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(54) Title: METHODS OF SURFACE MODIFICATION OF SILICONES FOR SPECIFIC TARGET AND HIGH EFFICIENCY BINDING

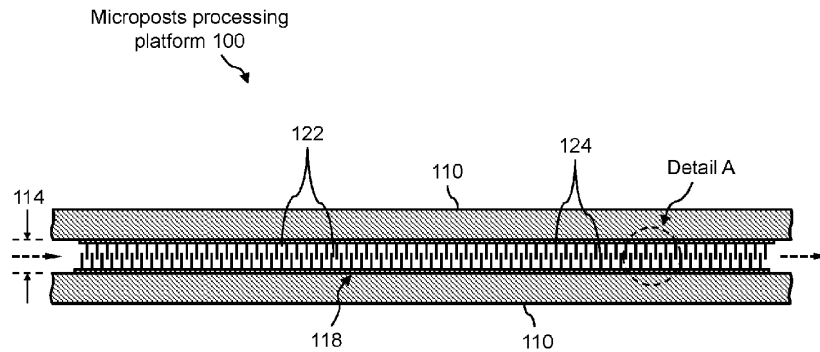


FIG. 1A

(57) Abstract: Methods of surface modification of silicones for specific target and high efficiency binding are disclosed. Namely, surface-attached microposts and methods of functionalizing the surface-attached microposts for target-specific analyte capture are provided. For example, a microposts processing platform is provided that is based on a microfluidic flow cell structure that includes a reaction (or assay) chamber. The method utilizes the microposts processing platform that includes an arrangement of surface-attached microposts on at least one surface of the reaction (or assay) chamber. Methods of functionalizing the surface-attached microposts include one or more steps, wherein the incorporation of one or more functionalizing agents are used to provide a micropost surface for target-specific analyte capture. In one example, the micropost surface-functionalization process includes providing a binding system, wherein the binding system includes a generic binding agent and a linking agent for binding of a target-specific capture agent.

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