

A Wearable Paper-Integrated Microfluidic Device for Sequential Analysis of Sweat Based on Capillary Action

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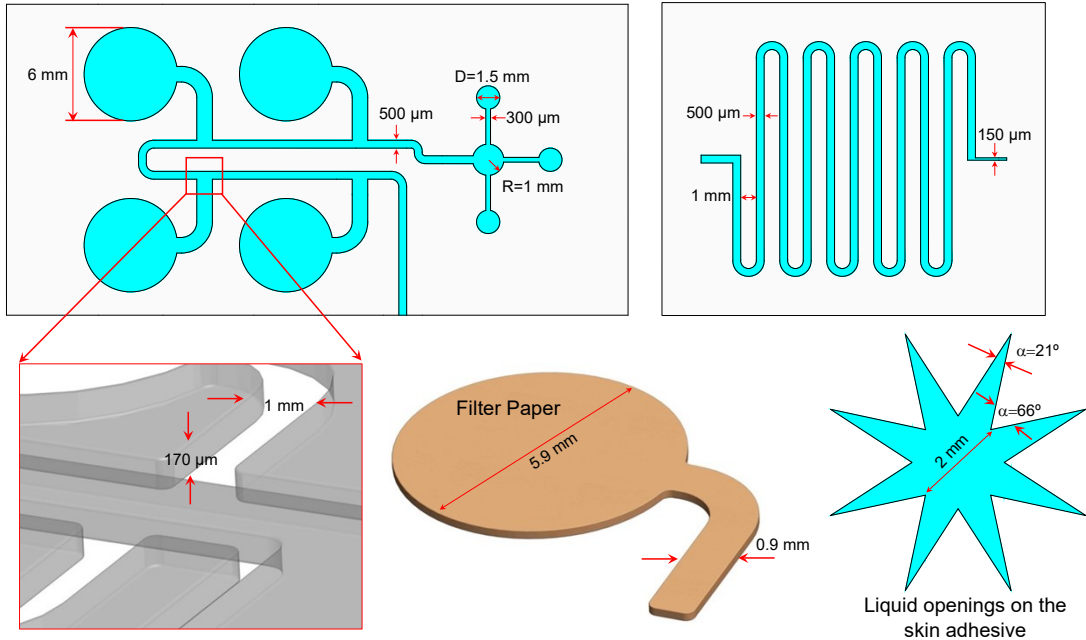


Fig. S1. Geometric information and dimensions for the microfluidic layer.

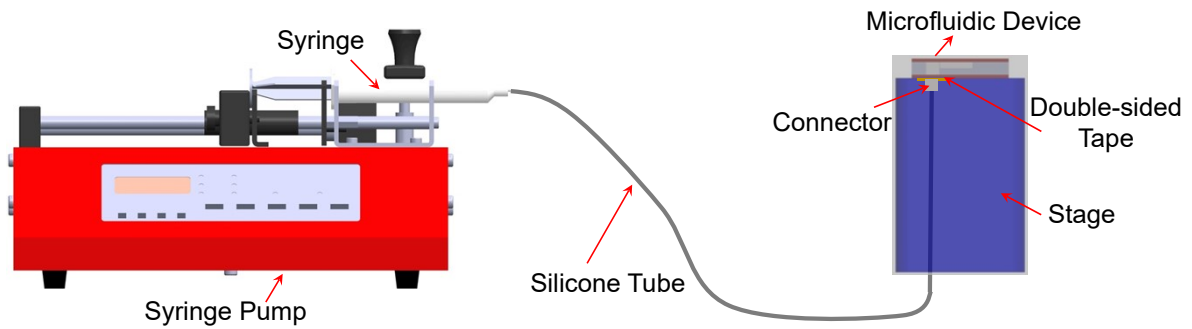


Fig. S2. Demonstration of the artificial sweat generation system.

