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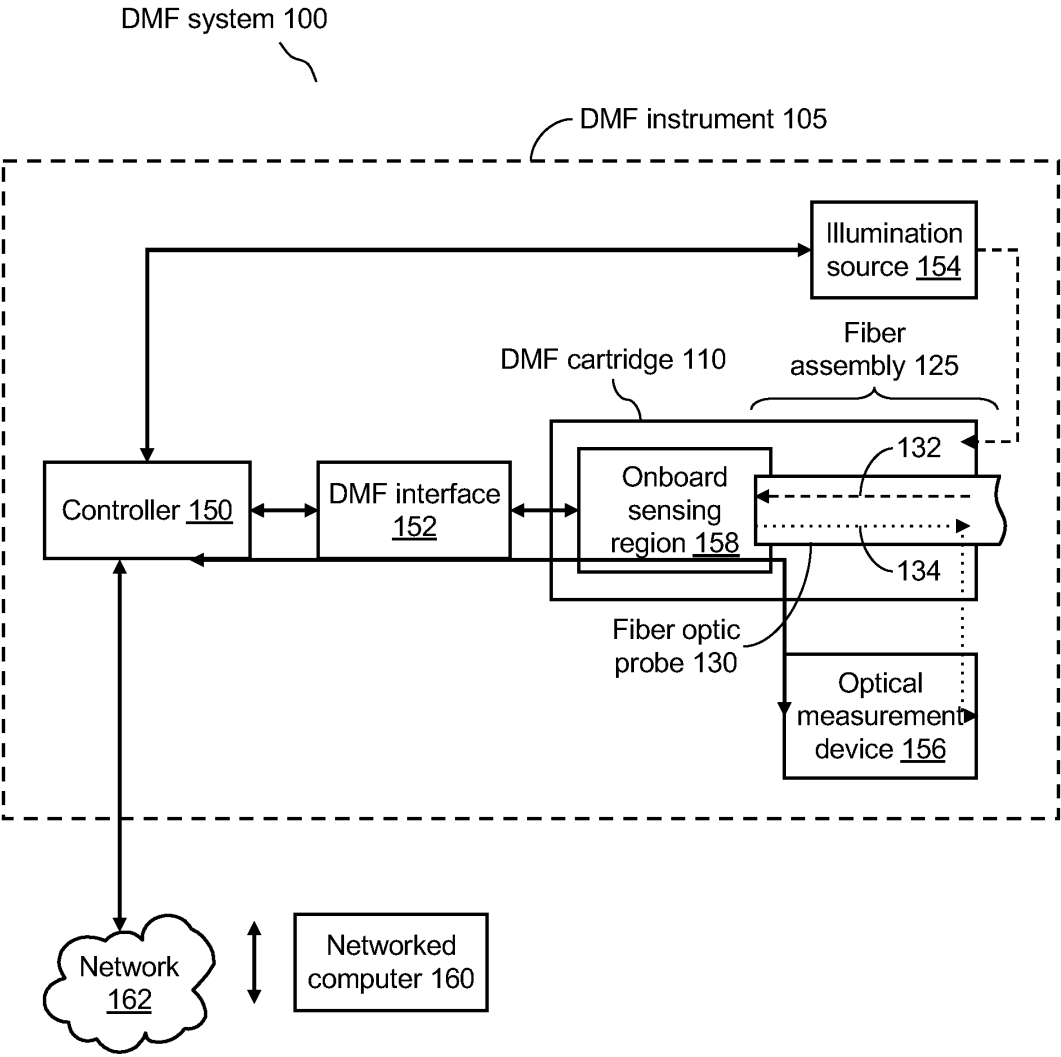


FIG. 1

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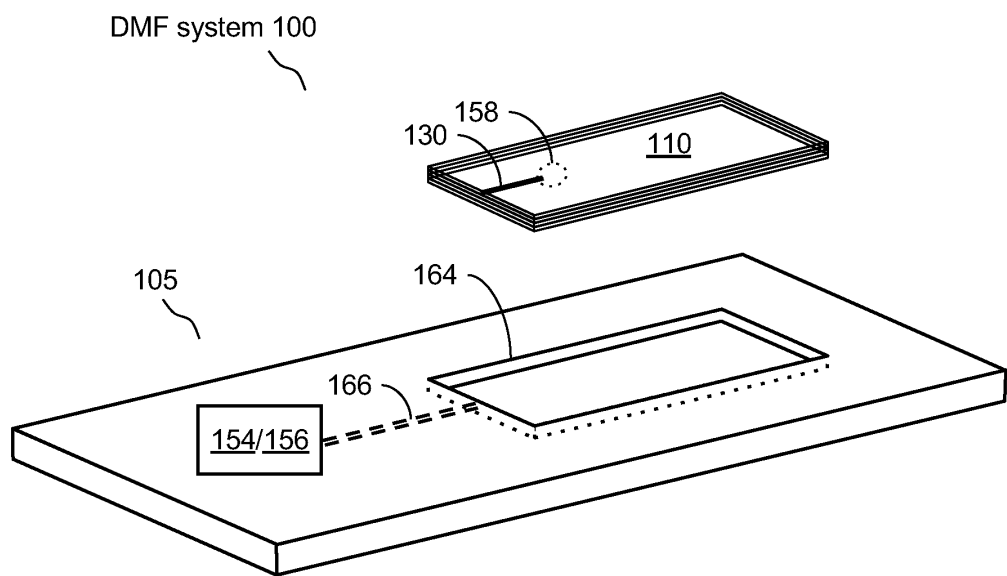


