

FIG. 1A

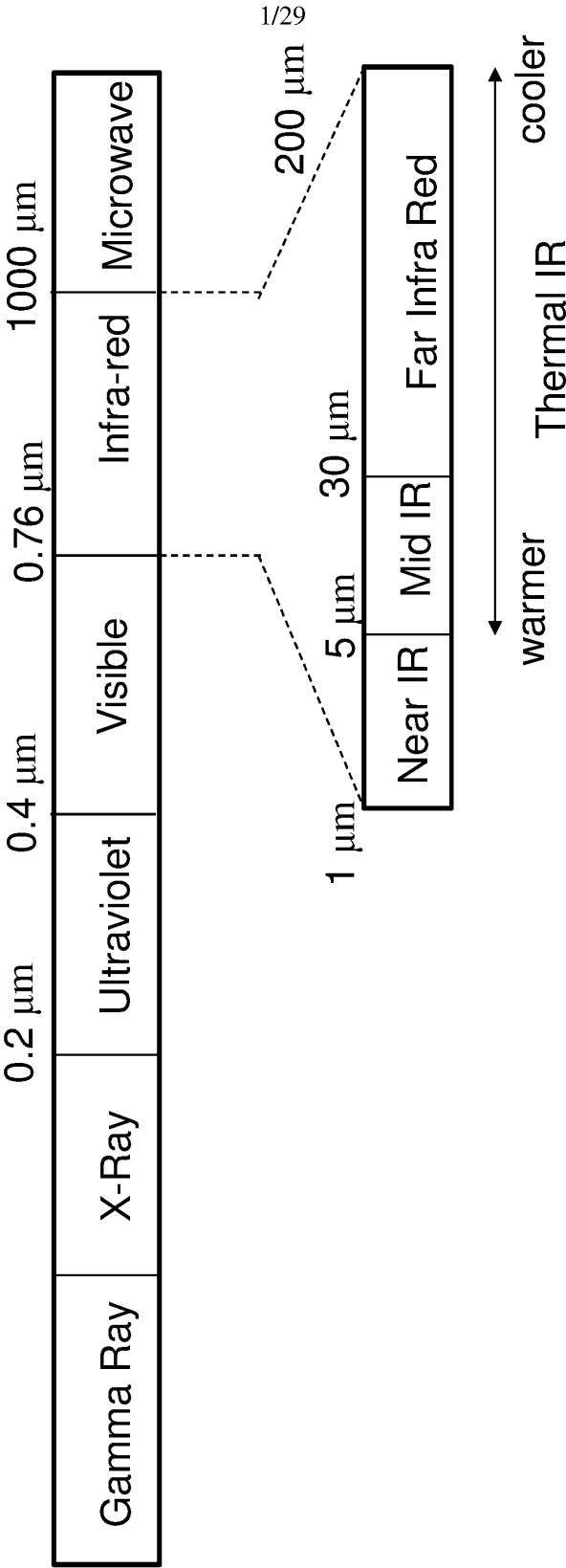
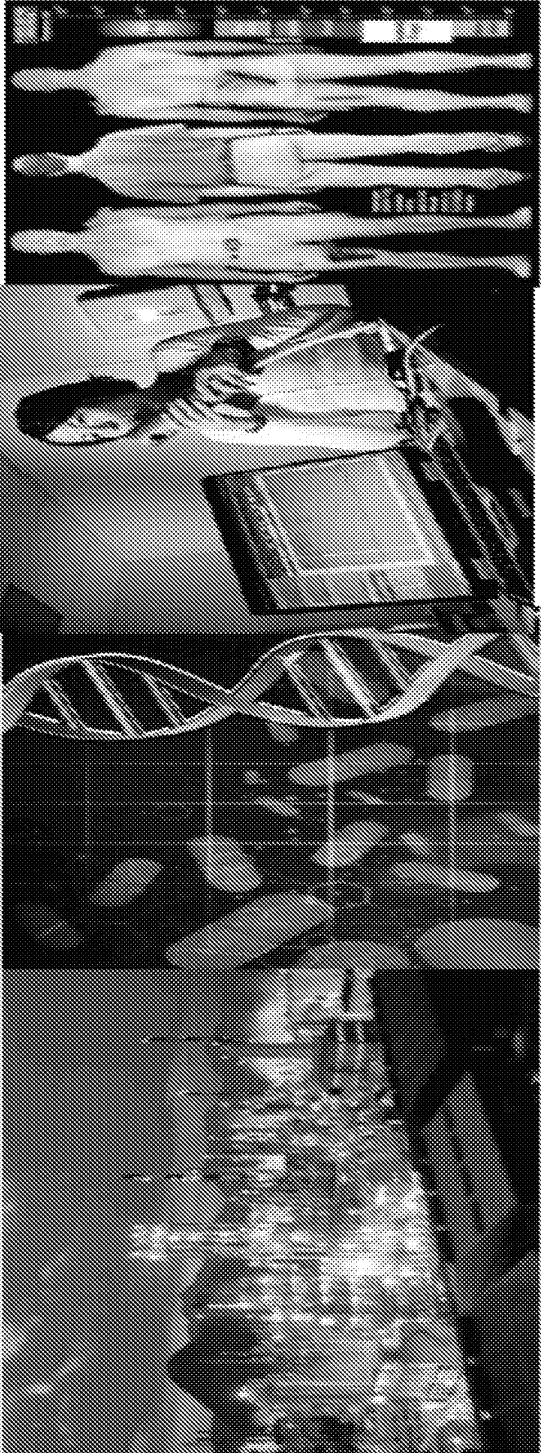


FIG. 1B

Chemical Biomedical Health Security



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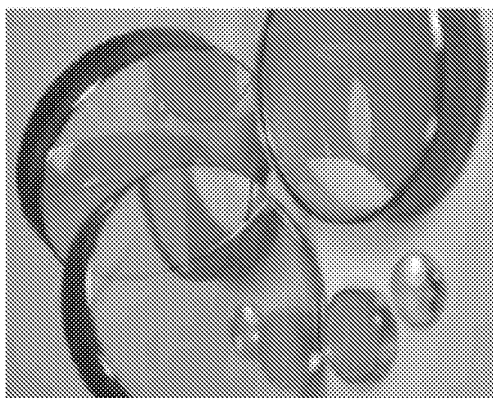


FIG. 1C

FIG. 1D

Quote for the QCL-based IR microscope (Nov'18) Daylight solutions:

Description	Qty	Unit Price
Spero®QT ULTRAFAST, WIDE-FIELD MID-IR MICROSCOPY	1	(S\$) 698,500.00
Spero®LT ULTRAFAST, WIDE-FIELD MID-IR MICROSCOPY	1	326,200.00

0.7 NA

0.3 NA

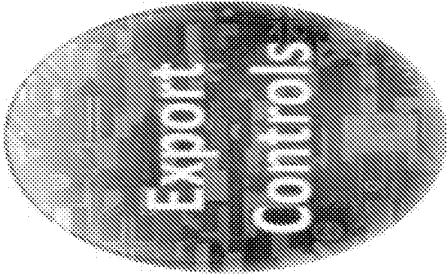
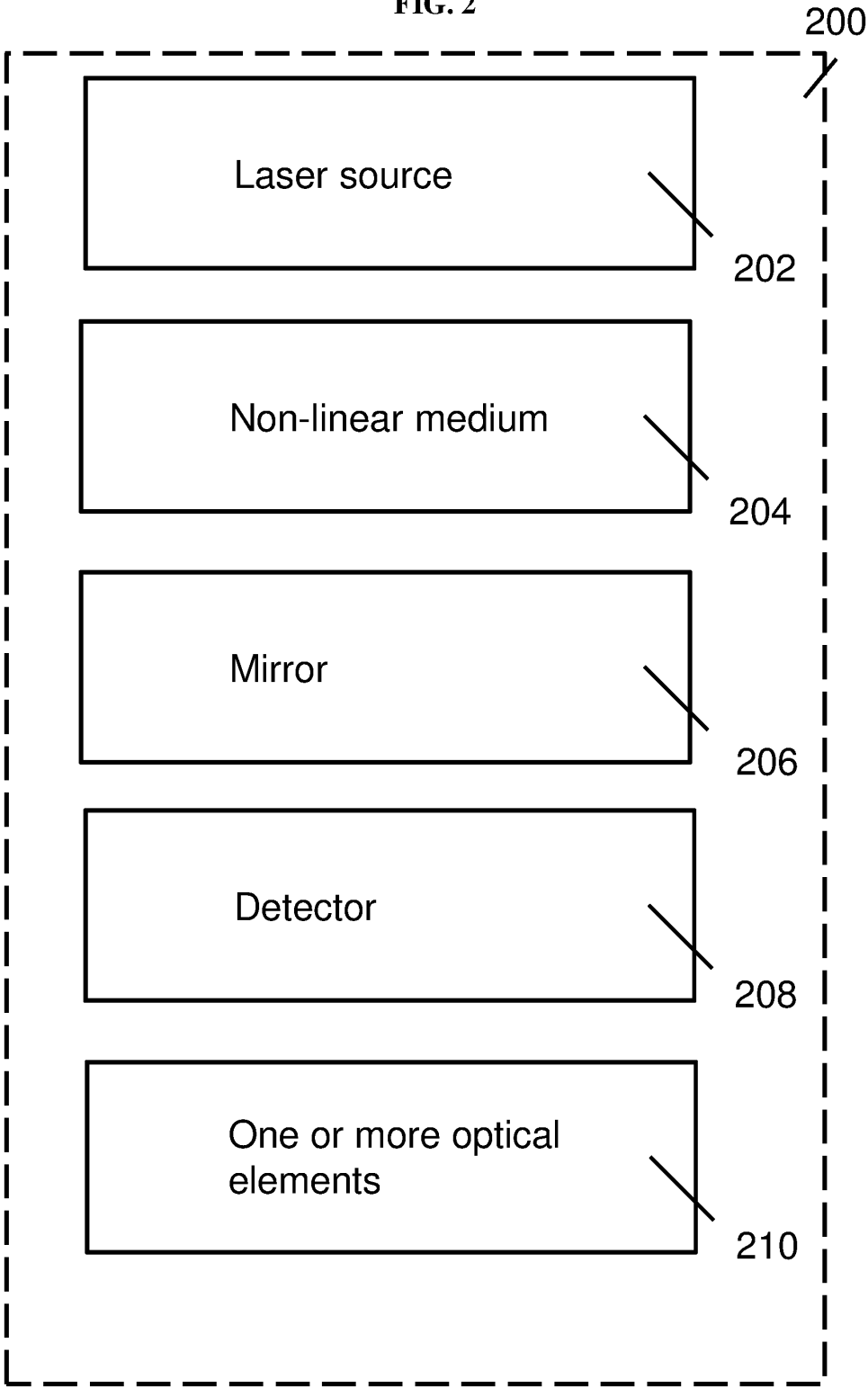
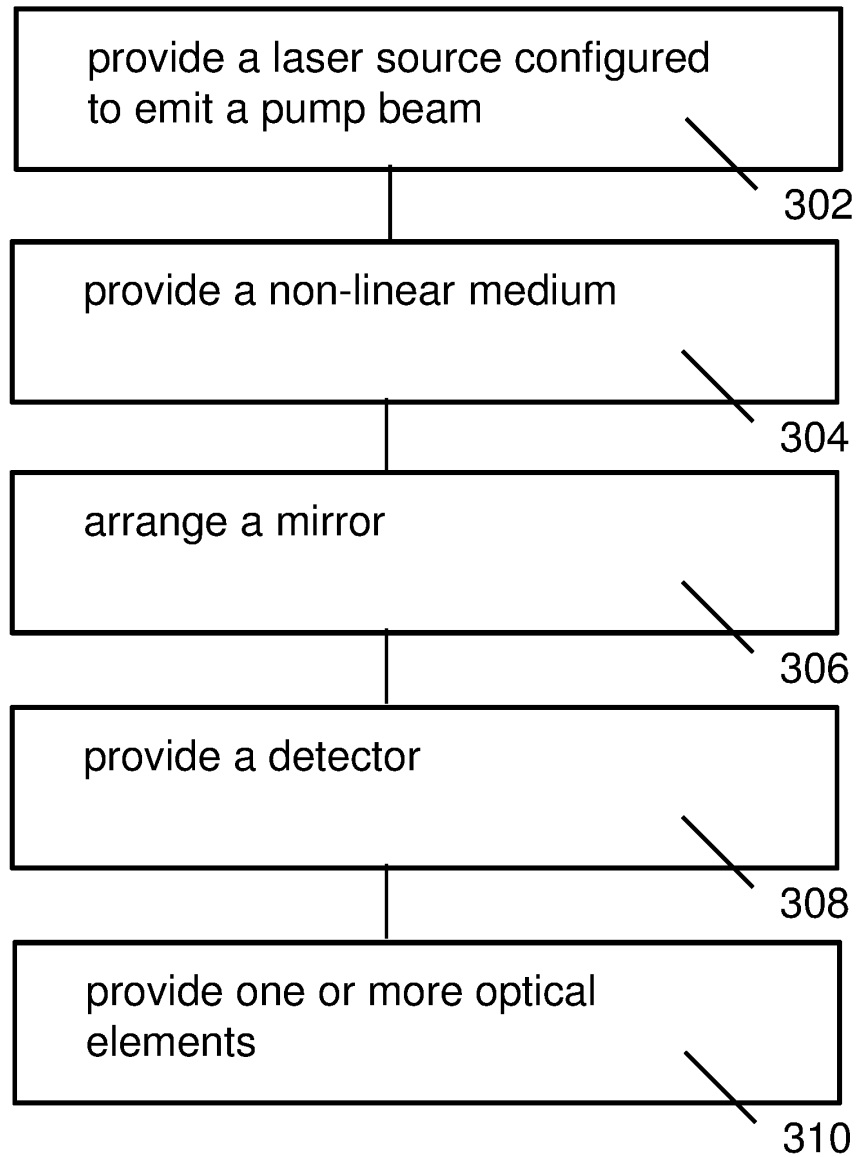


