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(54) Title: GRAPHENE-BASED DIELECTROPHORESIS SENSOR AND METHOD

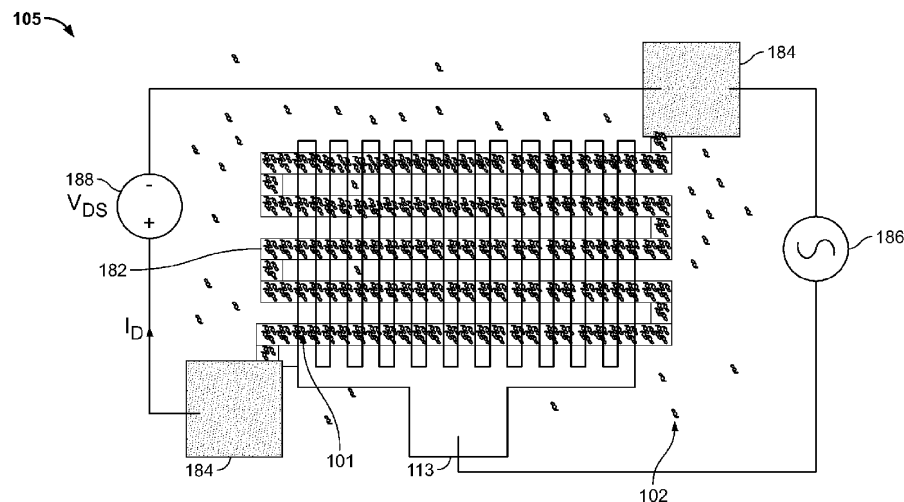


FIG. 1a

(57) Abstract: A dielectrophoretic (DEP) sensor includes a graphene electrode adjacent a channel for confining a target particle in a liquid, a surface probe attached to a surface of the graphene electrode, the surface probe having a selective reaction with the target particle, and a voltage source electrically connected to the graphene electrode and configured to apply a voltage to the graphene electrode to cause DEP trapping of the target particle at the graphene electrode.

[Continued on next page]

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