FIG. 2A

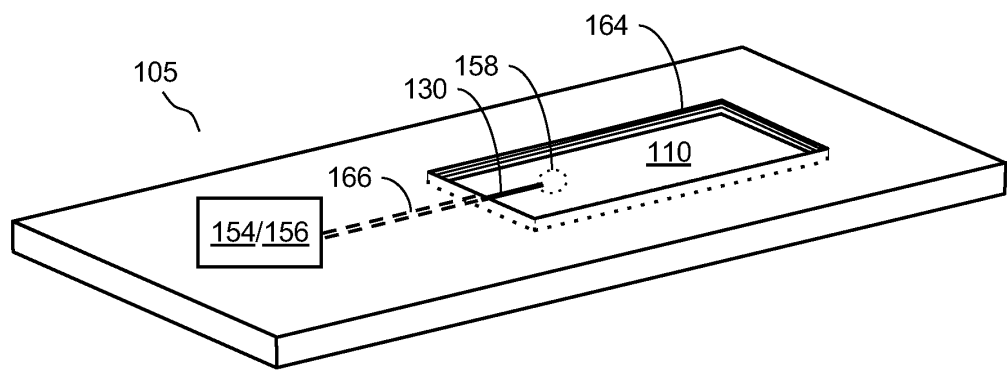


FIG. 2B

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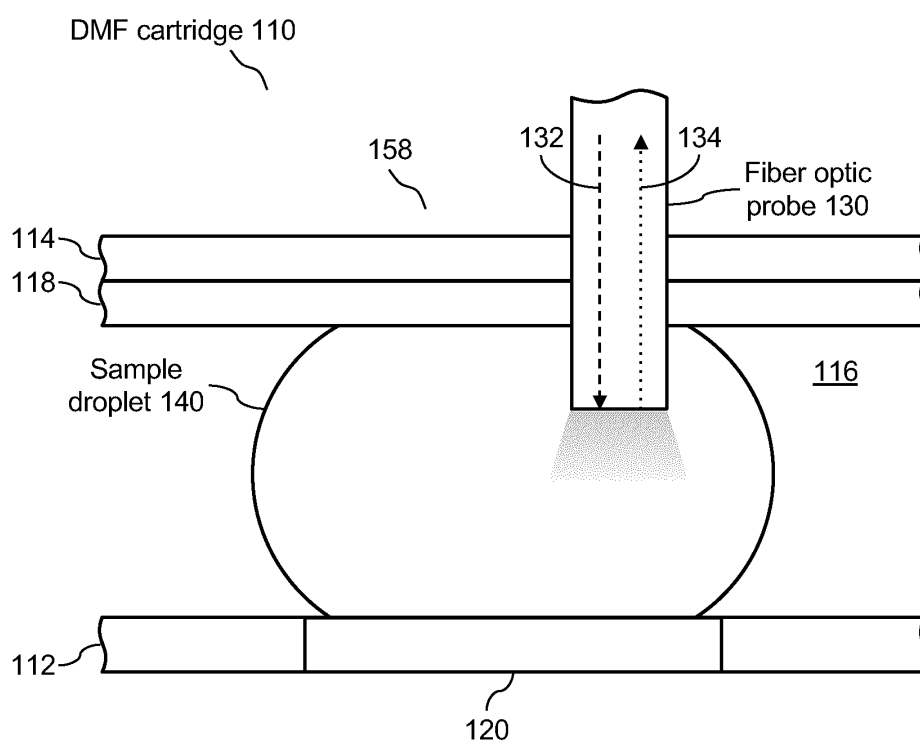


FIG. 3

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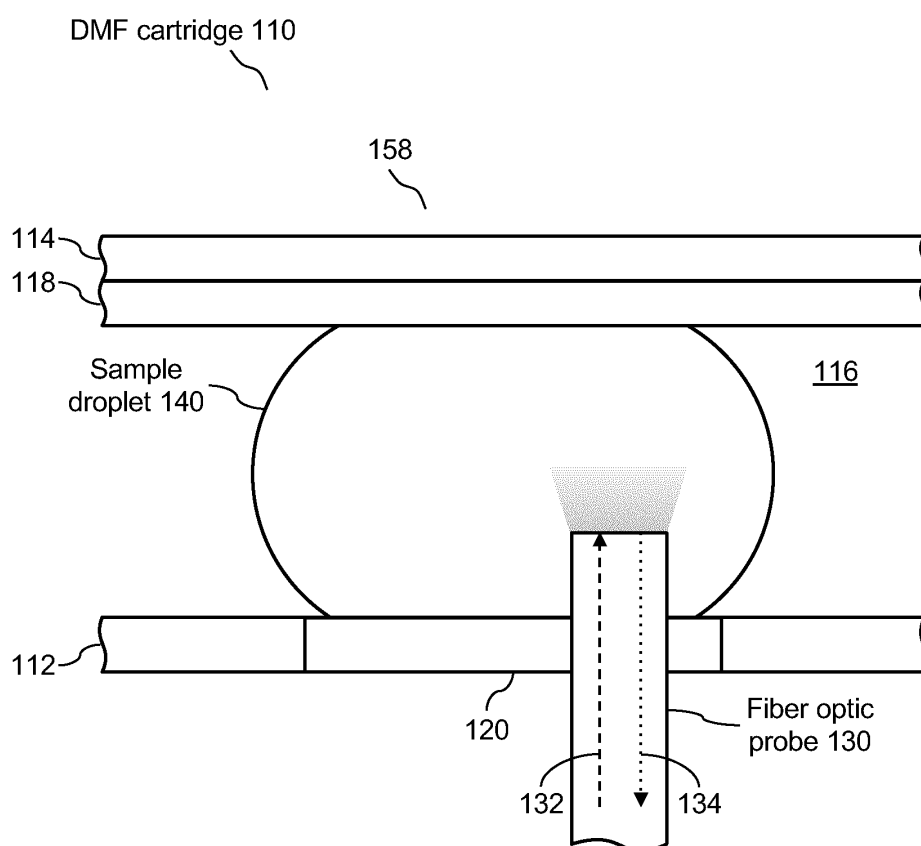


FIG. 4

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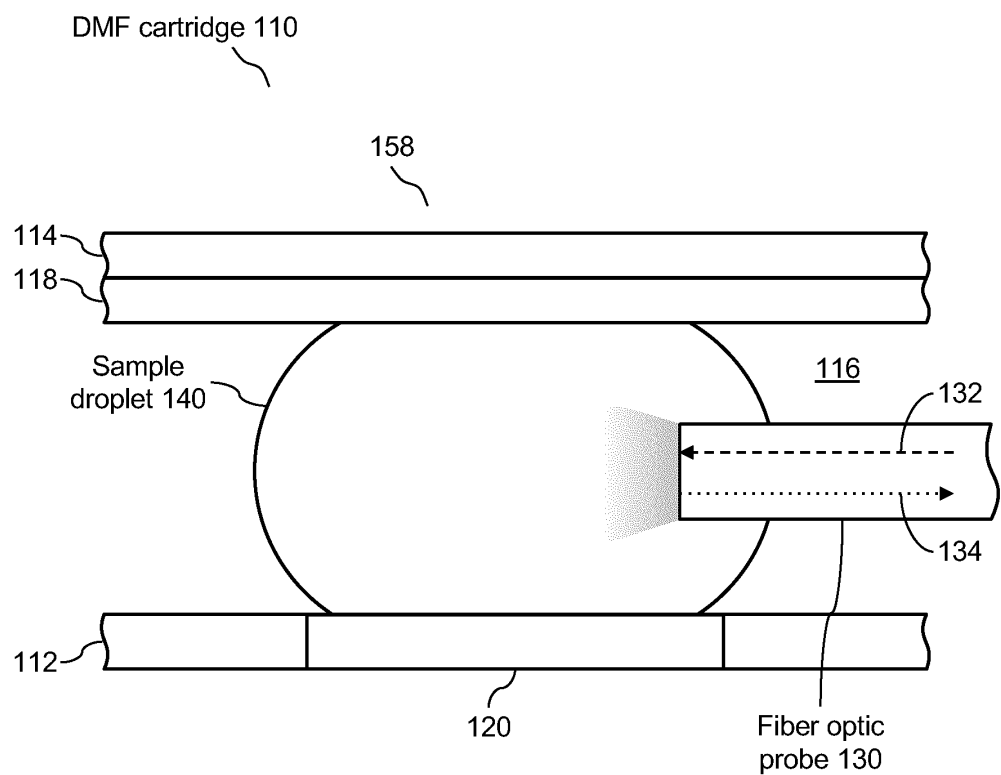


