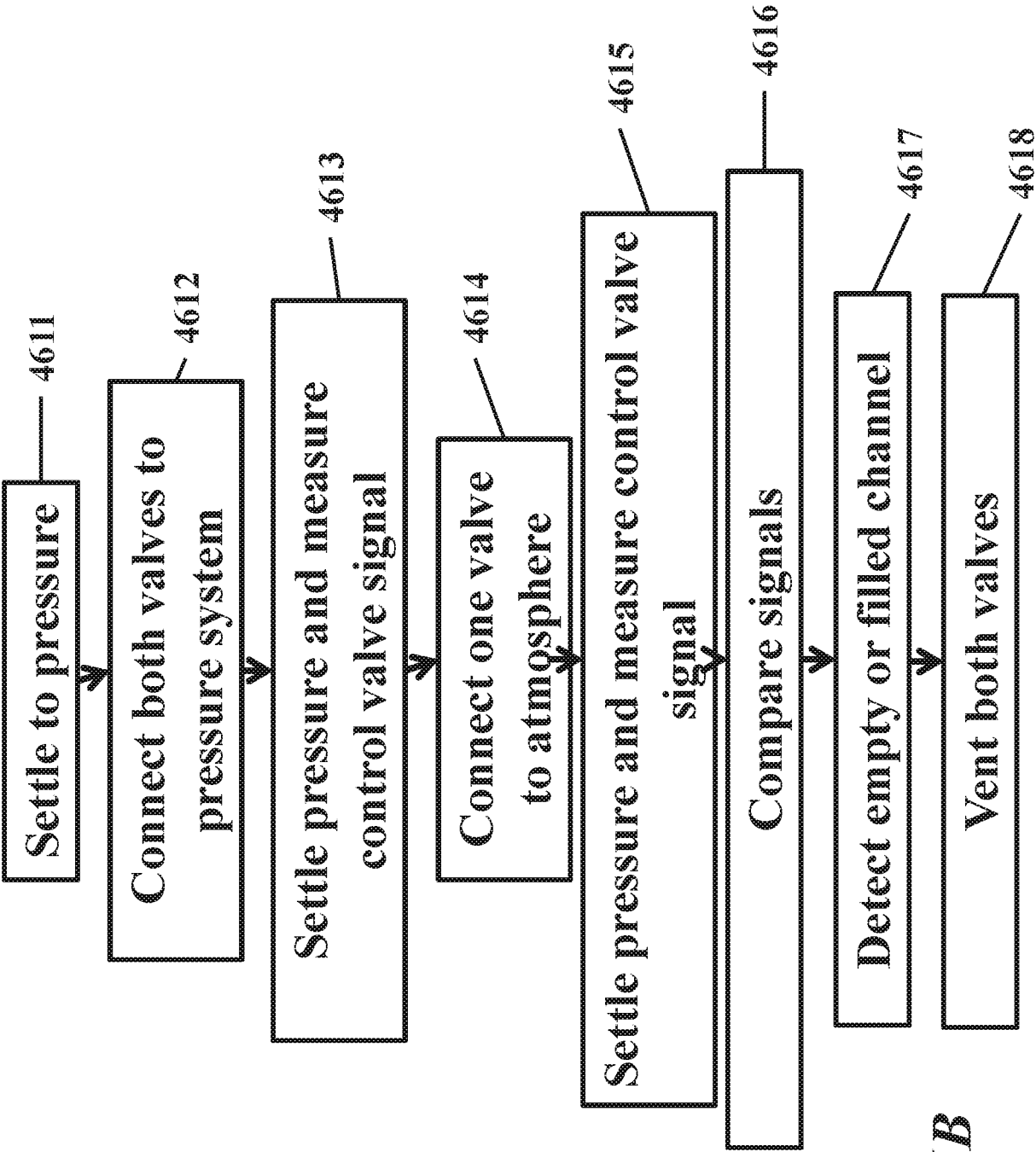


FIG. 46B

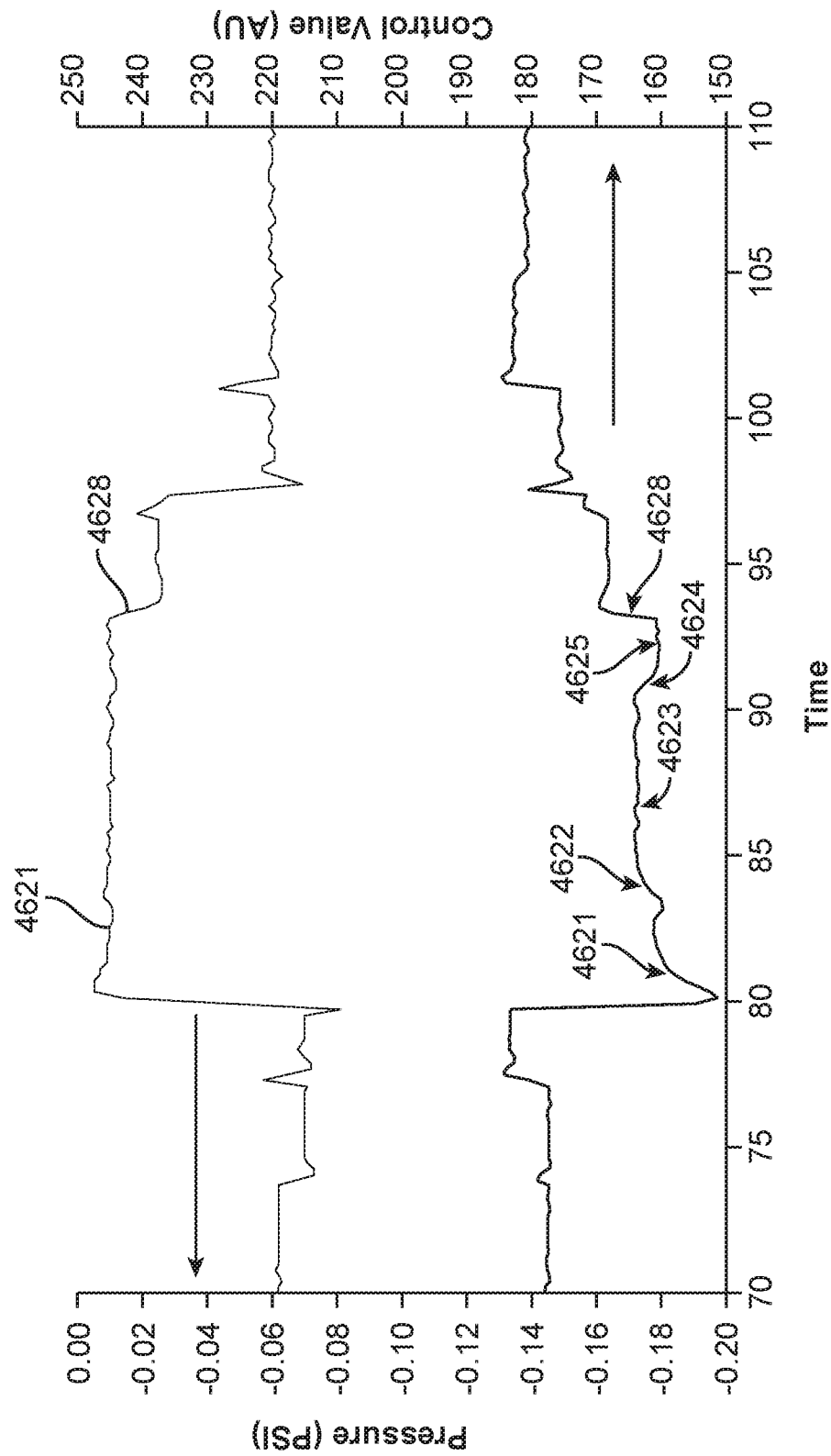
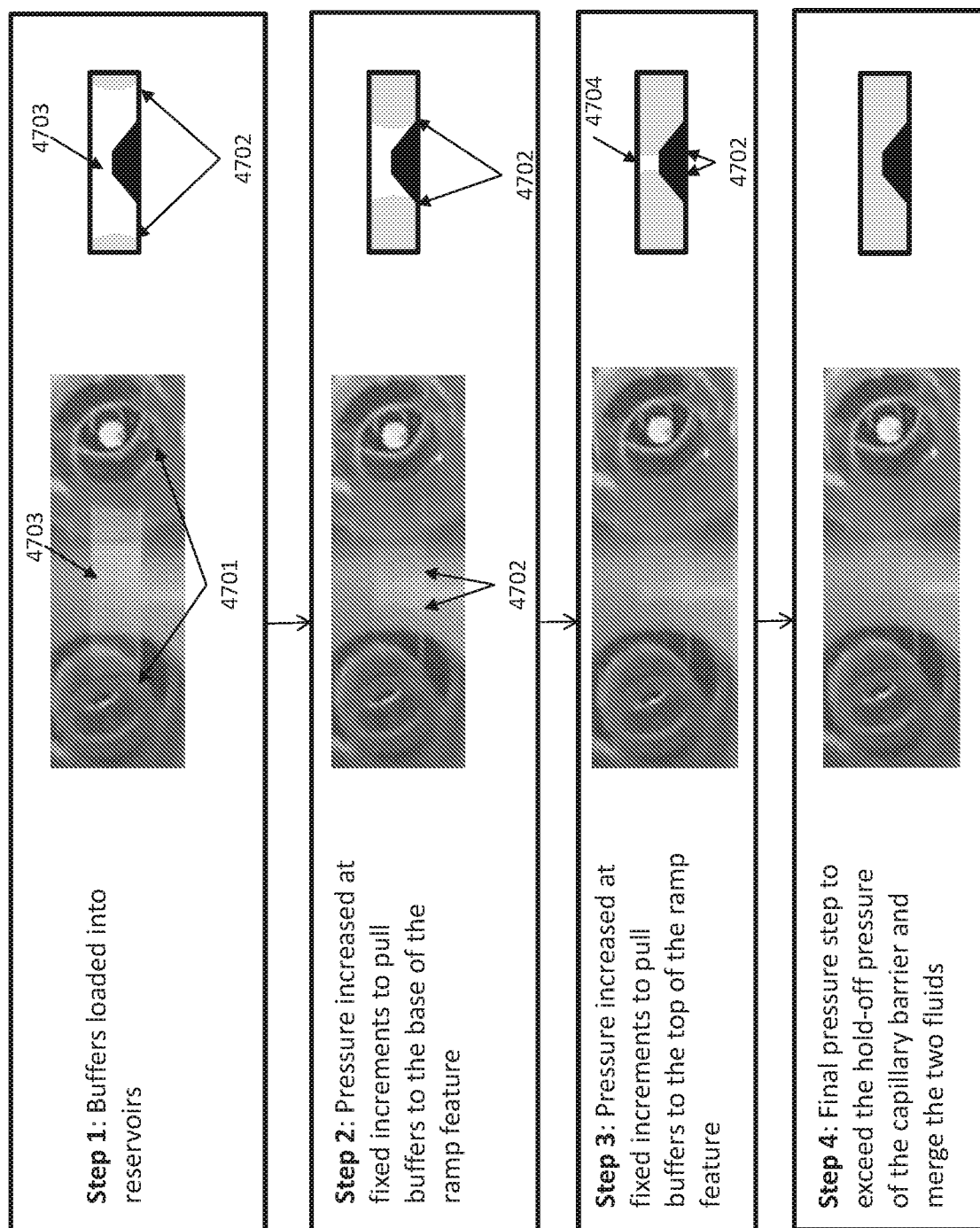


FIG. 46C



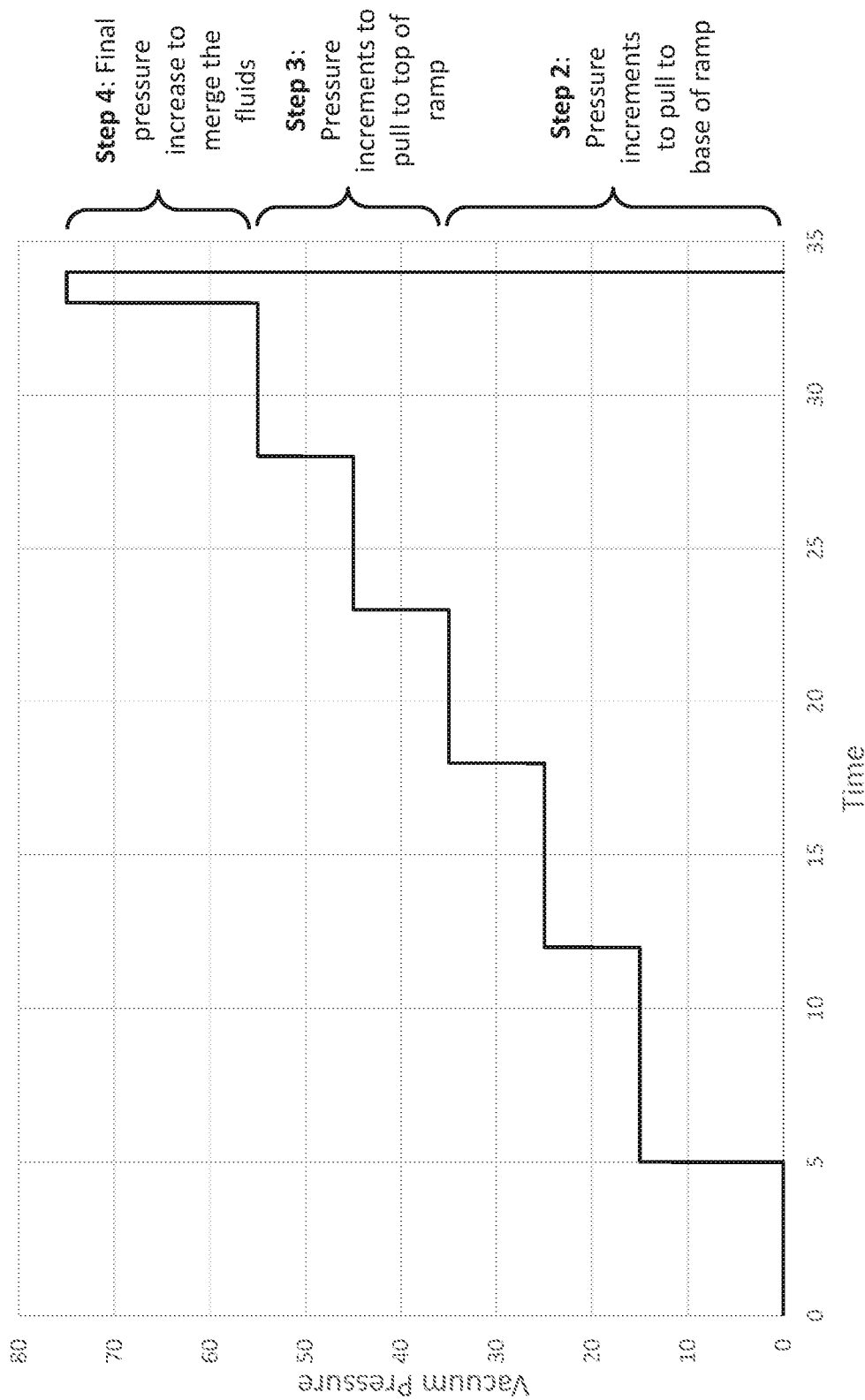


FIG. 47B

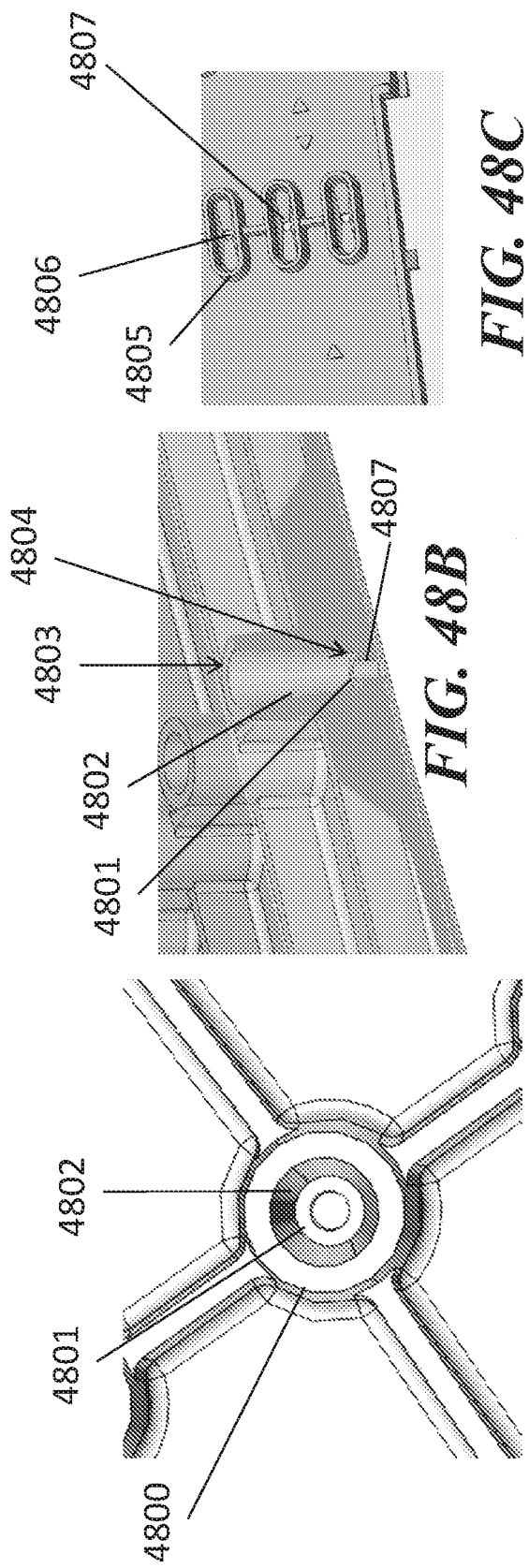


FIG. 48C

FIG. 48B

FIG. 48A

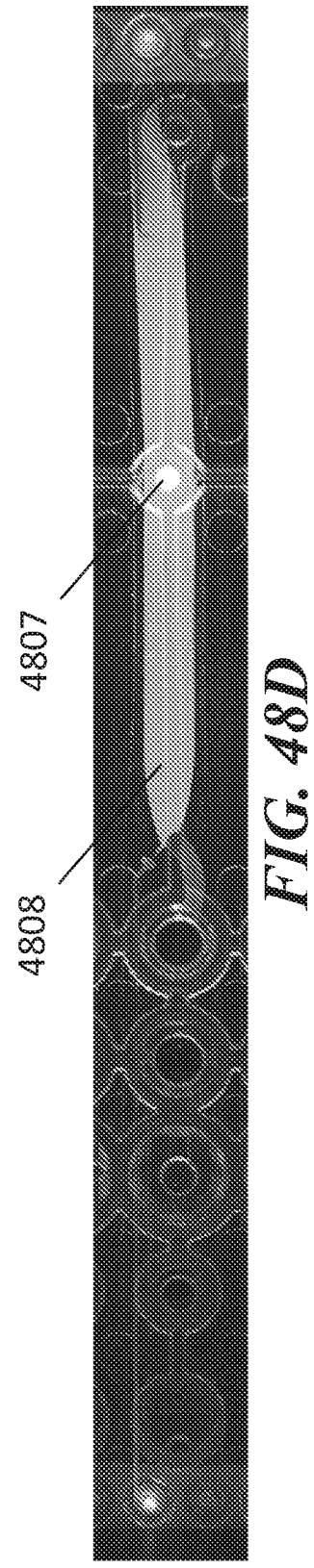
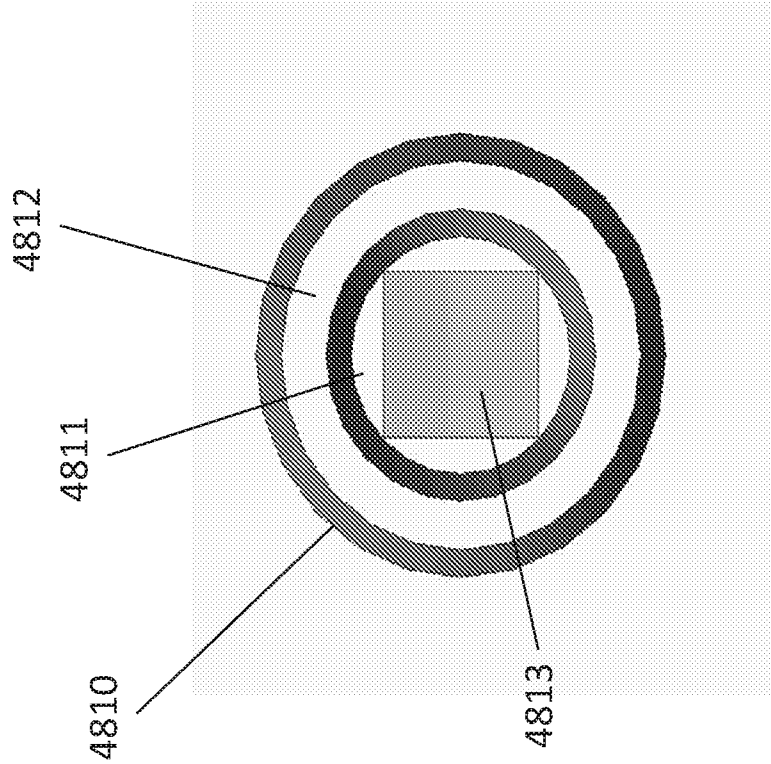
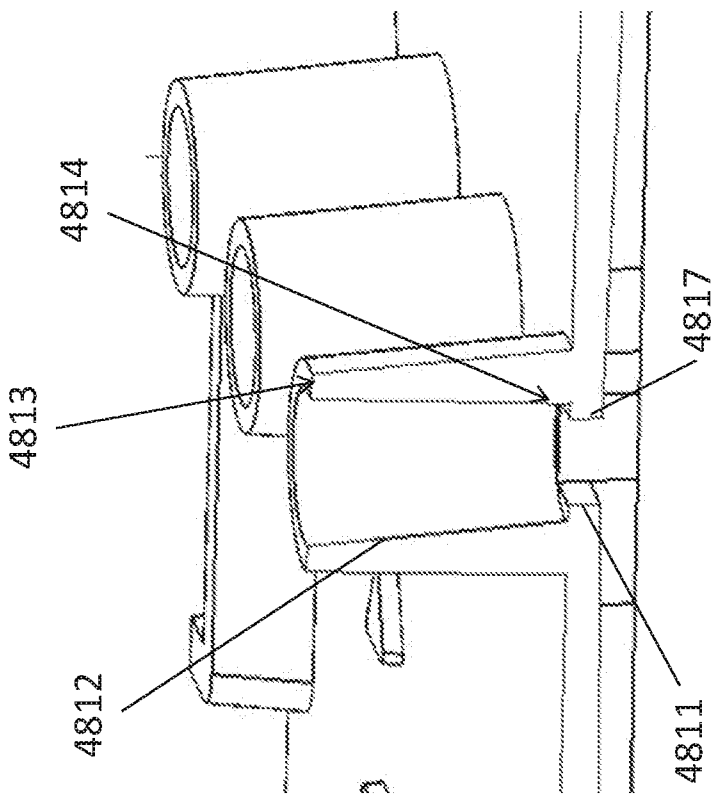