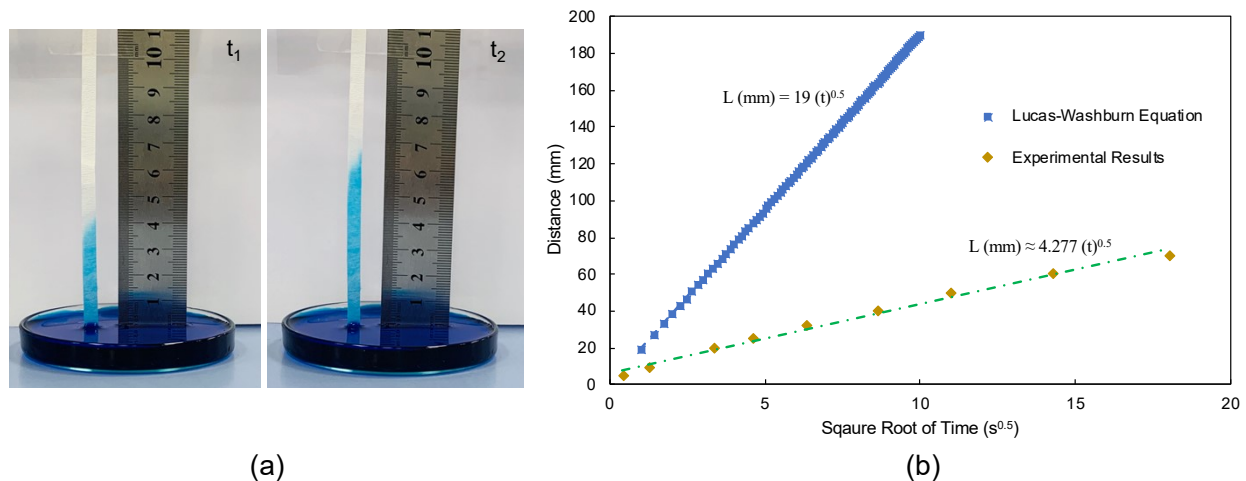


Fig. S3. (a) A strip of filter paper placed vertically with tip dipped in dyed water, (b) The distance traveled by the fluid (L) as a function of the square root of time (t).

