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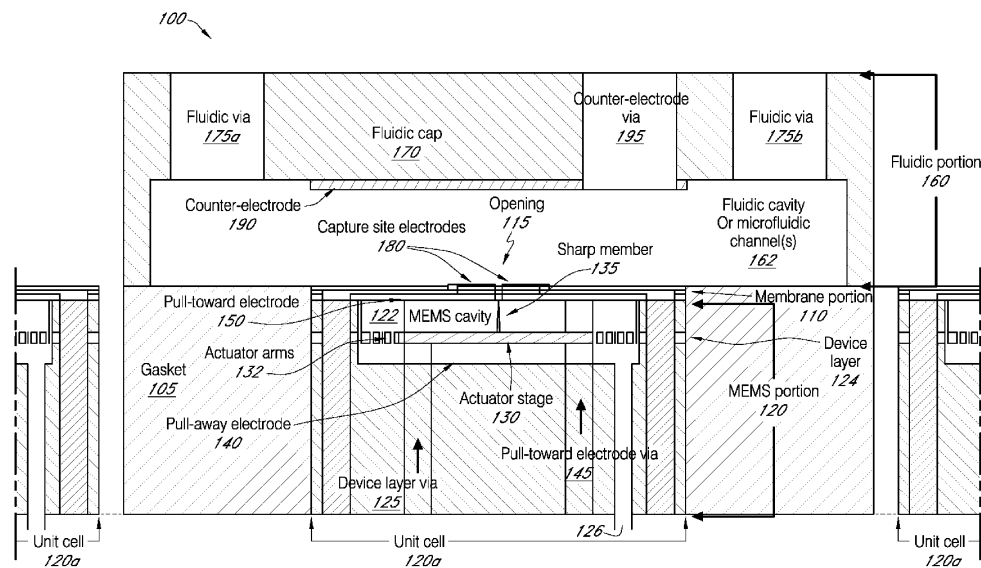


FIG. 1A

(57) Abstract: An integrated package comprising a lab-on-chip (LOC) is disclosed. The LOC includes at least one integrated device having a membrane portion having a membrane opening; the membrane portion having a first side and a second side, the first side opposite the second side, a MEMS portion disposed on the first side of the membrane portion, the MEMS portion having a sharp member disposed on an actuator stage within a MEMS cavity, and a fluidic portion disposed on the second side of the membrane portion, the fluidic portion having a fluidic cavity for flowing a fluid medium within the fluidic portion; and a fluidic cap forming a surface of the fluidic portion of the LOC, the fluidic cap having a fluidic inlet and a fluidic outlet. The method of operating the LOC includes power to the at least one integrated device to capture one or more particles for interrogation.

[Continued on next page]

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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