FIG. 5

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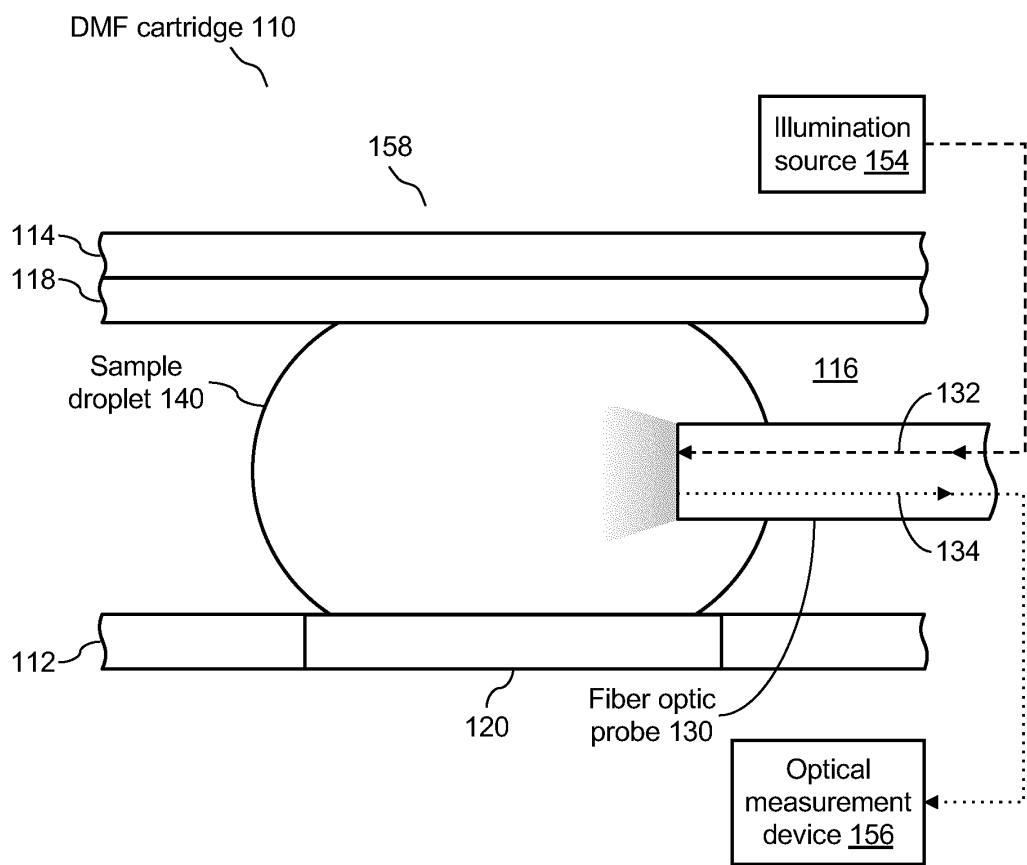


FIG. 6

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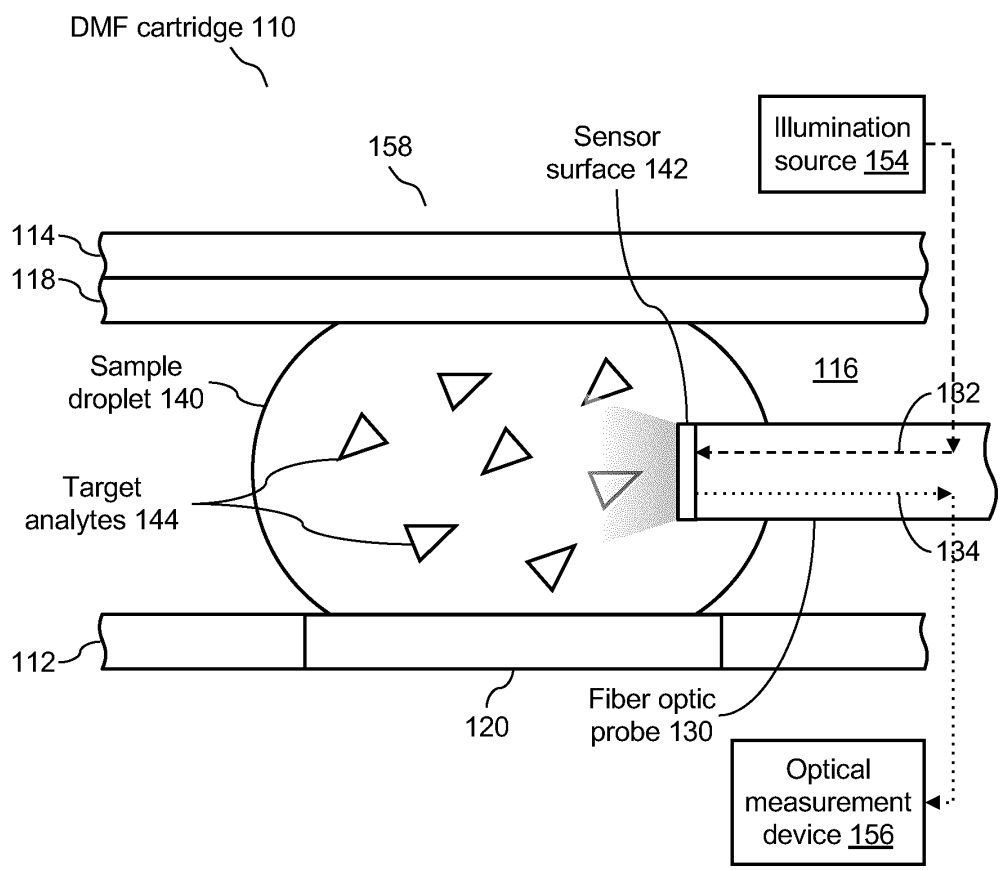


