

## Supplementary Information

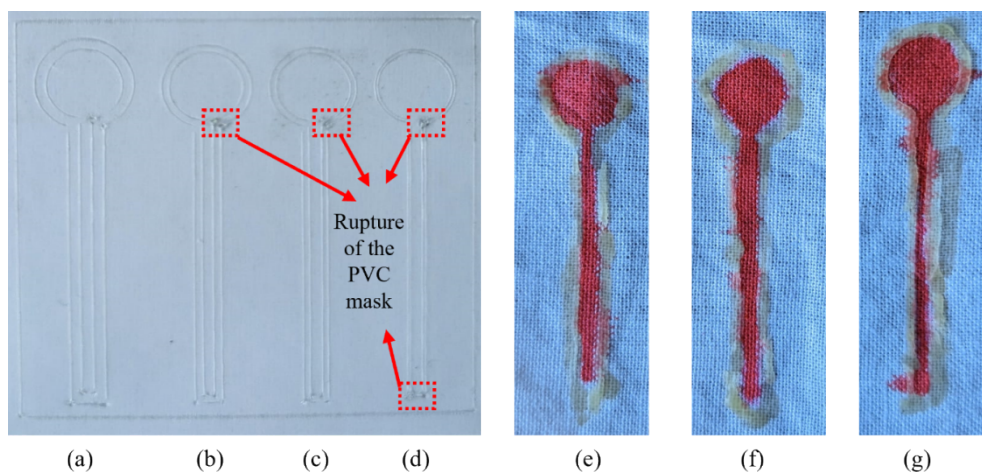
### A Cost-effective and Facile Technique of Realizing Fabric based Microfluidic Channels using Beeswax and PVC Stencils

Lingadharini P<sup>a</sup>, Aditya Shirsat<sup>a</sup>, Prathamesh Gardi<sup>a</sup>, Saurabh Kore<sup>a</sup>, Vedant Joshi<sup>a</sup>, Rusha Patra<sup>b</sup> and Debashis Maji<sup>a\*</sup>

<sup>a</sup>Department of Sensor and Biomedical Technology, Vellore Institute of Technology, Vellore, India – 632014, \*E-mail: debashis.maji@vit.ac.in

<sup>b</sup>Department of Electronics and Communication Engineering, Indian Institute of Information Technology Guwahati, Assam, India-781015

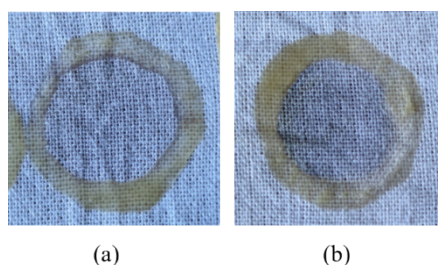
#### 1. Determination of minimum Channel Barrier Width



**Figure S1.** (a-d) PVC Mask used for minimum barrier width varying from 1mm, 0.5mm, 0.4mm, 0.3 mm for a channel width of 1 mm. PVC masks were ruptured through stencil cutter method for the barrier dimensions of 0.5mm, 0.4mm, 0.3 mm limiting the barrier width to 1mm. (e-g) 3 unsuccessful trials with barrier width of 0.5 mm (500  $\mu$ m) showing seepage of red ink through the barrier walls.

#### 2. Determination of the Limit of detection for glucose

From the below figure we can conclude that the LOD for glucose using the present method is 1mM.



**Figure S2.** Determination of LOD for glucose of concentrations (a) 1mM, (b) 5mM