FIG. 48D



Top view

FIG. 48E



Section view

FIG. 48F

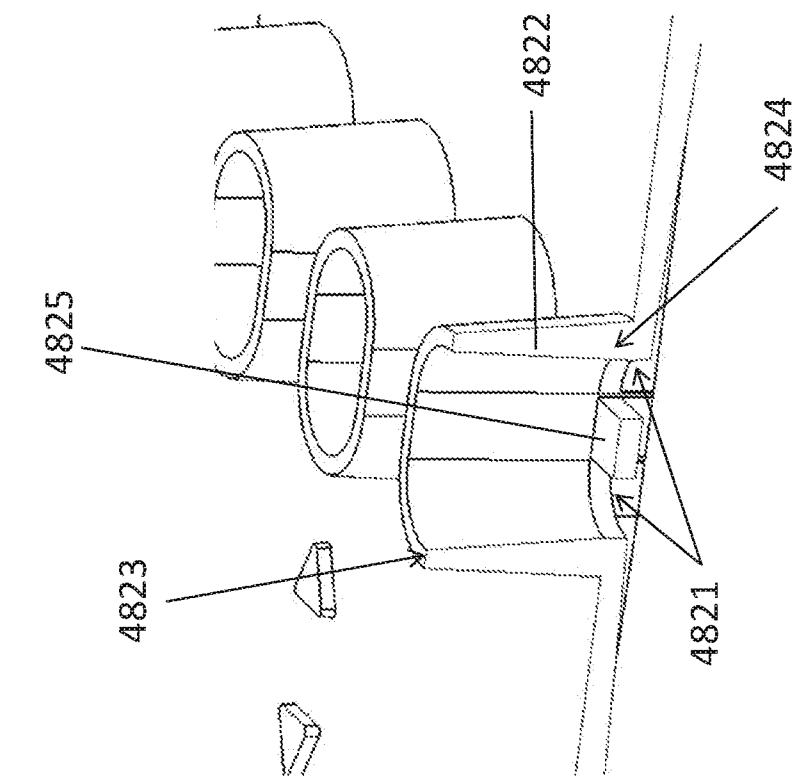


FIG. 48H

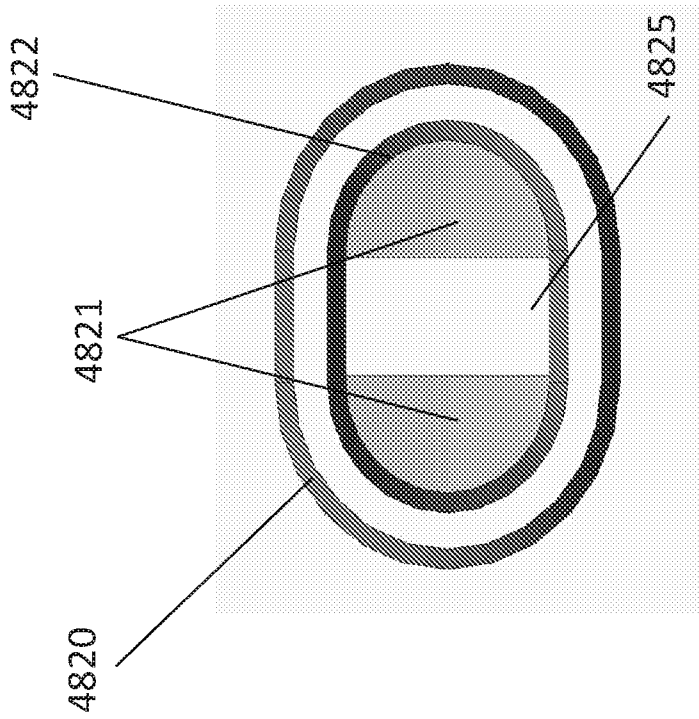


FIG. 48G

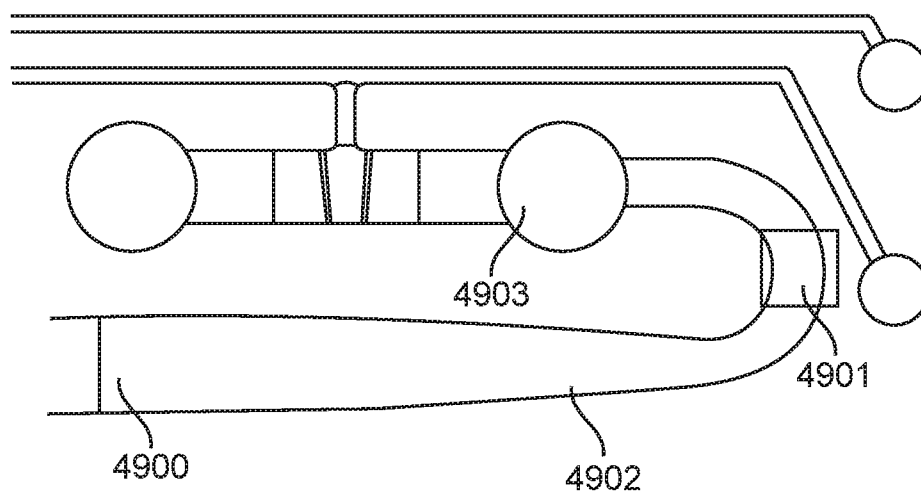


FIG. 49A

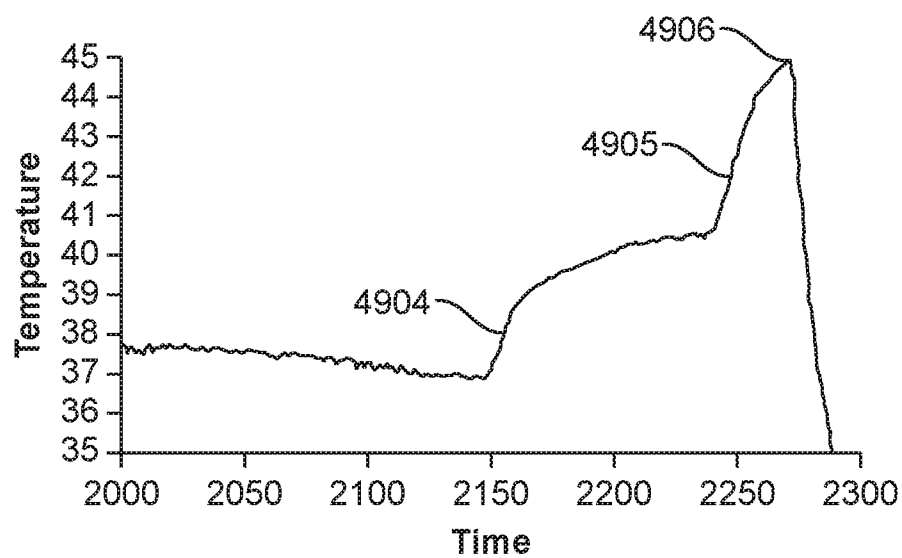


FIG. 49B

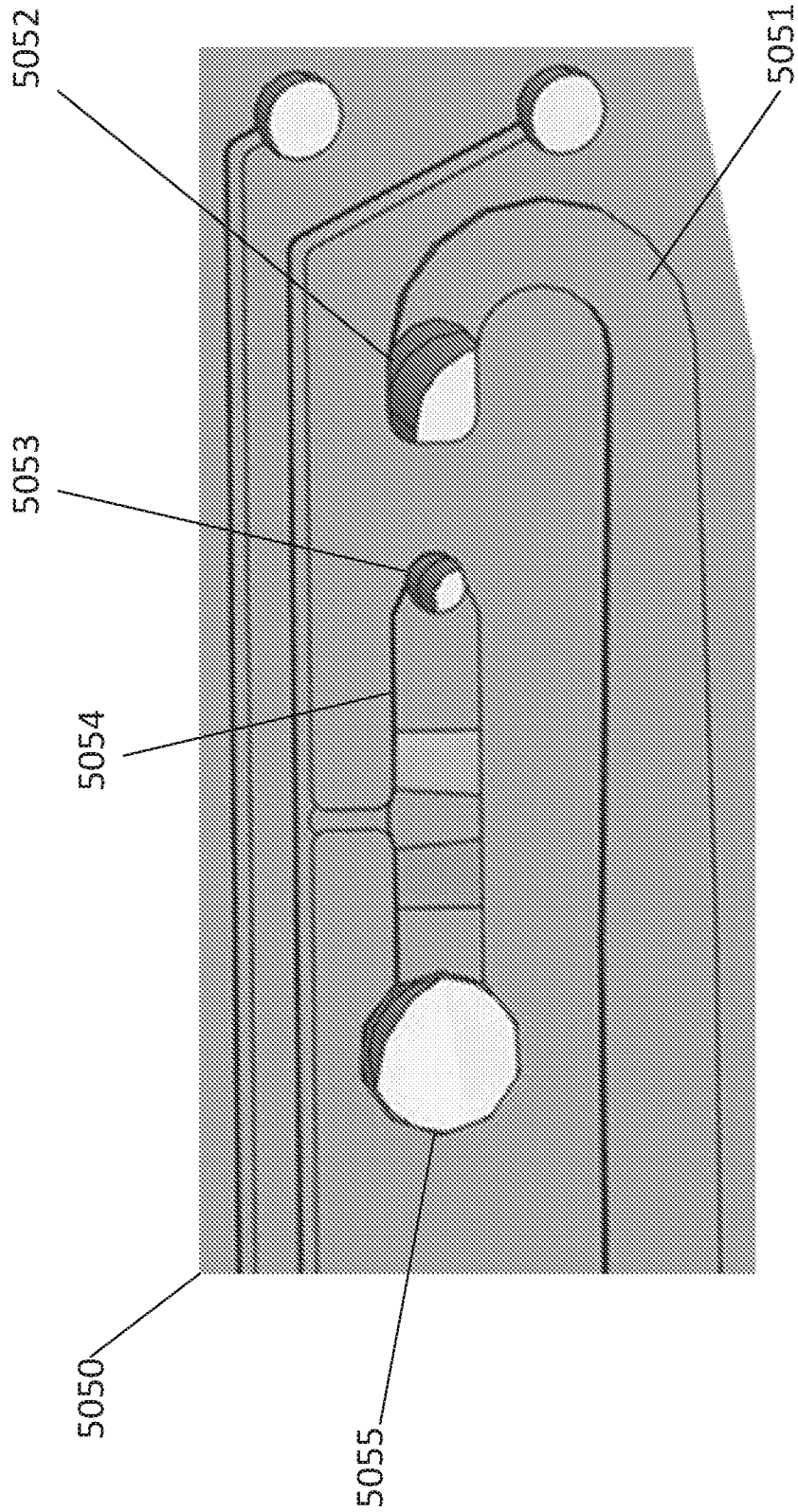


FIG. 50A1

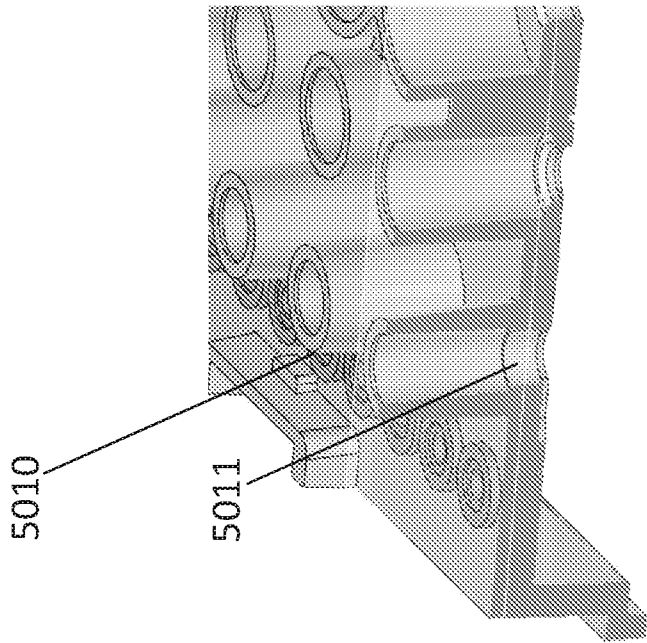


FIG. 50B

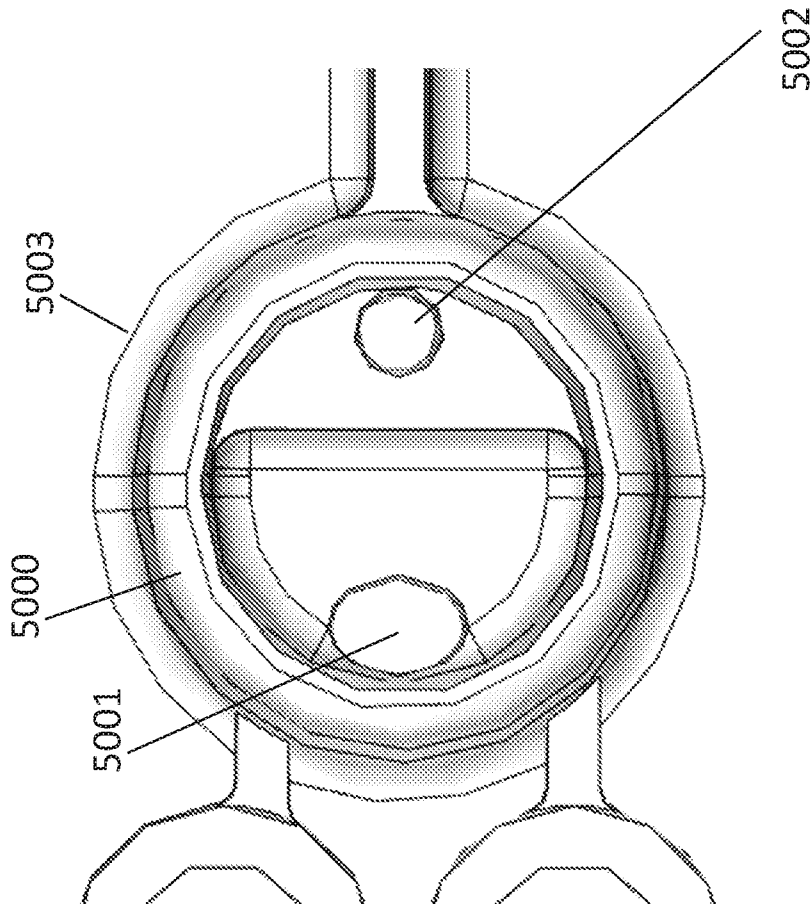


FIG. 50A



FIG. 50E



FIG. 50D

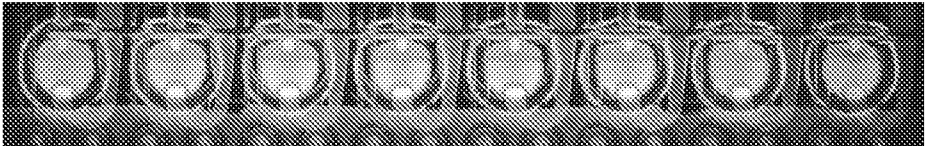


FIG. 50C

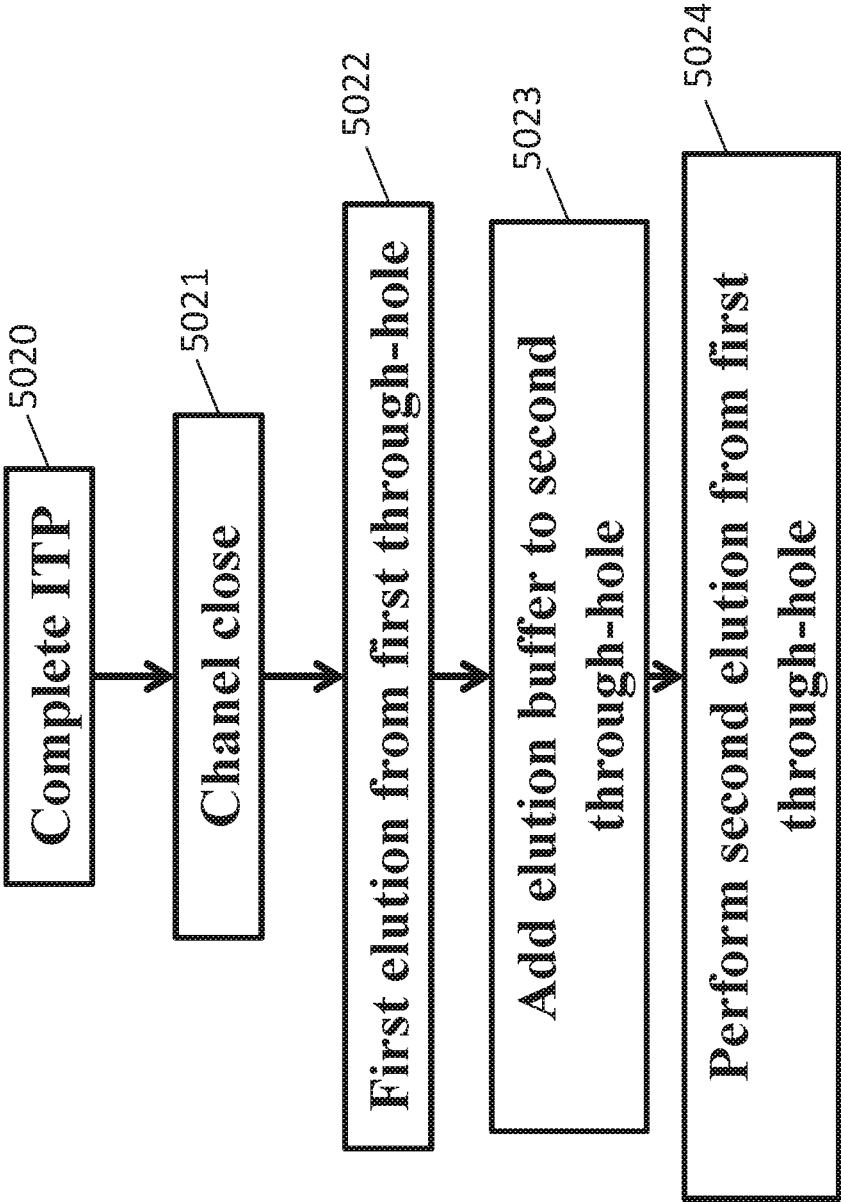
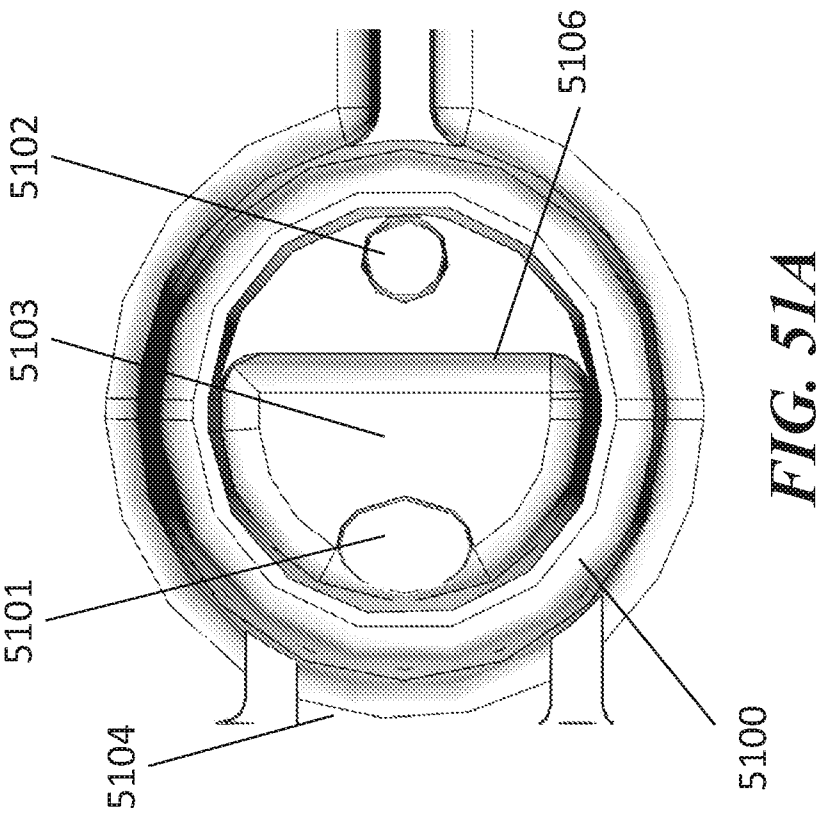
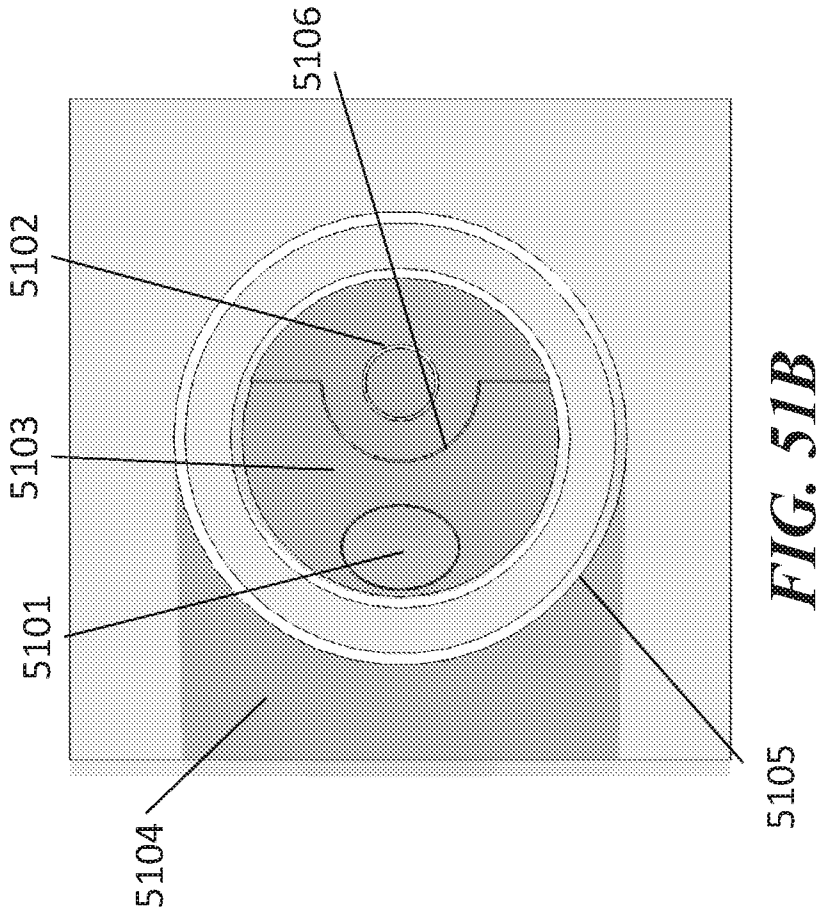


FIG. 50F



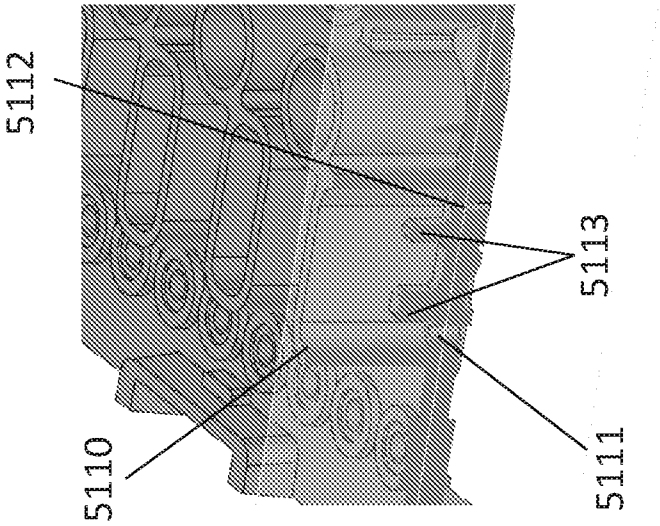


FIG. 51C

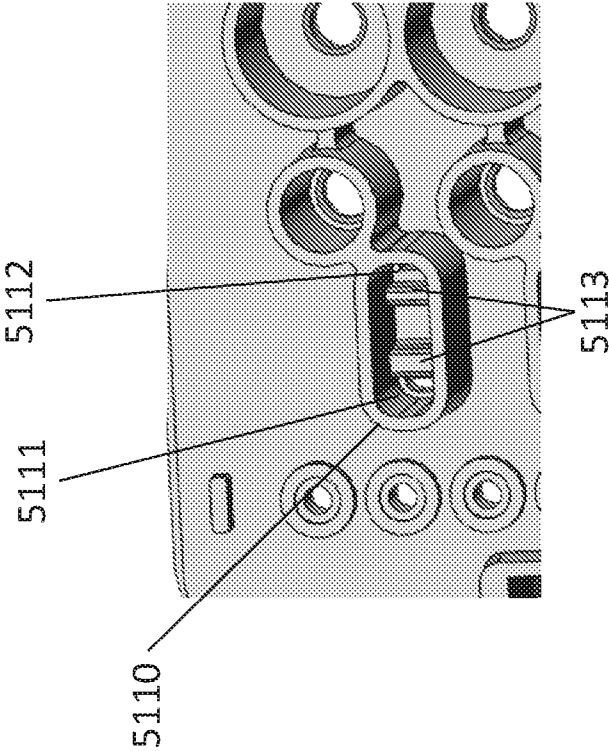


FIG. 51D

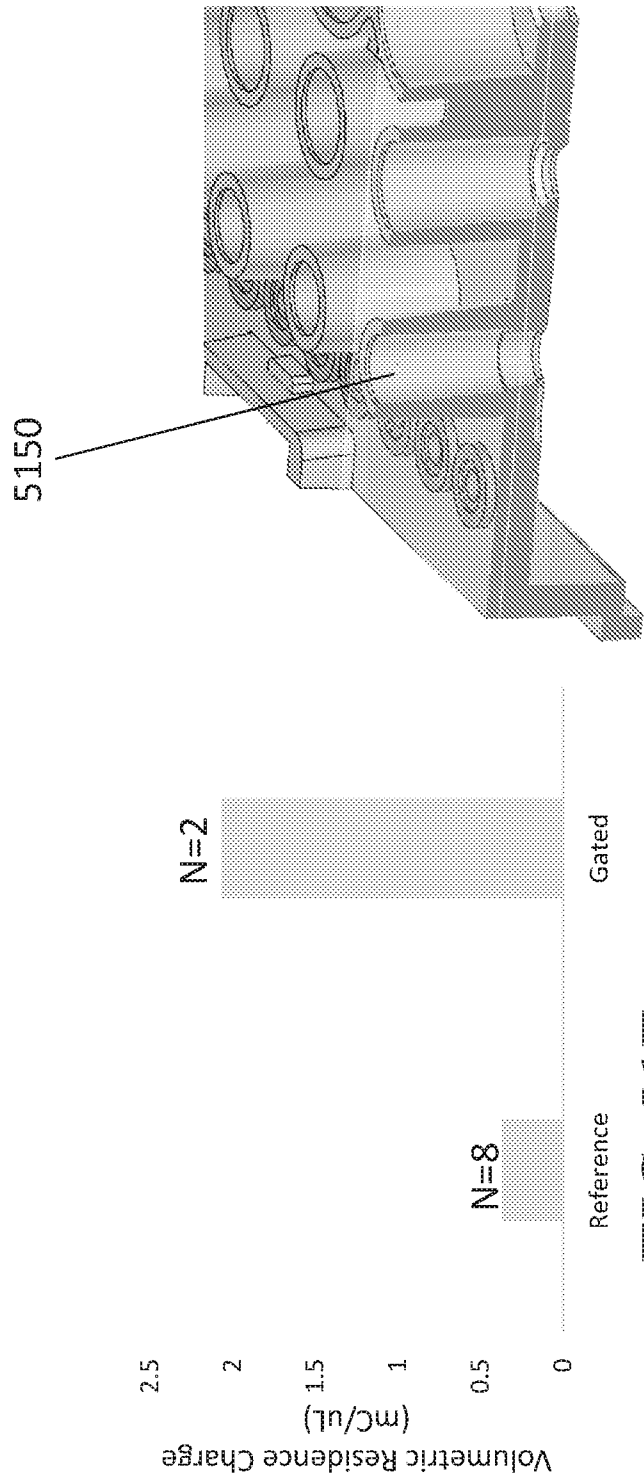
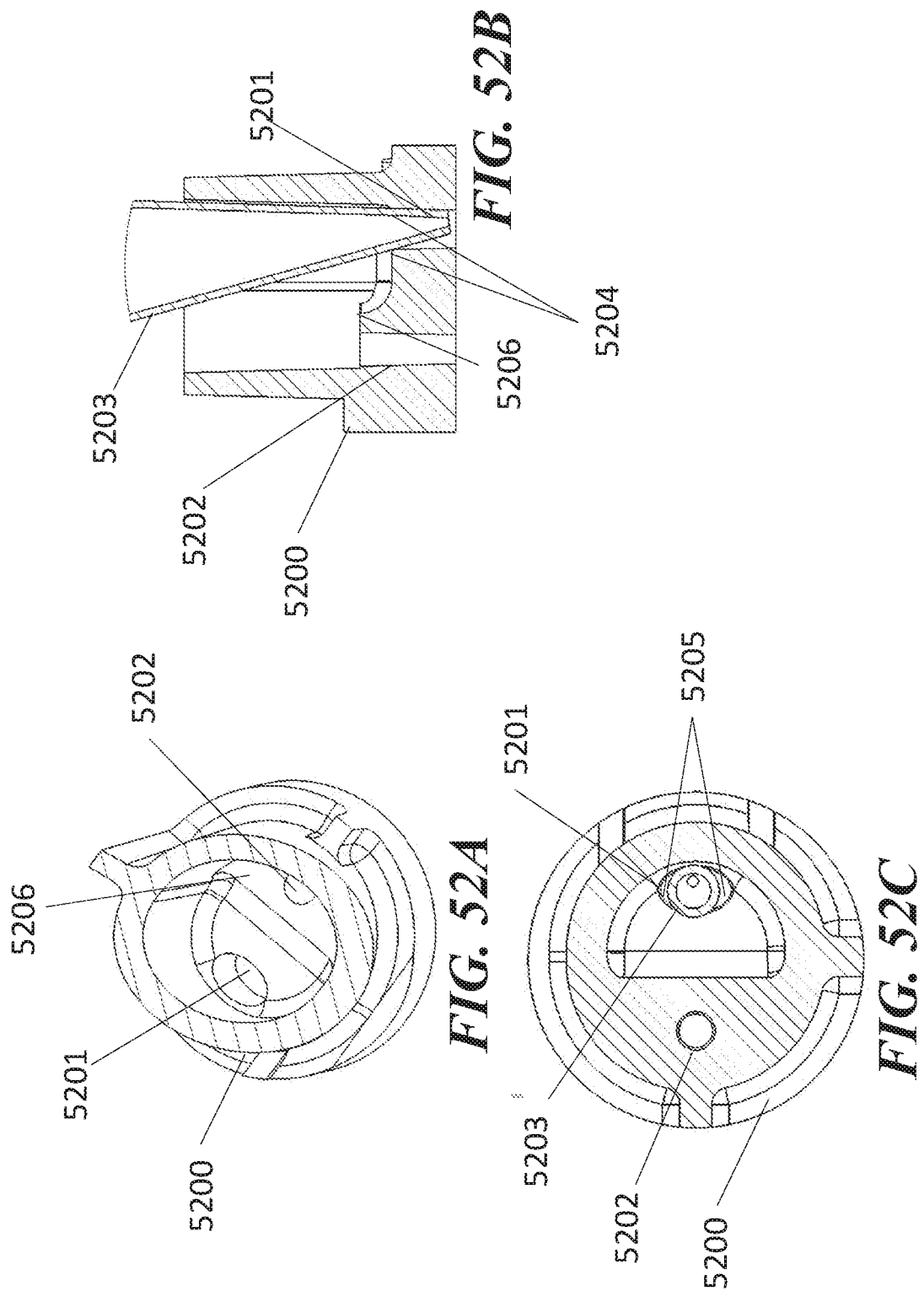