FIG. 7A

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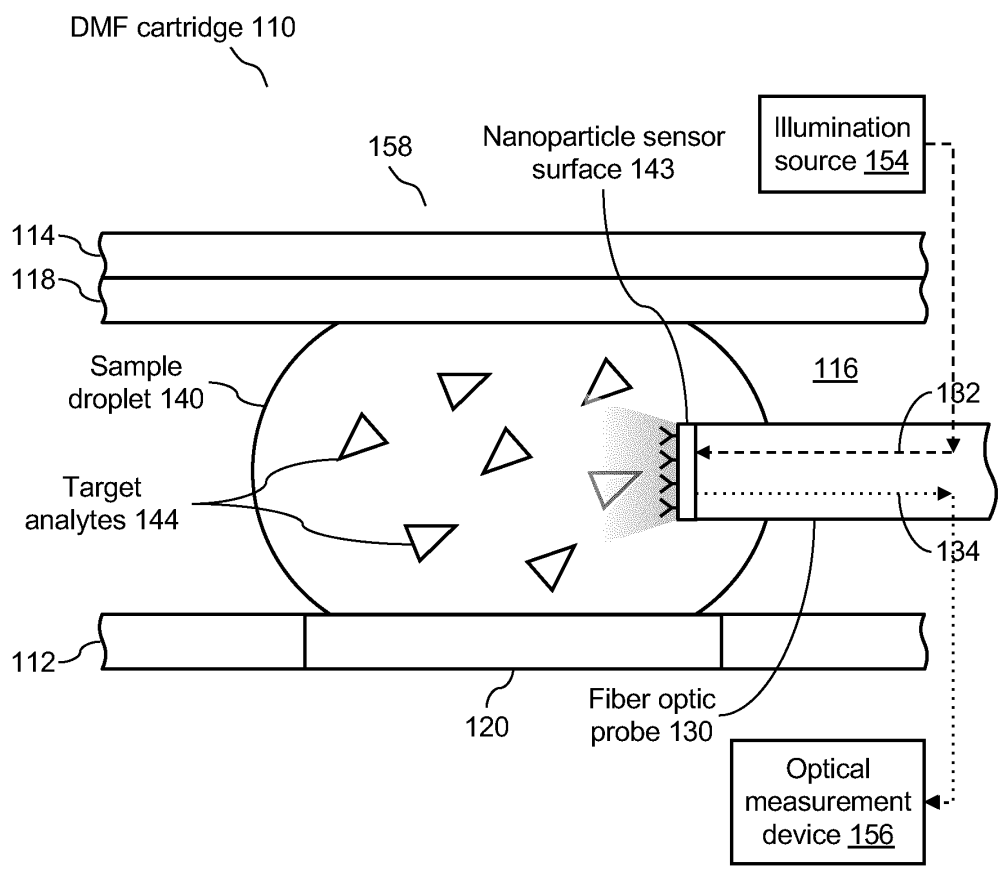


FIG. 7B

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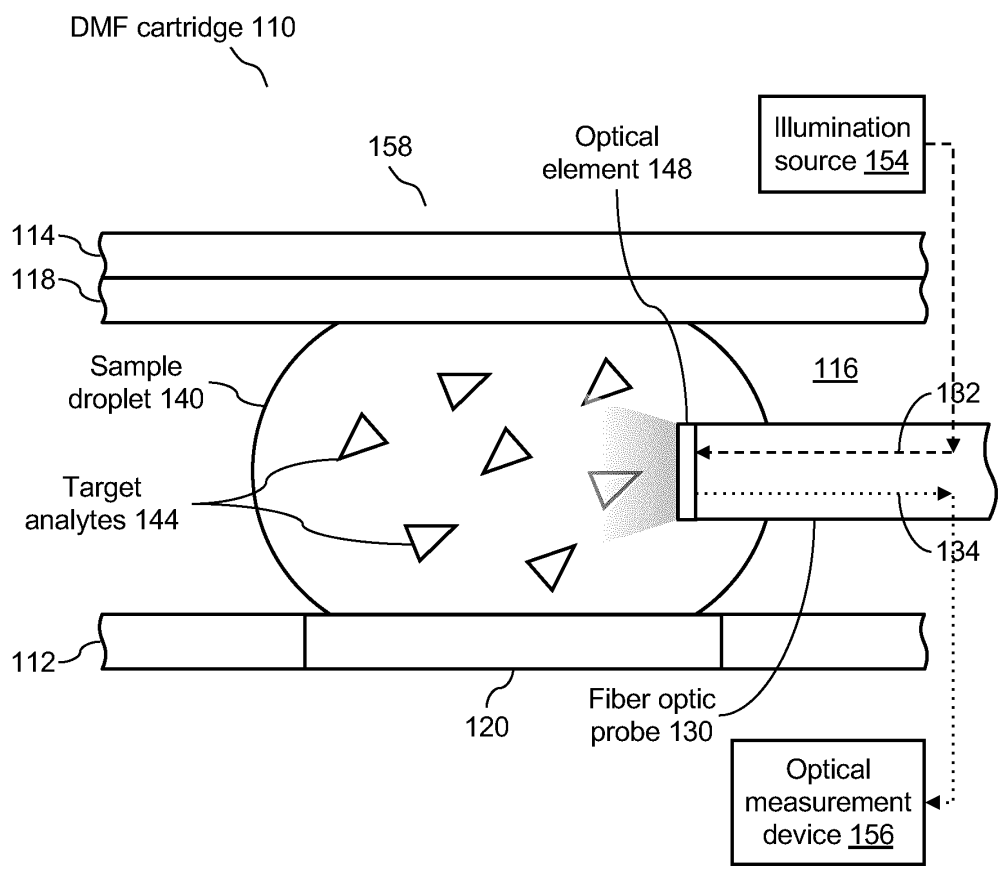


FIG. 8

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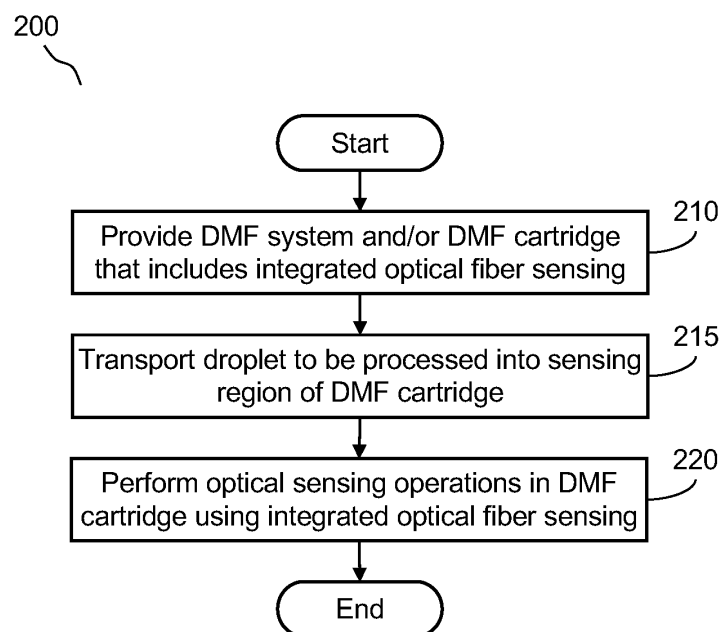