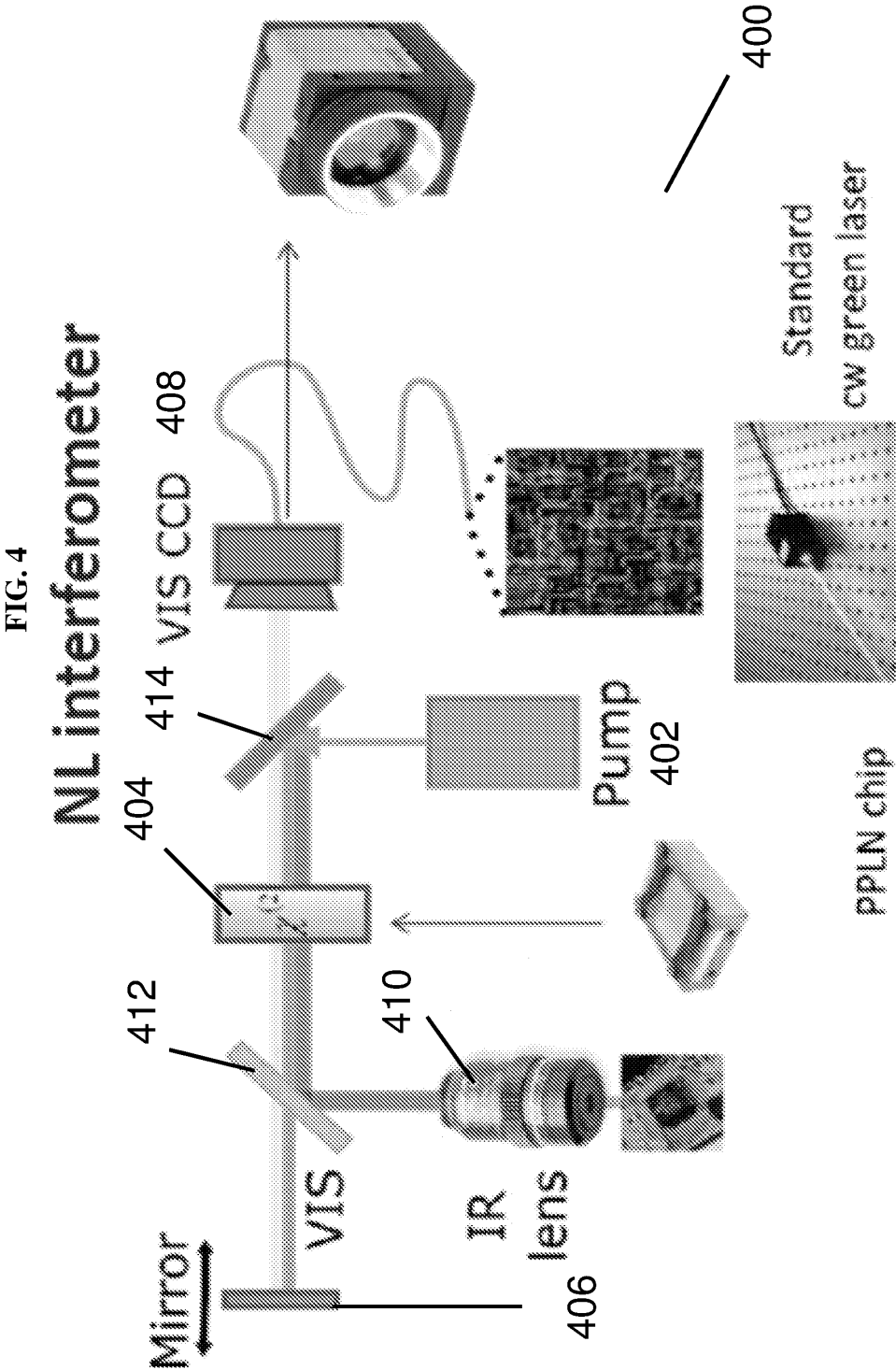
FIG. 2



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FIG. 3





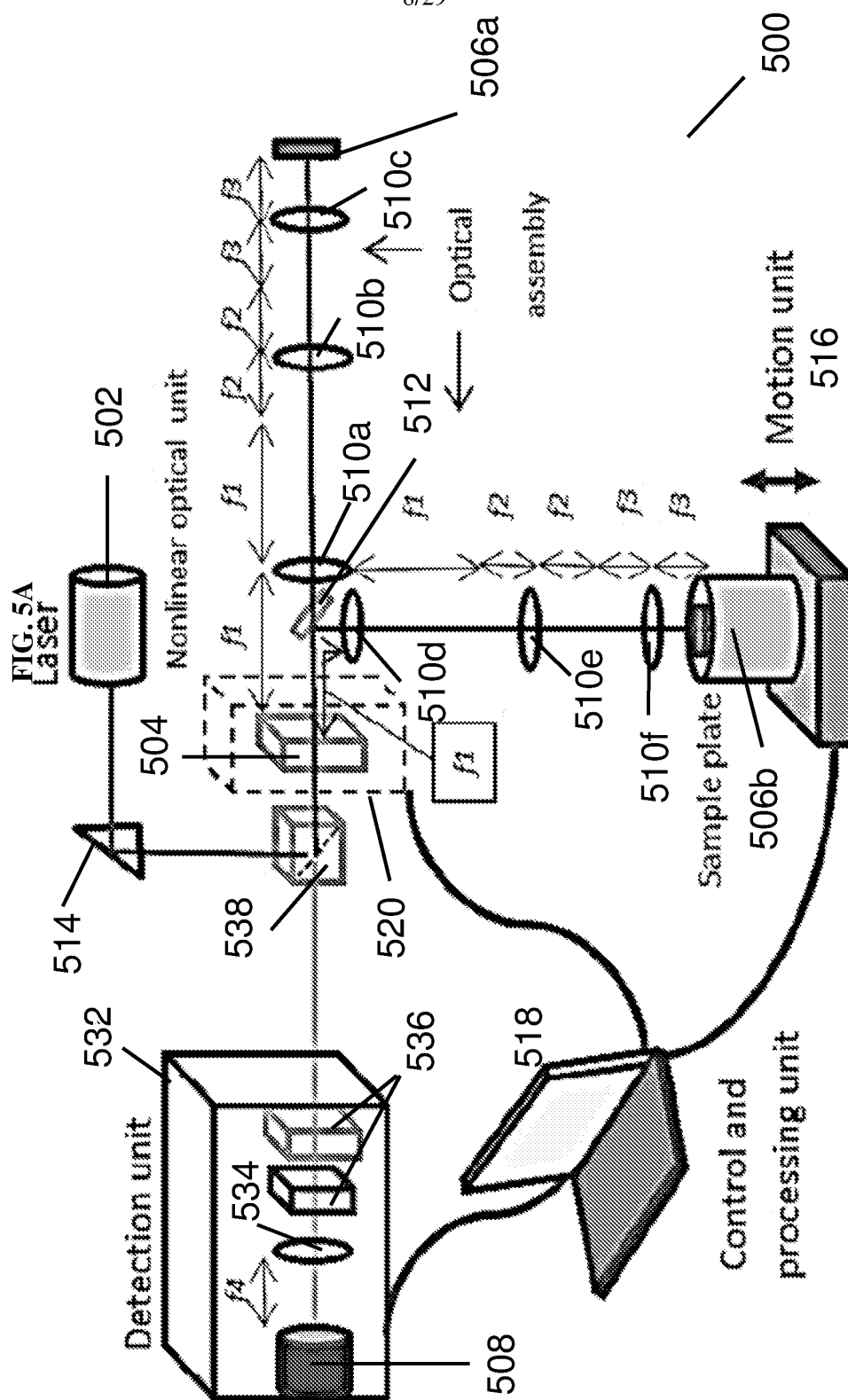