FIG. 51F

FIG. 51E



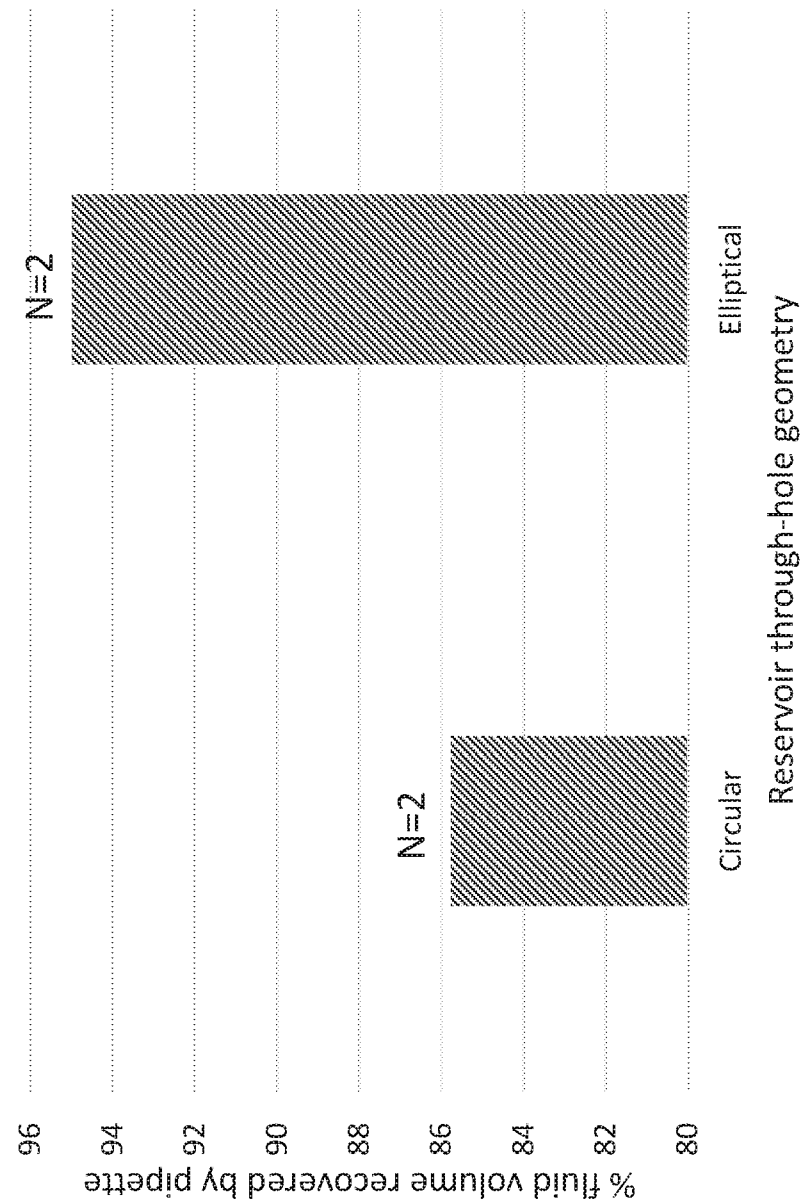


FIG. 52D

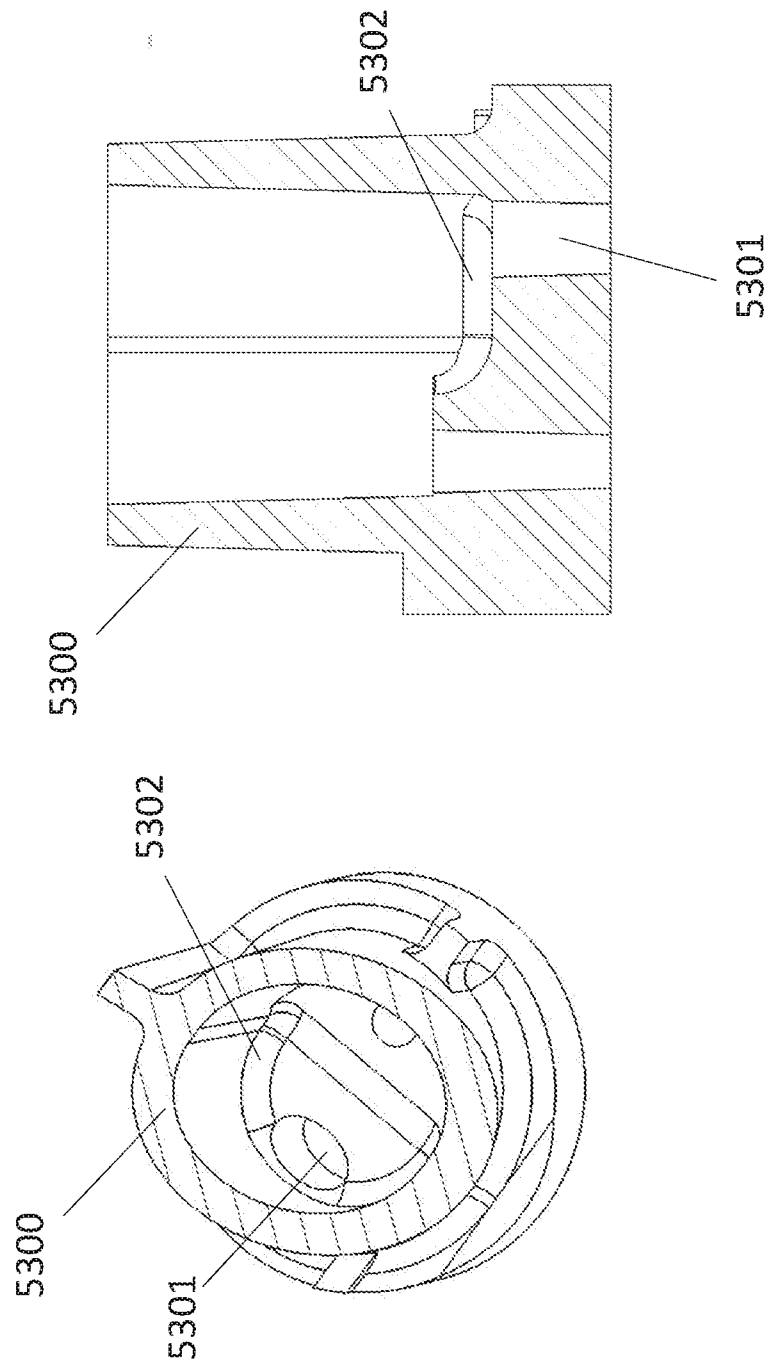


FIG. 53A

FIG. 53B

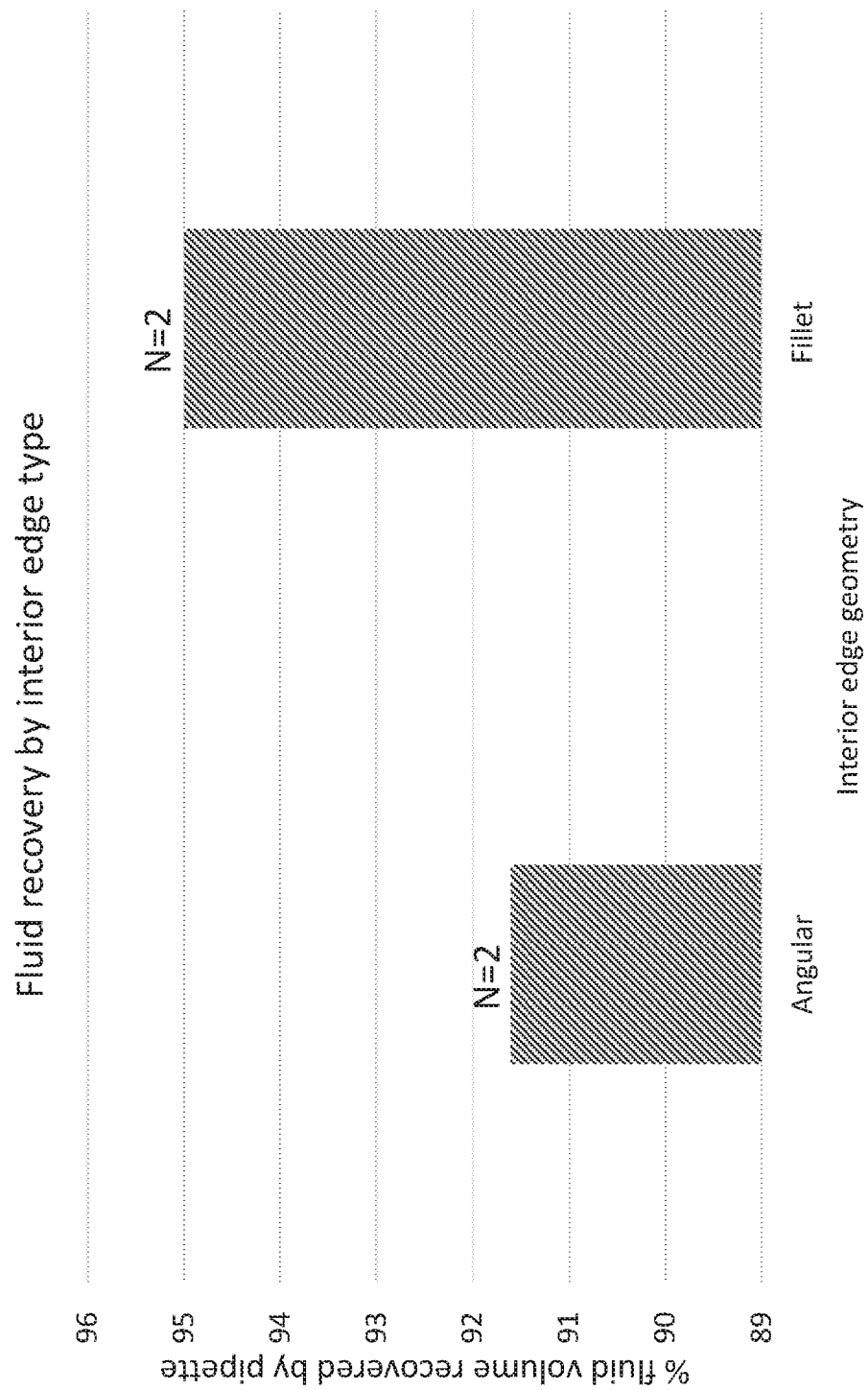


FIG. 53C

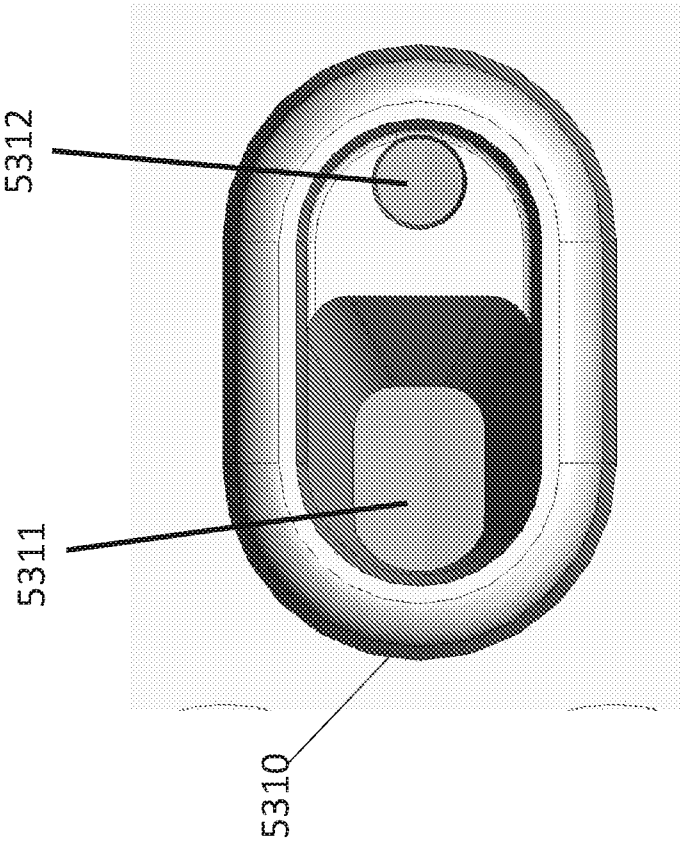


FIG. 53D

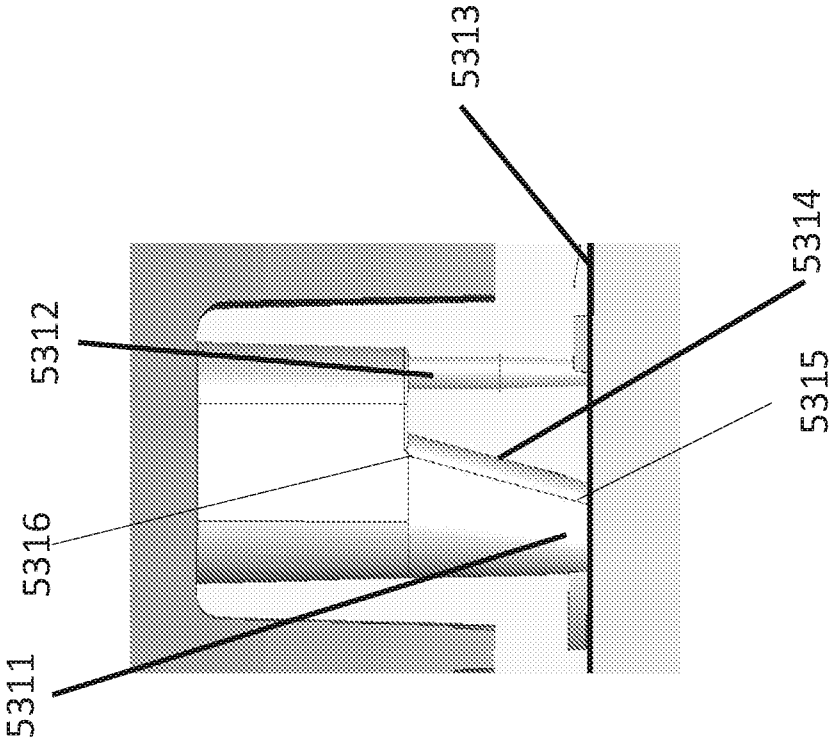


FIG. 53E

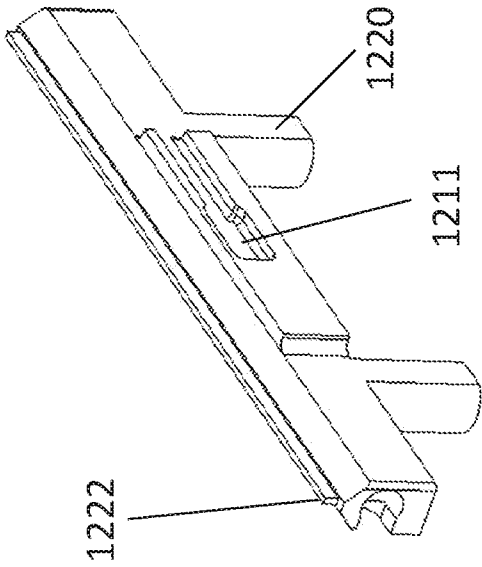


FIG. 54A

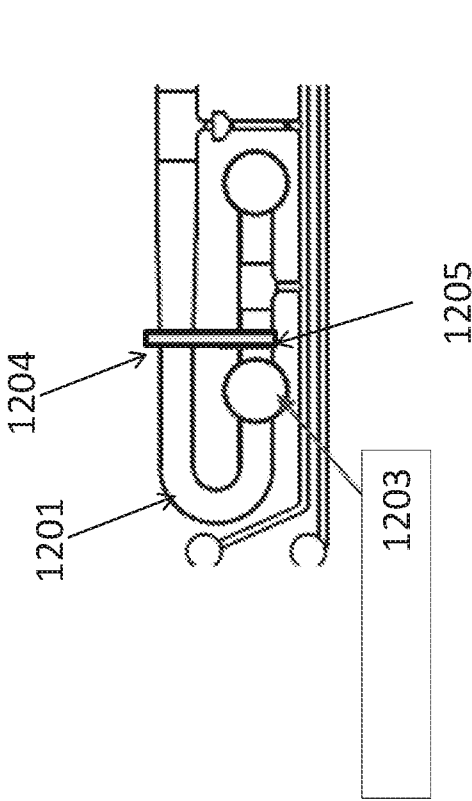


FIG. 54B

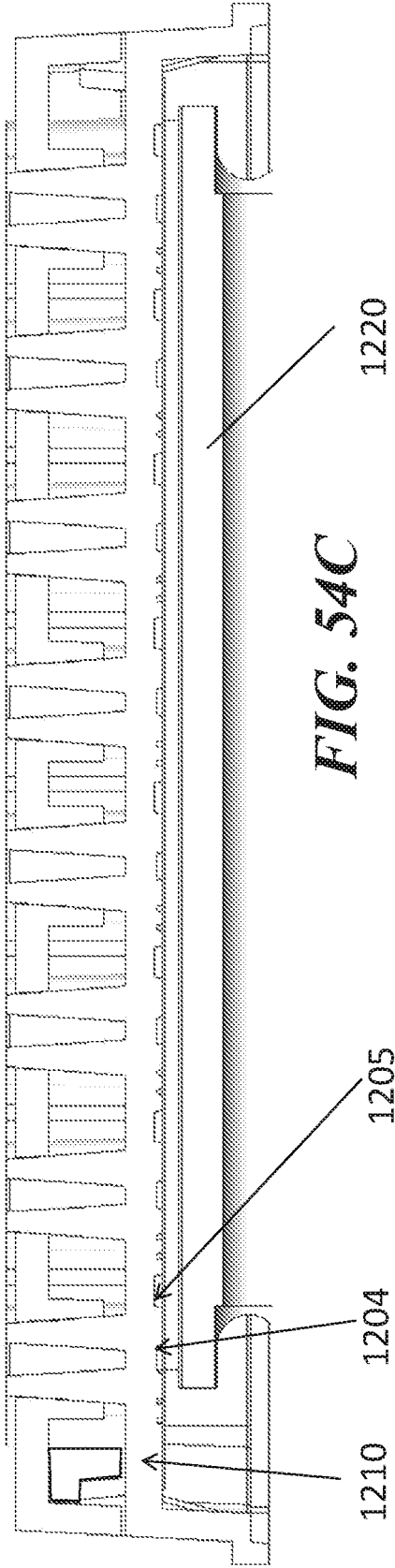
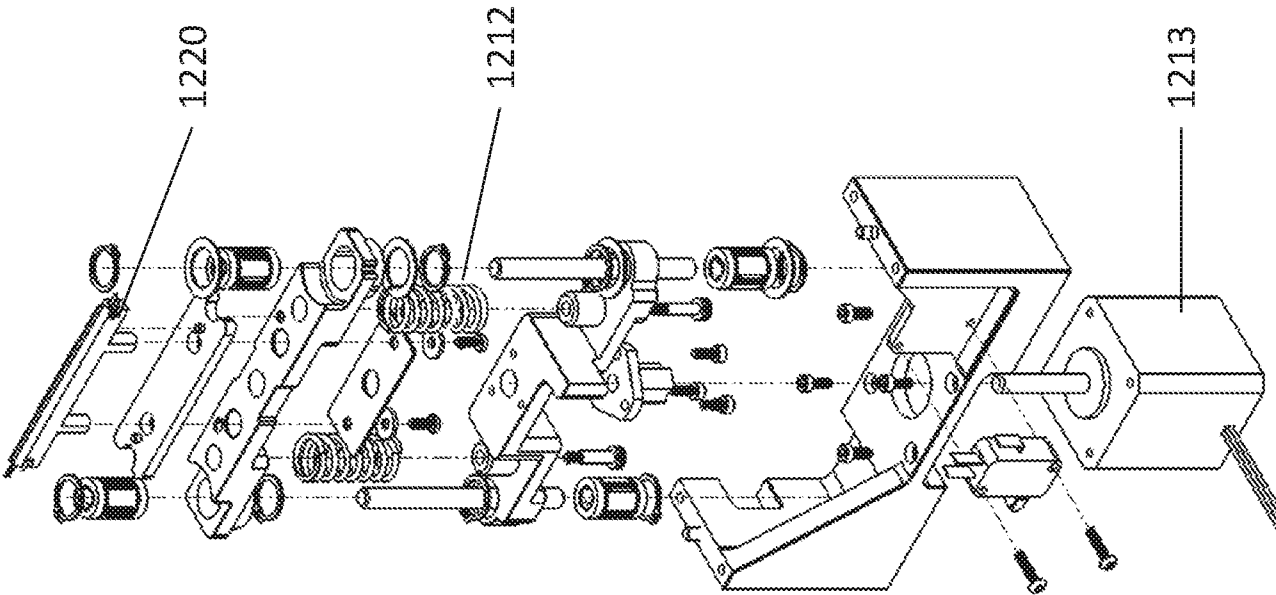
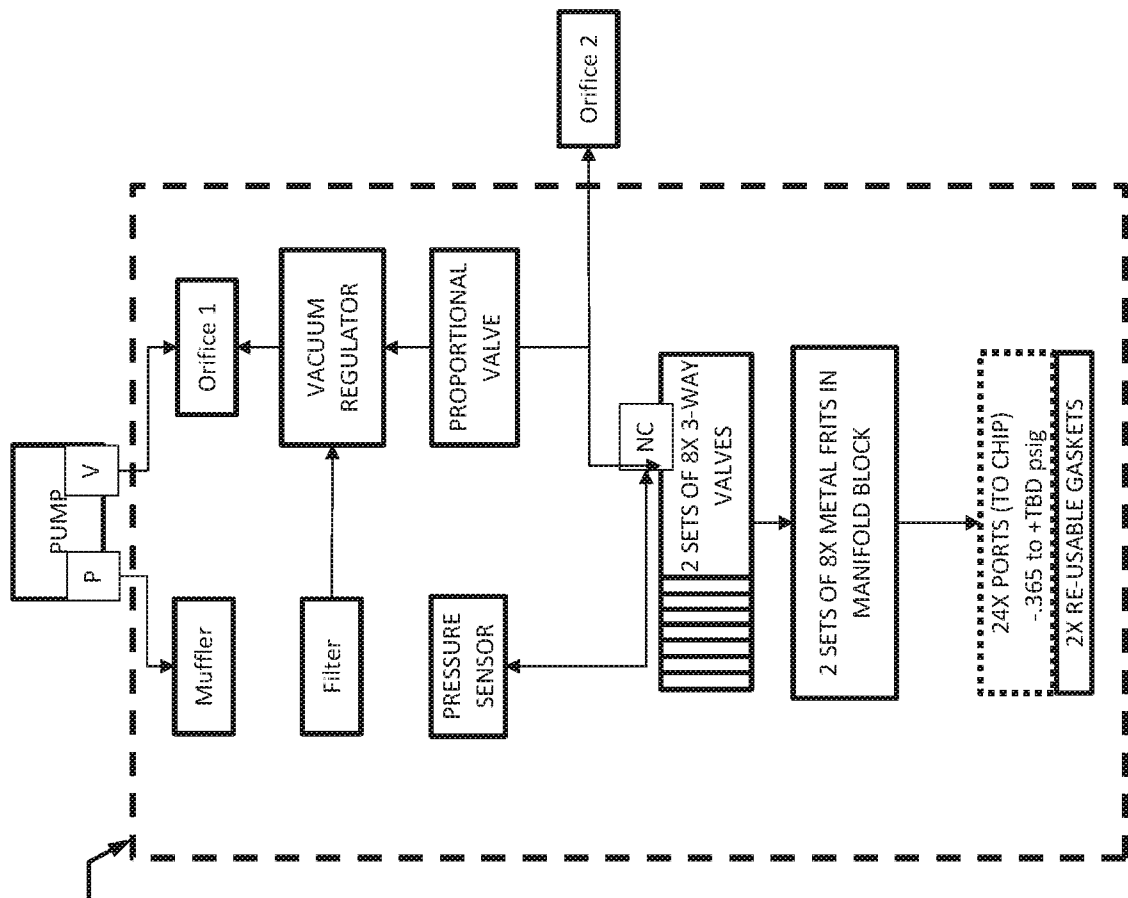


FIG. 54C

FIG. 54D





Items in the box are
on the manifold block

Pneumatic control block diagram for
beta prototype and production
instrument

FIG. 55

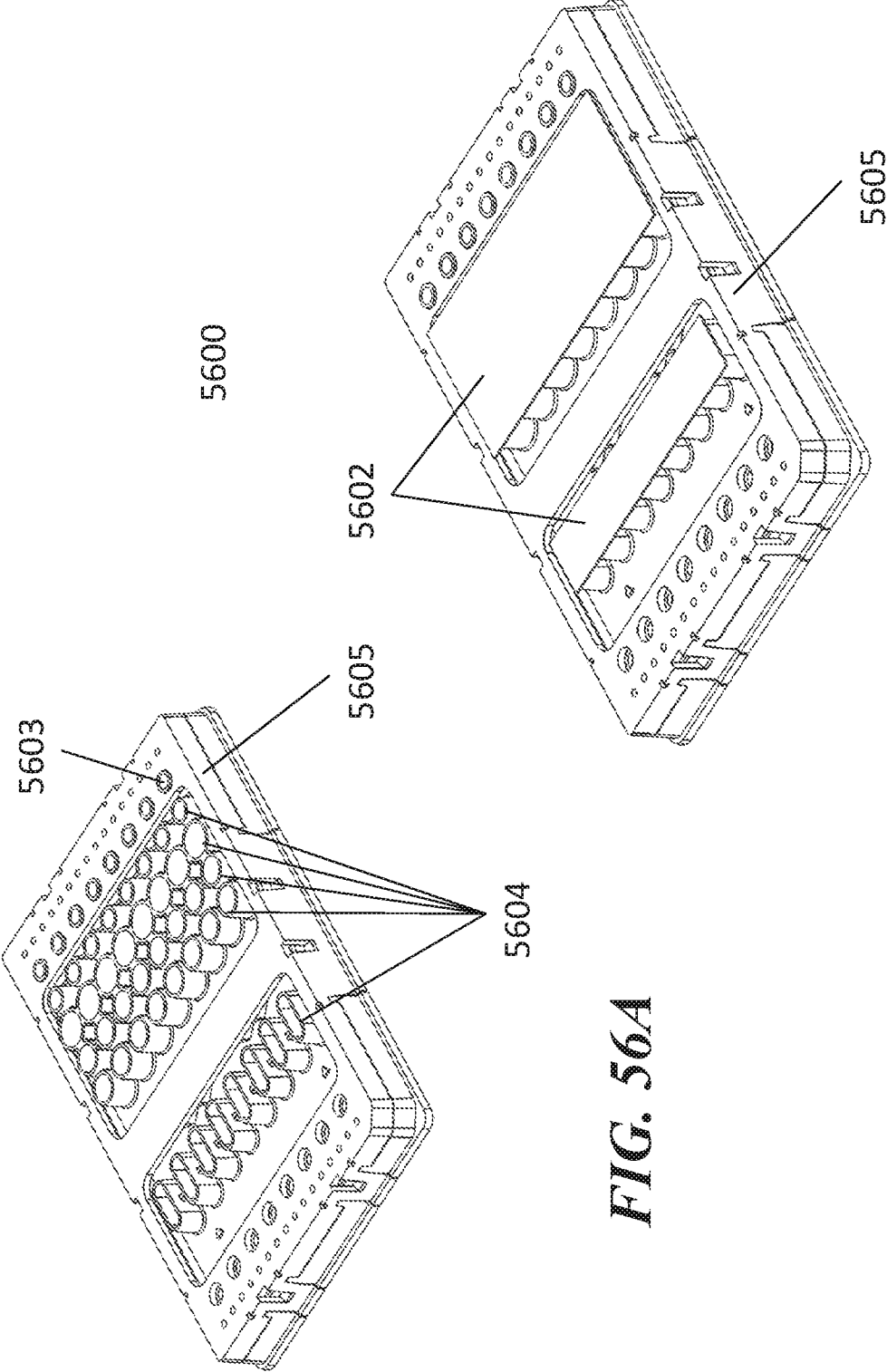


FIG. 56B

FIG. 56A

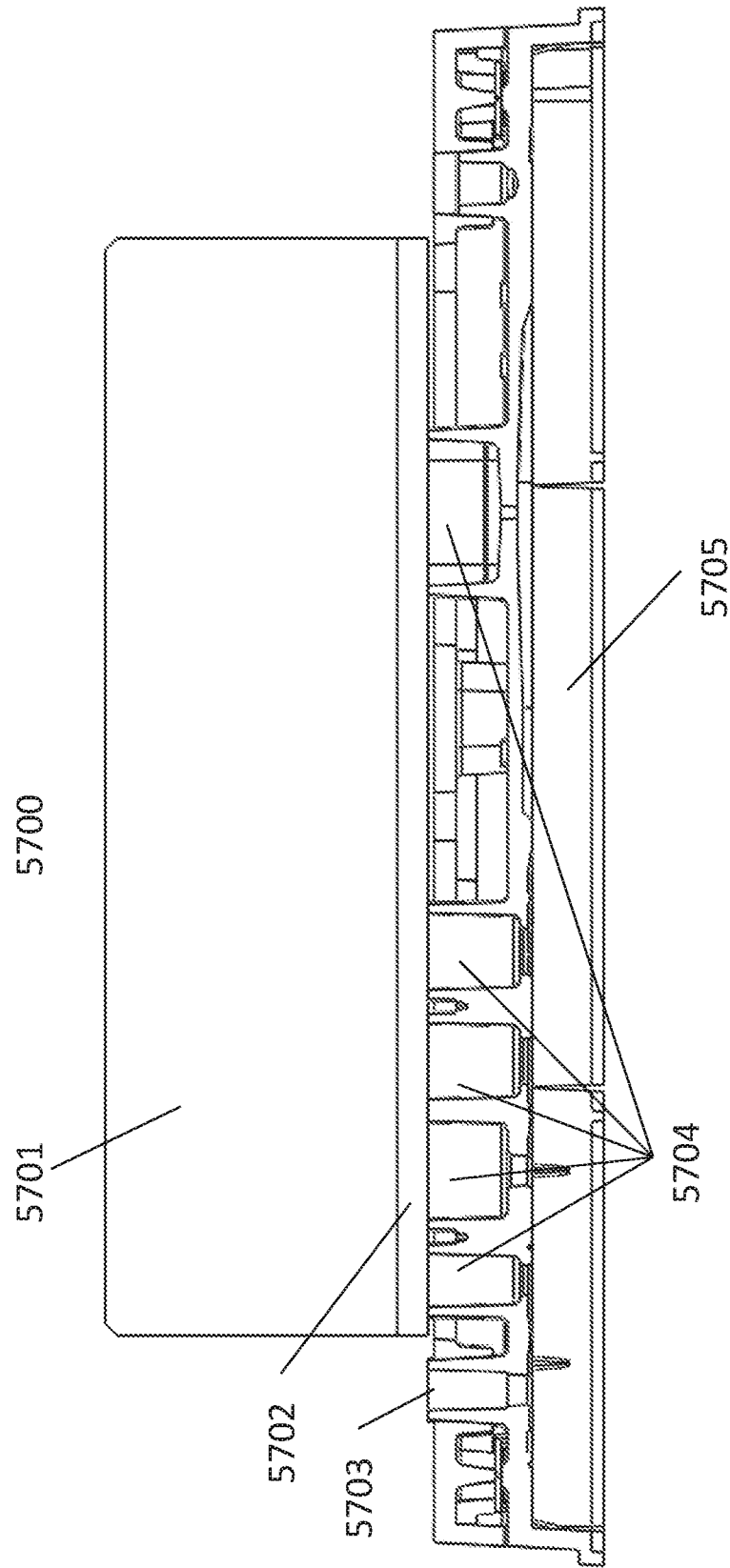


FIG. 57

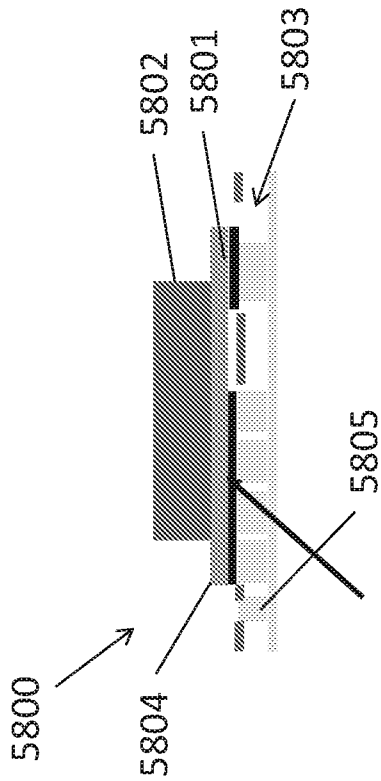


FIG. 58B

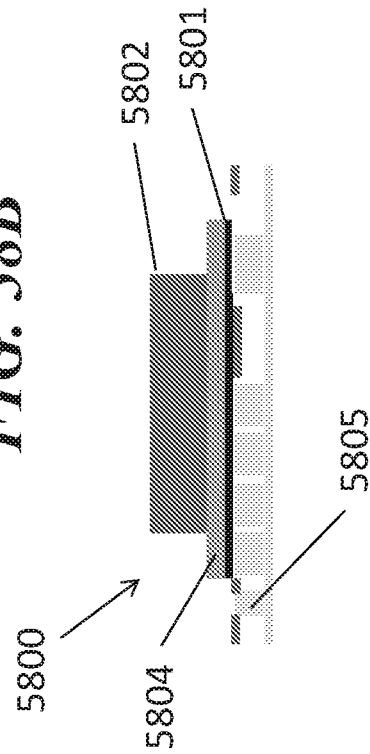


FIG. 58C

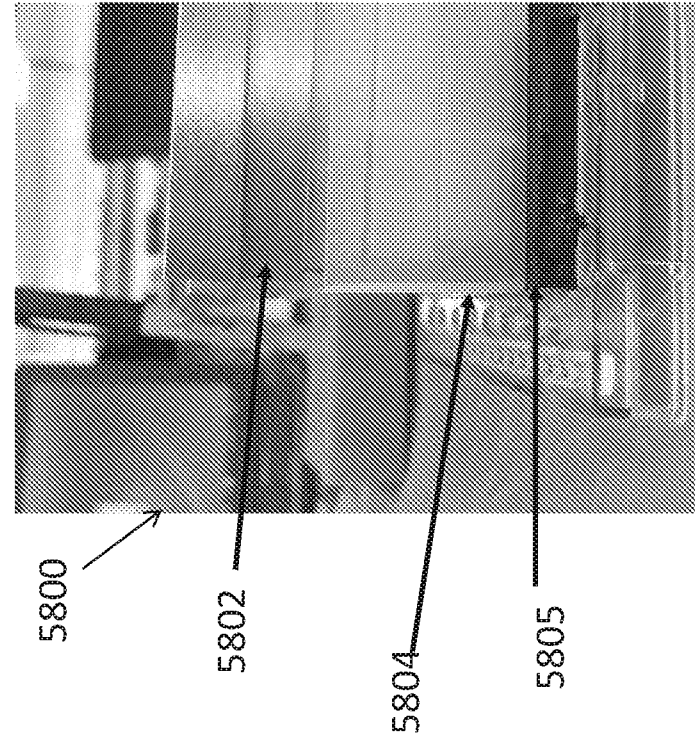
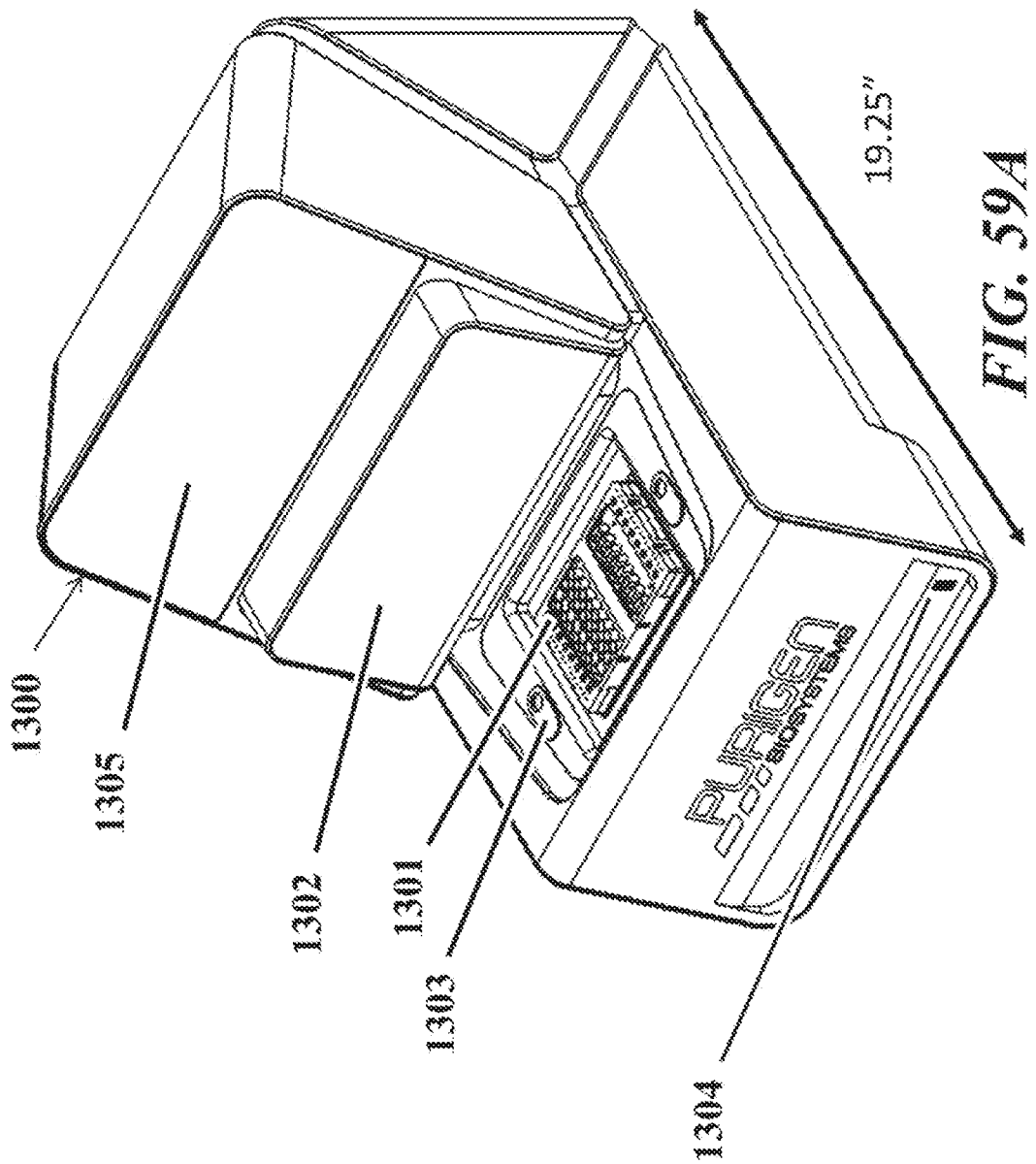