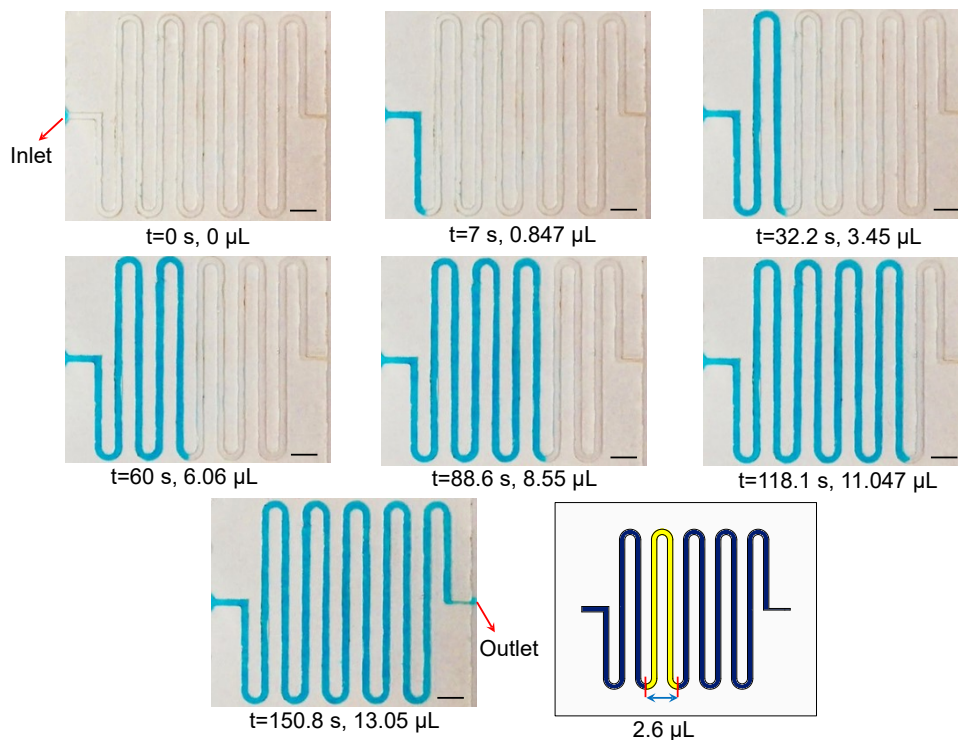


Fig. S4. Demonstration of sweat rate measurement at liquid flow rate of $5 \mu\text{L}/\text{min}$, based on optical images of the device at different time frames. Scale bars are 2 mm.

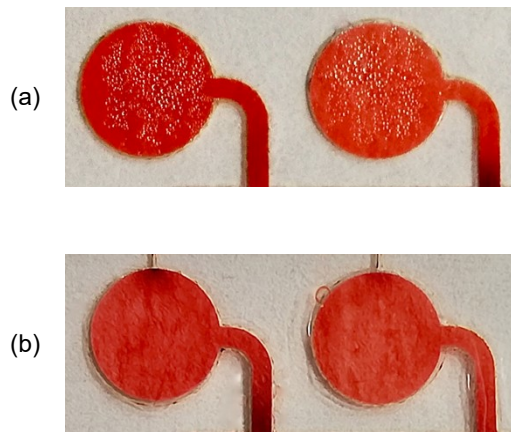


Fig. S5. Images of the microfluidic device after 48 hours at 37 °C. (a) Without and (b) With air outlet.