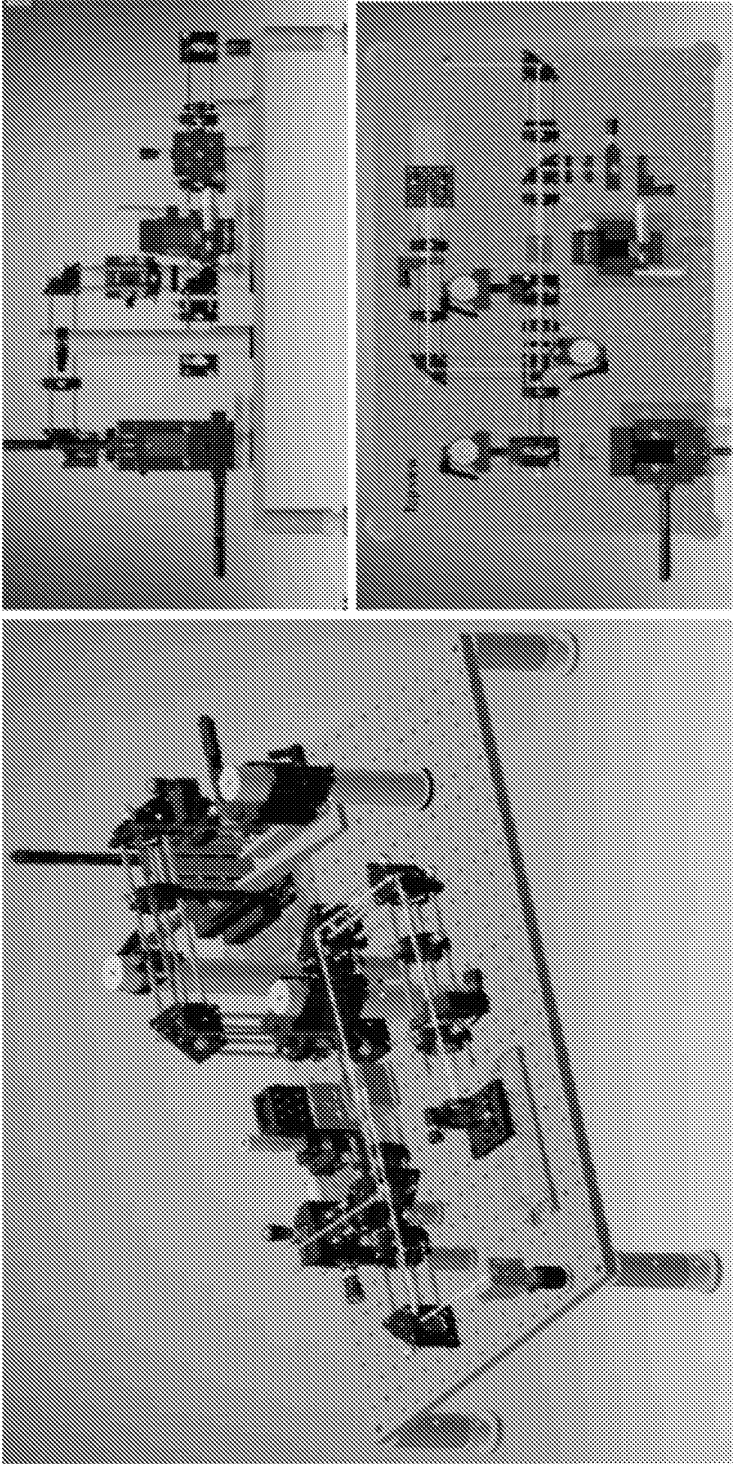


FIG. 5B



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FIG. 5C

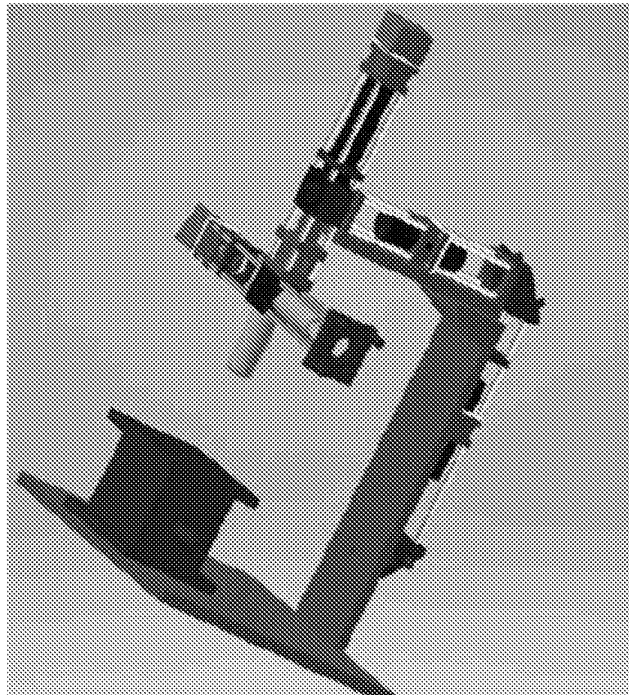
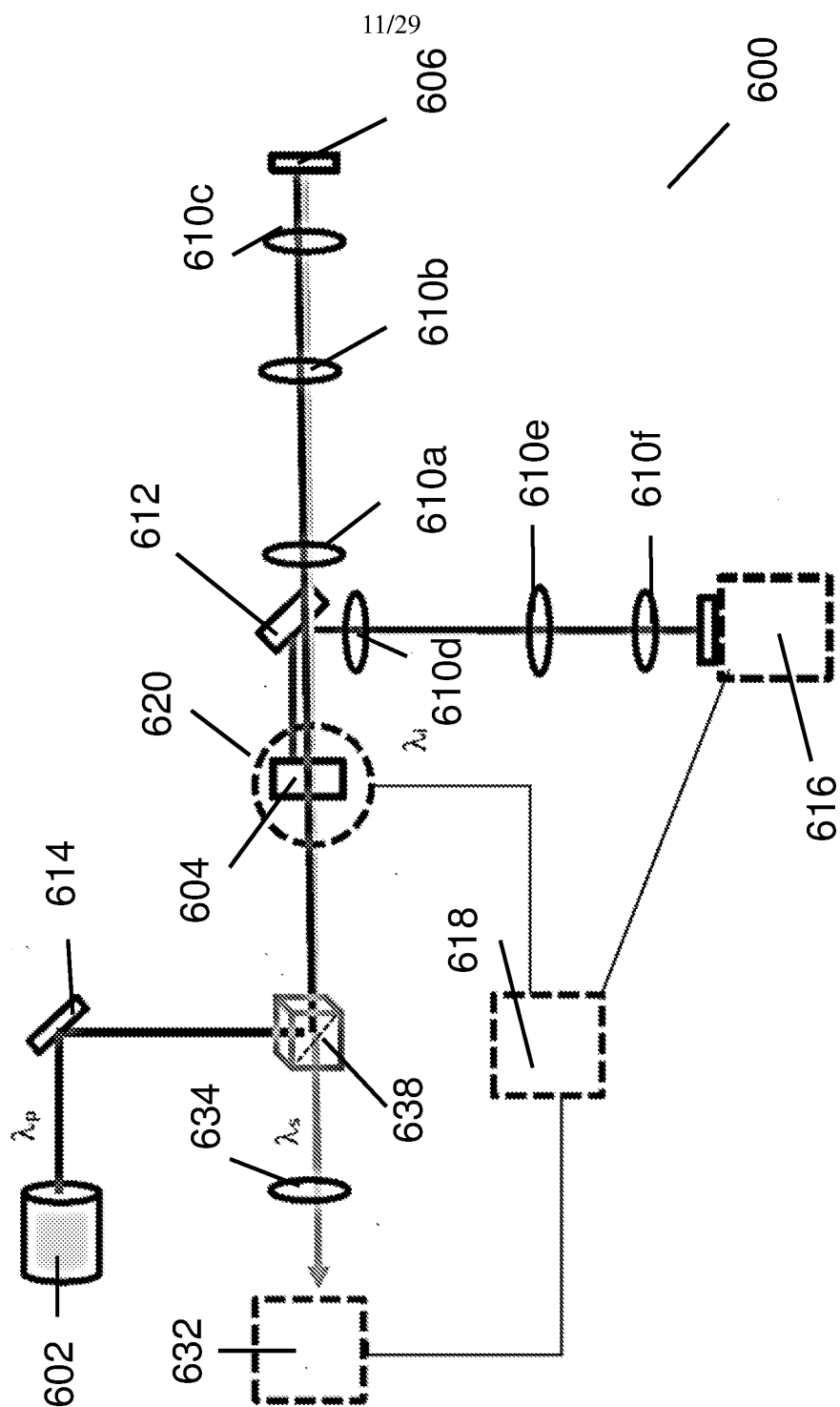