FIG. 58A



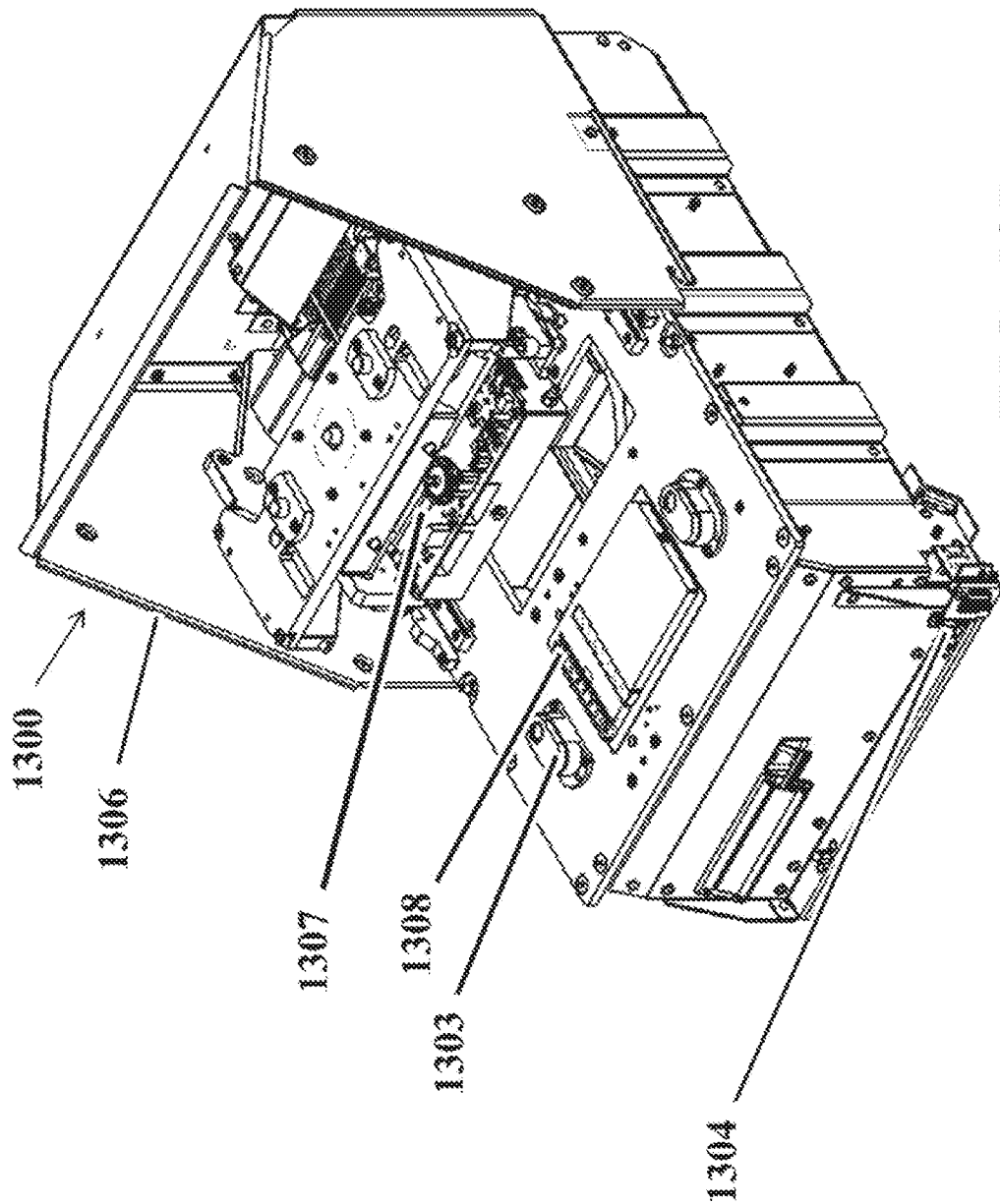


FIG. 59B

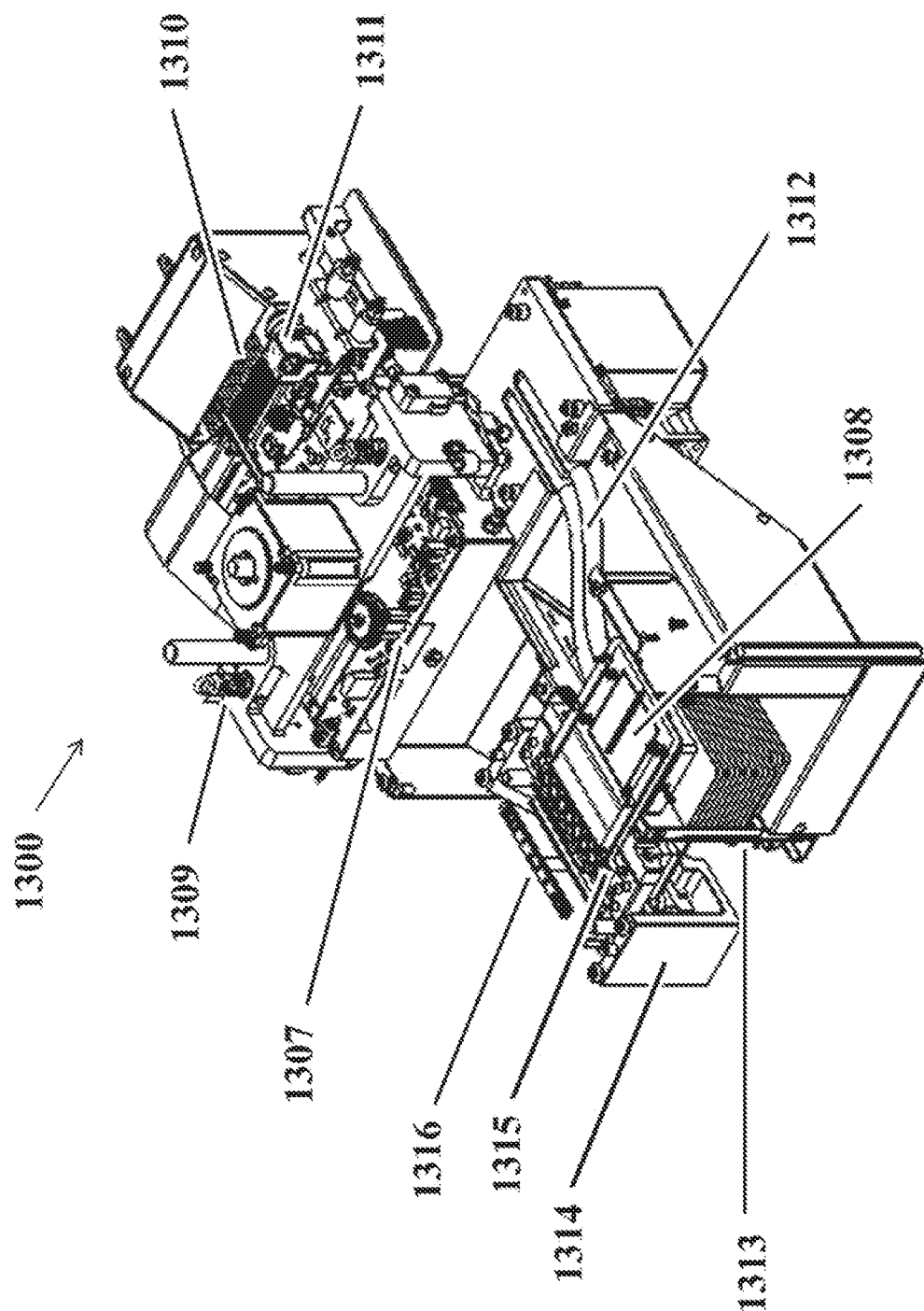


FIG. 59C

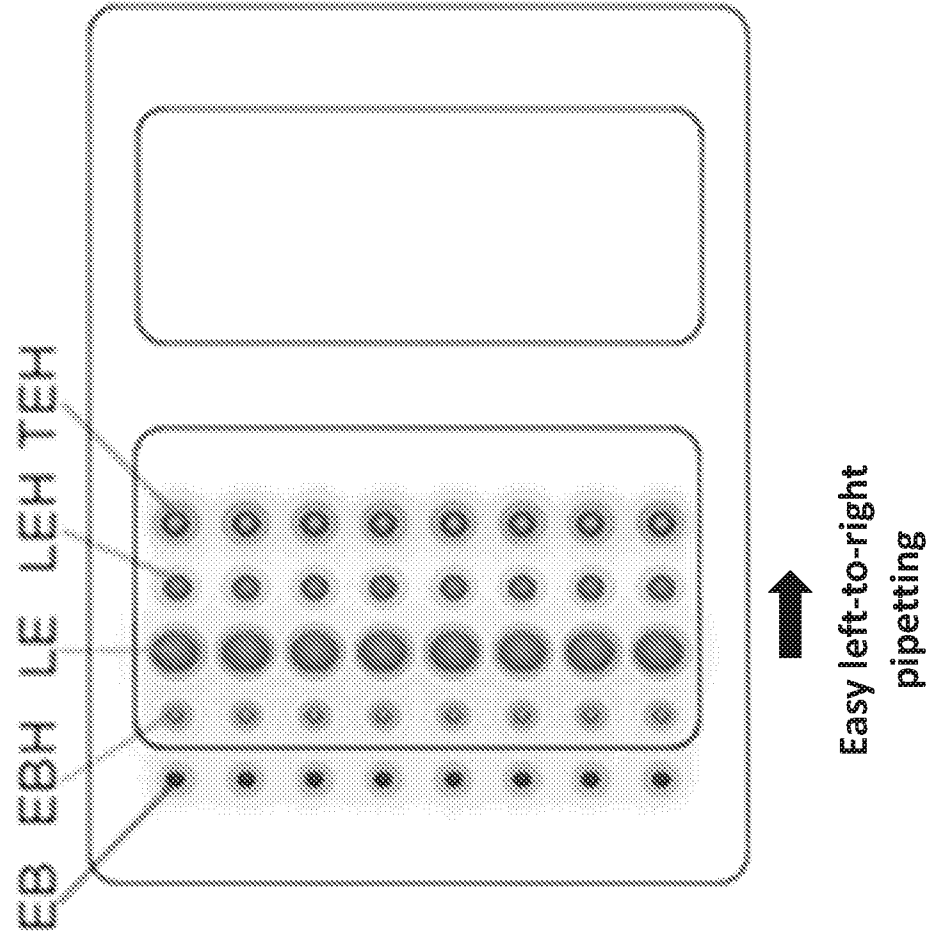


FIG. 60

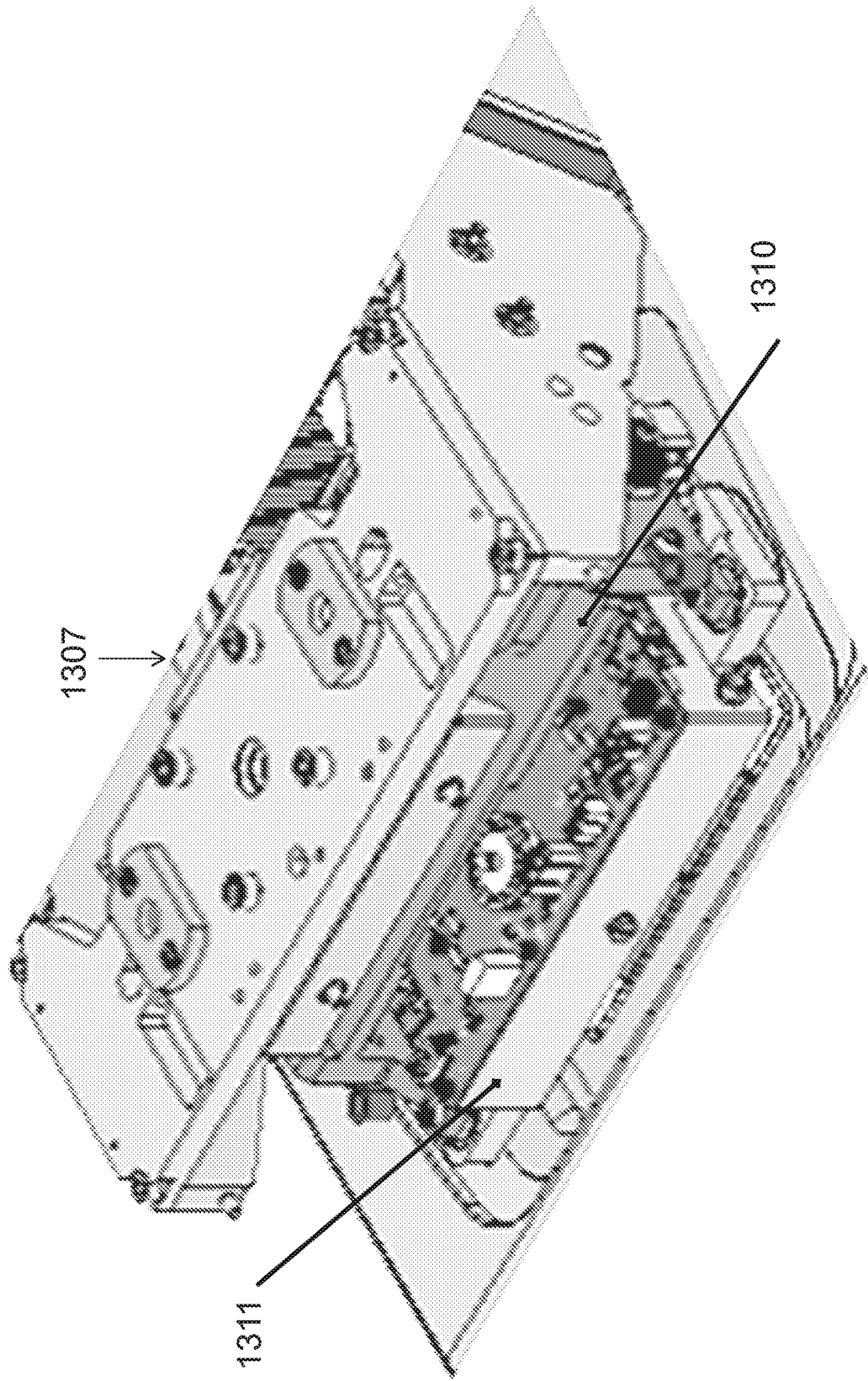


FIG. 61

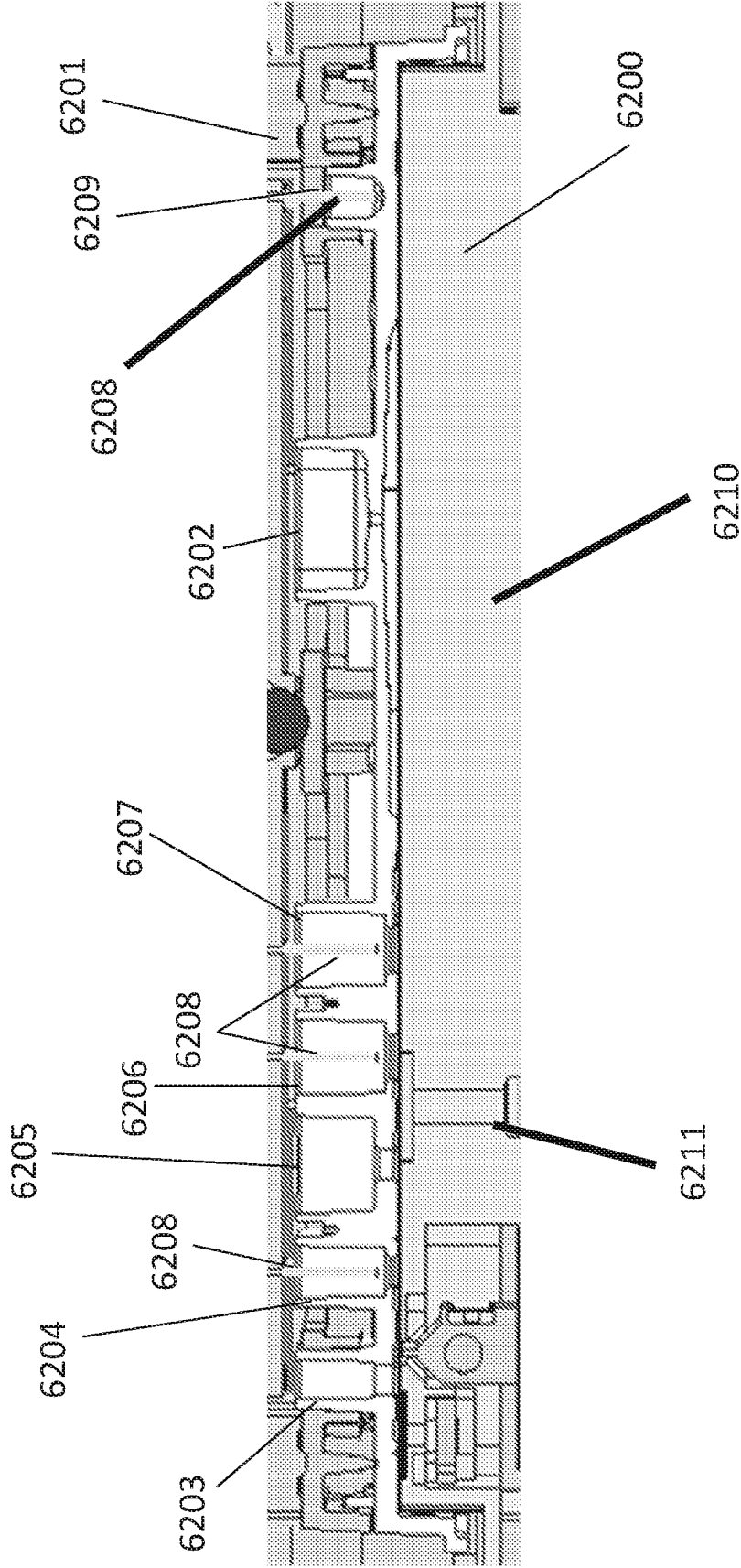


FIG. 62

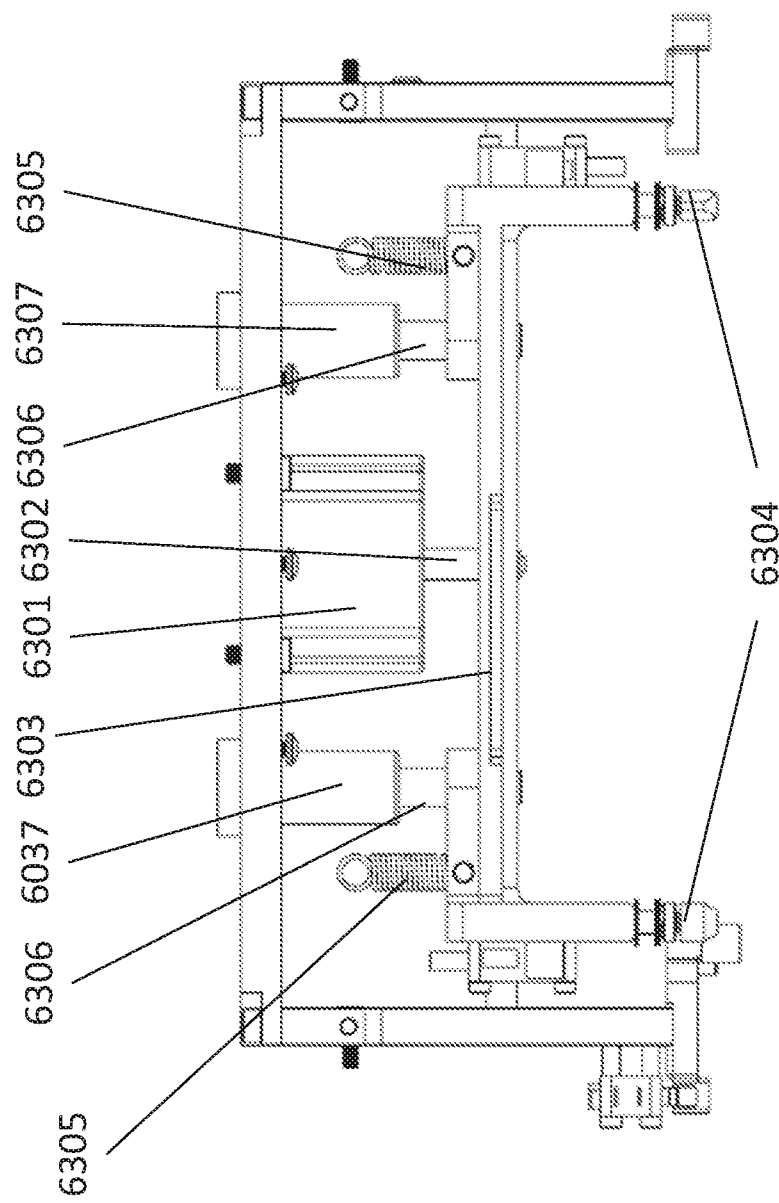


FIG. 63

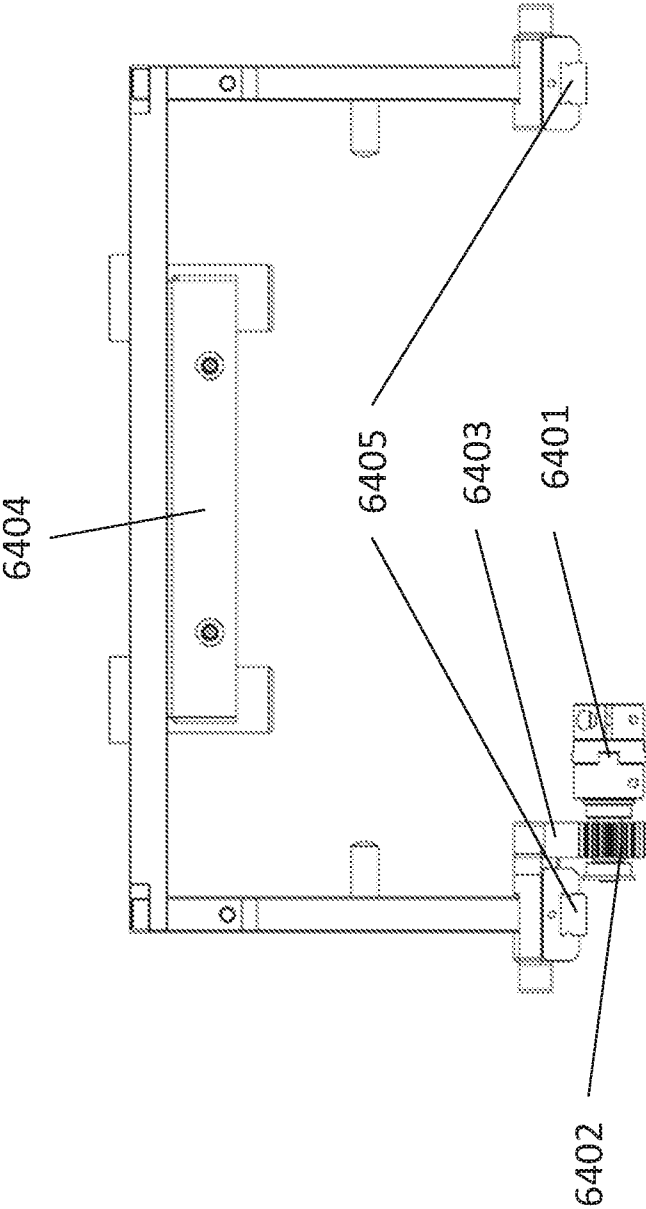


FIG. 64

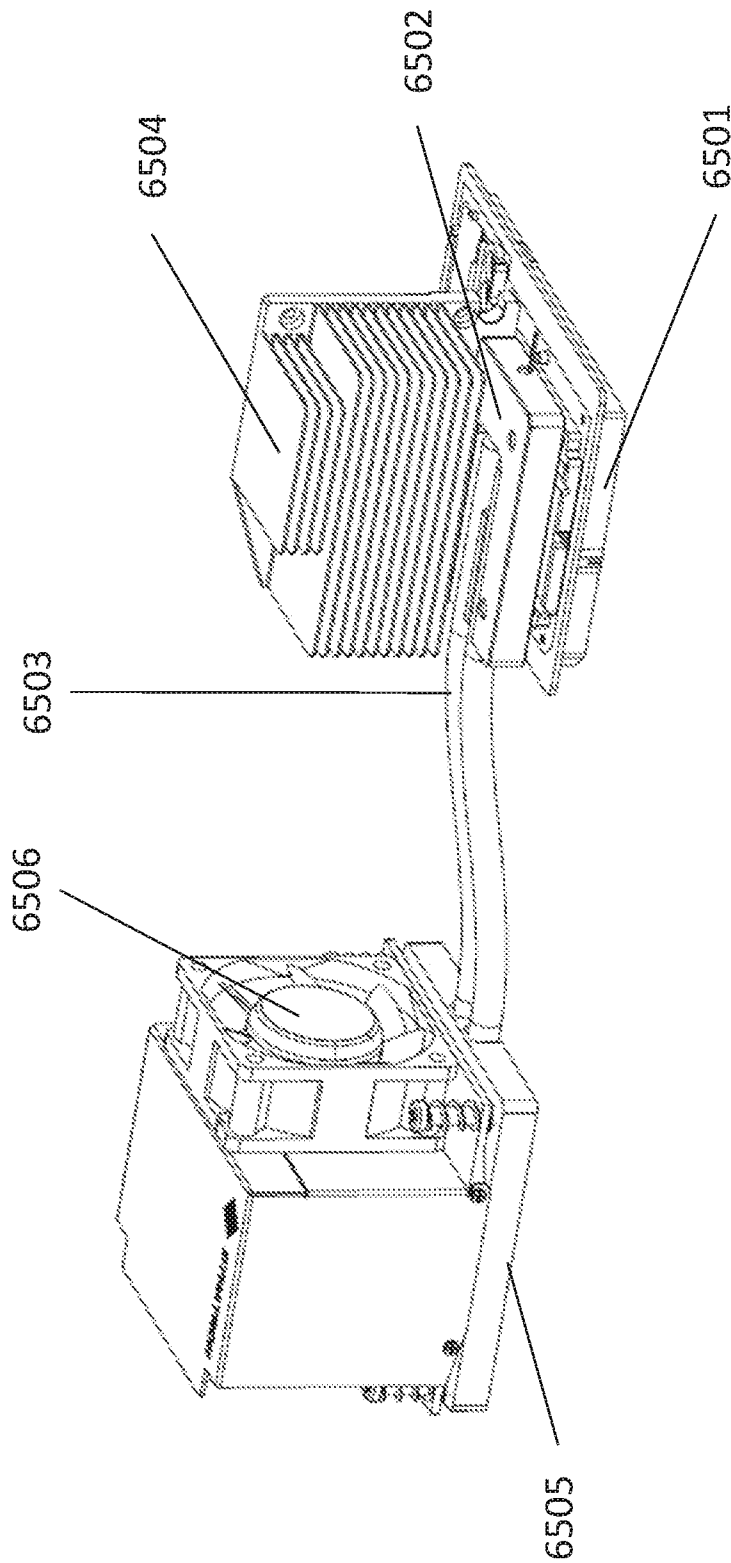
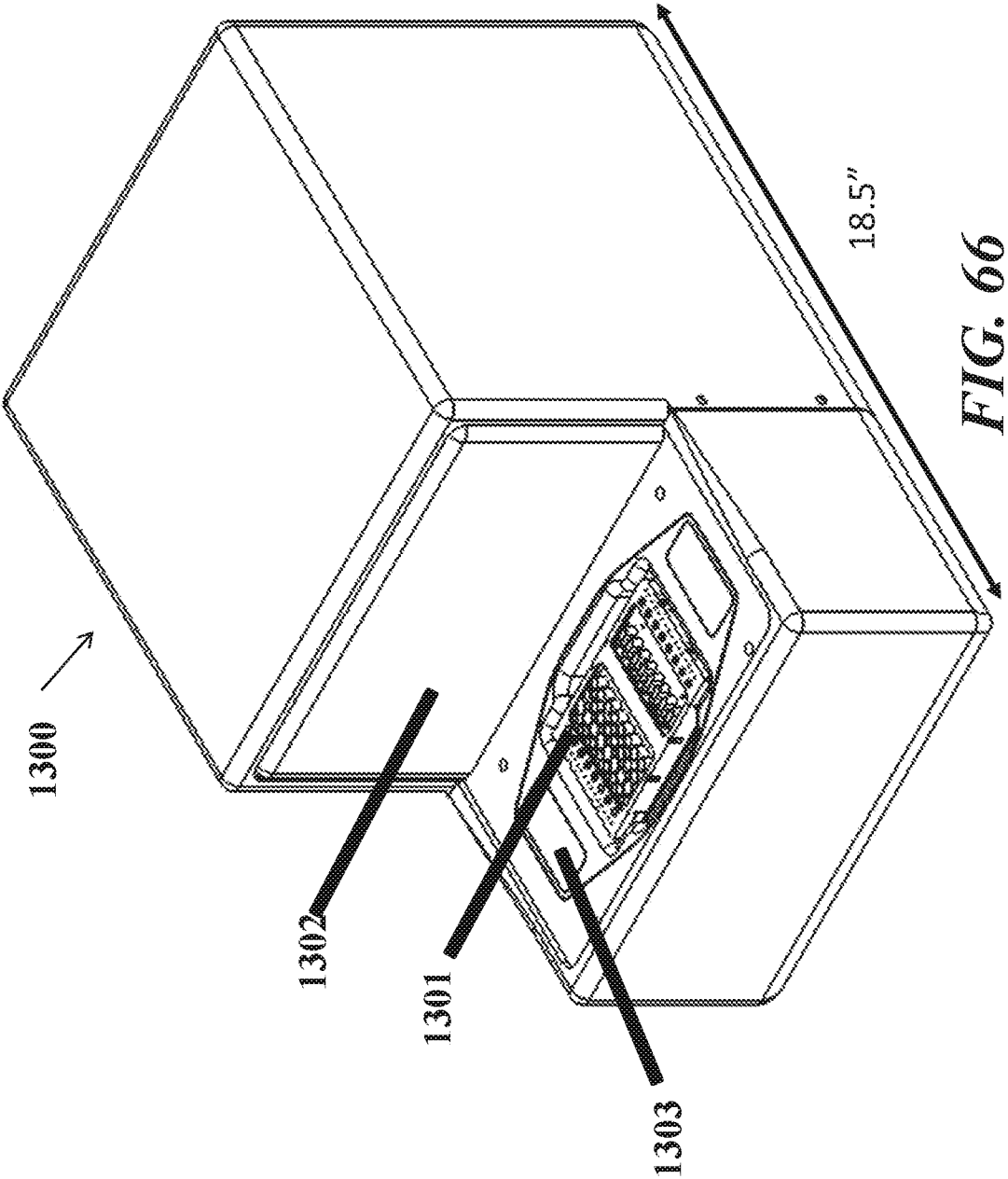