FIG. 10

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DMF cartridge 110

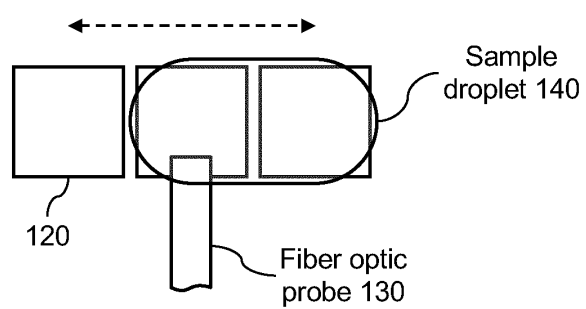


FIG. 11

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DMF cartridge 110

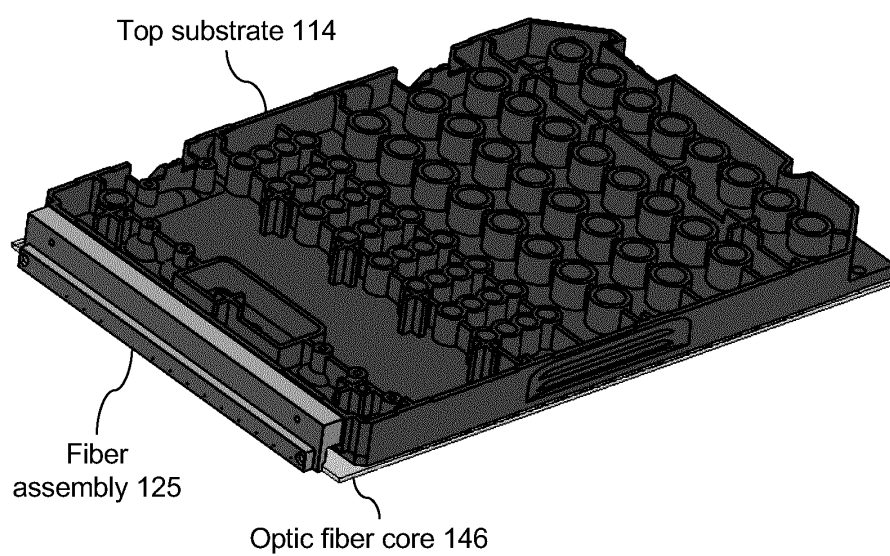


FIG. 12A

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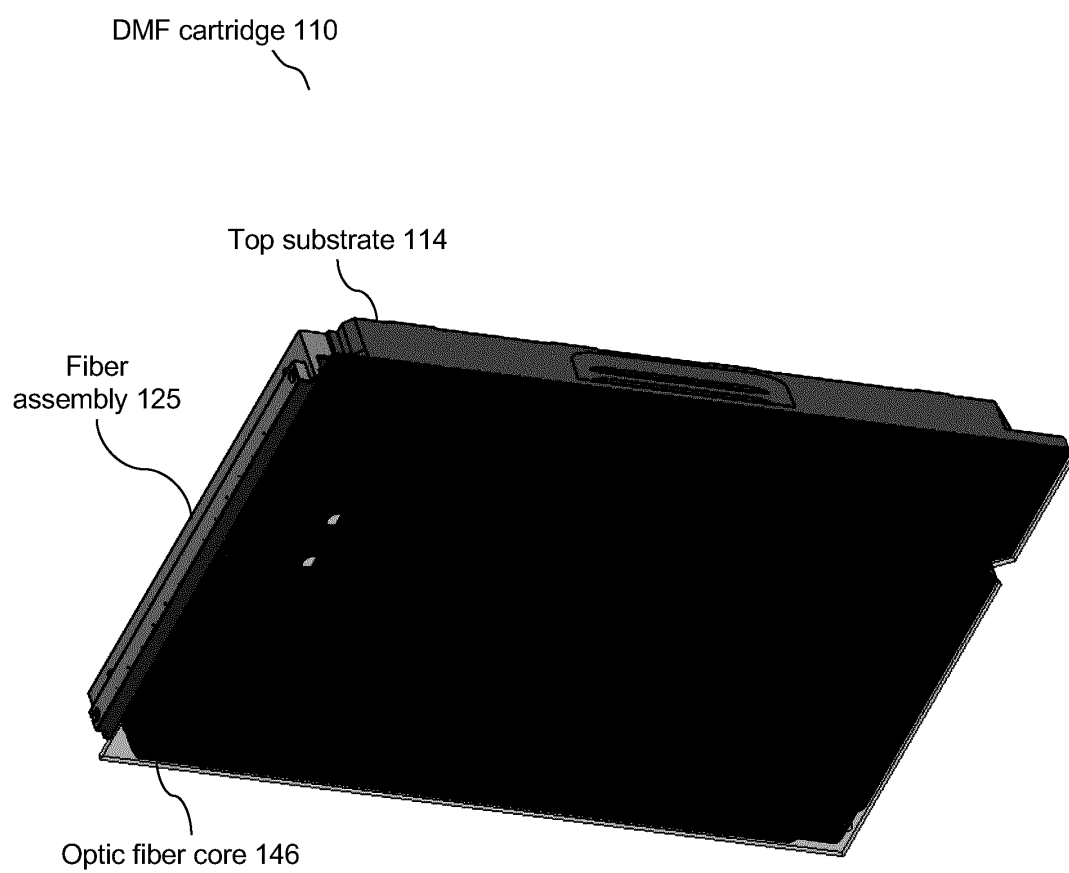