FIG. 6A



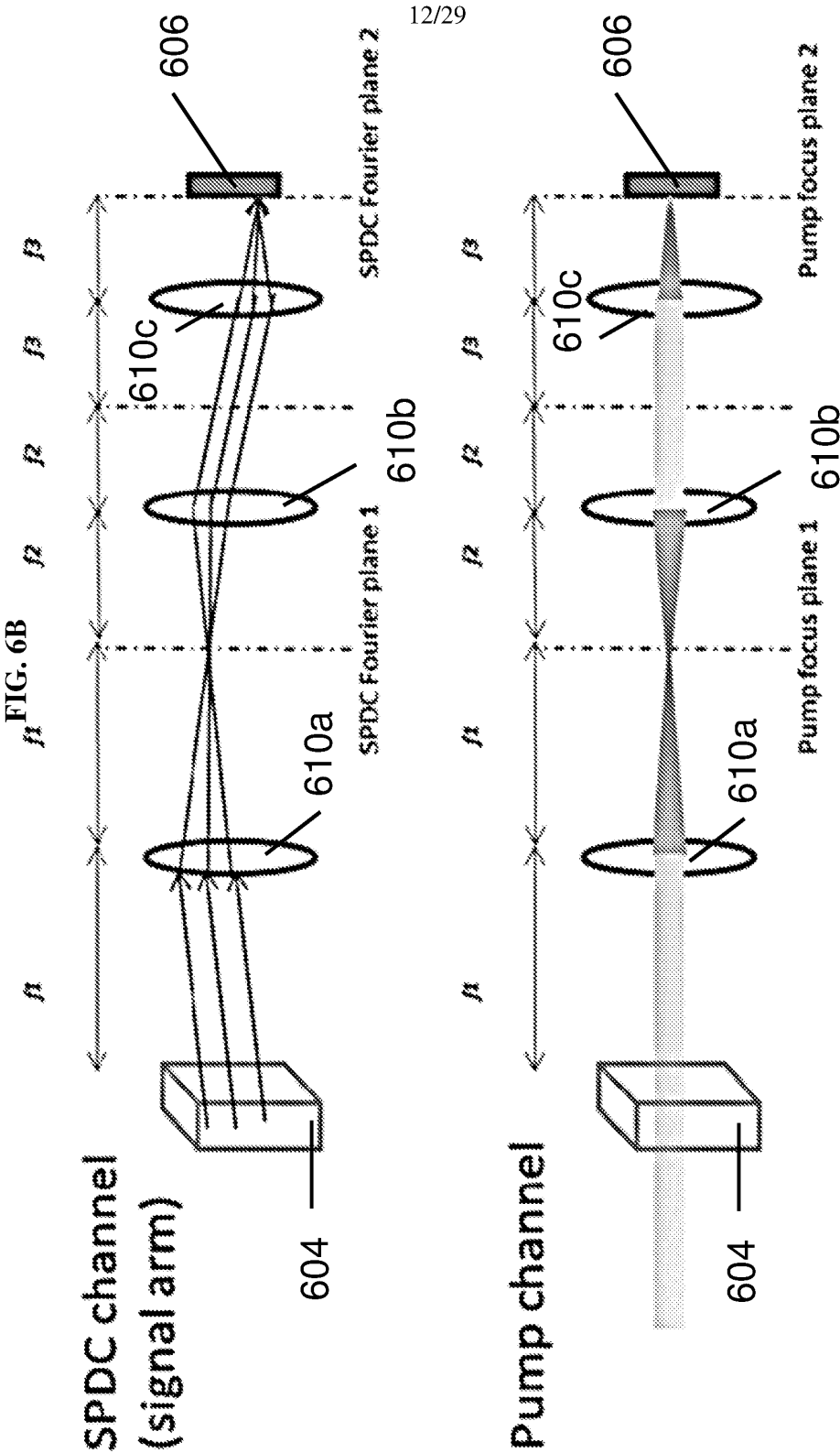


FIG. 6C

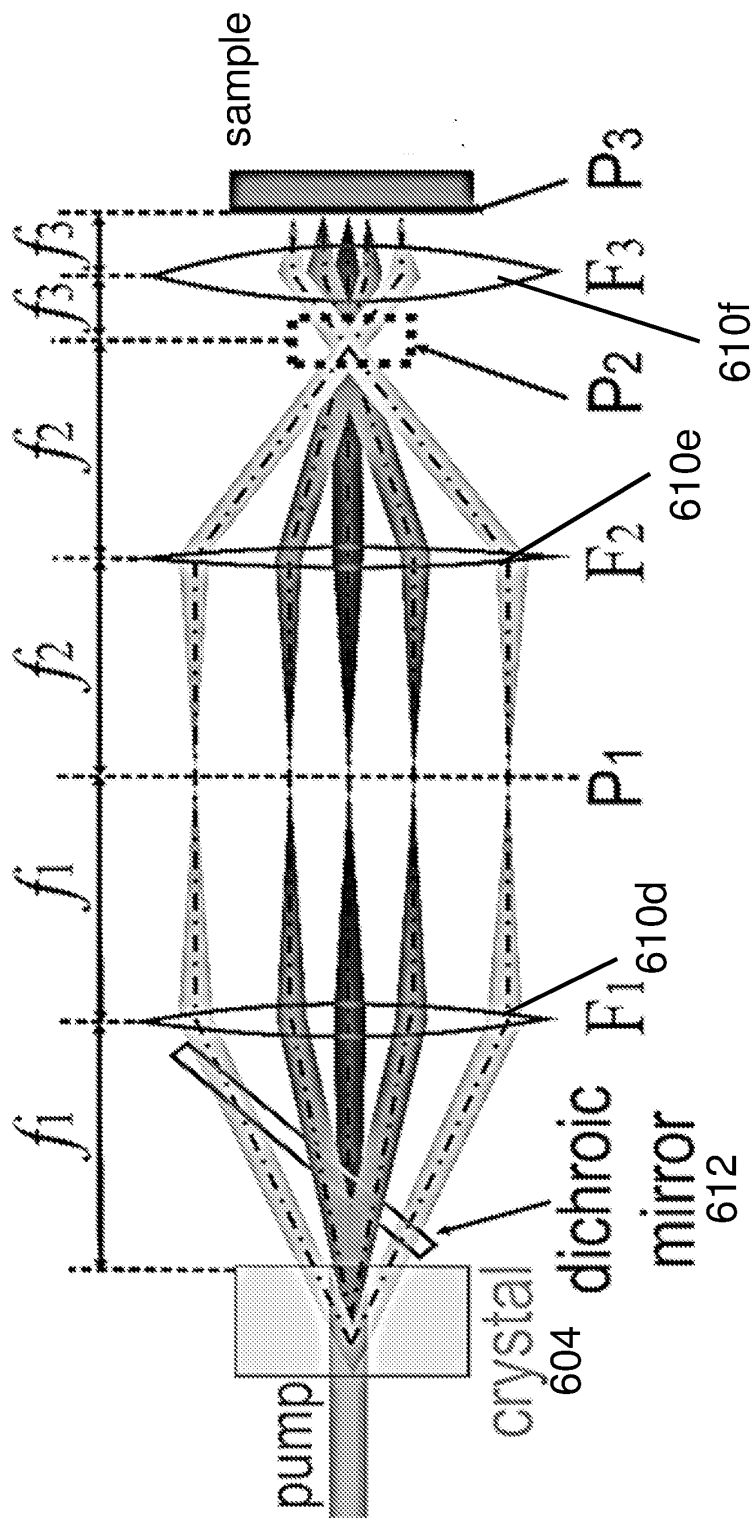


FIG. 6D

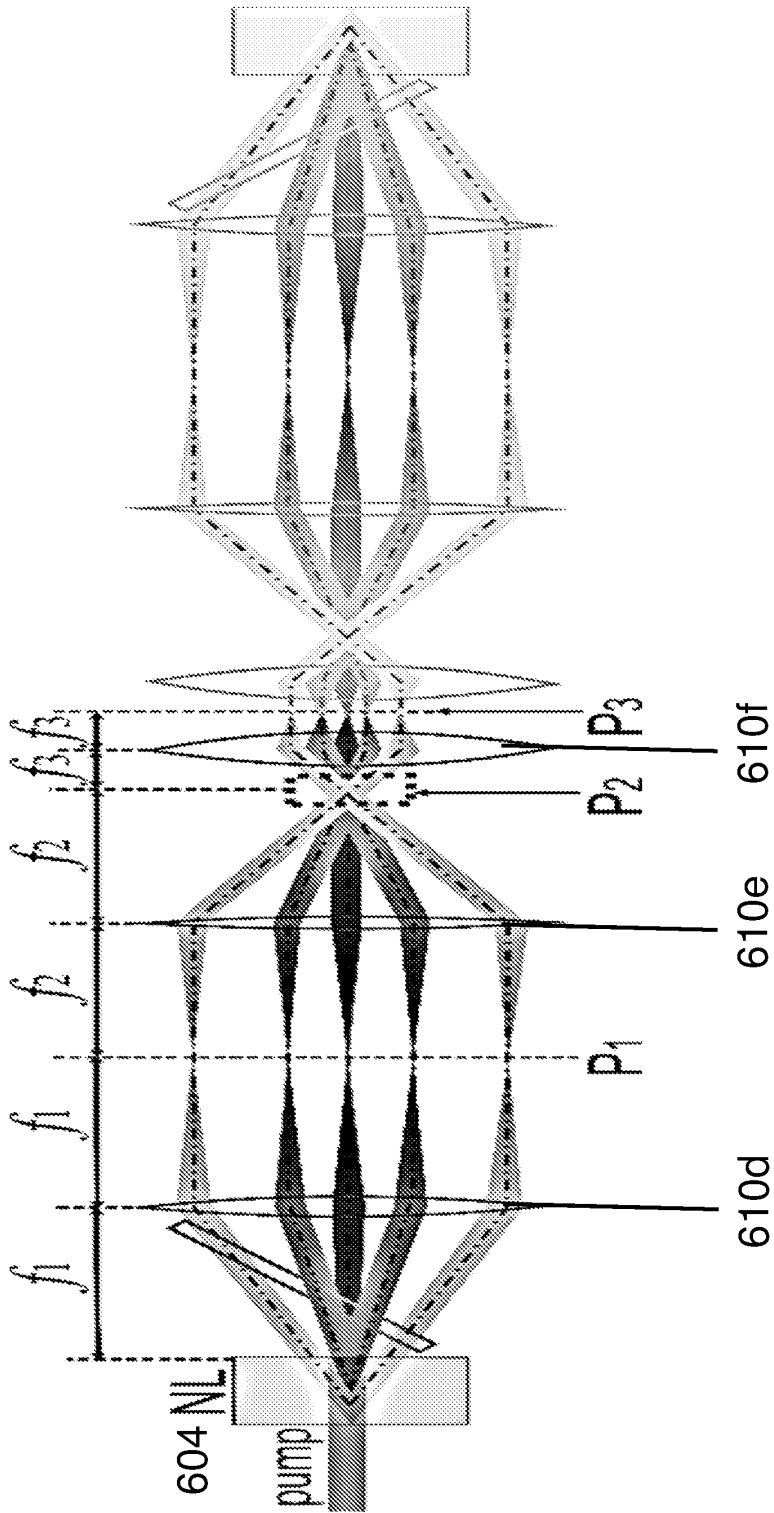


FIG. 6E