FIG. 65



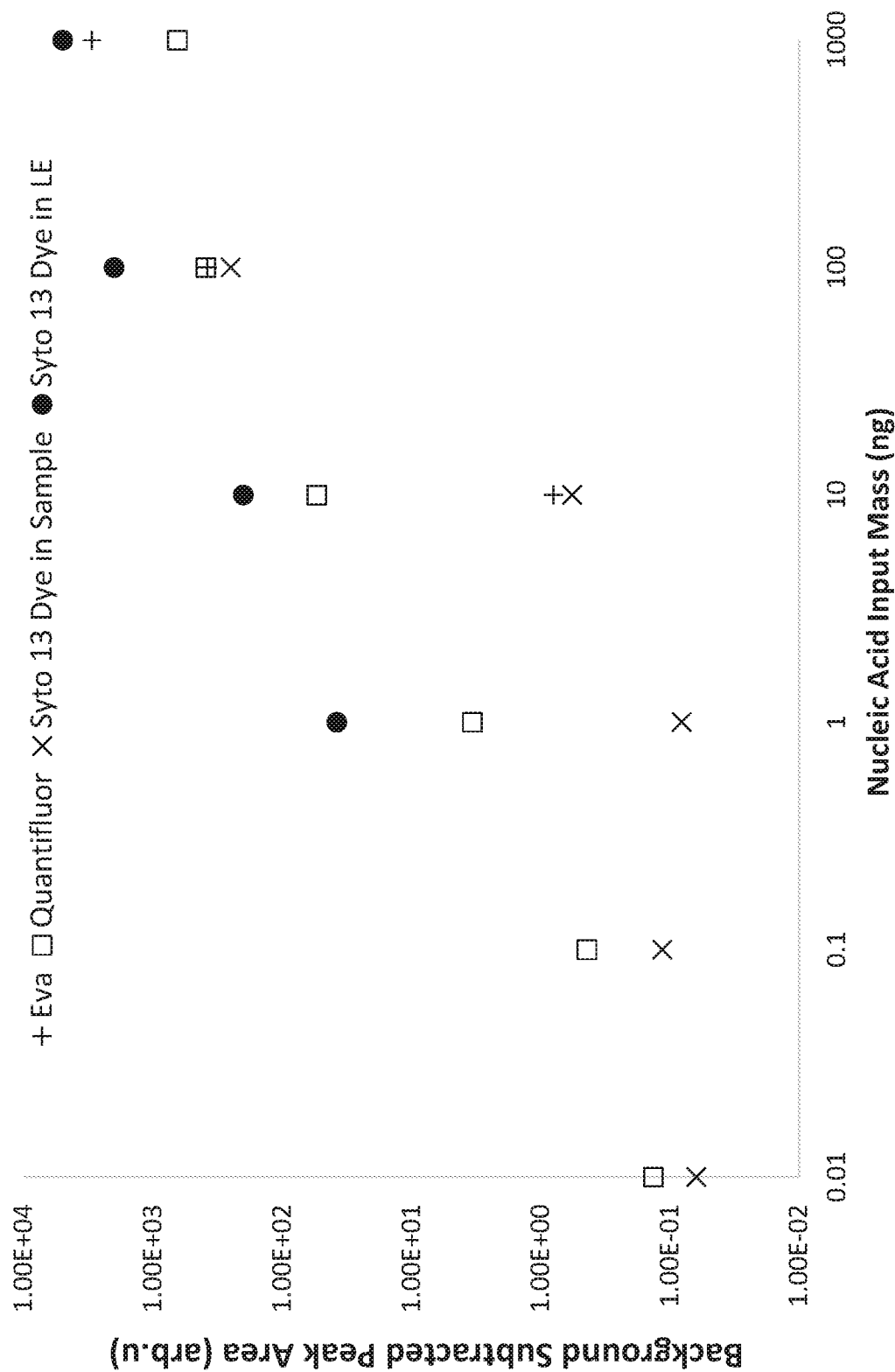


FIG. 67

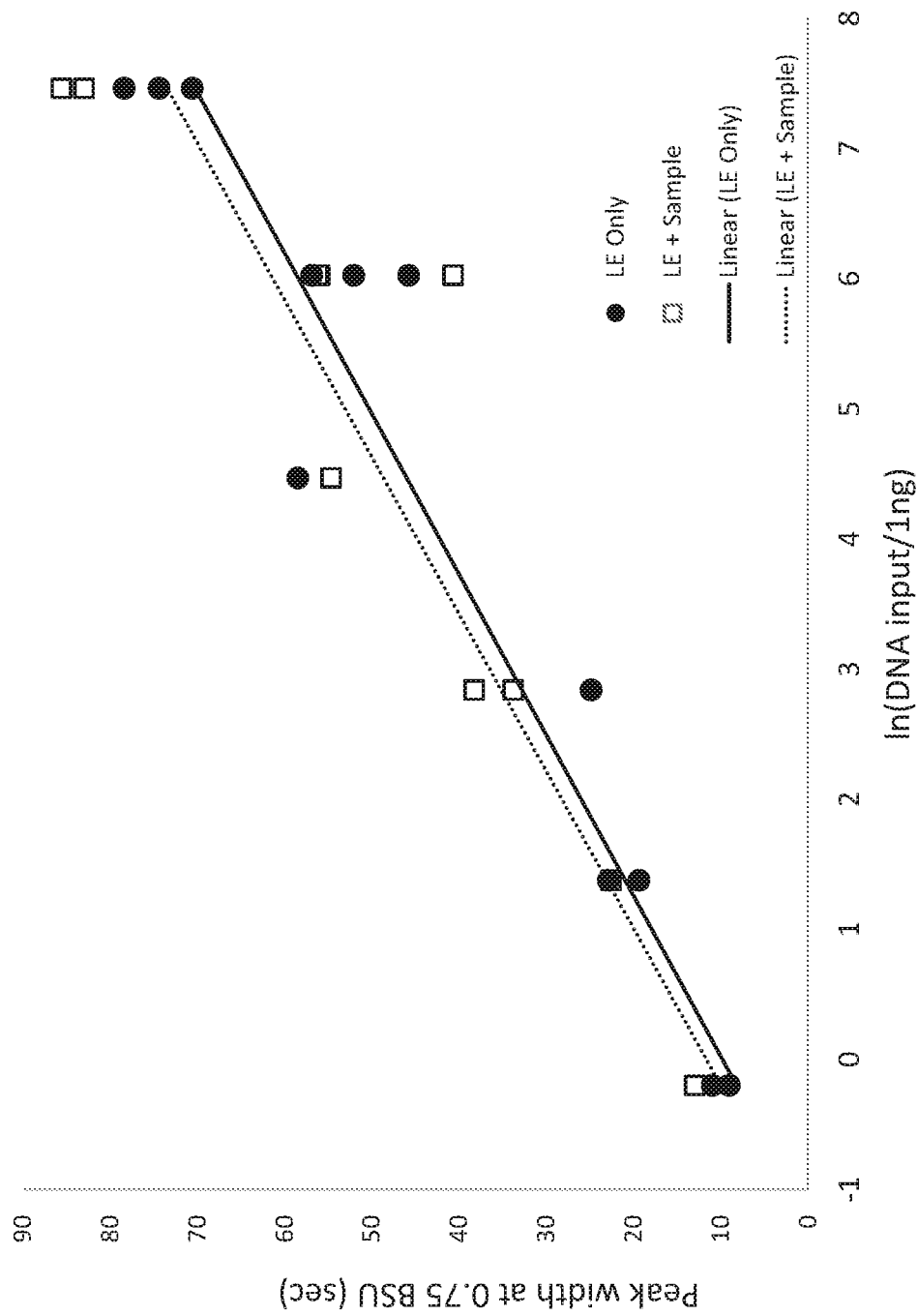


FIG. 68

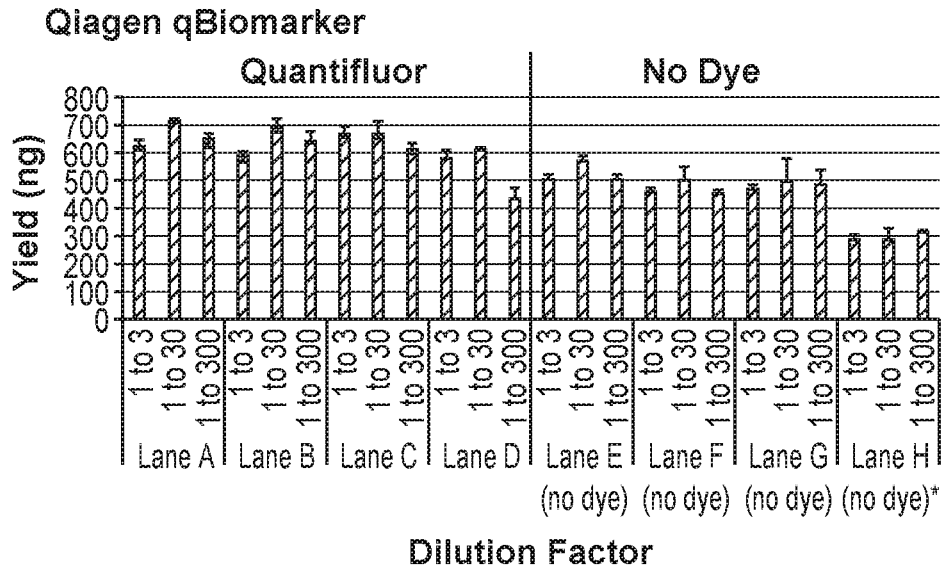


FIG. 69A

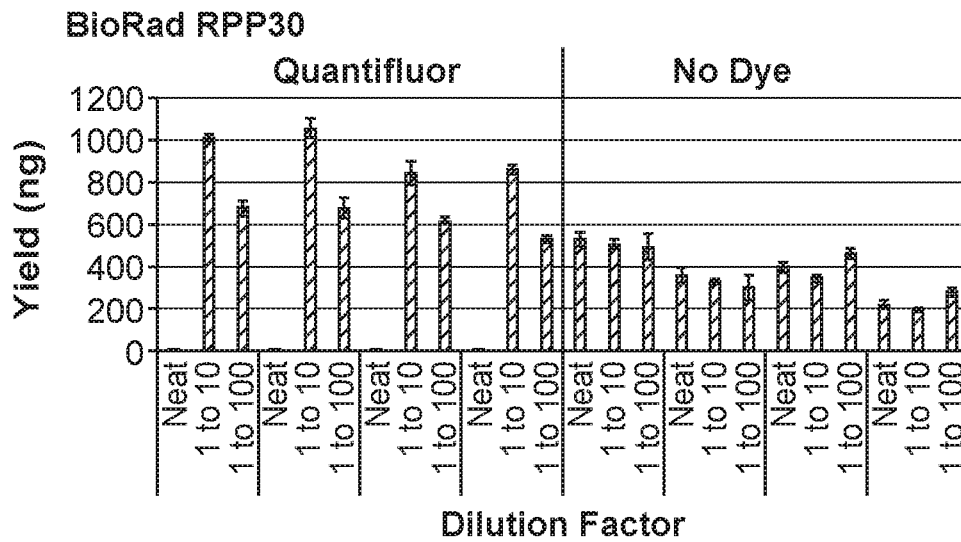


FIG. 69B

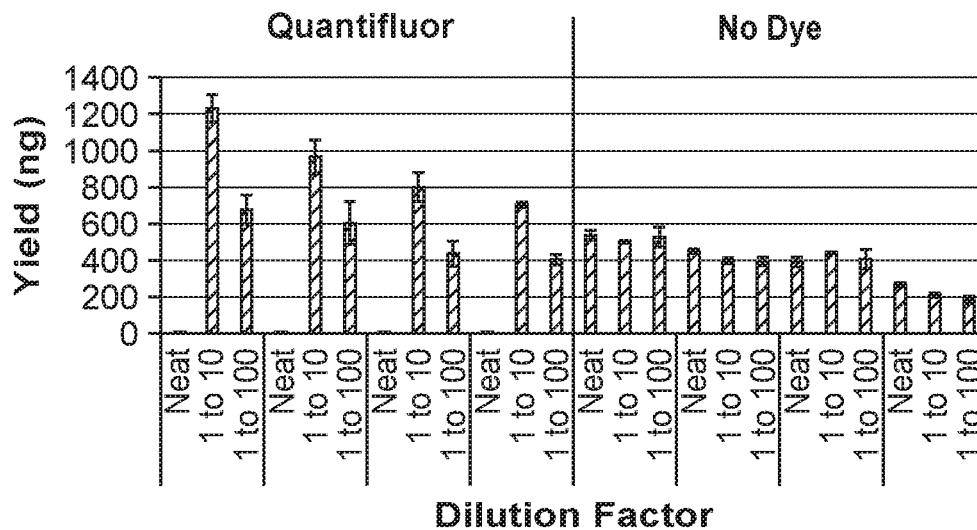


FIG. 69C

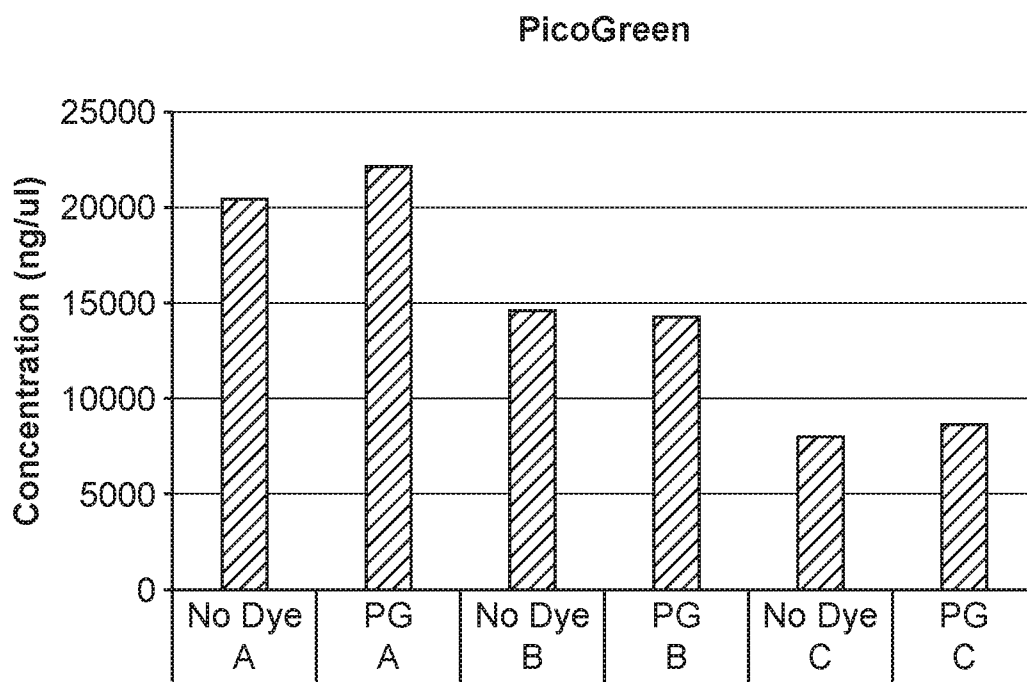


FIG. 70

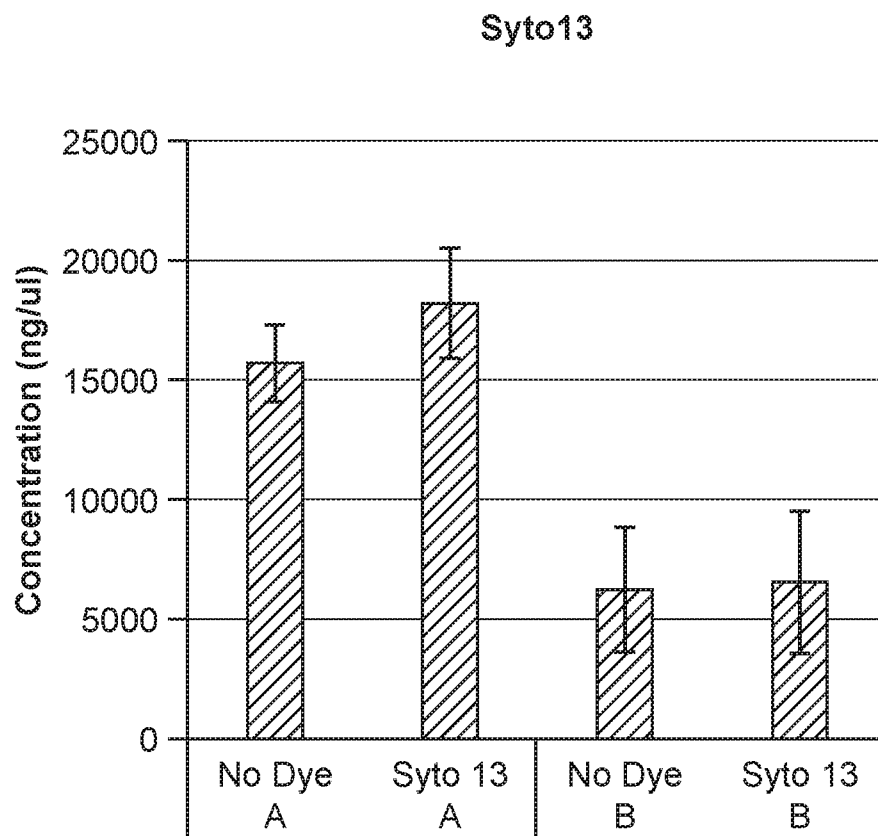


FIG. 71

A) KAPA hgDNA Quant & QC

A				B				C			
				0.057	0.005			0.057	0.005		
Pico Green Content (x)	28.4x	5.7x	0.57x	x	7x	28.4x	5.7x	0.57x	7x	28.4x	5.7x
Ct	24	23.58	23.62	23.47	23.48	28.43	26.73	26.57	26.61	32.6	30.87
										30.43	30.49
										30.59	

FIG. 72A

B) BioRad RPP30 FAM

A				B				C			
				0.057	0.005			0.057	0.005		
Pico Green Content (x)	57x	5.7x	0.57x	x	7x	57x	5.7x	0.57x	7x	57x	5.7x
Ct	40*	27.91	28.55	28.36	28.66	N/A	33.32	32.27	32.14	N/A	35.33
										35.2	35.36

FIG. 72B

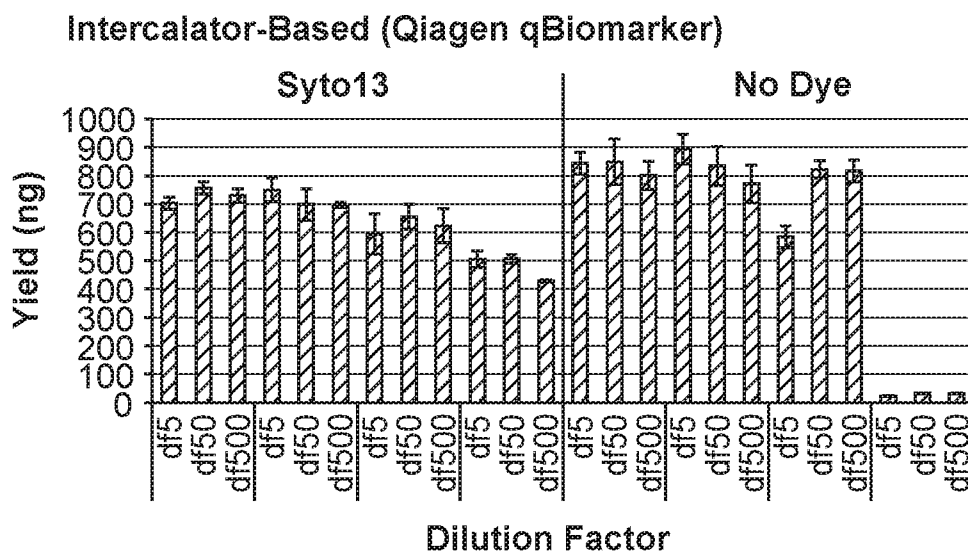


FIG. 73A

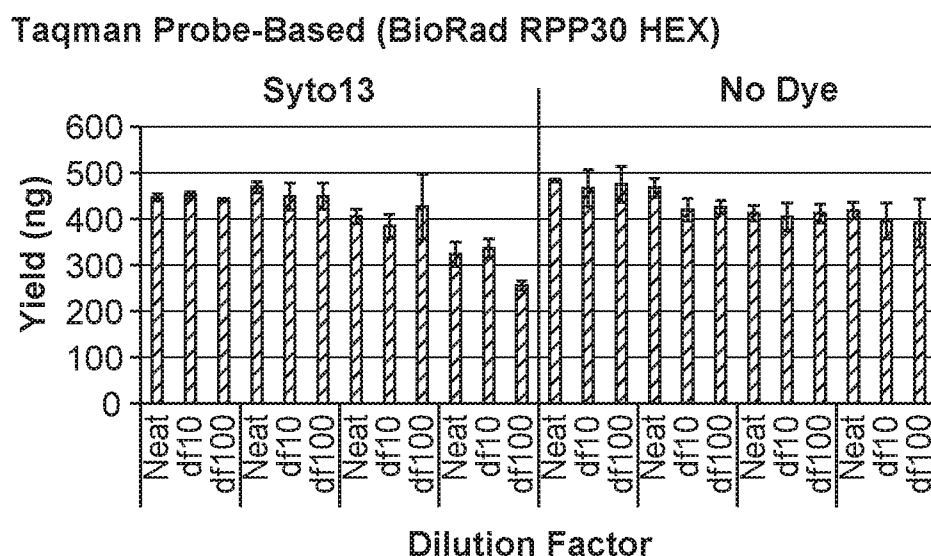


FIG. 73B

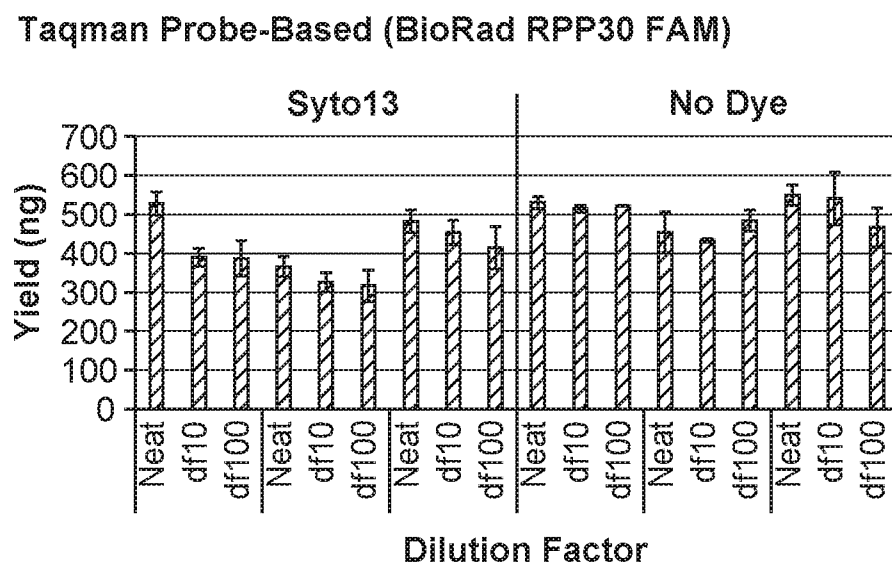


FIG. 73C

Total Datapoints	253
Datapoints Kept	253
Datapoints displayed	253
Mean	-3.111939956
Upper End of 95% CI	-1.088808563
Lower End of 95% CI	-5.135071349
Is the Mean Biased?	Yes
Upper Limit	28.8506207
Lower Limit	-35.07450061
Total Outliers	7
Upper Outliers	3
Lower Outliers	4

Total Datapoints	253
Datapoints Kept	253
Datapoints displayed	237
Mean	-4.93315
Upper End of 95% CI	-0.77772
Lower End of 95% CI	-9.08857
Is the Mean Biased?	Yes
Upper Limit	60.71657
Lower Limit	-70.5829
Total Outliers	19
Upper Outliers	3
Lower Outliers	16

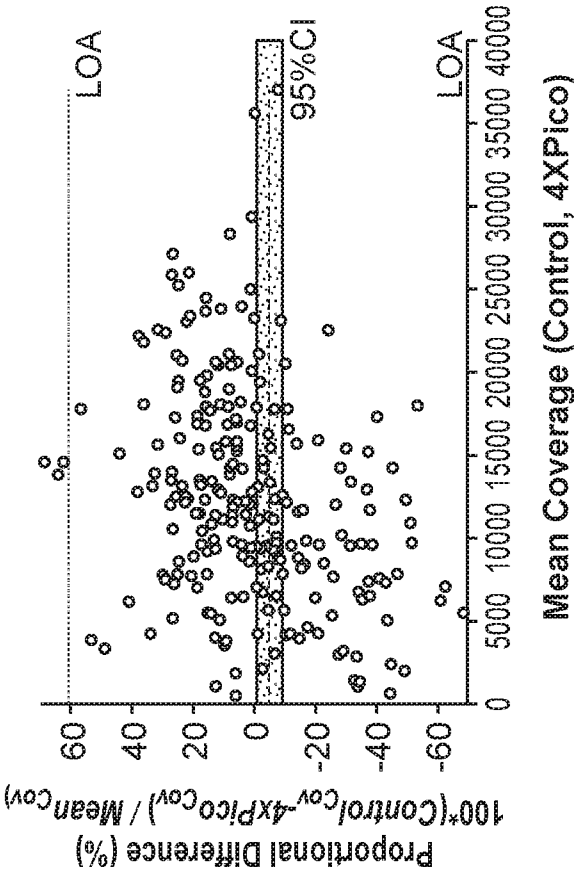
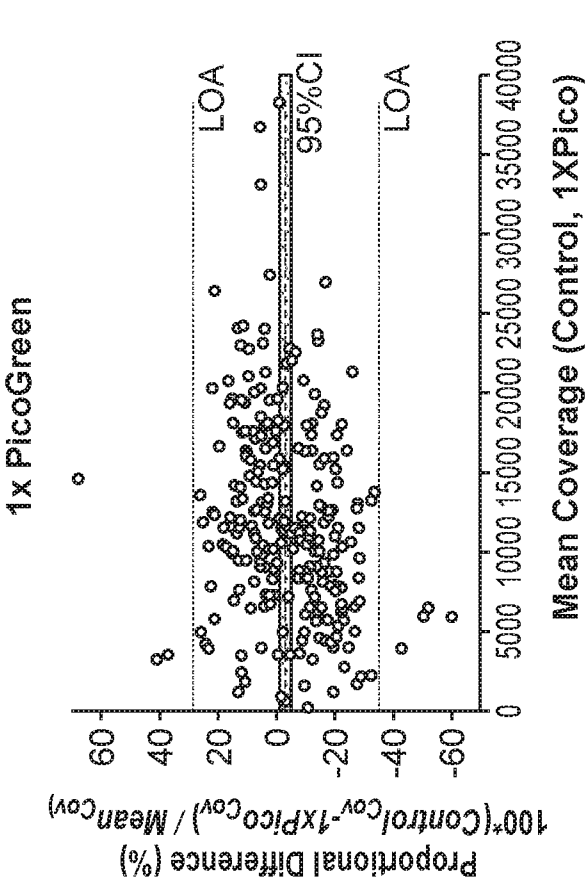


FIG. 74

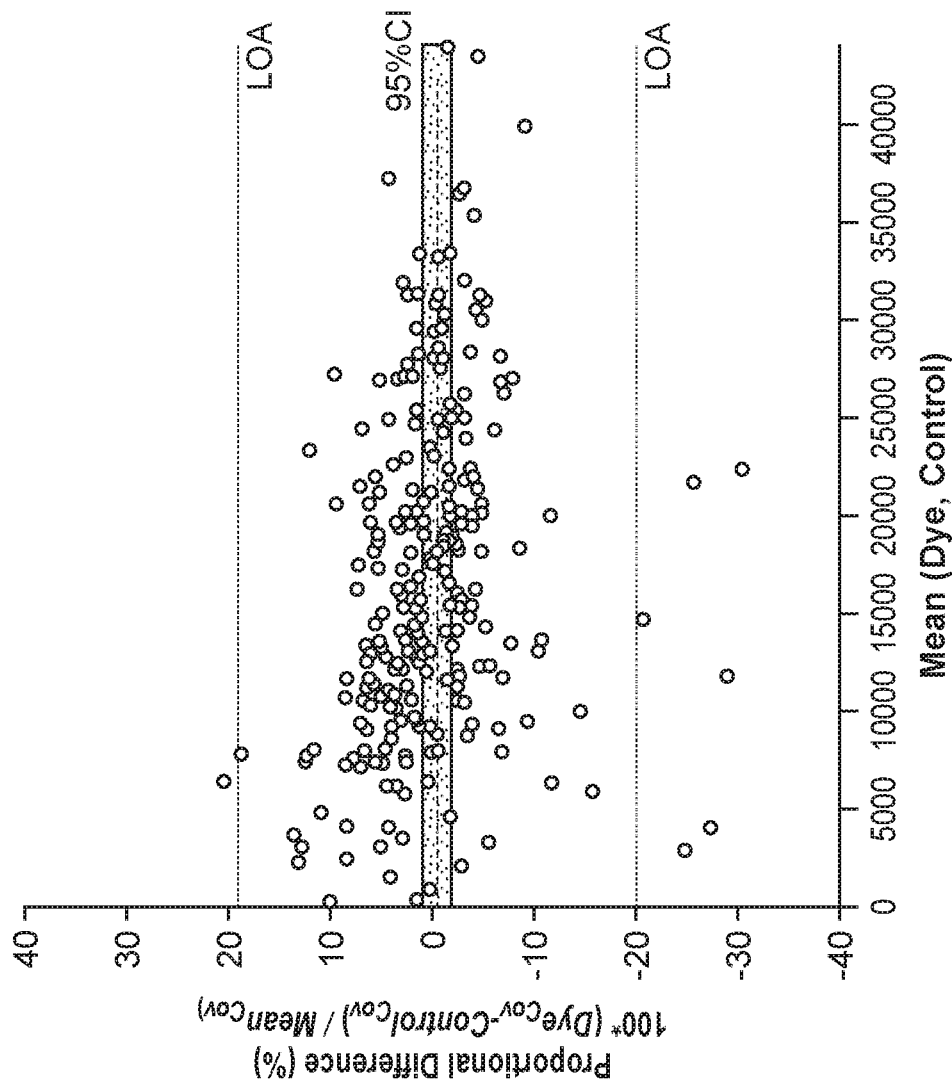
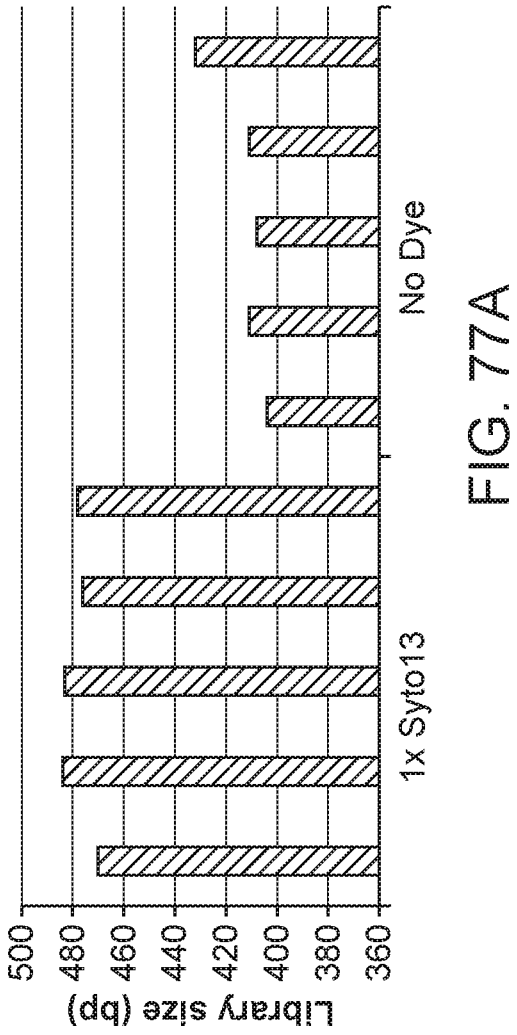
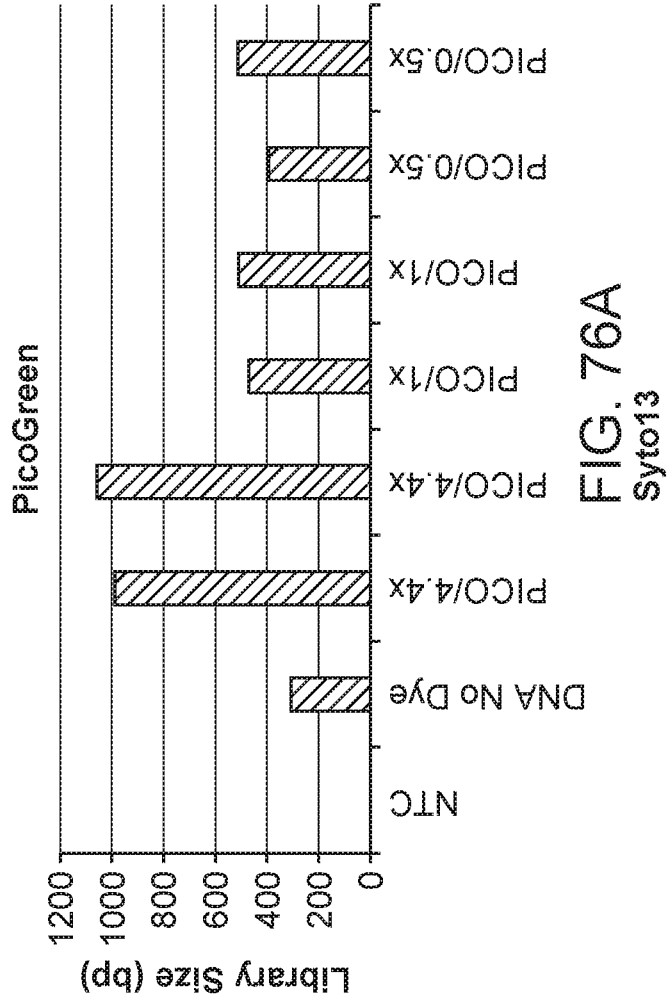
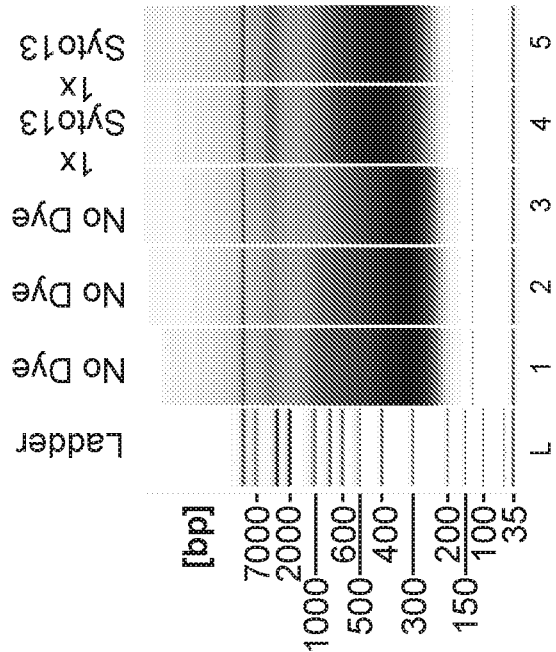
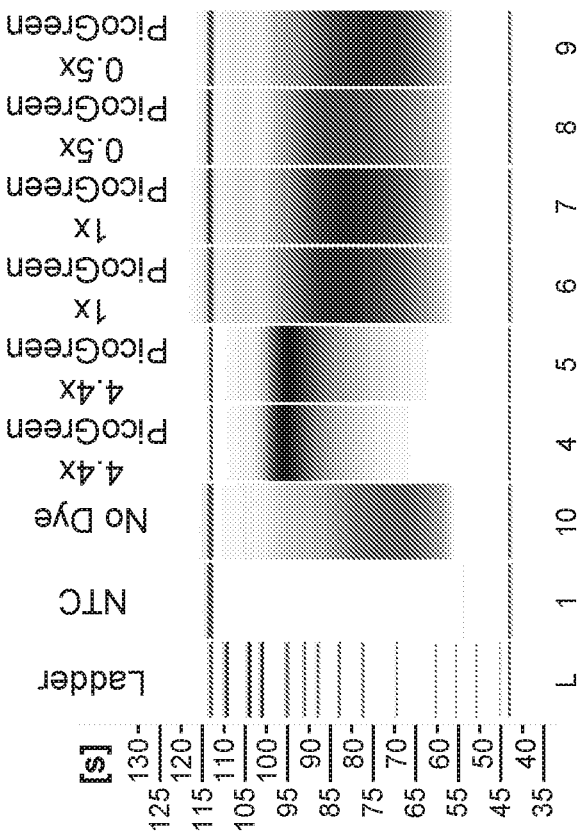
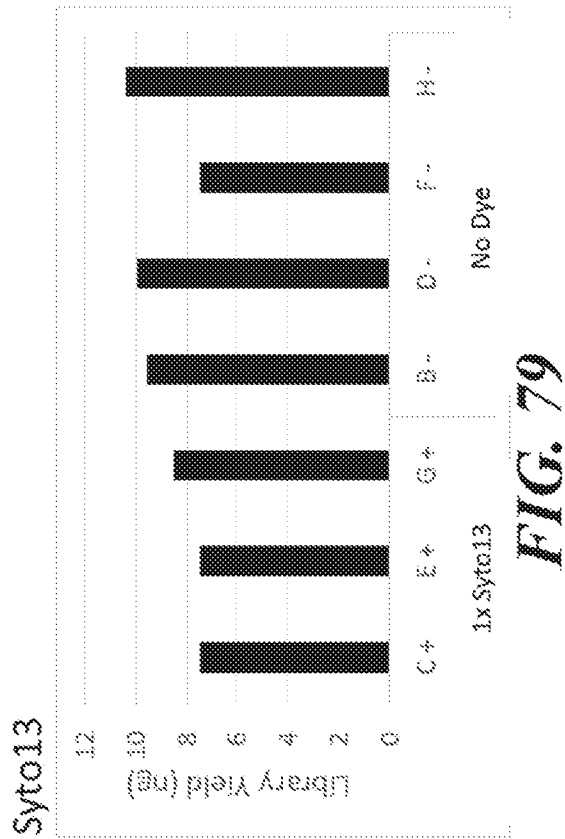
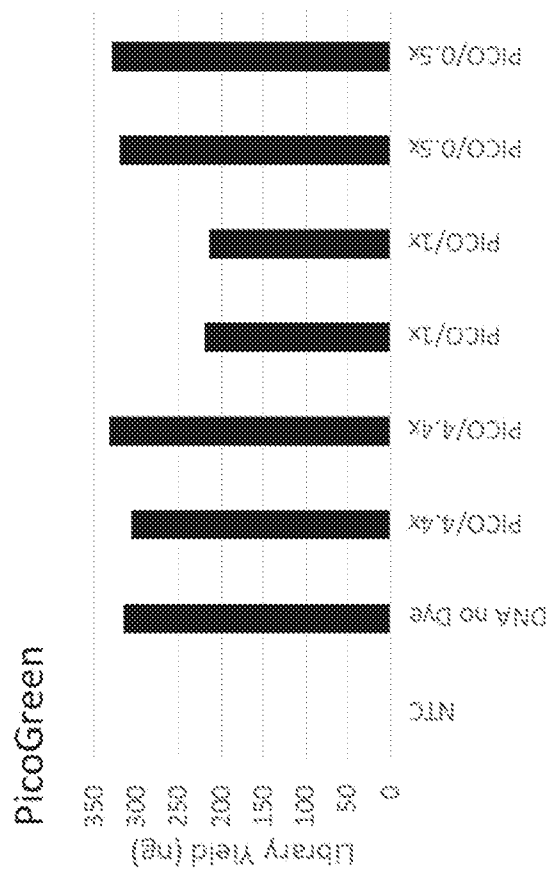


FIG. 75

Number of Targets	253
Cell Line	NA12878
Significance Threshold	+/- 0
Mean Proportional Difference (MPD)	-0.41526
Upper End of MPD 95% CI	0.818706
Lower End of MPD 95% CI	-1.64923
Is the MPD Significantly Biased?	FALSE
Upper Limit of Agreement	19.07966
Lower Limit of Agreement	-19.9102
Total Outliers	10
Upper Outliers	1
Lower Outliers	9





