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(54) Title: MICROFLUIDIC DEVICE AND METHODS OF USING SAME

(57) Abstract: A variety of elastomeric-based microfluidic devices and methods for using and manufacturing such devices are provided. Certain of the devices have arrays of reaction sites to facilitate high throughput analyses. Some devices also include reaction sites located at the end of blind channels at which reagents have been previously deposited during manufacture. The reagents become suspended once sample is introduced into the reaction site. The devices can be utilized with a variety of heating devices and thus can be used in a variety of analyses requiring temperature control, including thermocycling applications such as nucleic acid amplification reactions, genotyping and gene expression analyses.



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