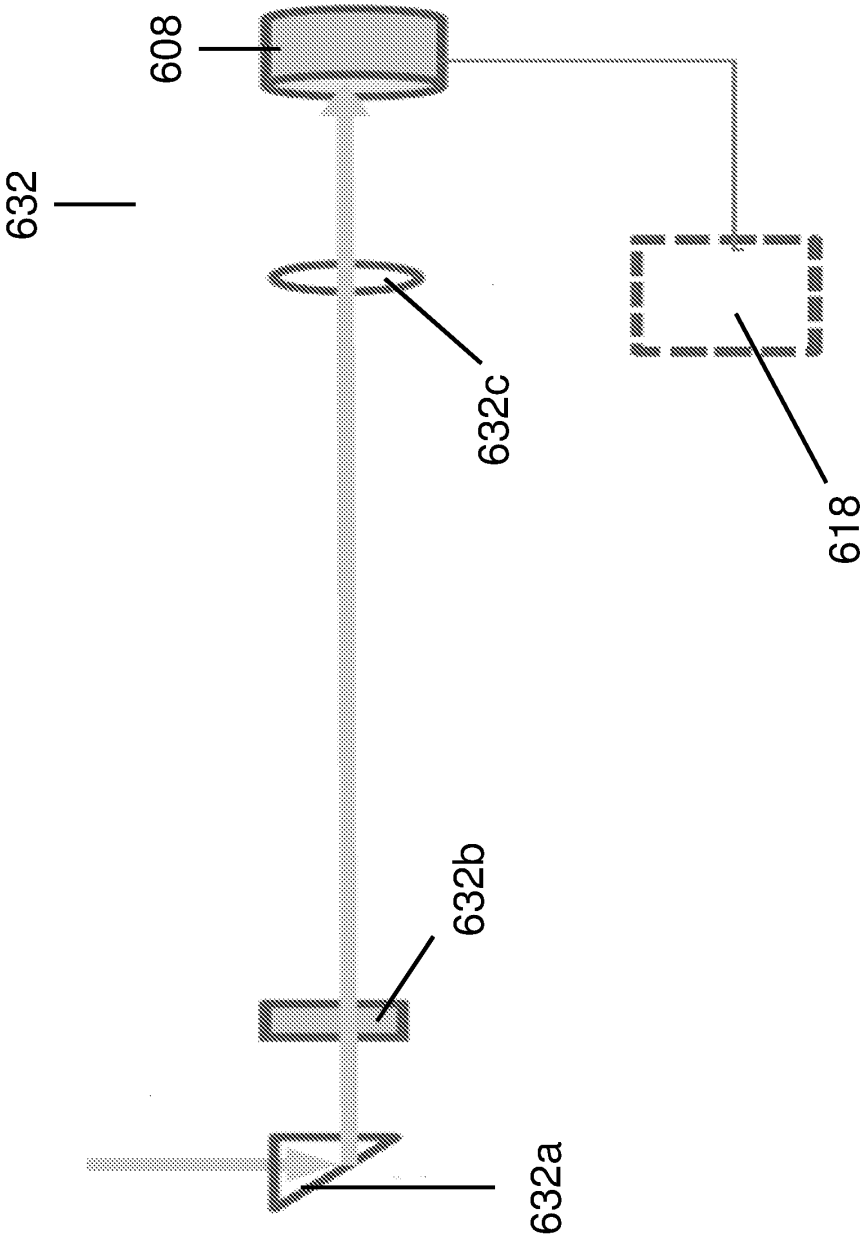


FIG. 7

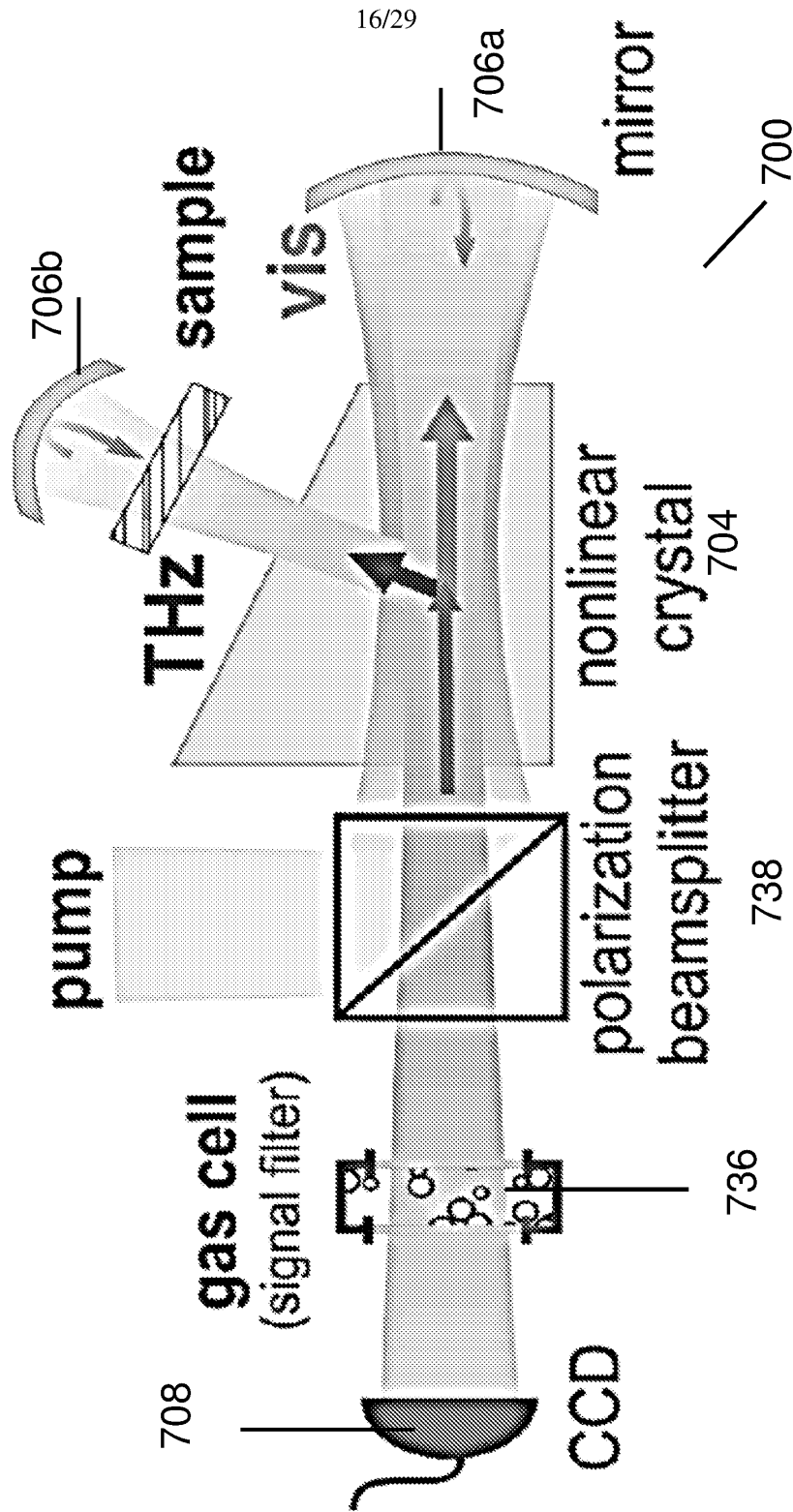


FIG. 8

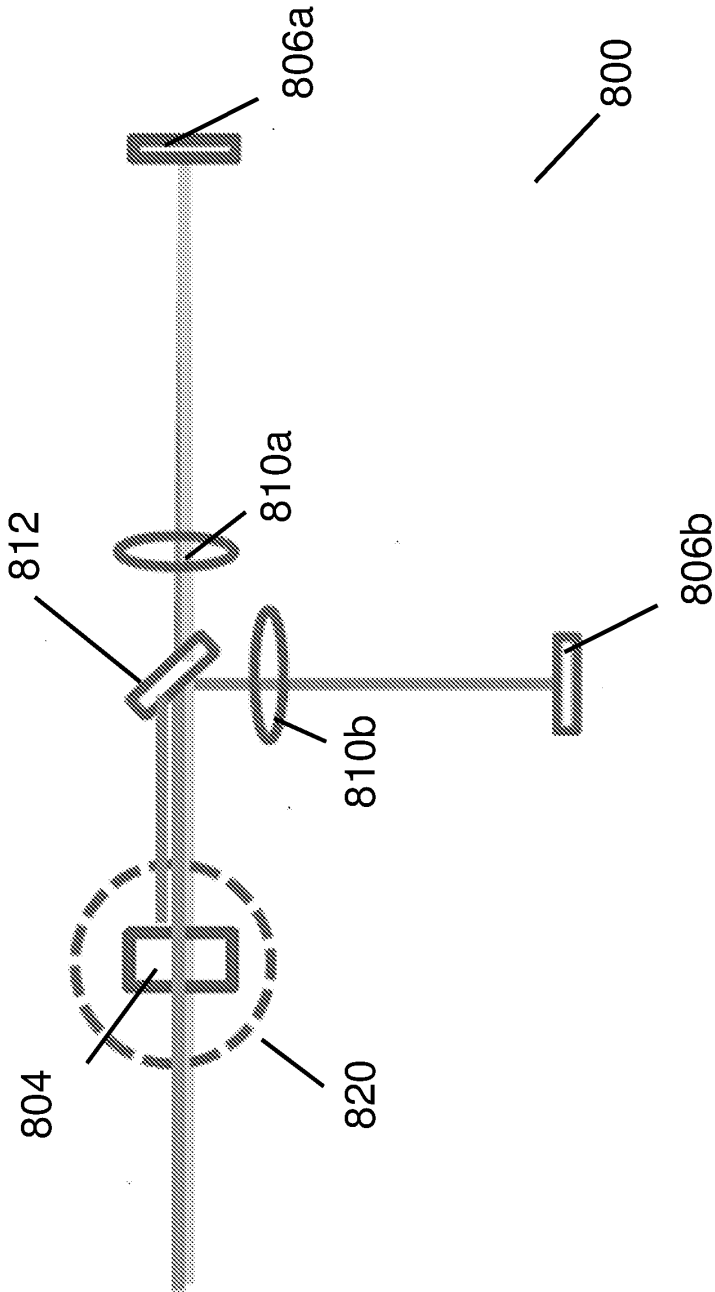


FIG. 9