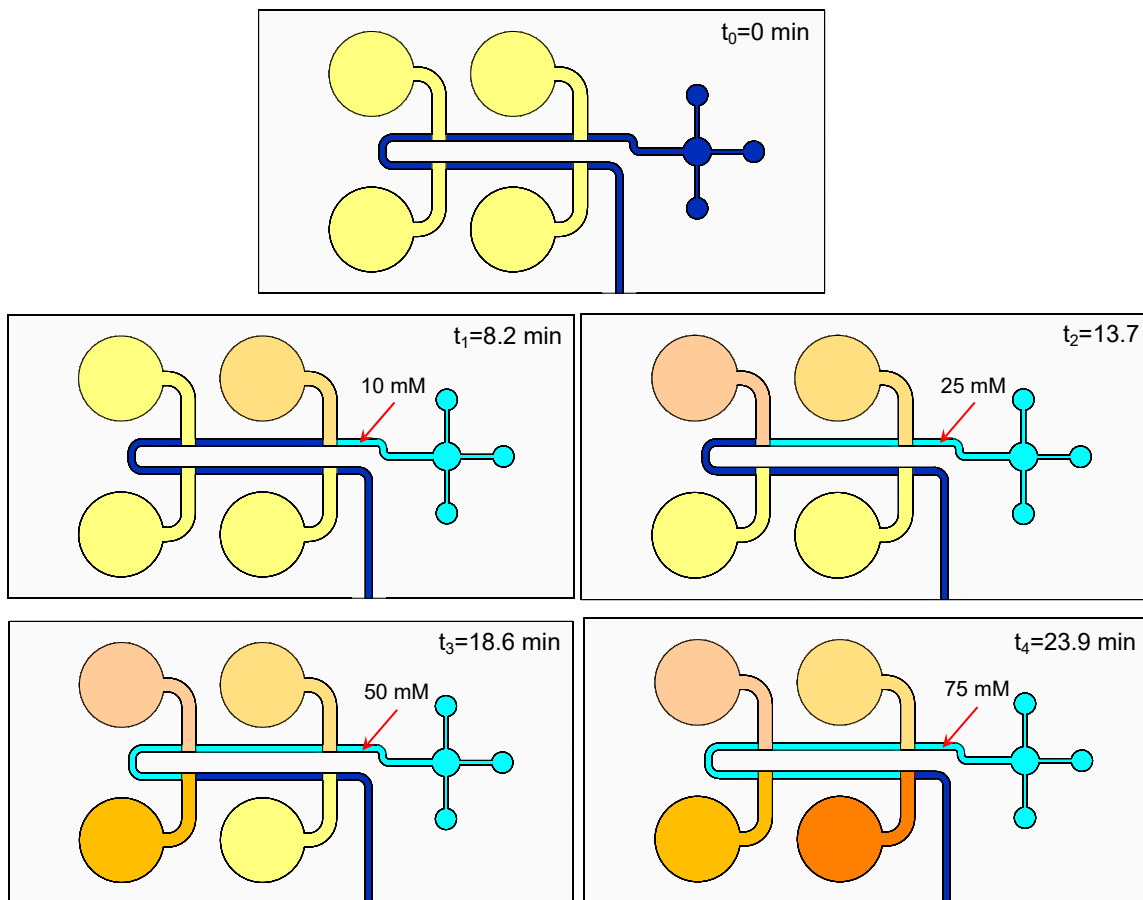


Fig. S6. Representative images showing sequential pumping of glucose solutions with different concentrations. t_1 - t_4 could be different depending on the reservoir number, because reservoirs do not have the same filling times.

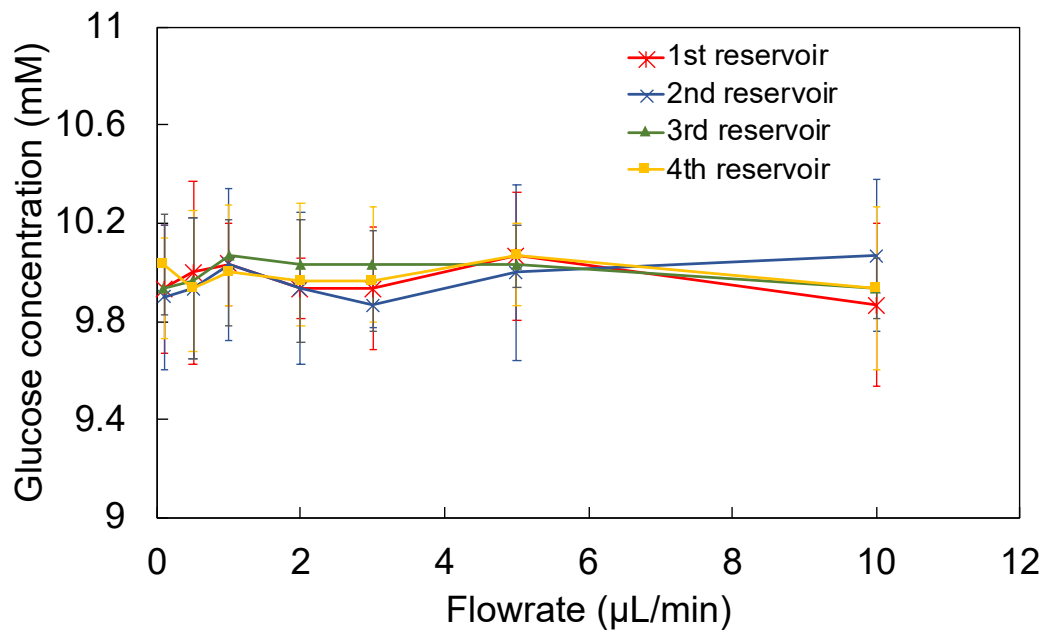


Fig. S7. effect of liquid flowrate on the colorimetric analysis. Glucose solutions of 10 mM were pumped into the microfluidic device using the artificial perspiration setup at various flow rates.