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(54) Title: MODULAR ACTIVE SURFACE DEVICES FOR MICROFLUIDIC SYSTEMS AND METHODS OF MAKING SAME INCLUDING ADHESIVE-FREE ASSEMBLY

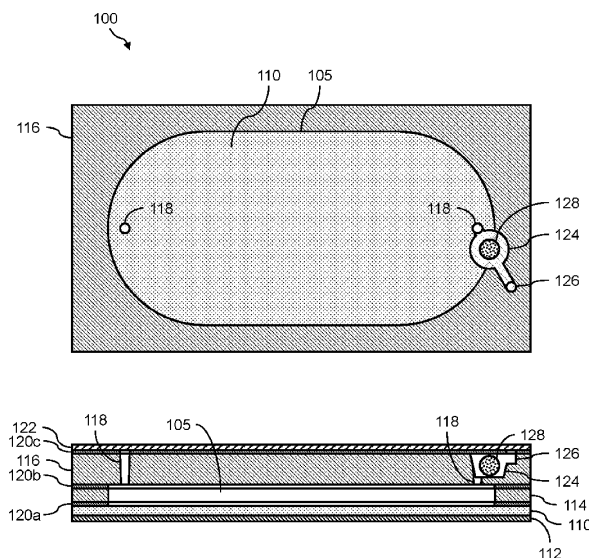


FIG. 1

(57) Abstract: Modular active surface devices for microfluidic systems and methods of making the same including adhesive-free assembly are disclosed. In some embodiments, the presently disclosed modular active surface devices and methods provide adhesive-free assembly processes, such as, but not limited to, laser beam welding (LBW) processes, ultrasonic welding processes, heat welding processes, chemical bonding processes, mechanical compression processes, and the like. In some embodiments, the modular active surface devices and methods provide a reagent hopper or well that is out-of-plane with the reaction chamber.

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