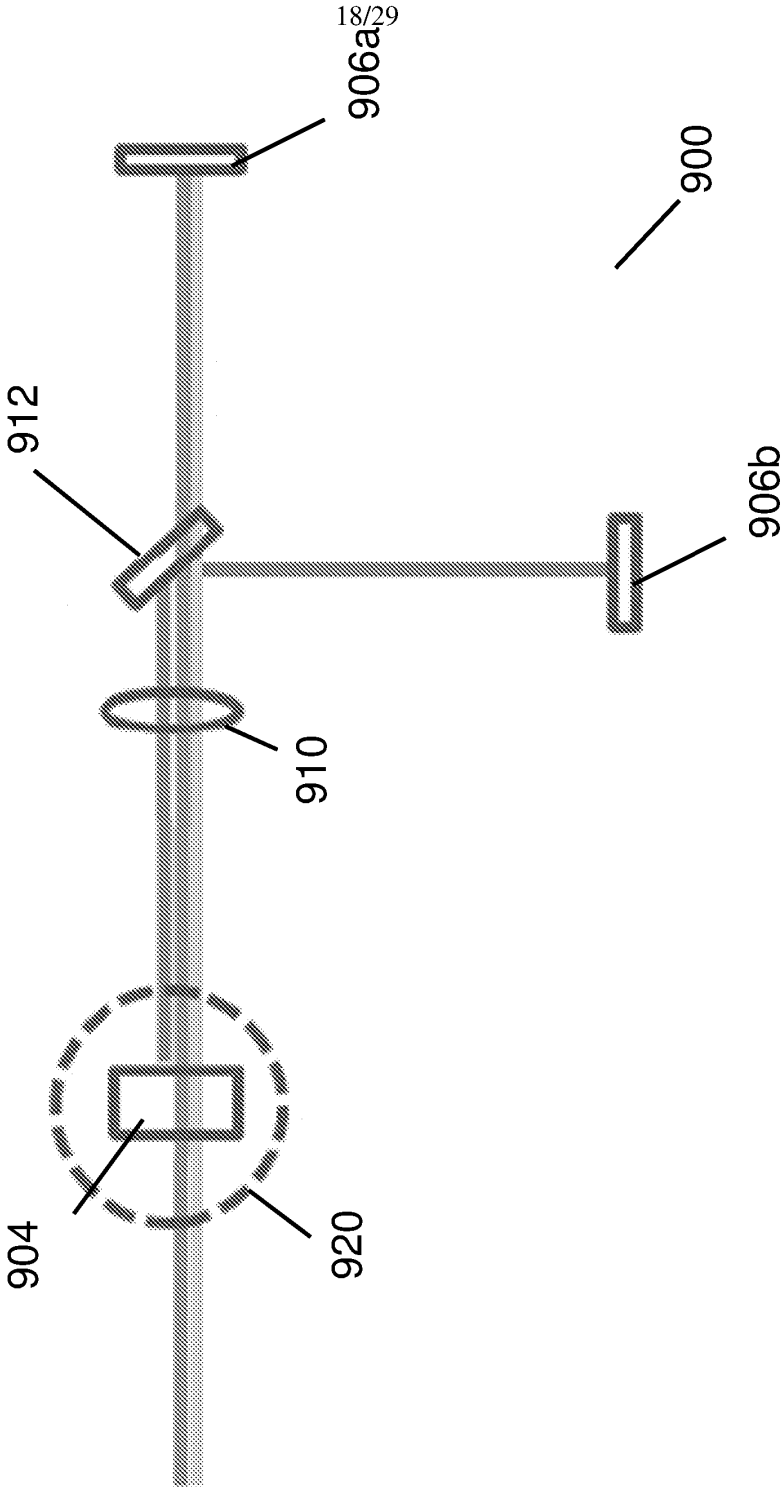


FIG. 10

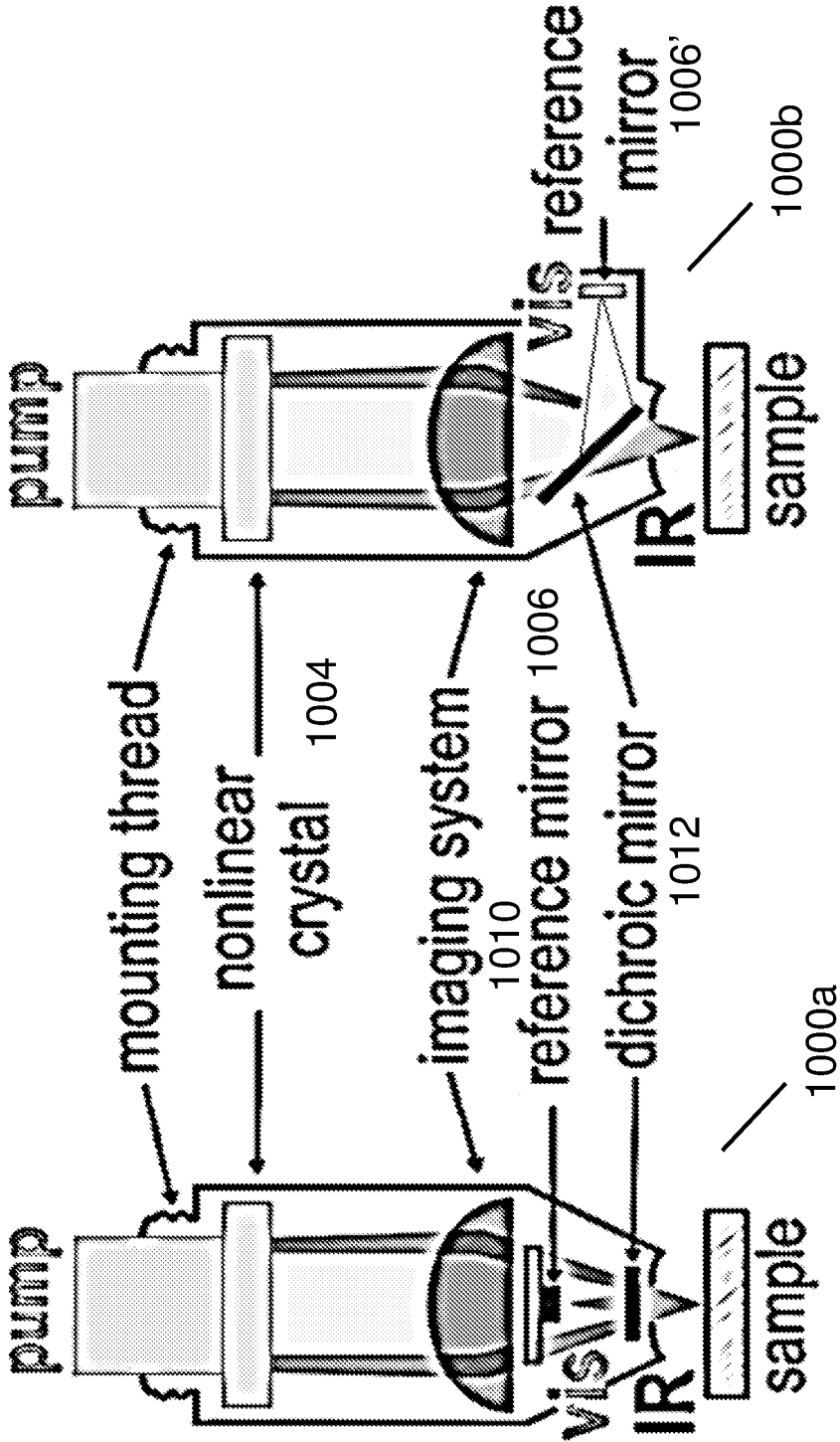


FIG. 11

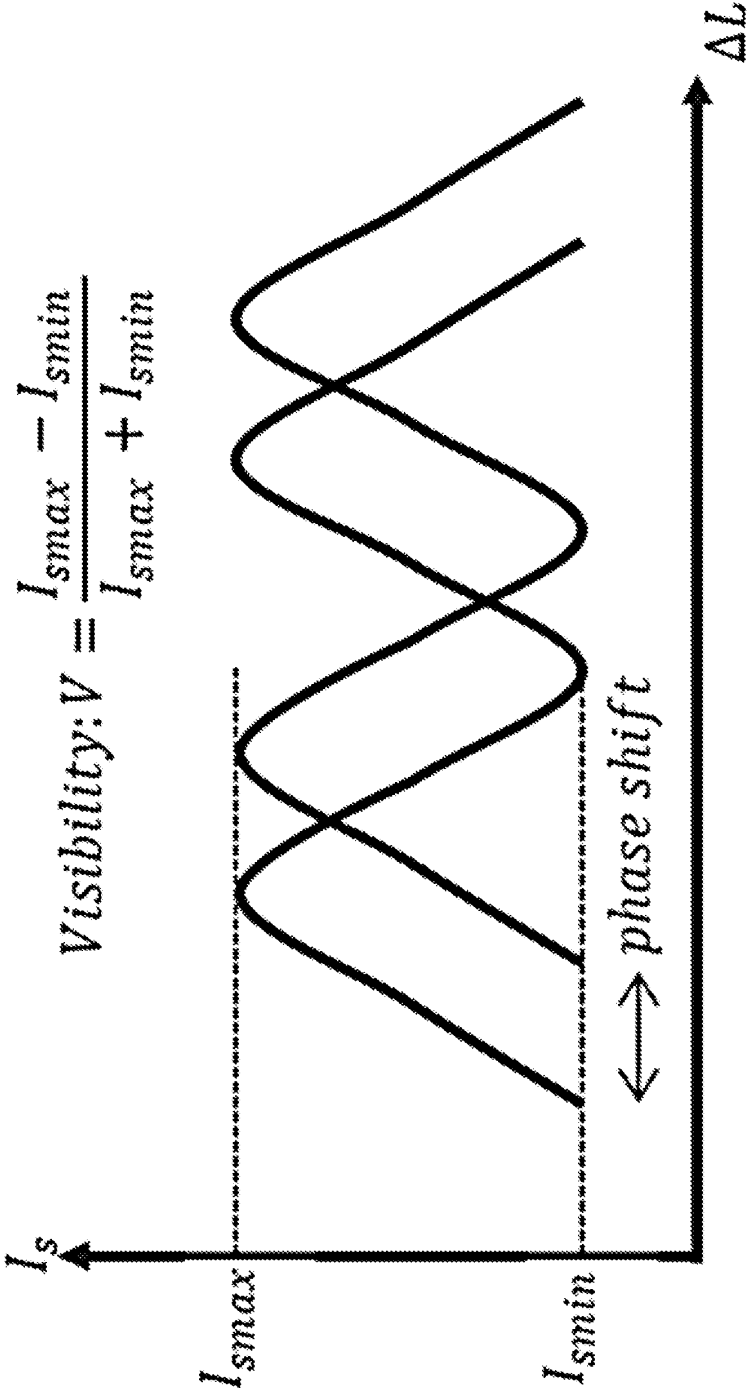
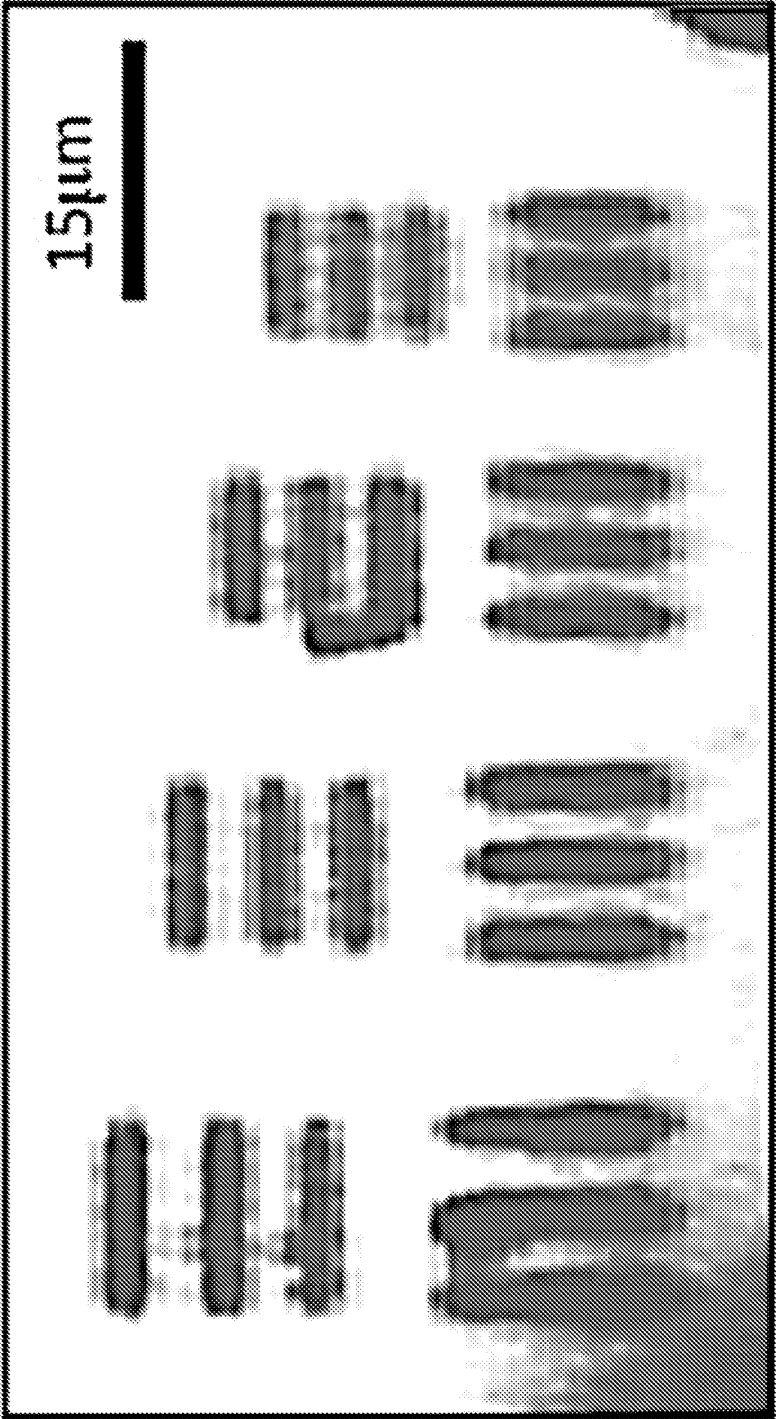


