

Supplementary Figure

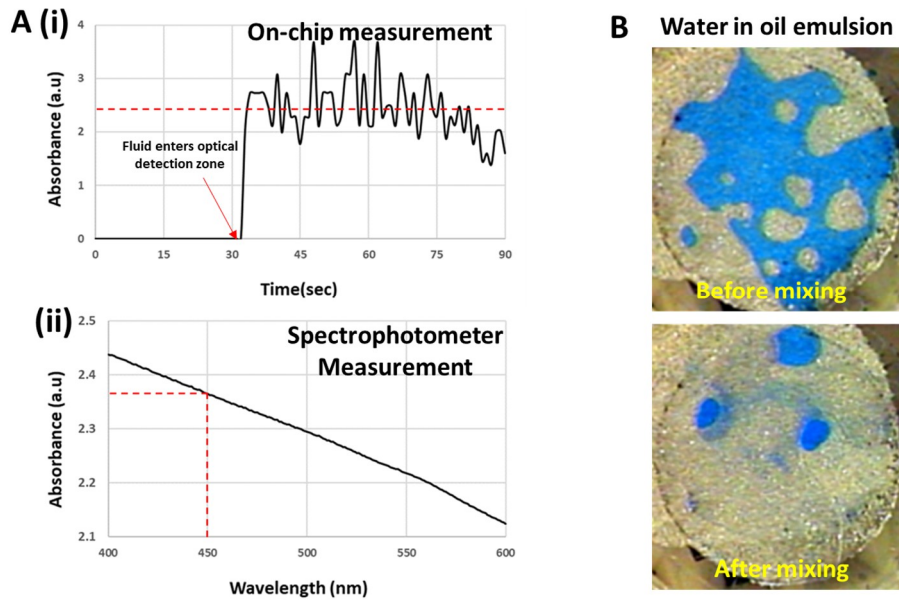


Figure 1. (A). (i) Time varying optical absorbance of a saliva sample mixed with chromogenic agent measured on-chip using the hybrid integrated device. The mean optical absorbance value was ~ 2.36 (ii) Optical absorbance measurement of the same sample measured using a UV/Vis spectrophotometer showing the absorbance value at 450 nm ~ 2.4 . (B). Preparation of water in oil emulsion: Finer dispersion of water (blue) in the colorless oil medium throughout the chamber is observed with the actuation of the micromixer. Much longer micromixing time (~ 600 s) was required to achieve this.

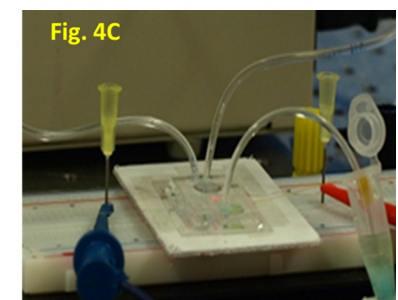
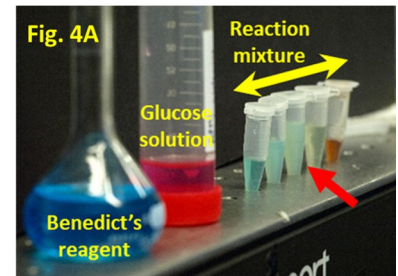
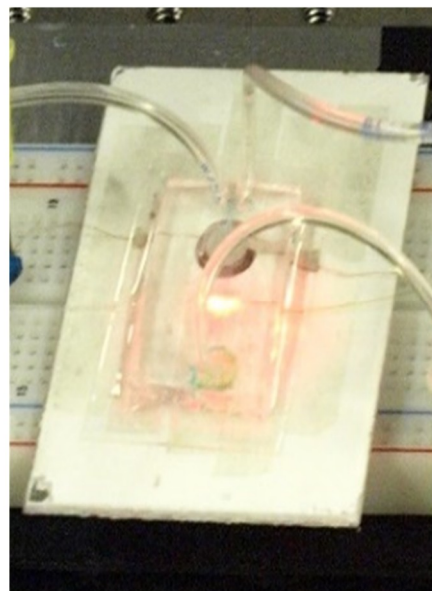
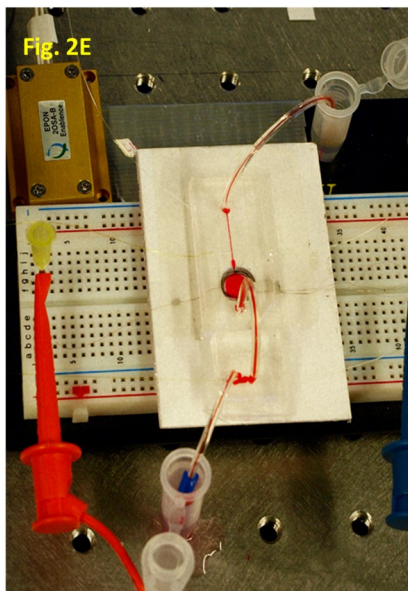


Figure S2. Enlarged versions of Figure 2E, Figure 4A and Figure 4C