FIG. 12B

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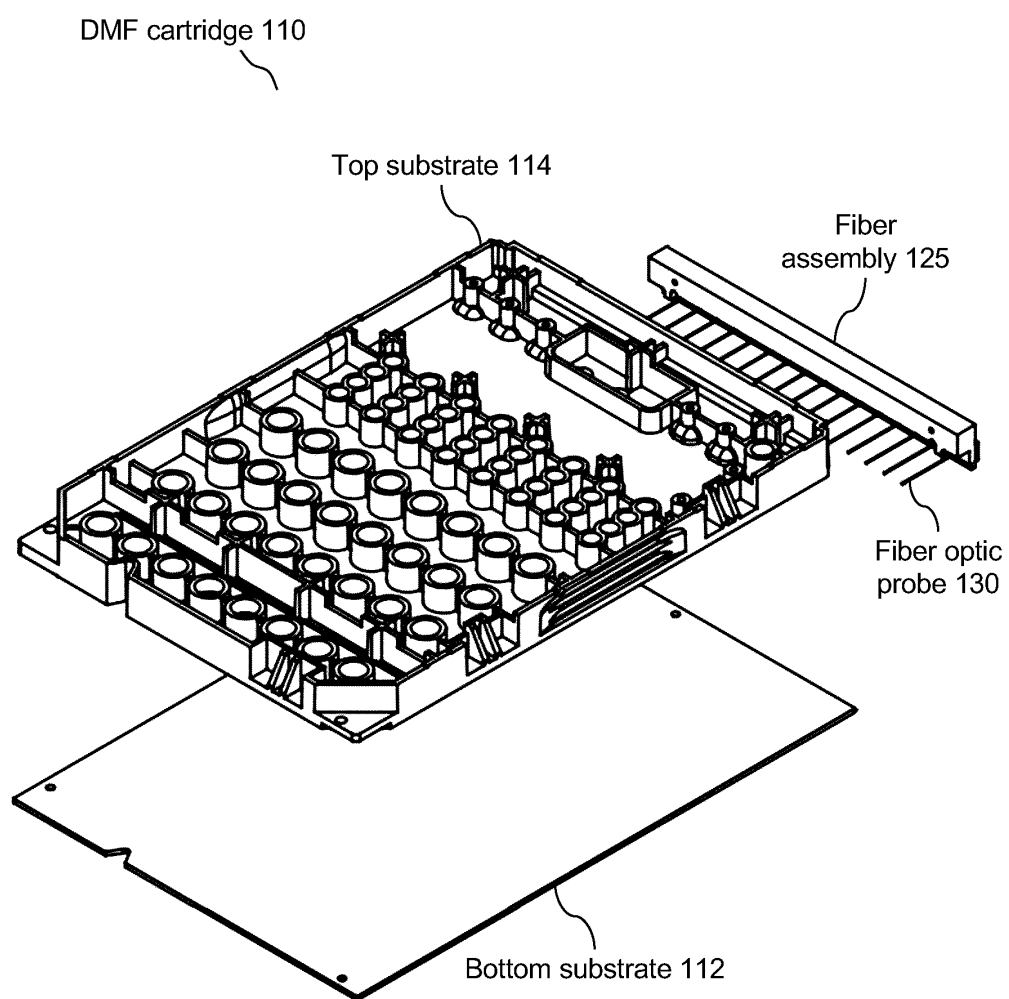


FIG. 13A

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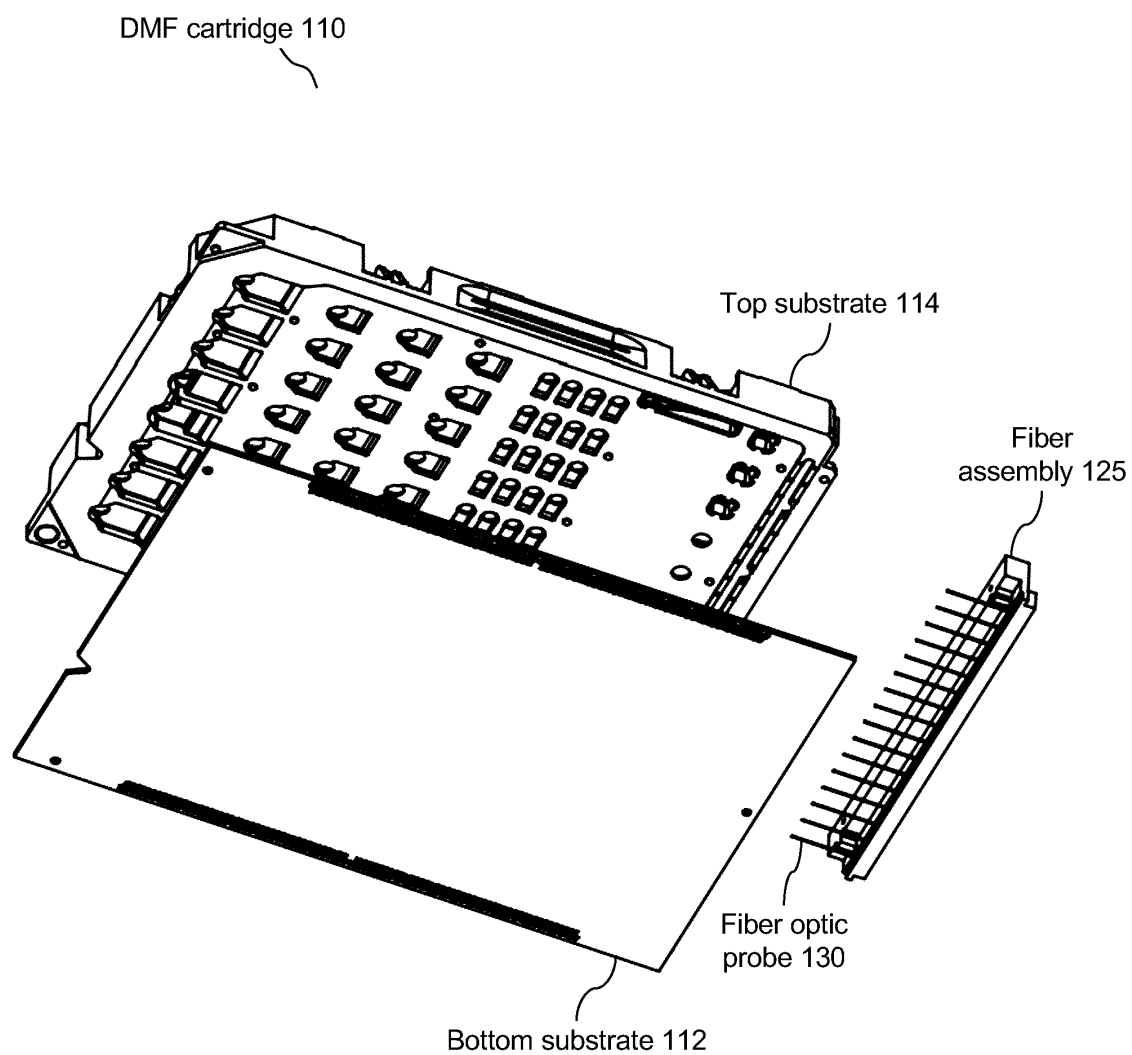