FIG. 12



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FIG. 13

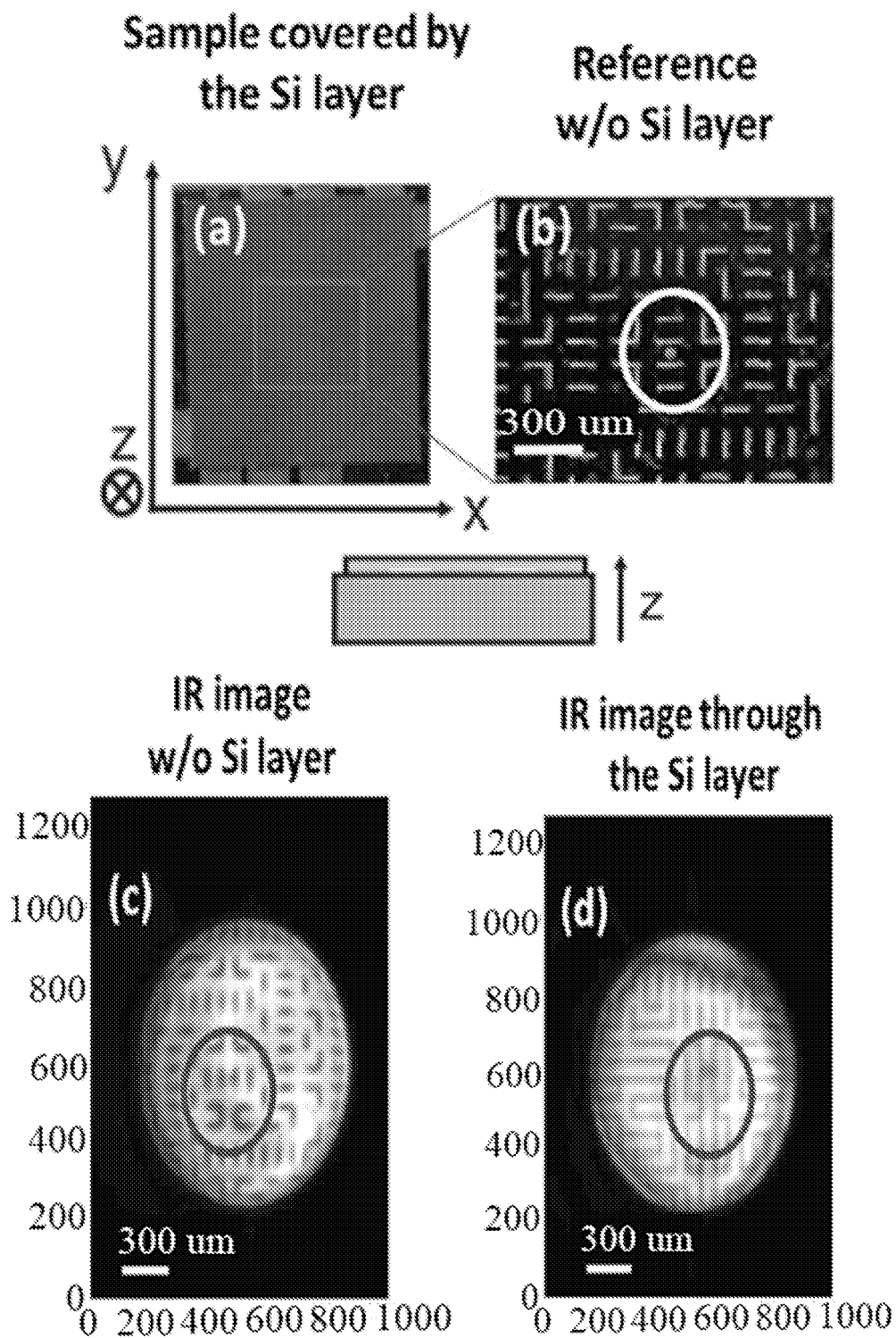
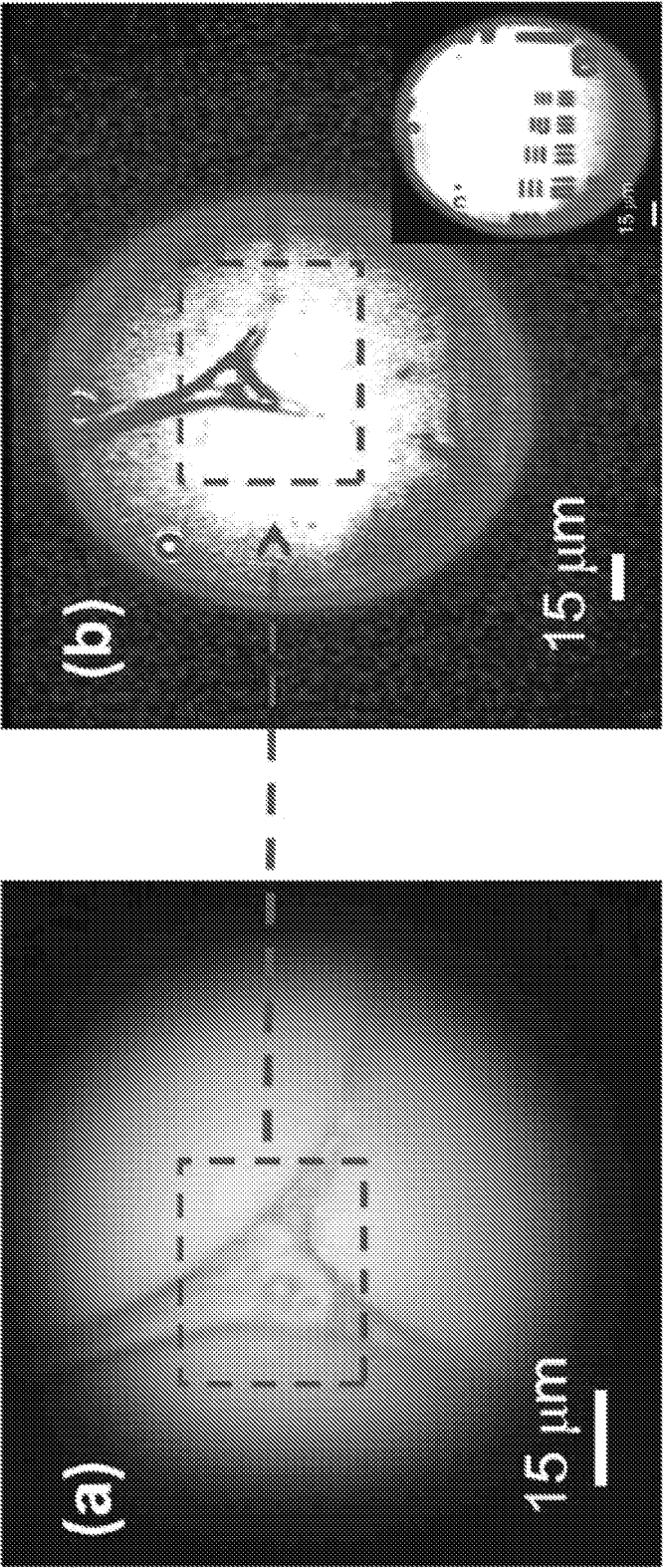