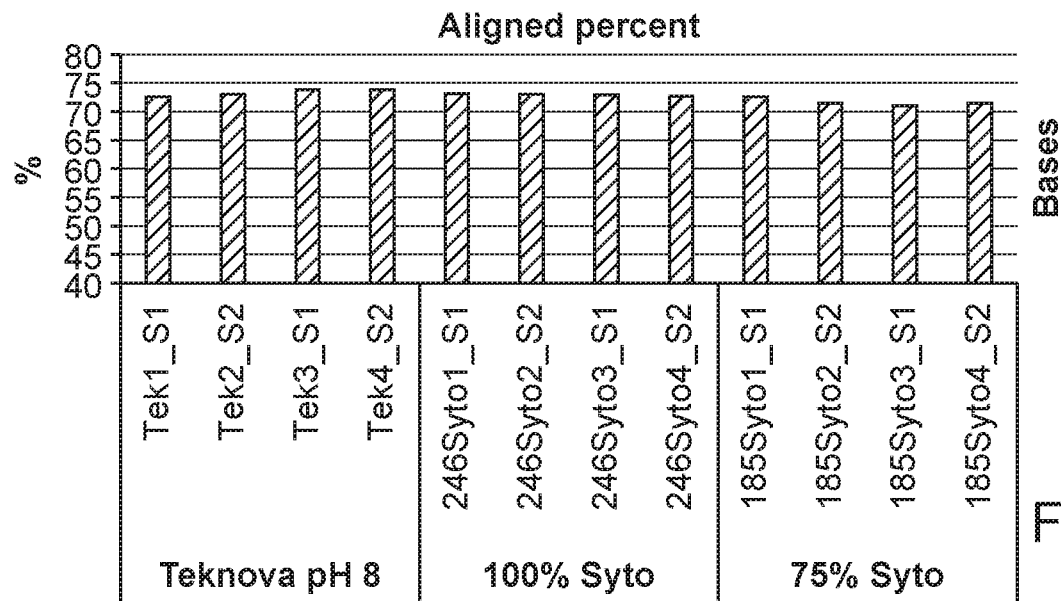


FIG. 80A

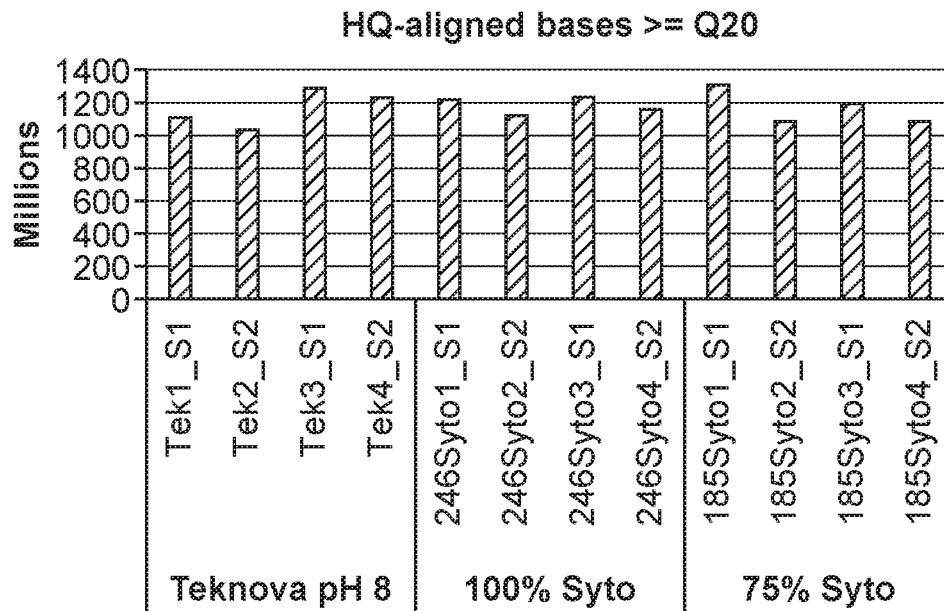


FIG. 80B

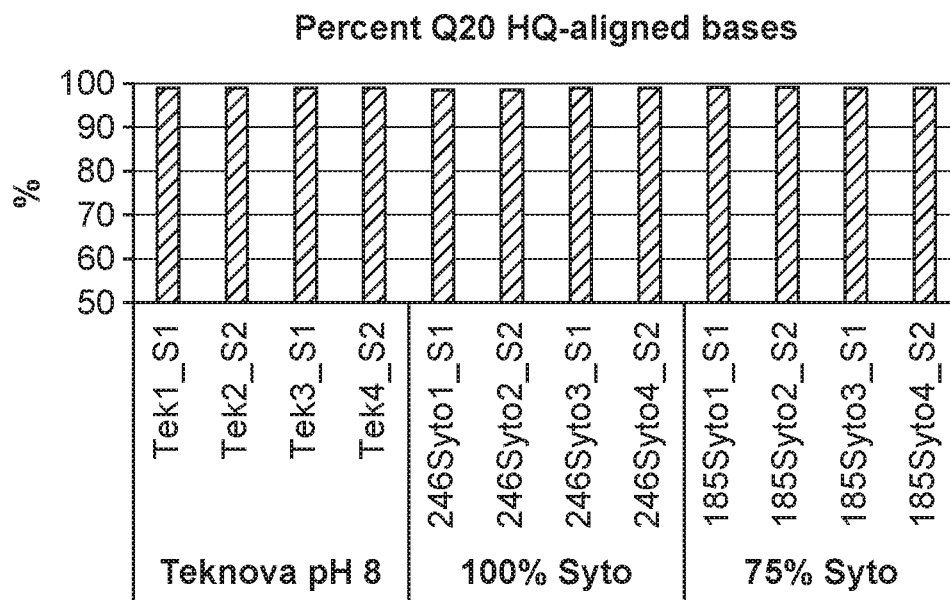


FIG. 80C

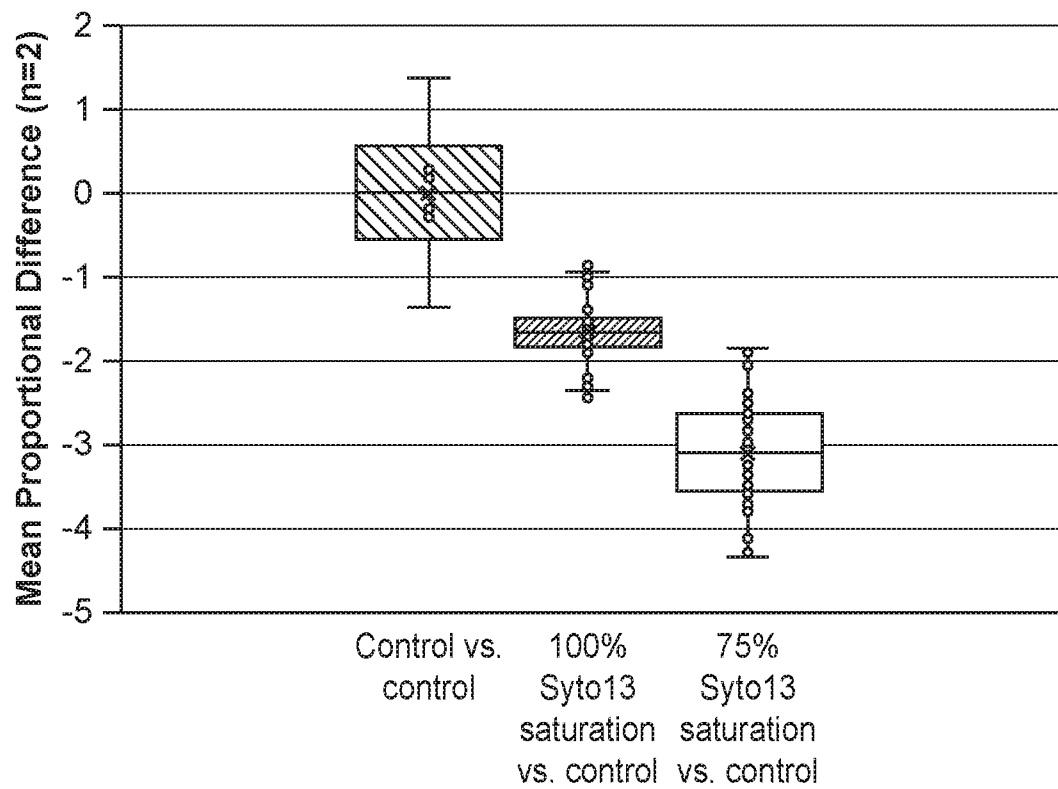


FIG. 80D

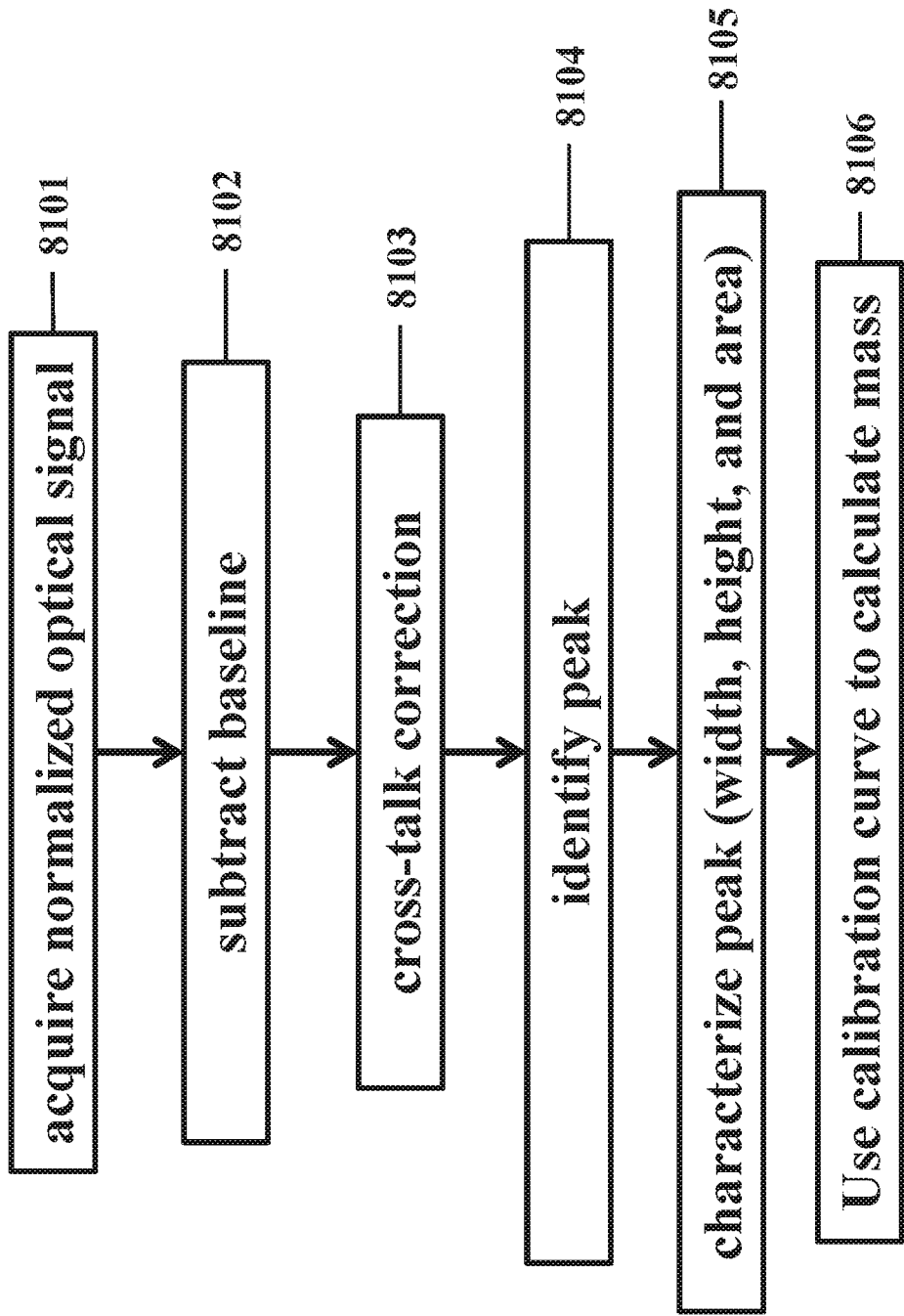


FIG. 81

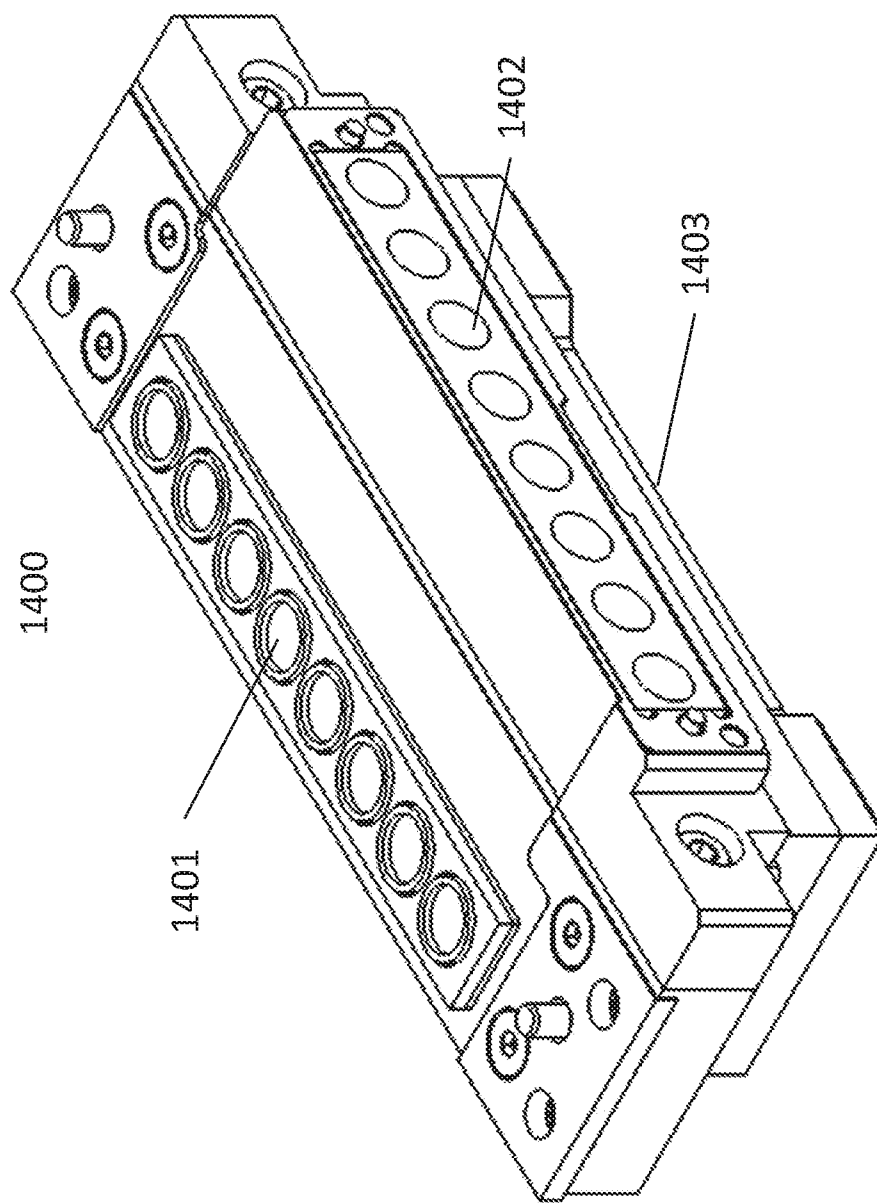


FIG. 82

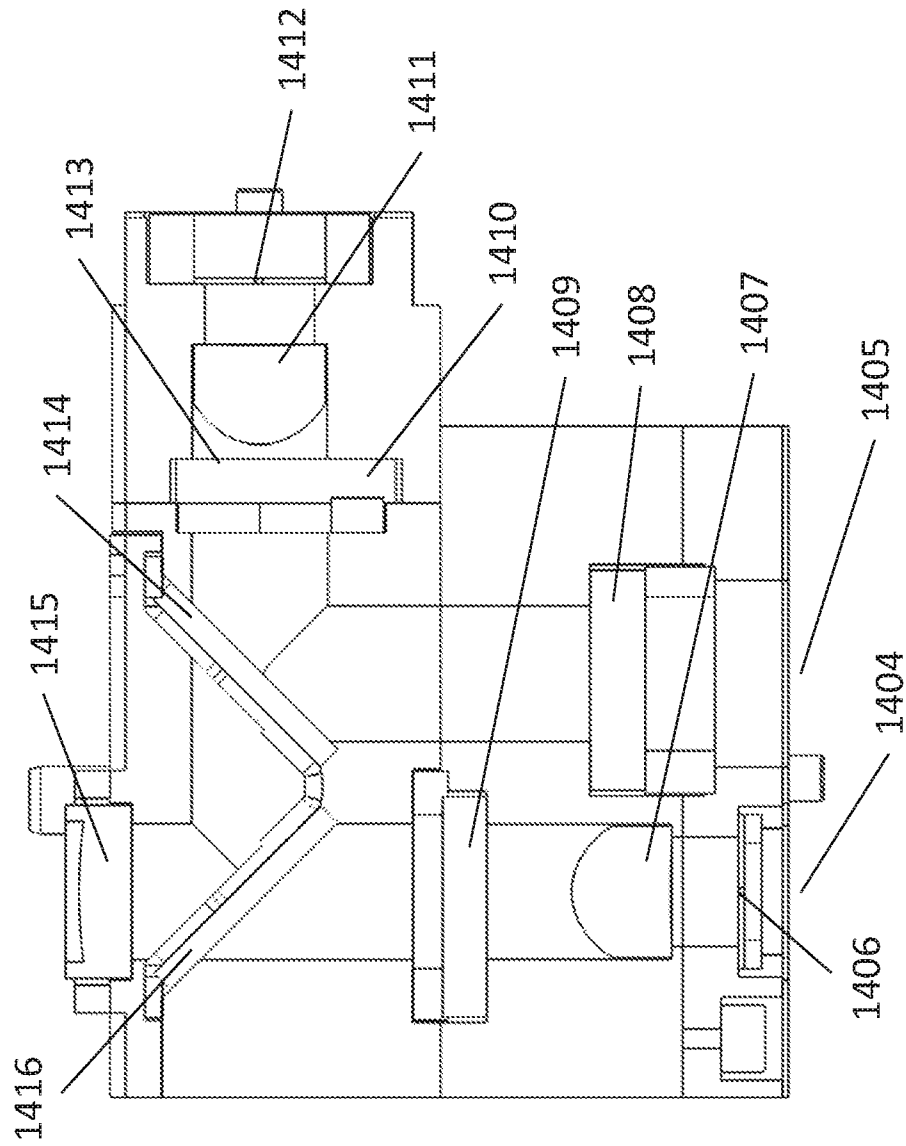


FIG. 83

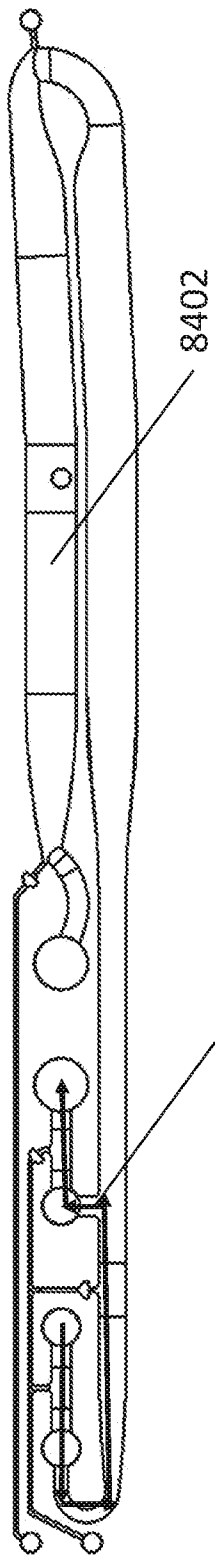


FIG. 84A

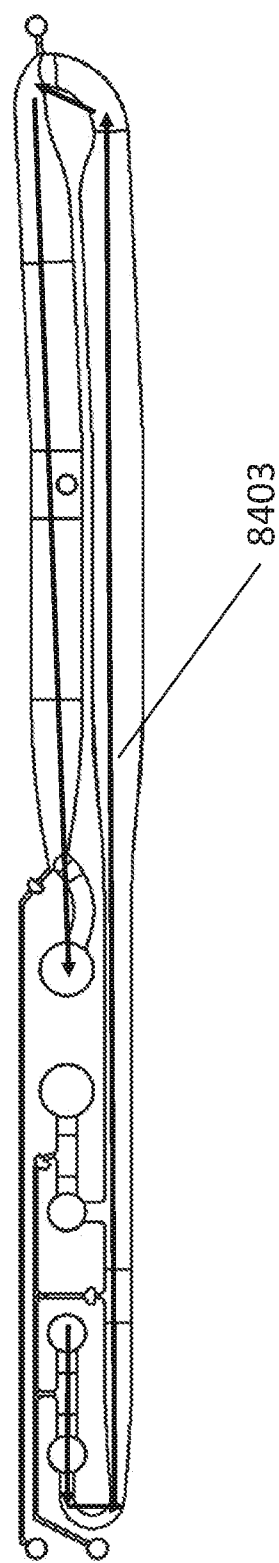


FIG. 84B

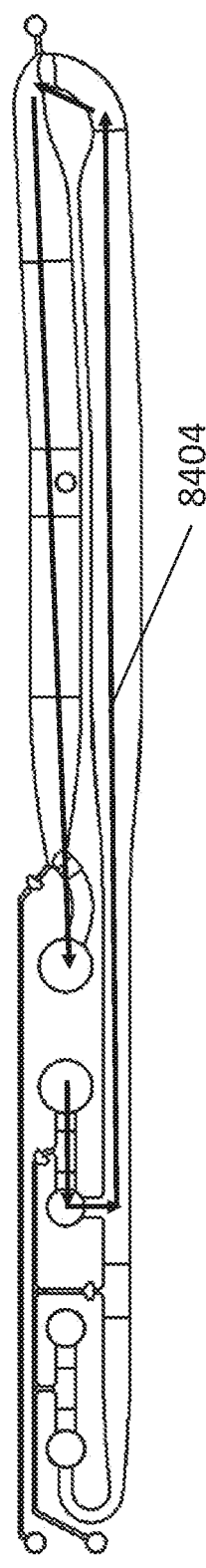


FIG. 84C

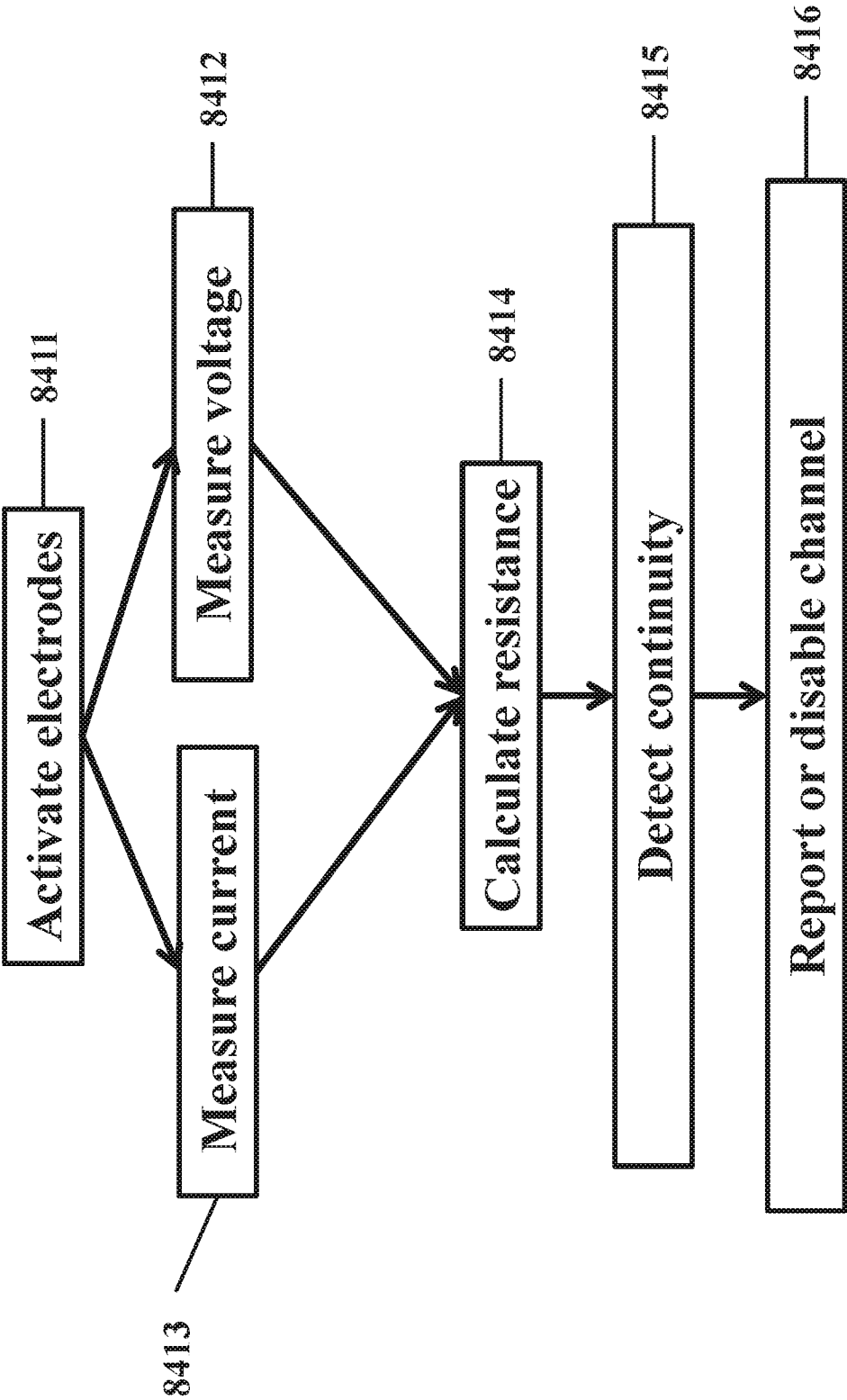


FIG. 84D

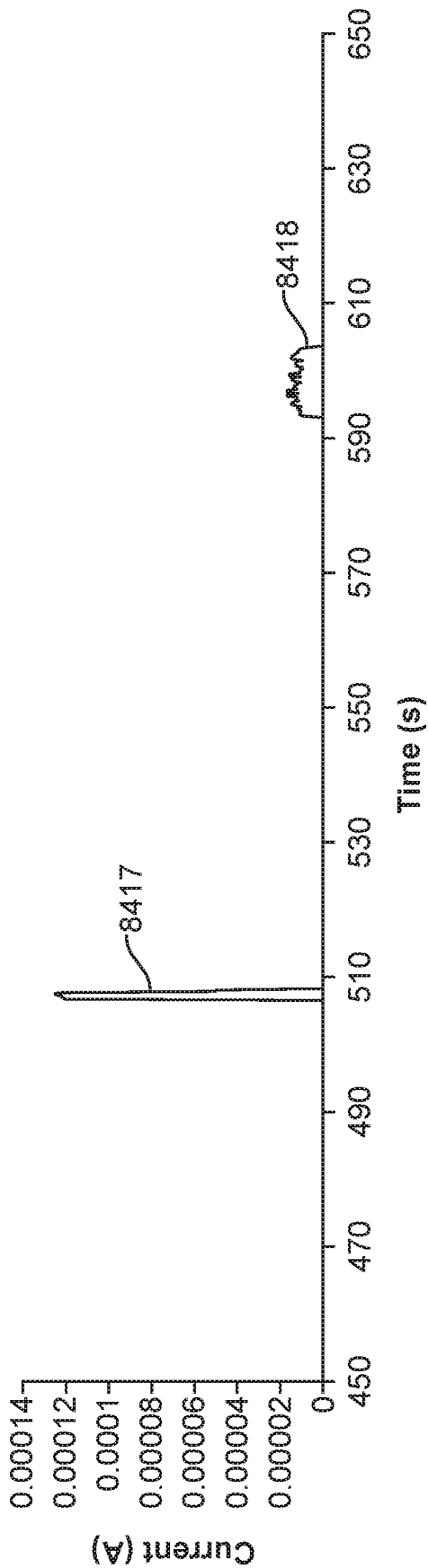


FIG. 84E

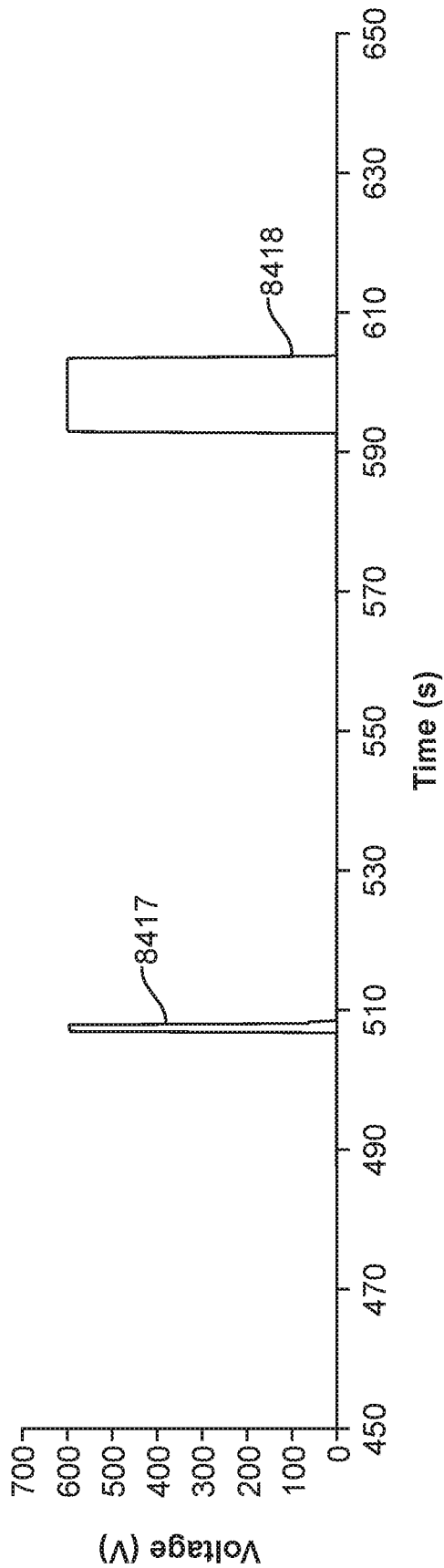


FIG. 84F