FIG. 13B

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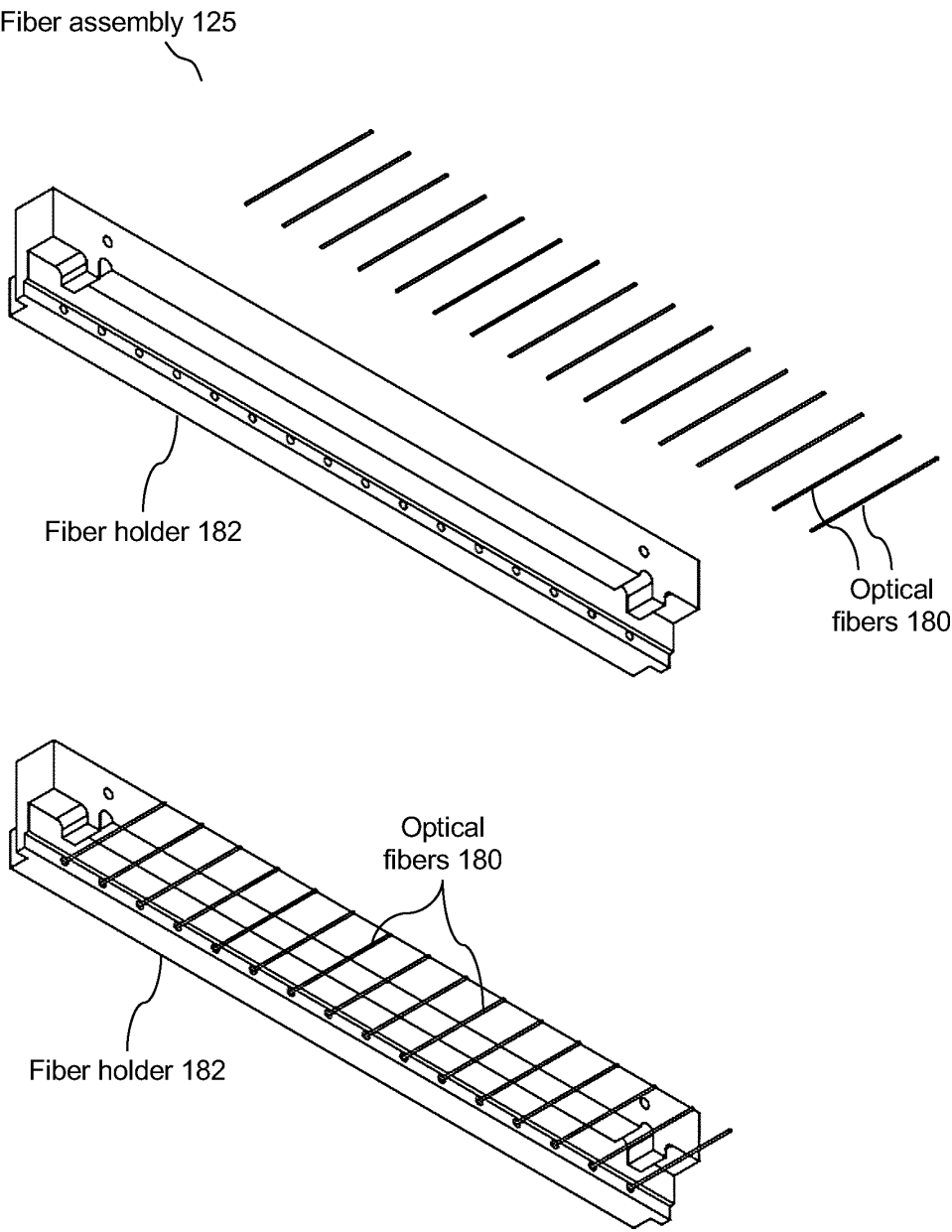
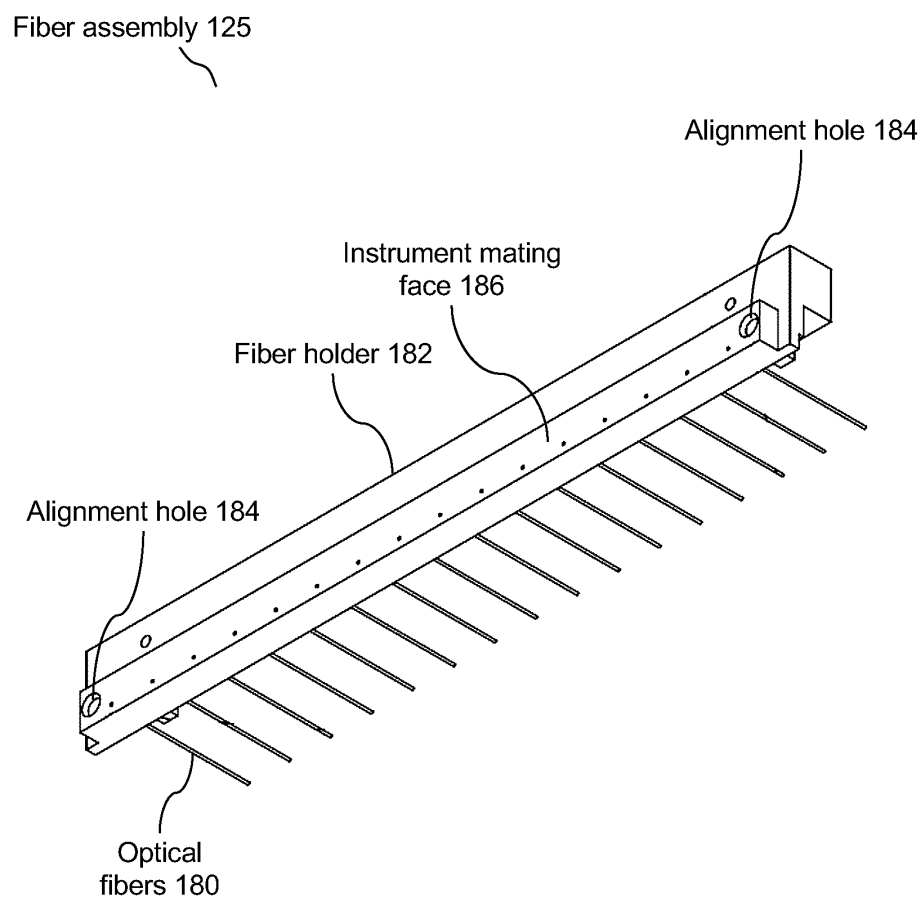