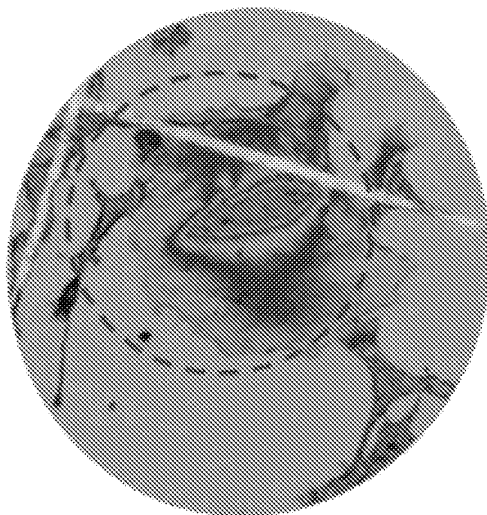
FIG. 14



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FIG. 15A

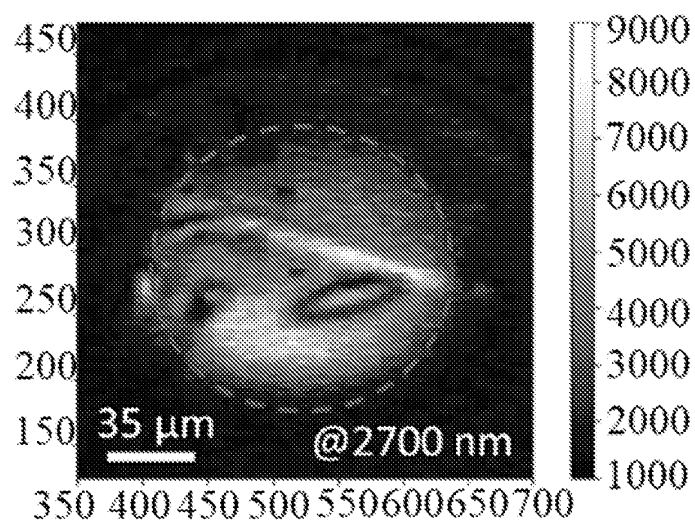
White light



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FIG. 15B

Off resonance



On resonance

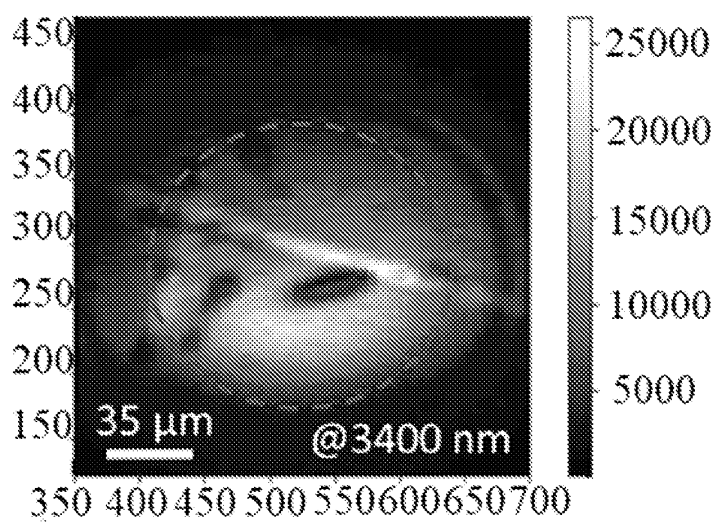


FIG. 16A

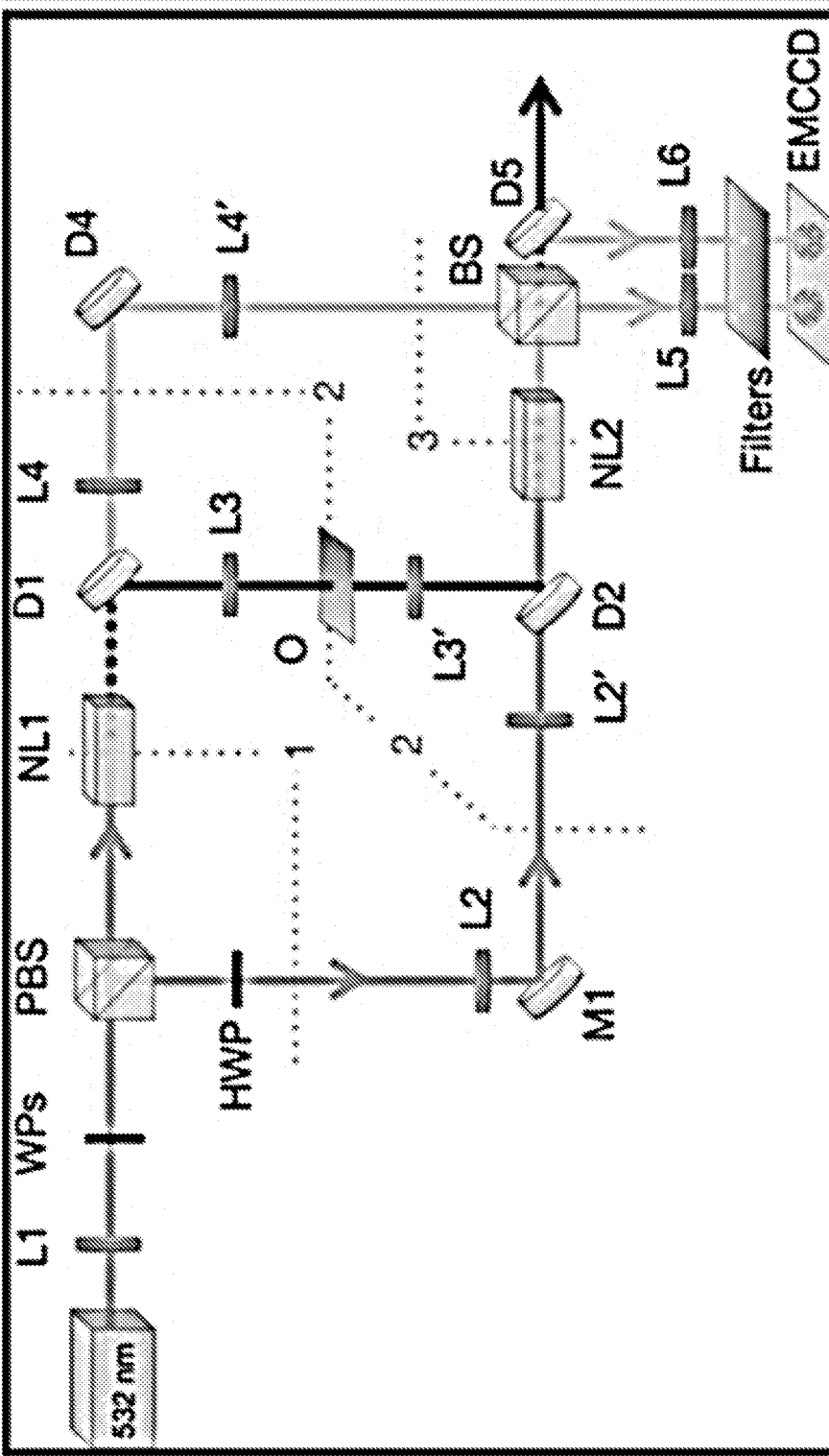
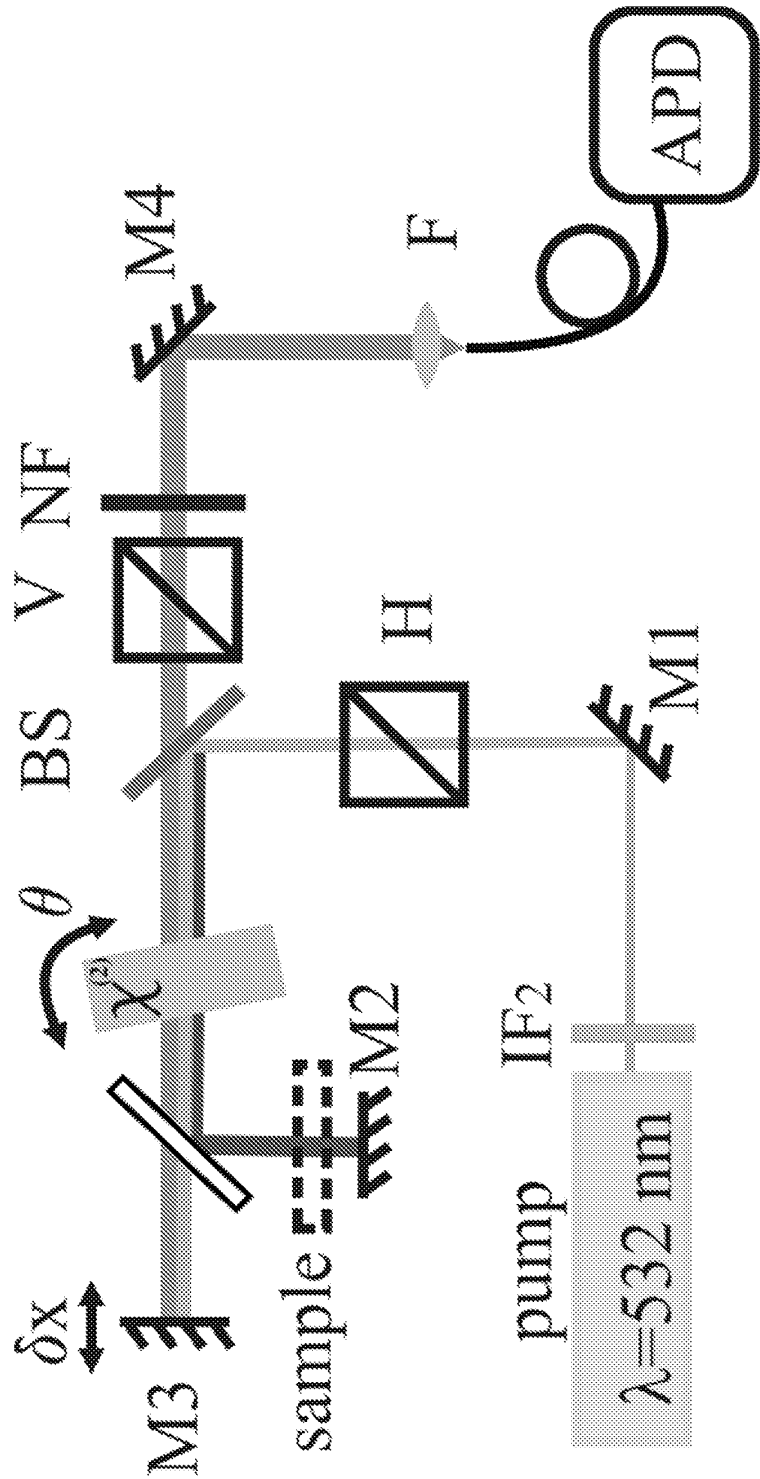


FIG. 16B



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FIG. 16C

#	Feature	Reference 1	Reference 2	Embodiment
1	Imaging mode	Transmission	Reflection	Reflection
2	Number of pump beams	Two	One	One
3	Distance between lenses	Confocal	Arbitrary	Confocal
4	Number of imaging lenses in each arm	Two	Two	Three
5	Number of lenses in pump beam	Three	One	Zero
6	Number of nonlinear crystals	Two	One	One
7	Divergence of the pump beam	Focused	Focused	Collimated
8	Type of photodetector	Array	Point	Array
9	Number of lenses in detection arm	Two	Two	One
10	Angular divergence of the SPDC	Strong	Strong	Weak
11	Number of image capturing areas	Two	Not applicable	One
12	Beam splitters in detection arm	One	Zero	Zero
13	Substrate	Transparent	Not applicable	Reflective

FIG. 16D

#	Feature	Reference 1	Reference 2	Embodiment
1	Imaging mode	Transmission	Reflection	Reflection
2	Wide field imaging	Yes	No	Yes
3	Spatial resolution/ magnification	Low	Medium	High
4	Readout time	Moderate	Slow	Fast
5	Compact, easy to align design	No	Yes	Yes
6	Adjustable magnification	Hard	Seamless	Seamless
7	Compatibility with microscopes	No	No	Yes