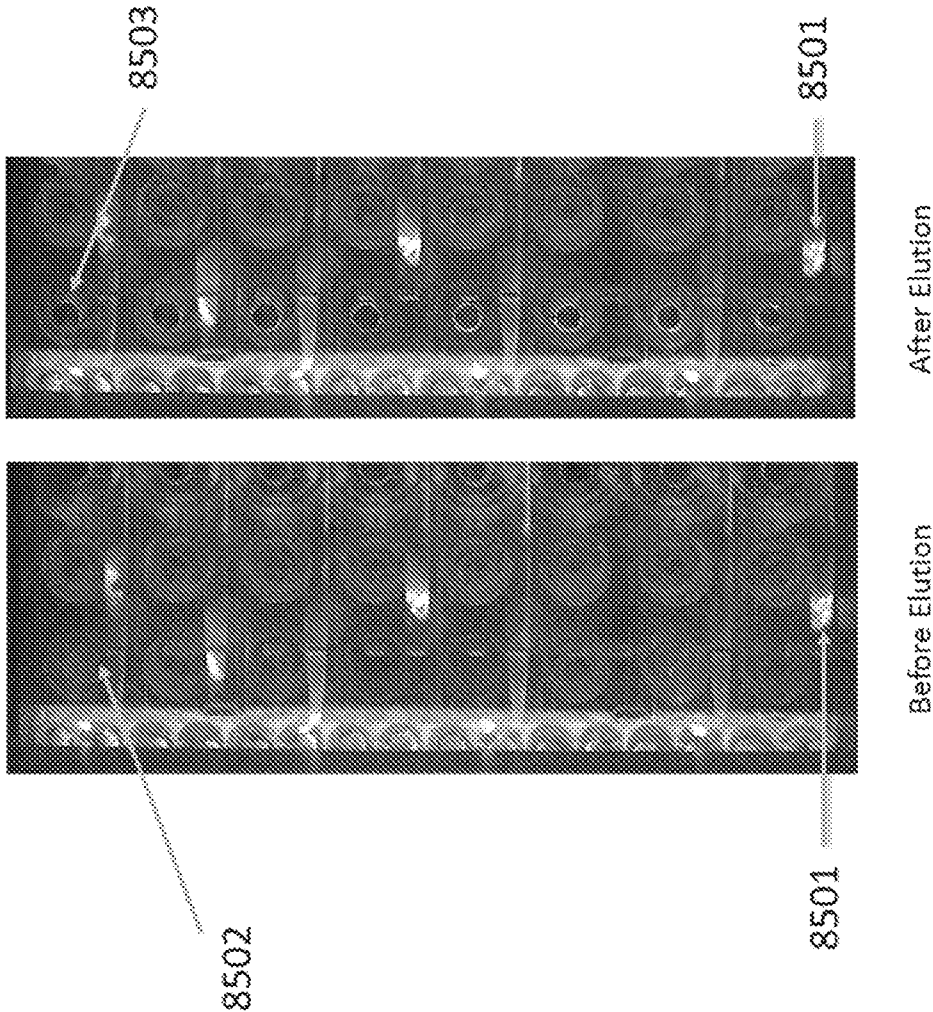


FIG. 85

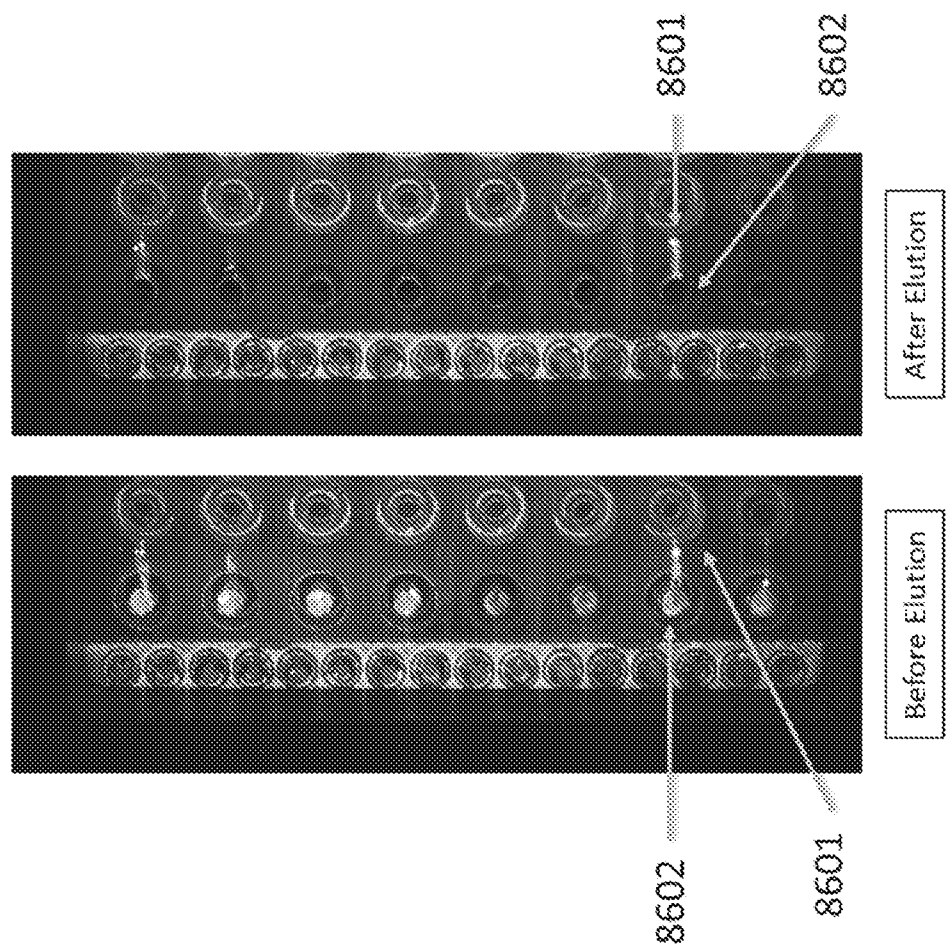


FIG. 86

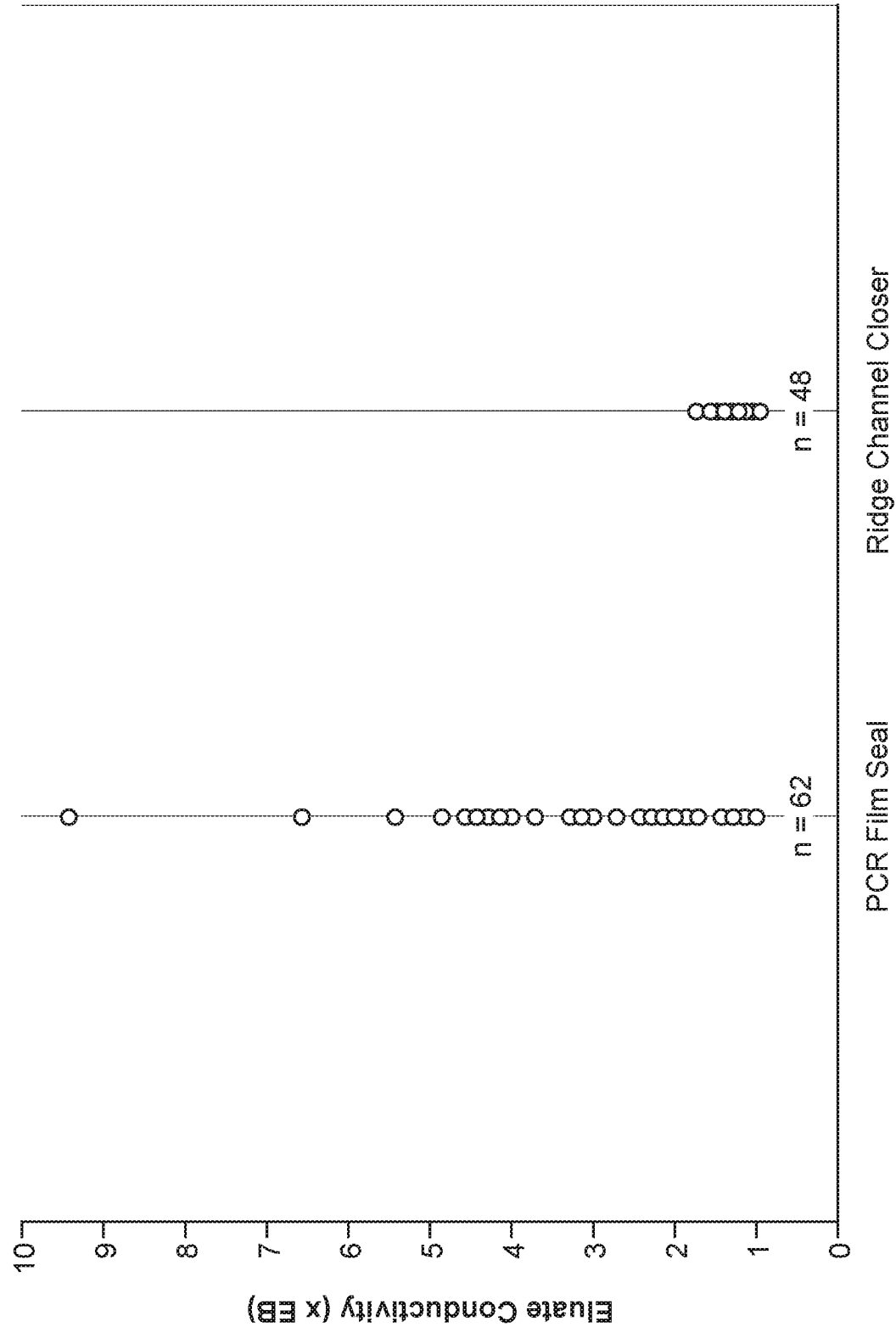


FIG. 87A

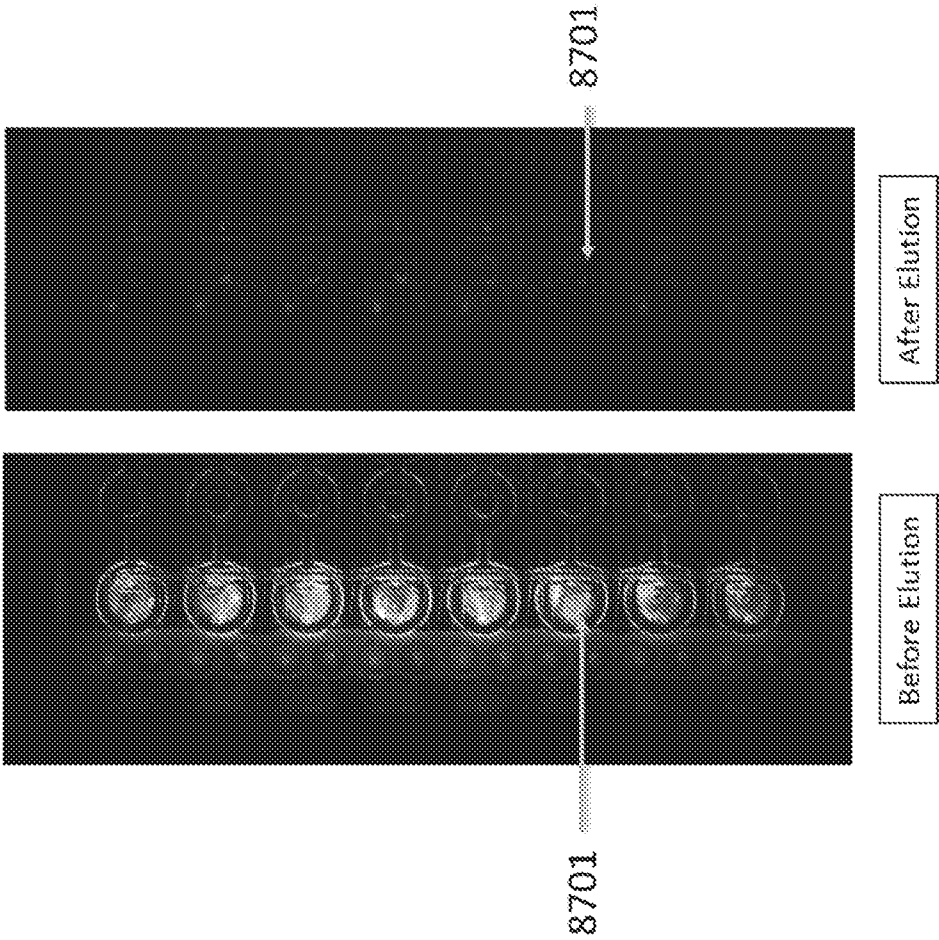


FIG. 87B

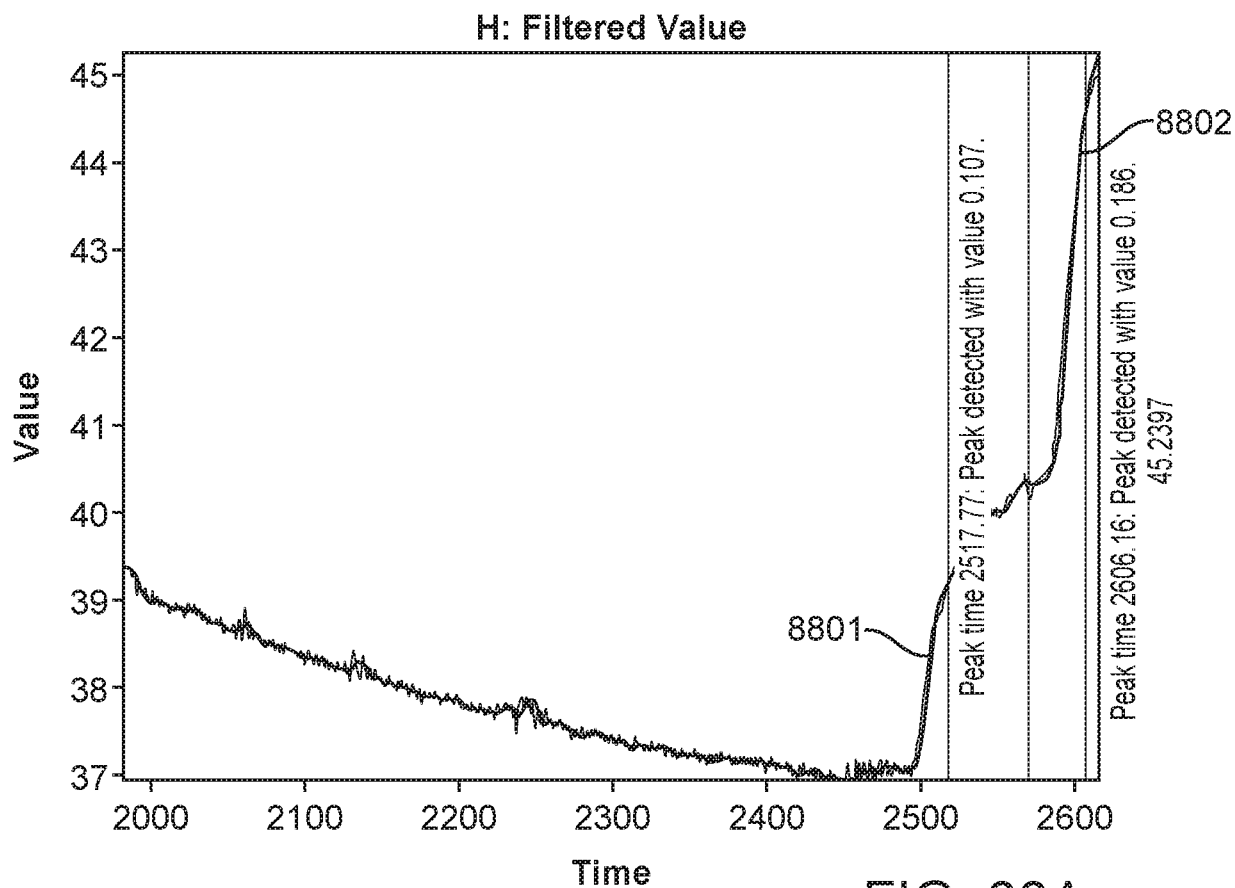


FIG. 88A

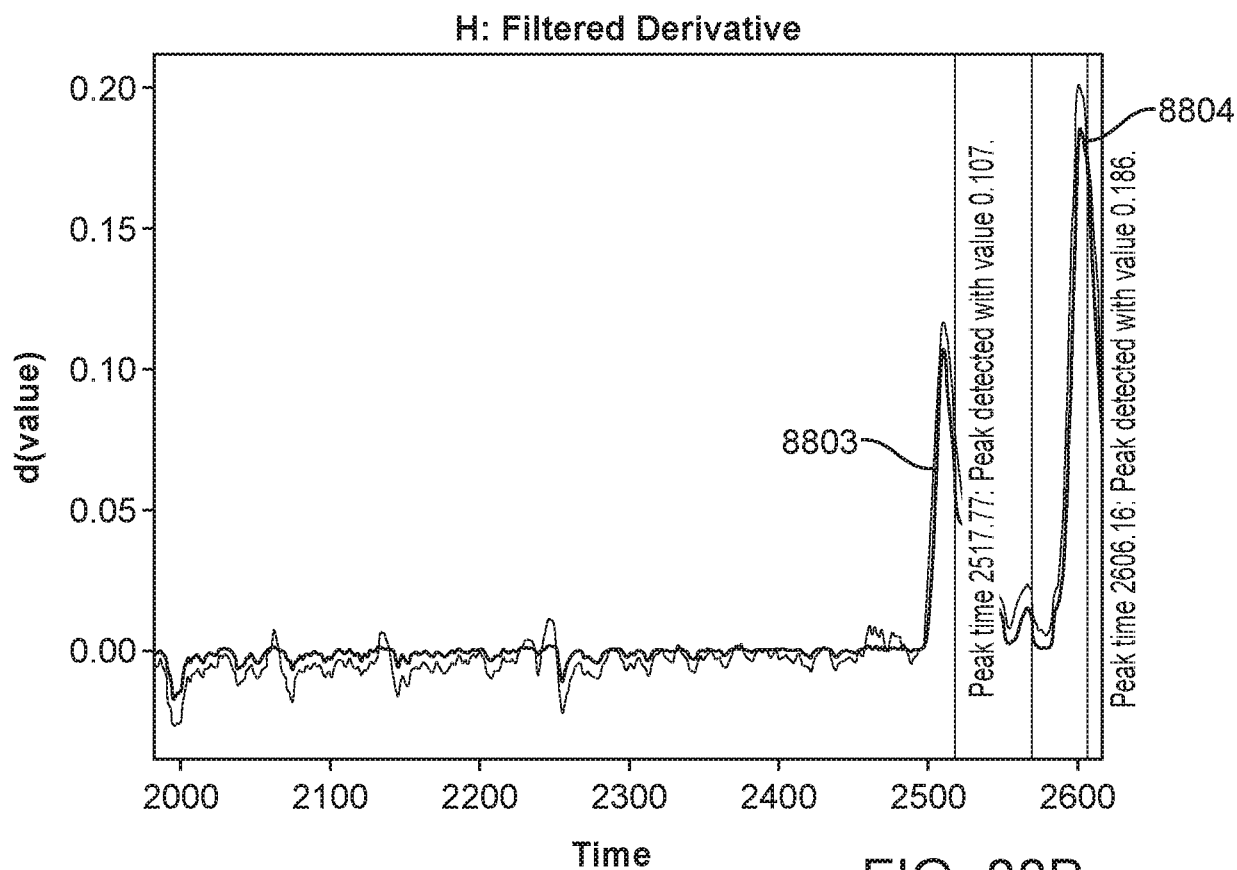


FIG. 88B

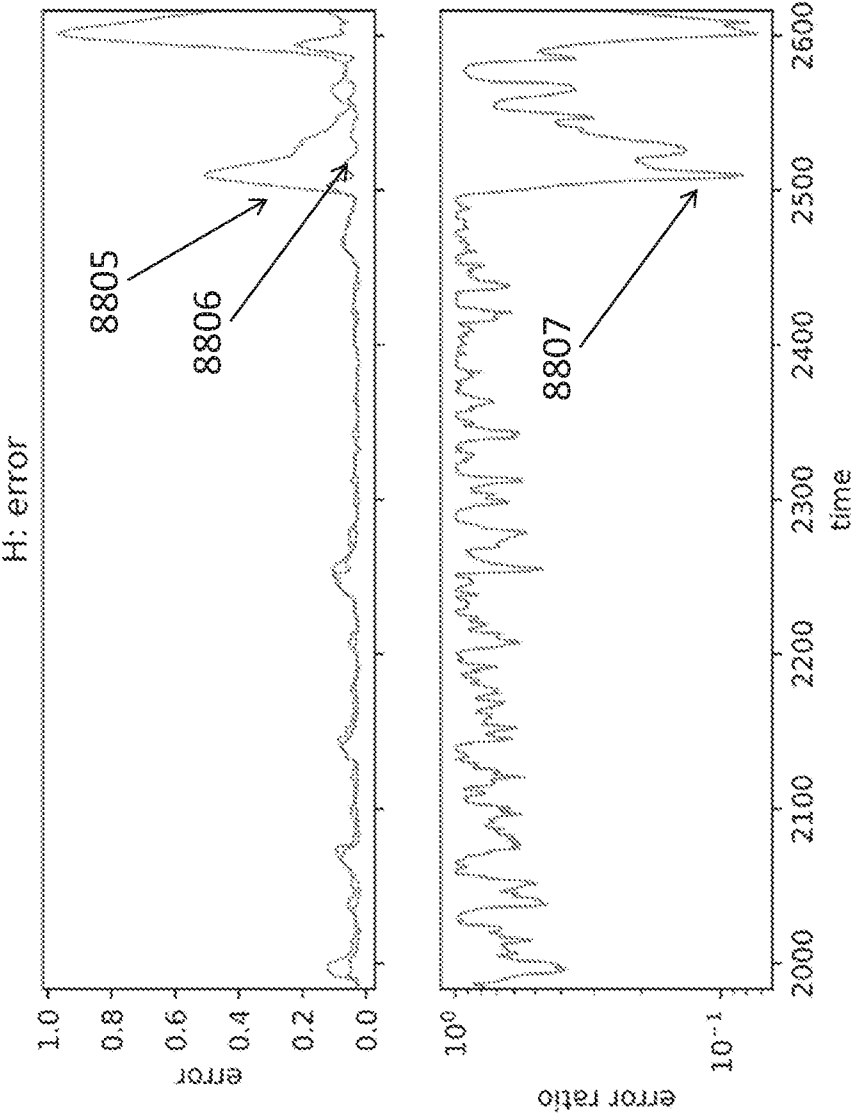


FIG. 88C

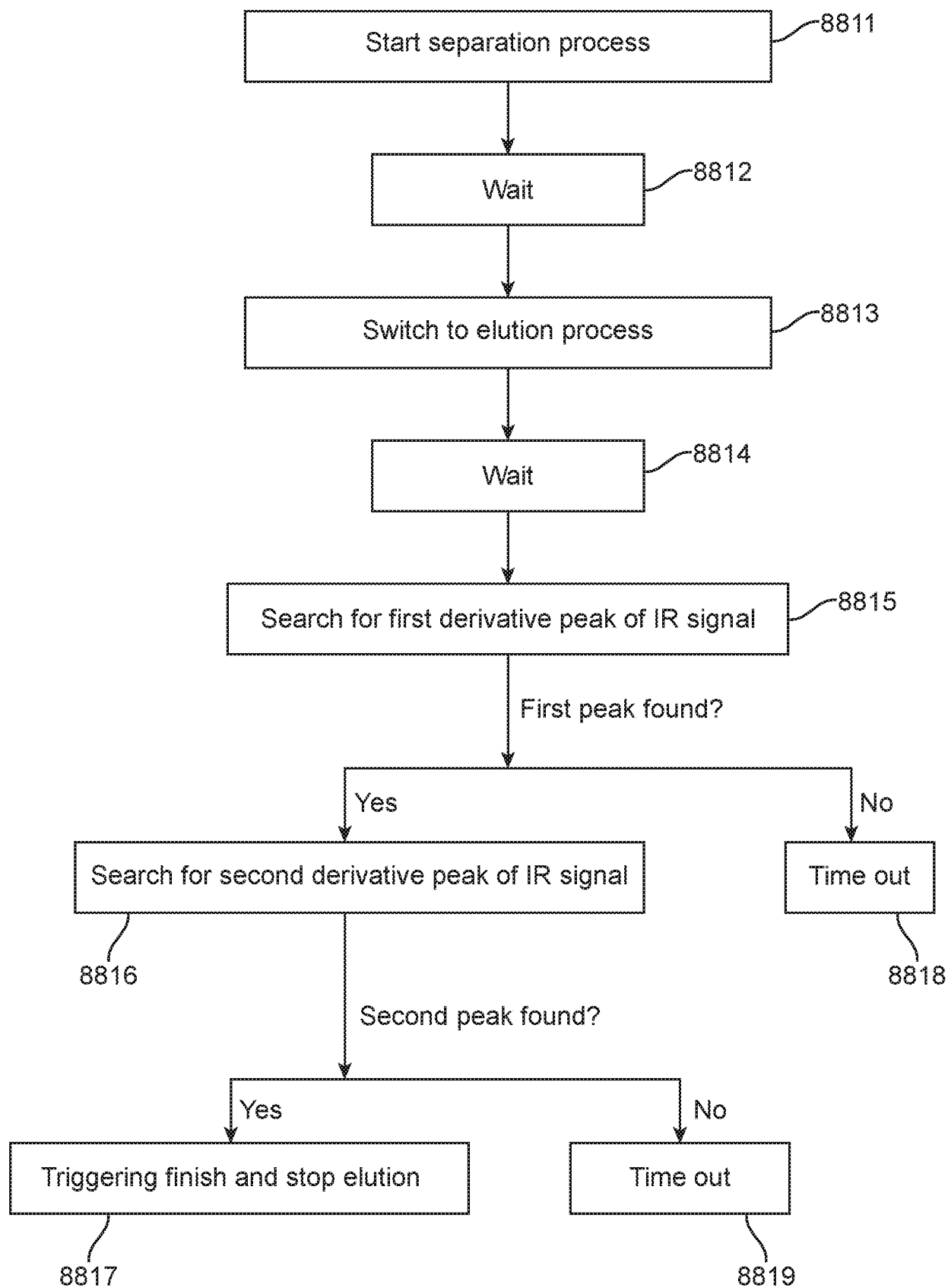


FIG. 88D

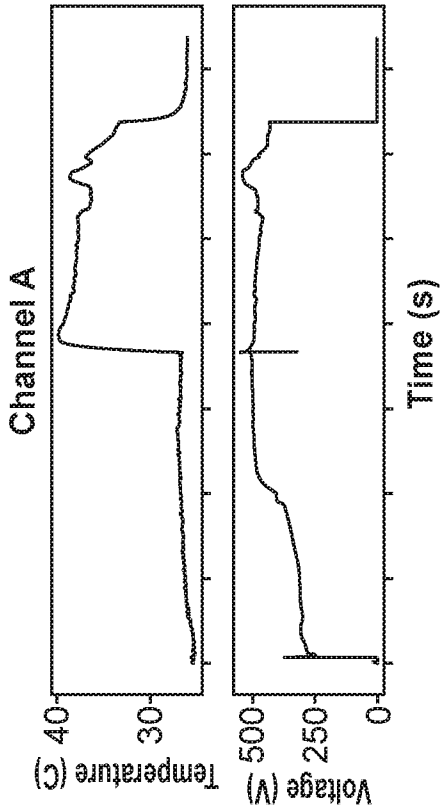
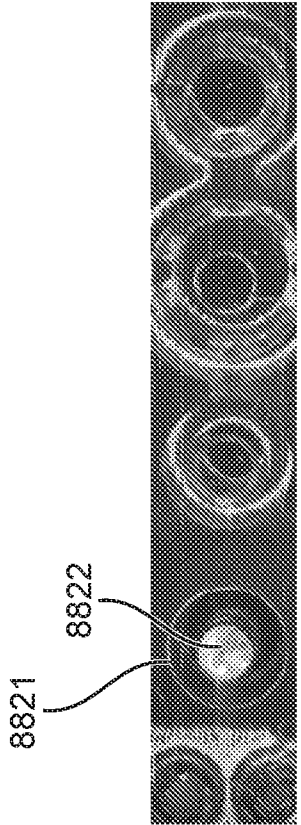
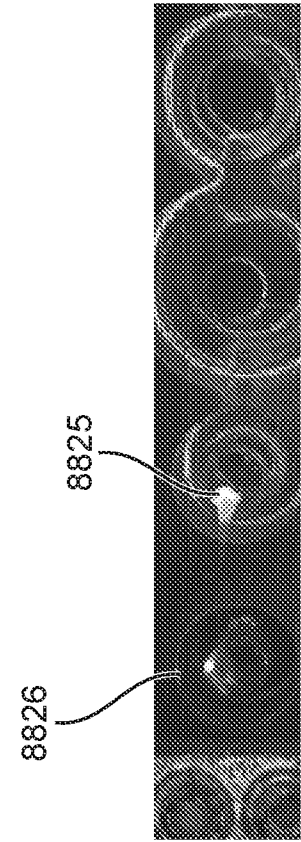


FIG. 88F

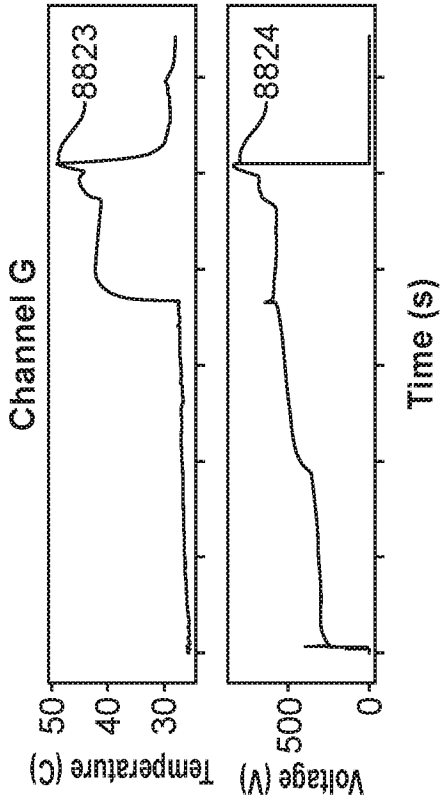


FIG. 88E

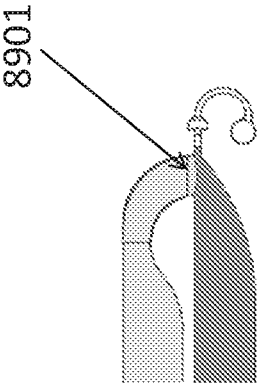
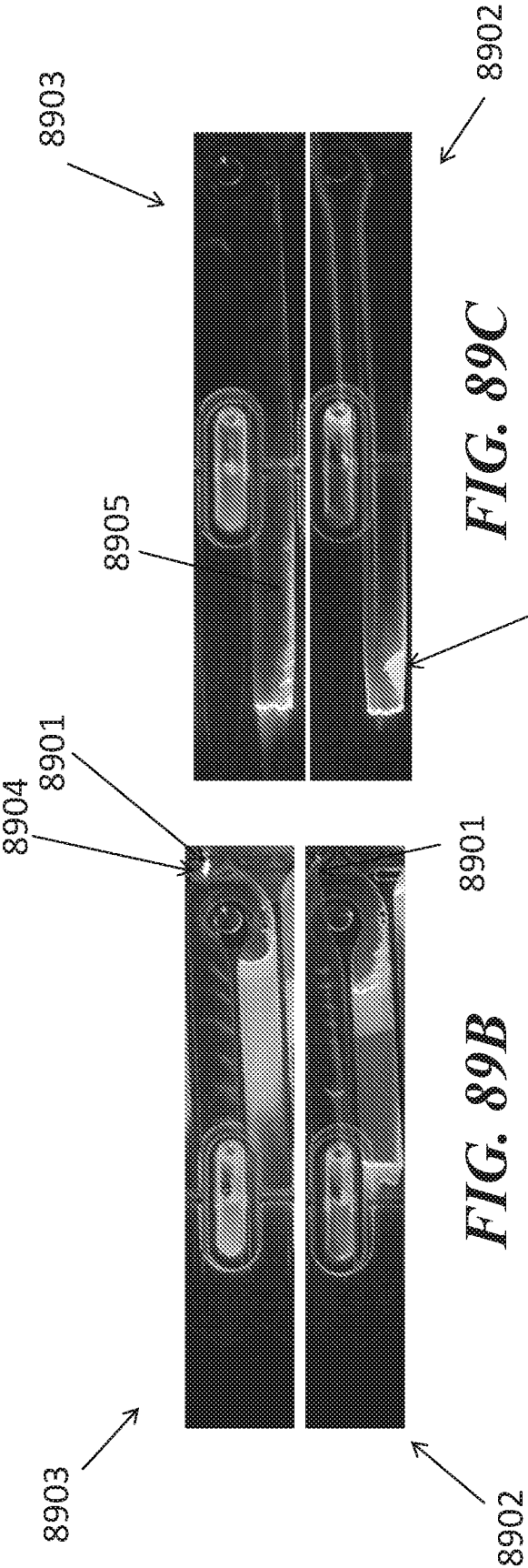


