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(54) Title: ACTUATION SYSTEMS AND METHODS FOR USE WITH FLOW CELLS

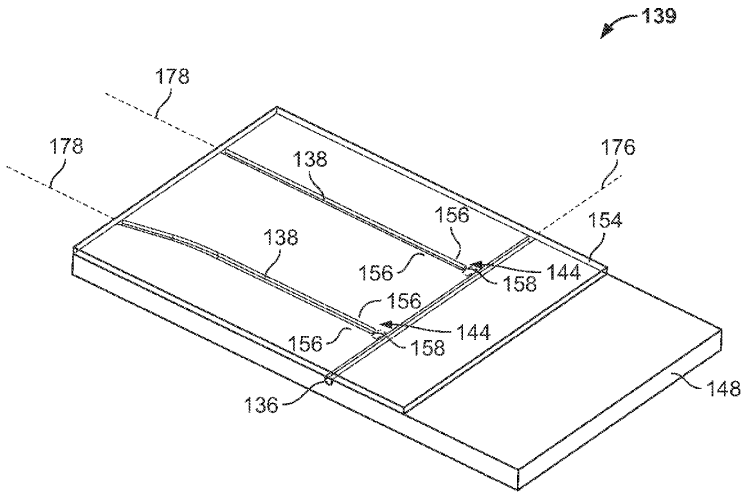


FIG. 2

(57) Abstract: Actuation systems and methods for use with flow cells. In accordance with an implementation, a method includes moving, using an actuator disposed within a manifold assembly, a membrane portion of a membrane of the manifold assembly away from a valve seat to enable fluidic flow from a reagent fluidic line to a common fluidic line. The membrane portion and the valve seat forming a membrane valve. The reagent fluidic line being fluidically coupled to a reagent reservoir. The common fluidic line being fludically coupled to a flow cell. The common fluidic line has a common central axis and the reagent fluidic line has a reagent central axis that is non-collinear with the common central axis. The method includes urging the membrane portion against the valve seat to prevent fluidic flow from the reagent fluidic line to the common fluidic line.

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