FIG. 14A

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*FIG. 14B*

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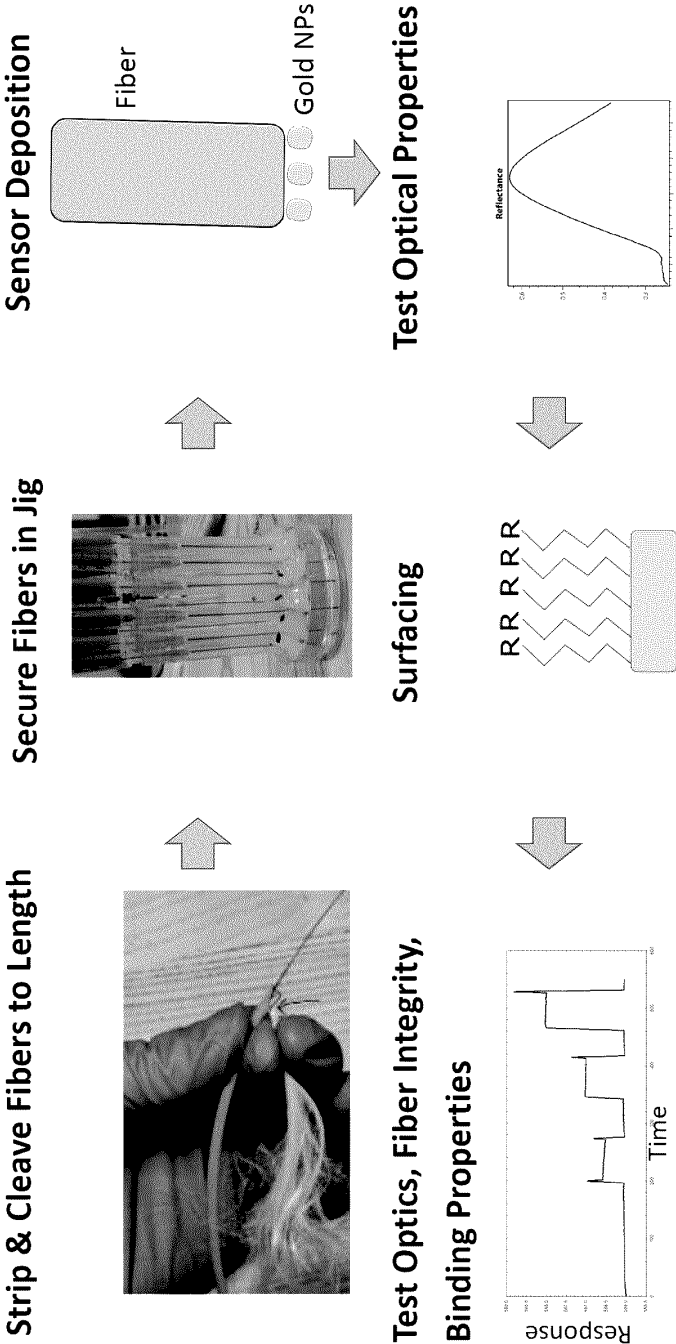
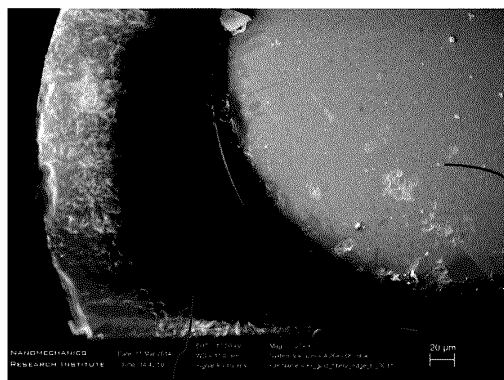


FIG. 15

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Nanoparticle sensor
surface 143



Nanoparticles 147

Optic fiber core 146

Optical fiber cladding 145

FIG. 16

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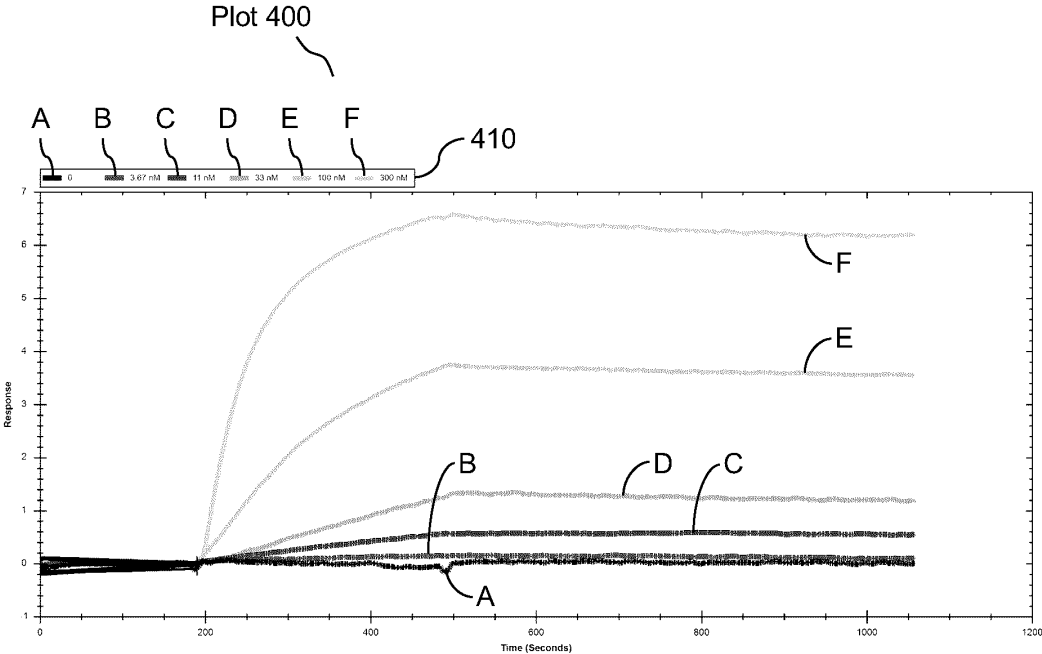


FIG. 17A

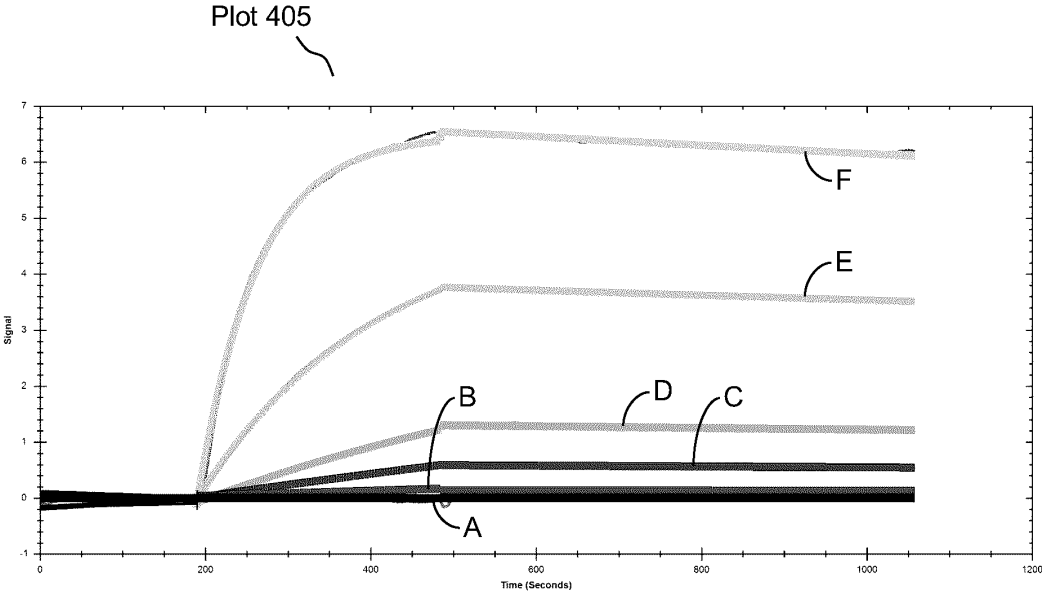


FIG. 17B