wherein the polymer matrix is within the discrete area or adjacent to the discrete area. In some embodiments, the fluidic device comprises a flow channel. In some embodiments, the fluidic device comprises an open configuration, for example, as shown by the embodiment of Fig. 20. In some embodiments, the fluidic device contains one or more discrete locations wherein the one or more discrete locations are not in fluidic communication with another discrete location. In some embodiments, the one or more discrete locations are one or more wells on a surface of plate. In some embodiments, when discrete locations are defined by wells or cavities or containers in or on a surface, the one or more discrete locations are open at the top. That is, in some embodiments, the one or more discrete locations comprise an analyte or biological component. In some embodiments, a unit of energy is an amount of energy, such as light energy, effective to cause the synthesis of chambers in a channel. A value of a unit of energy for a given embodiment may vary widely depending on, but not limited to, such factors as the nature of the spatial energy modulating element, the size of a channel, the size and geometry of the desired chambers, the nature of the polymer precursors, and the like.

[0005a] Provided herein is a method for processing an analyte, comprising:(a) providing a fluidic device comprising (i) said analyte, (ii) one or more polymer precursors, and (iii) a spatial energy modulating element; (b) identifying a discrete area within said fluidic device, wherein said discrete area comprises said analyte; and (c) selectively supplying a unit of energy generated from said energy source to said fluidic device to generate a polymer matrix from said one or more polymer precursors within said fluidic device, wherein said polymer matrix is within said discrete area in (b) or adjacent to said discrete area in (b).

[0006] In some embodiments, the fluidic device further comprises a spatial energy modulating element. In some embodiments, the fluidic device comprises a surface having a capture probe immobilized thereto, wherein the capture probe couples to the analyte to immobilize the analyte to the surface. In some embodiments, the polymer matrix is generated adjacent to or surrounding the analyte to immobilize the analyte. In some embodiments, the polymer matrix forms a hydrogel. In some embodiments, the capture probe comprises one or more functional groups capable of interacting with the analyte. In some embodiments, the one or more functional groups comprise a complimentary DNA sequence to target DNA or RNA.

[0007] In some embodiments, the energy source is in optical communication with said fluidic device. In some embodiments, the spatial energy modulating element is a light generating device, such as a digital micromirror device. In some embodiments, the light generating device generates light at 350 nm to 800 nm. In some embodiments, the light generating device generates light at 350 nm to 600 nm. In some embodiments, the light generating device generates light at

350 nm to 450 nm. In some embodiments, the light generating device generates UV light. In some embodiments, selectively supplying a unit of energy generated from the energy source to the fluidic device to generate a polymer matrix within the fluidic device is performed using a spatial energy modulating element that is a spatial light modulator (SLM). In some embodiments, the SLM is a digital micromirror device (DMD). In some embodiments, the SLM is a laser beam steered using a galvanometer. In some embodiments, the SLM is liquid-crystal based. Light energy from a spatial light modulator or spatial energy modulating element may be