FIG. 89A



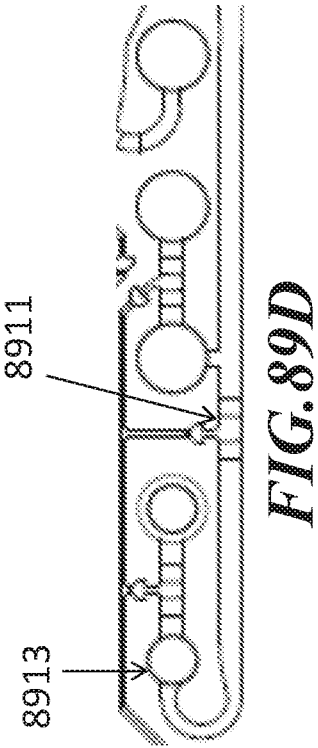


FIG. 89D

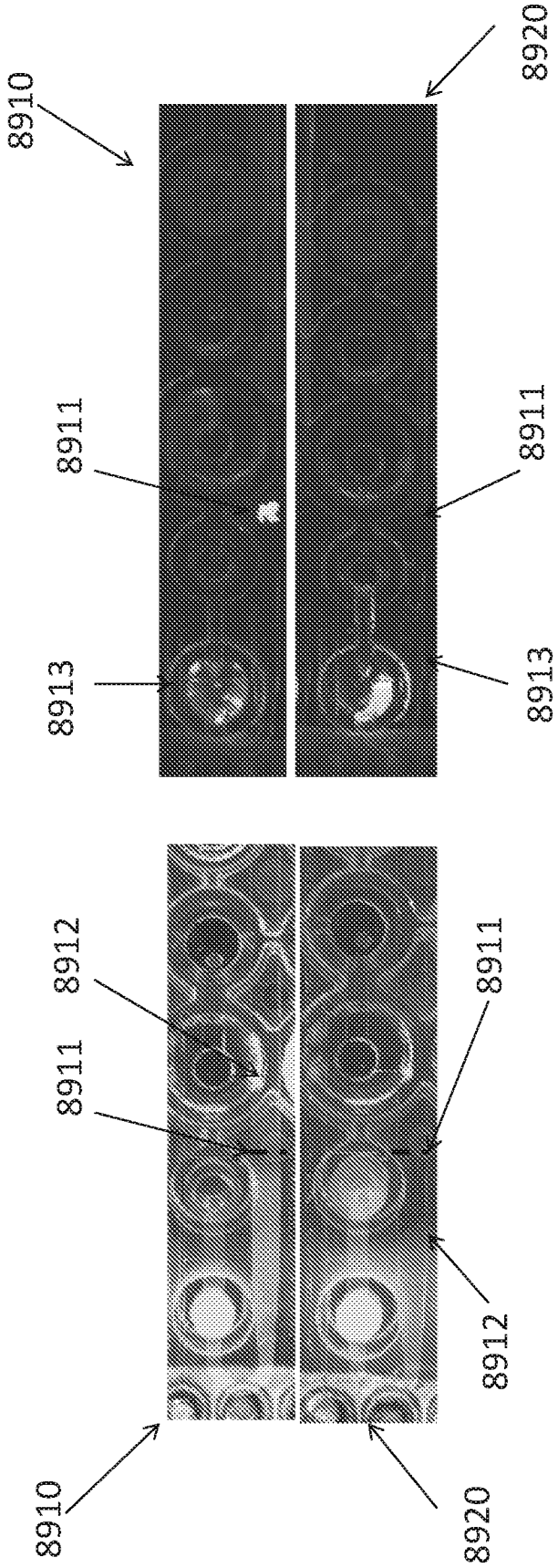


FIG. 89E

FIG. 89F

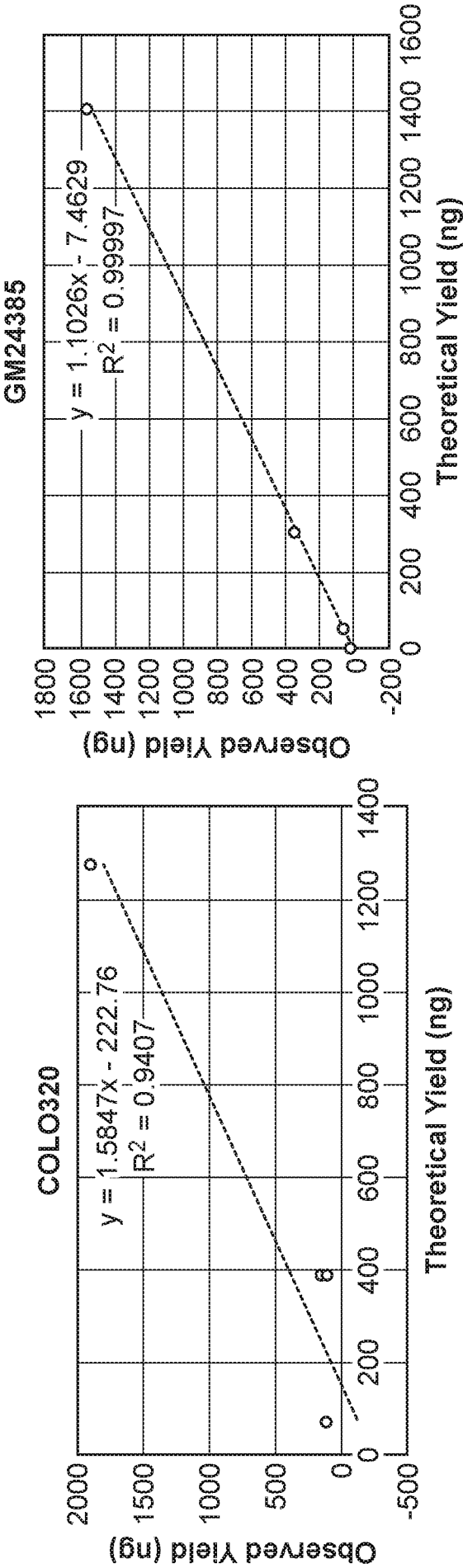


FIG. 90A

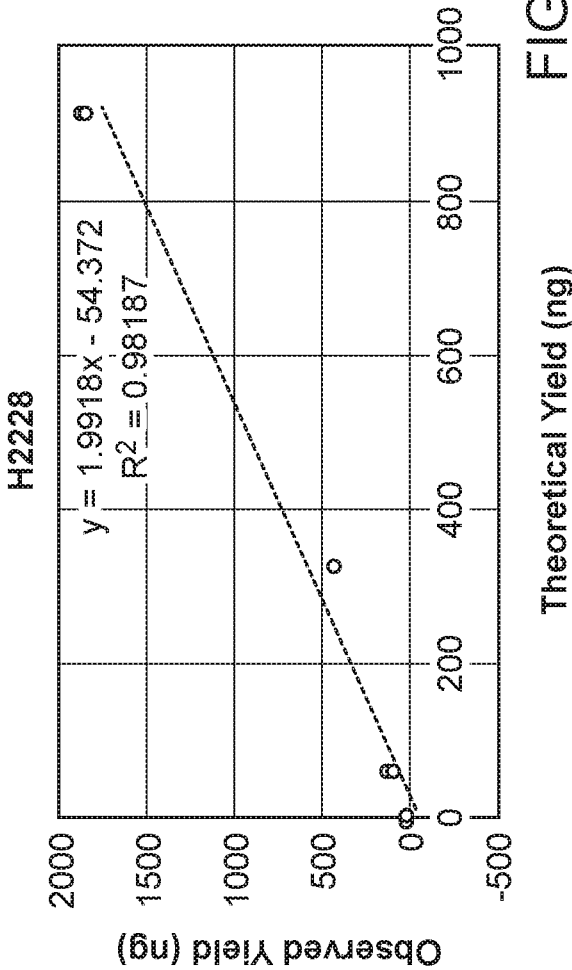


FIG. 90C

FIG. 90B

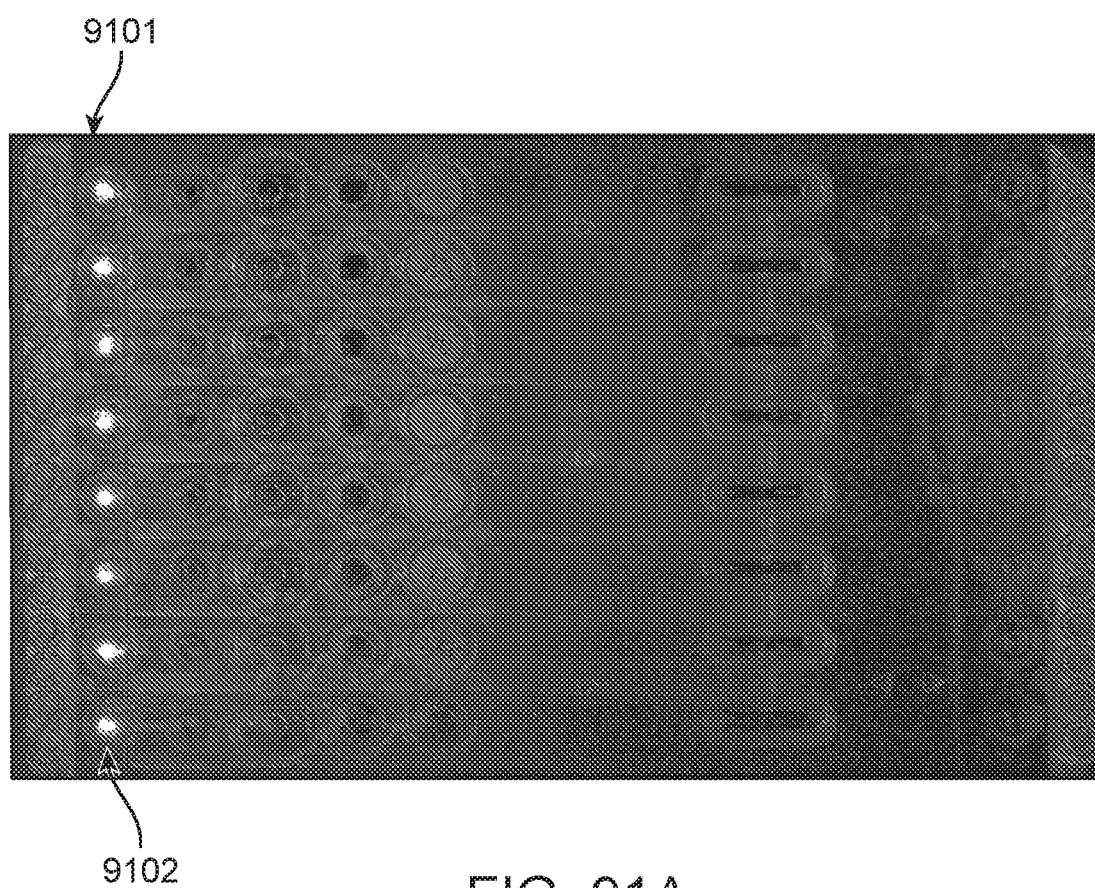


FIG. 91A

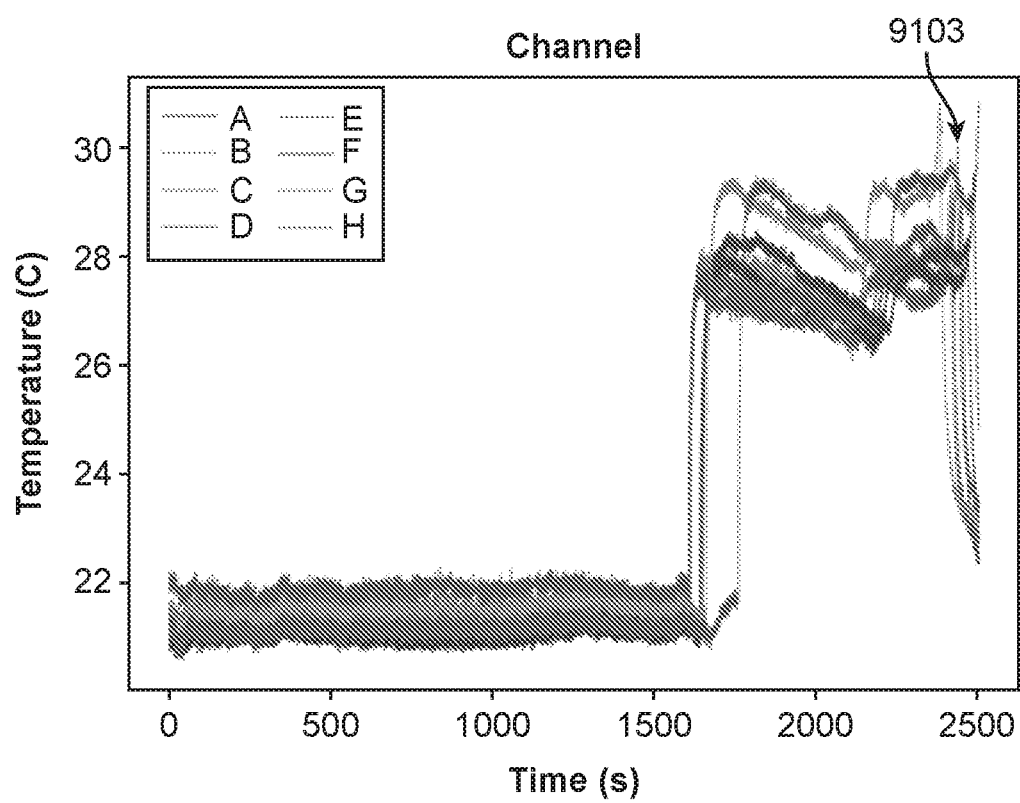


FIG. 91B

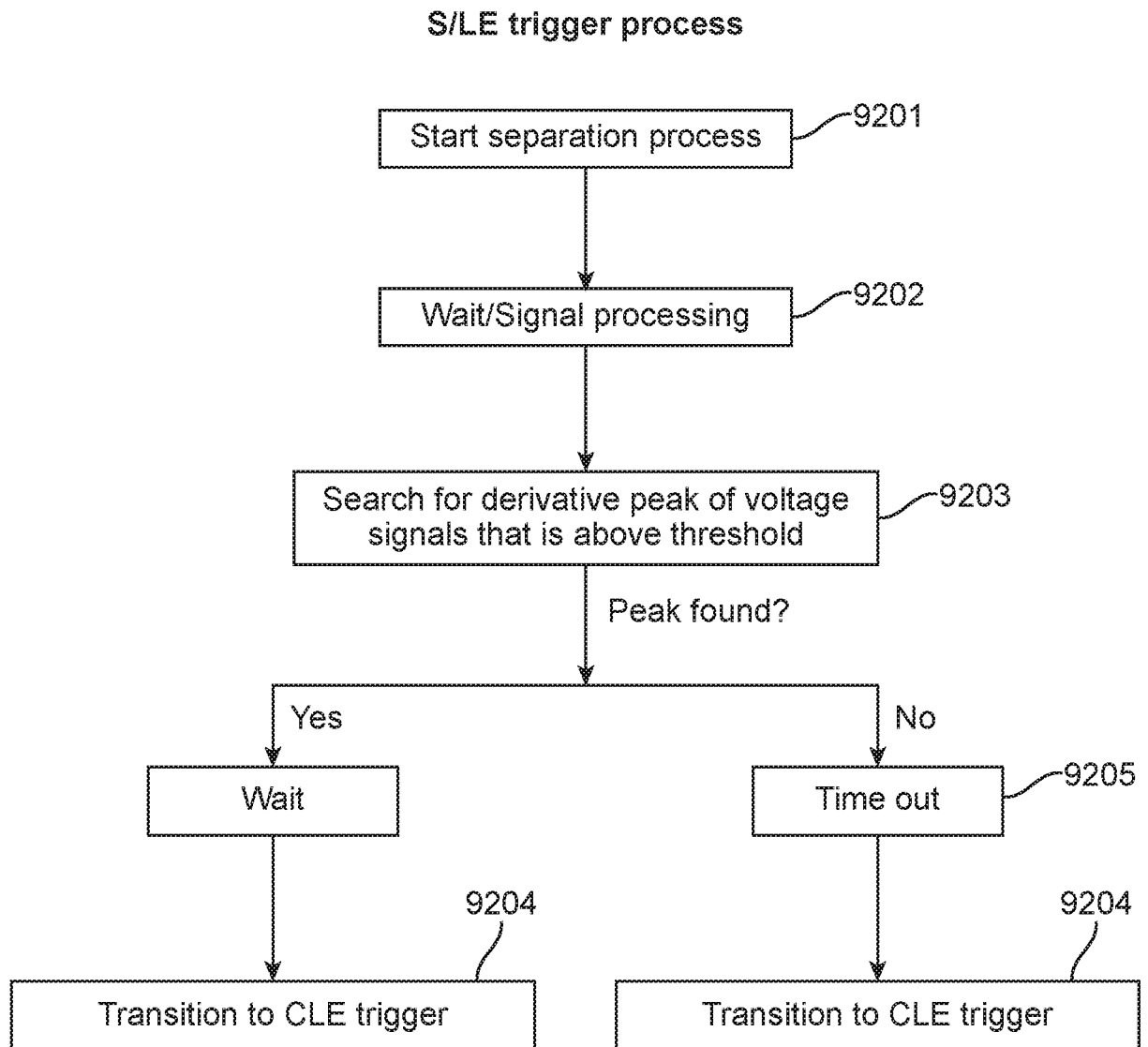
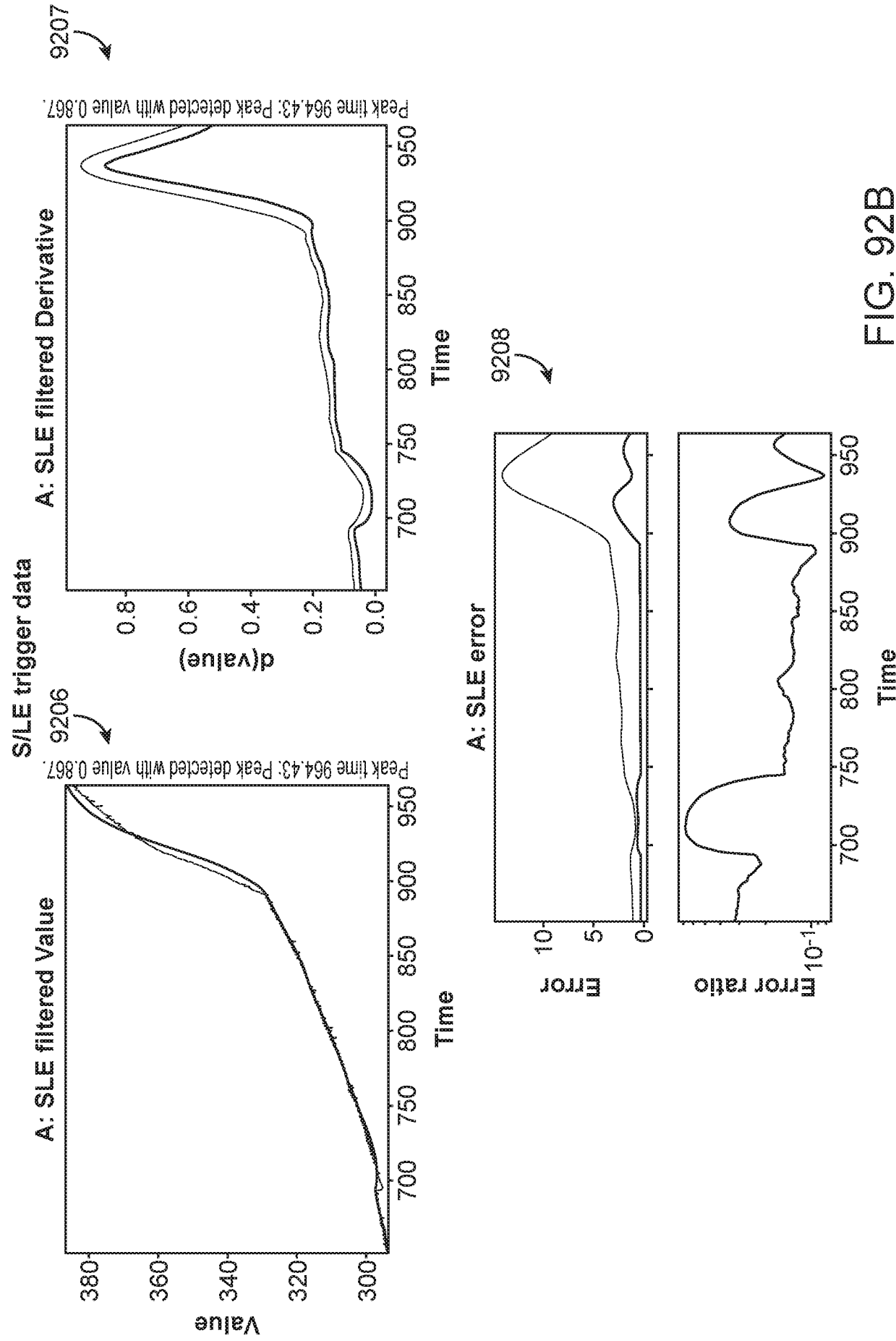


FIG. 92A



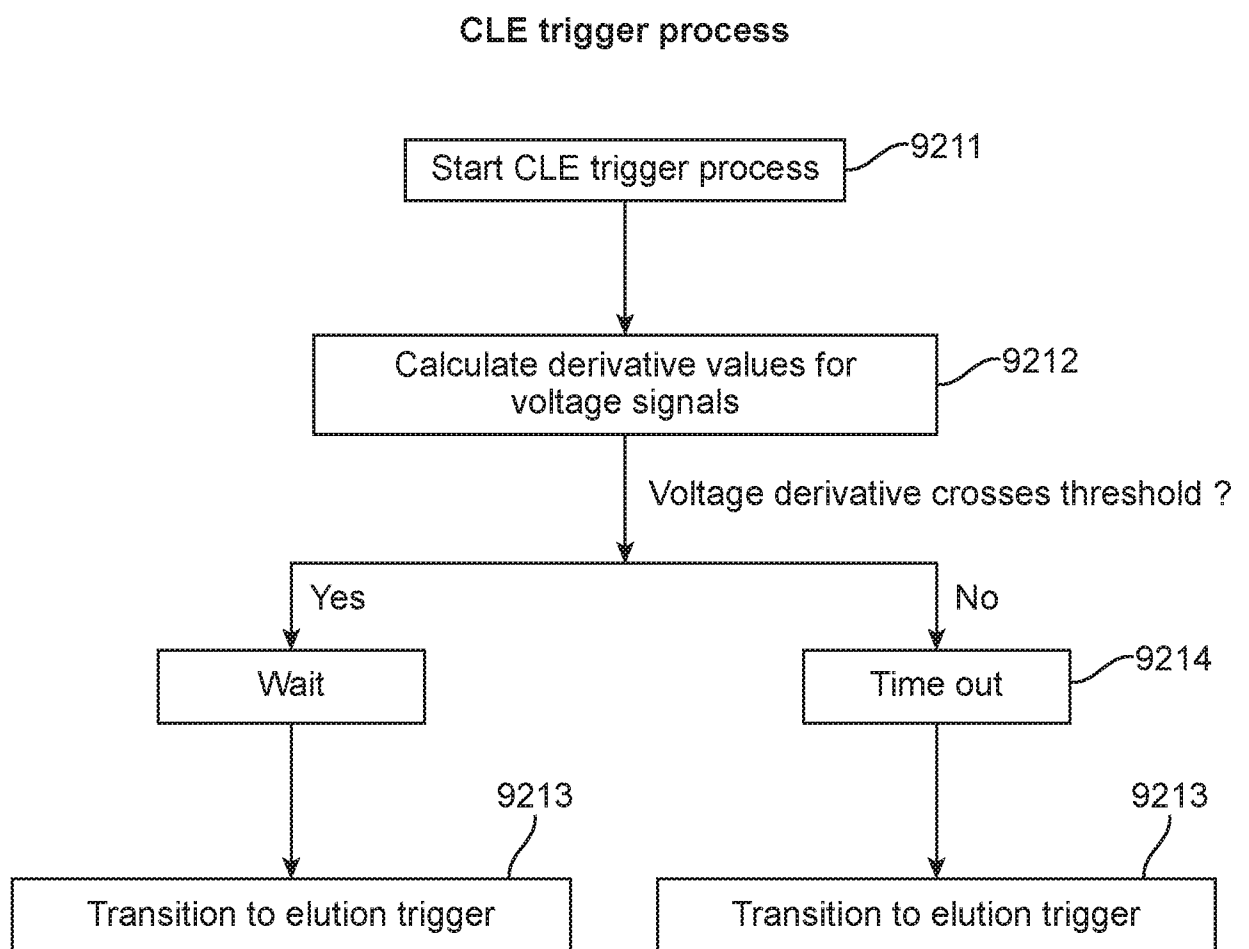


FIG. 92C

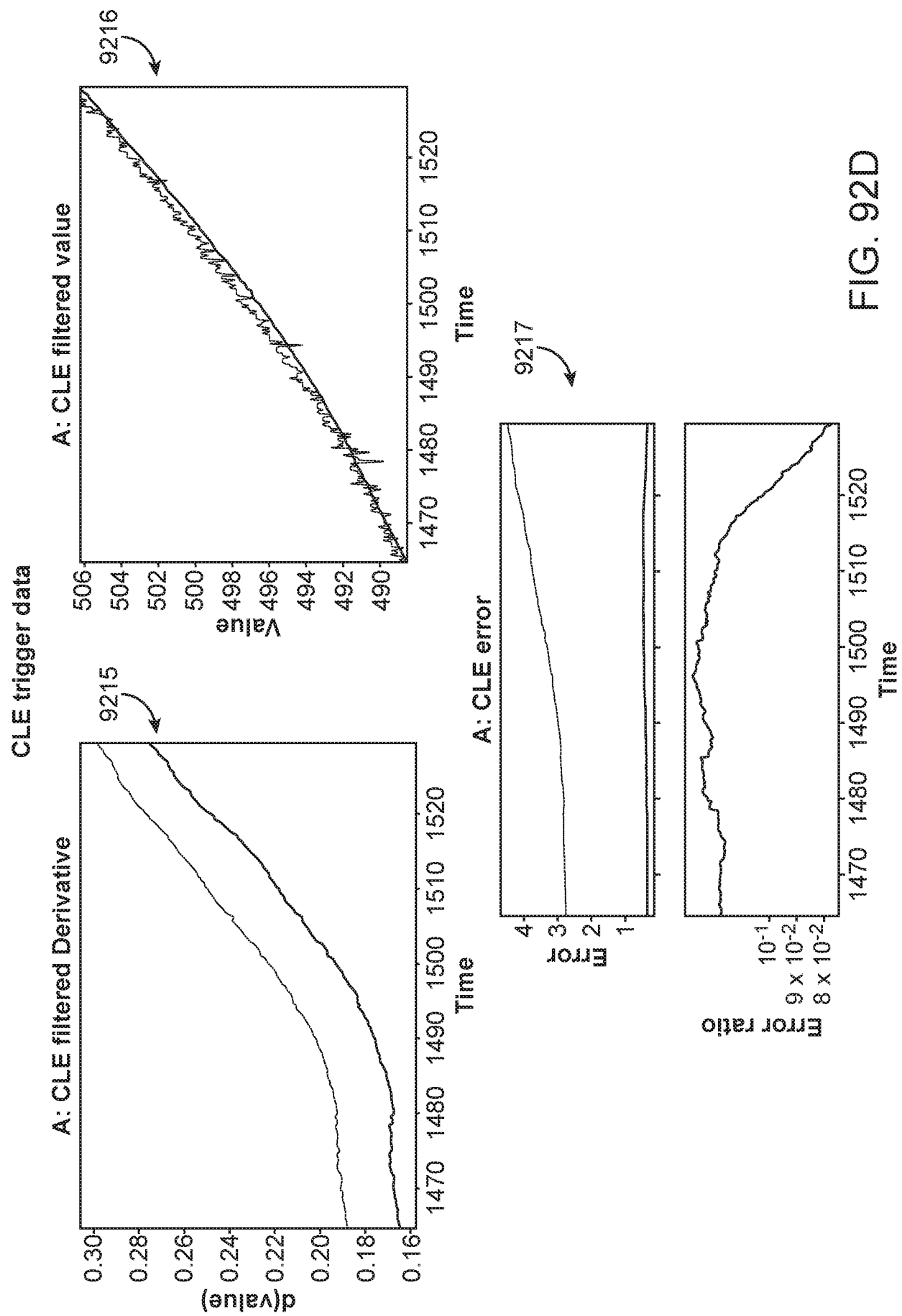


FIG. 92D

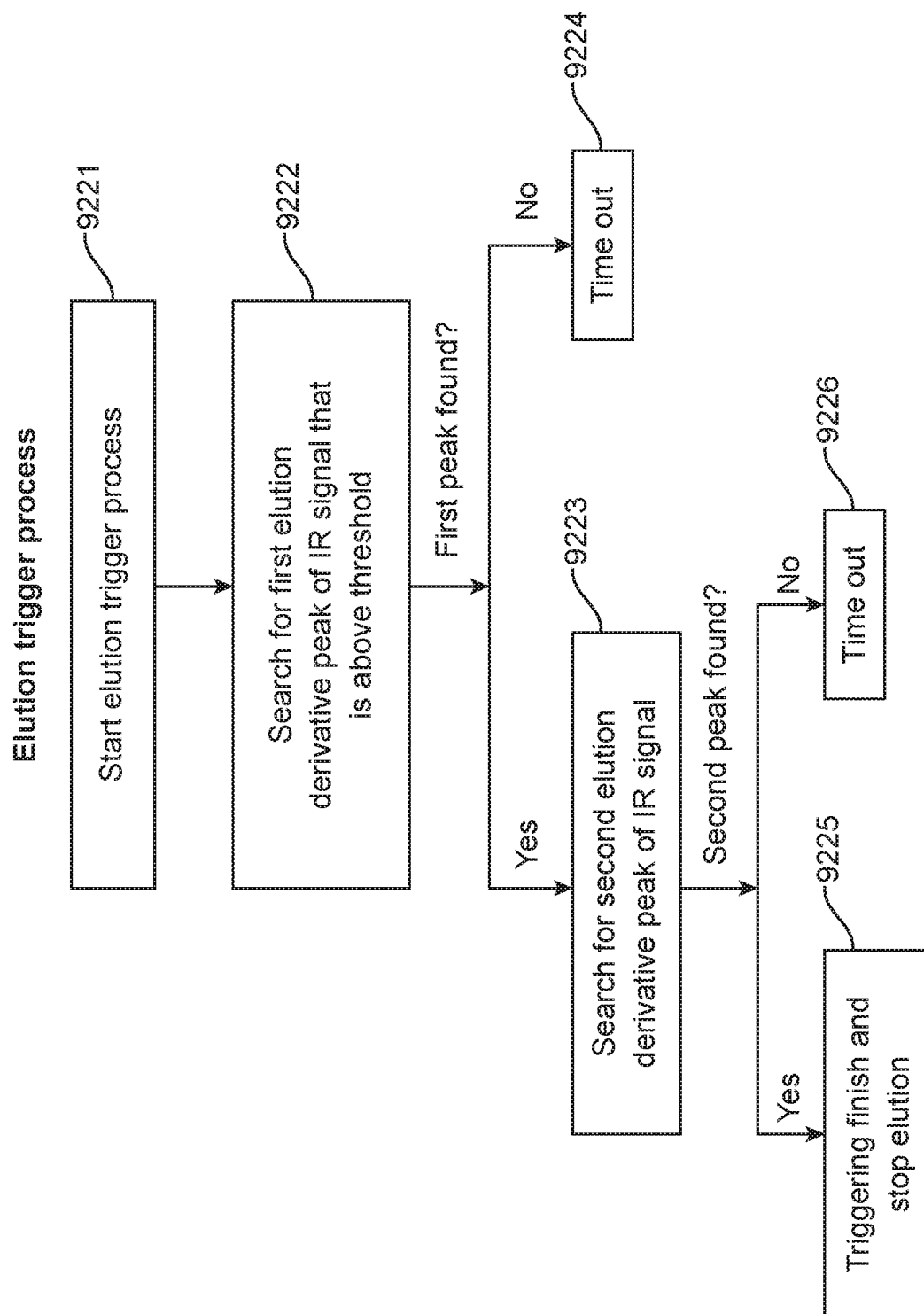


FIG. 92E

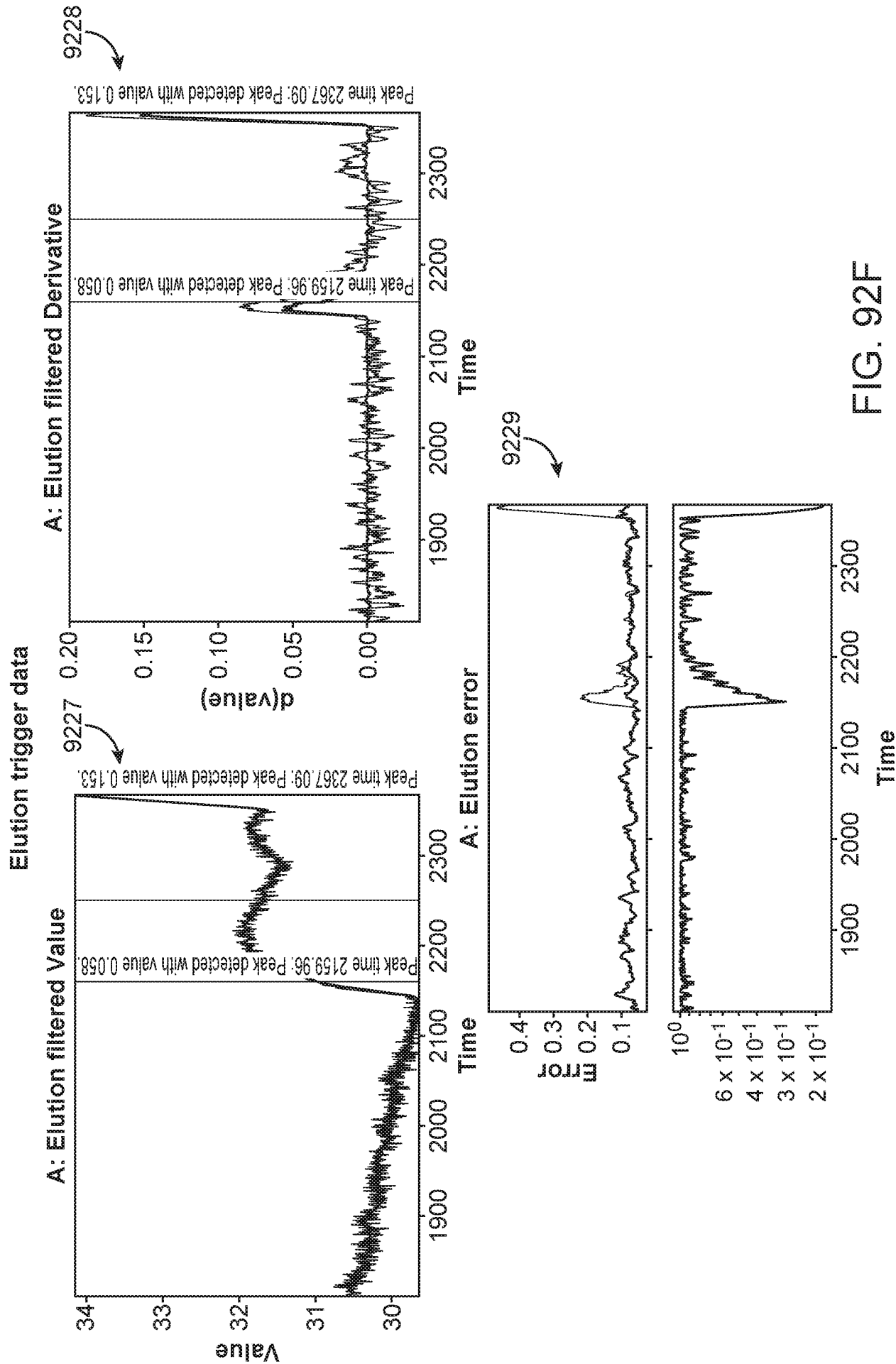


FIG. 92F