biosensors

MDPI

Supporting Information

Wearable Microfluidic Sweat Chip for Detection of Sweat Glucose and pH in Long-Distance Running Exercise

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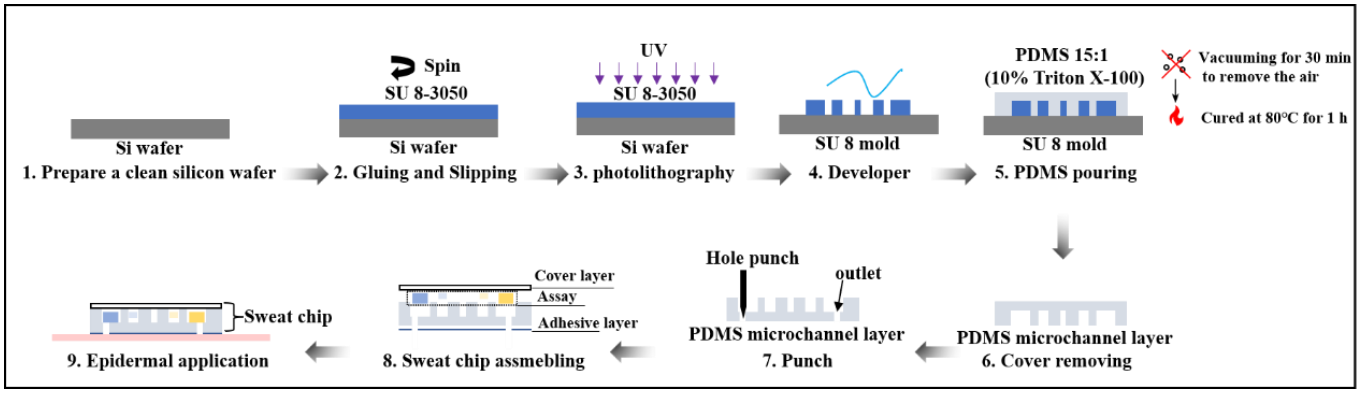


Figure S1. The fabrication processing of microfluidic sweat chip.

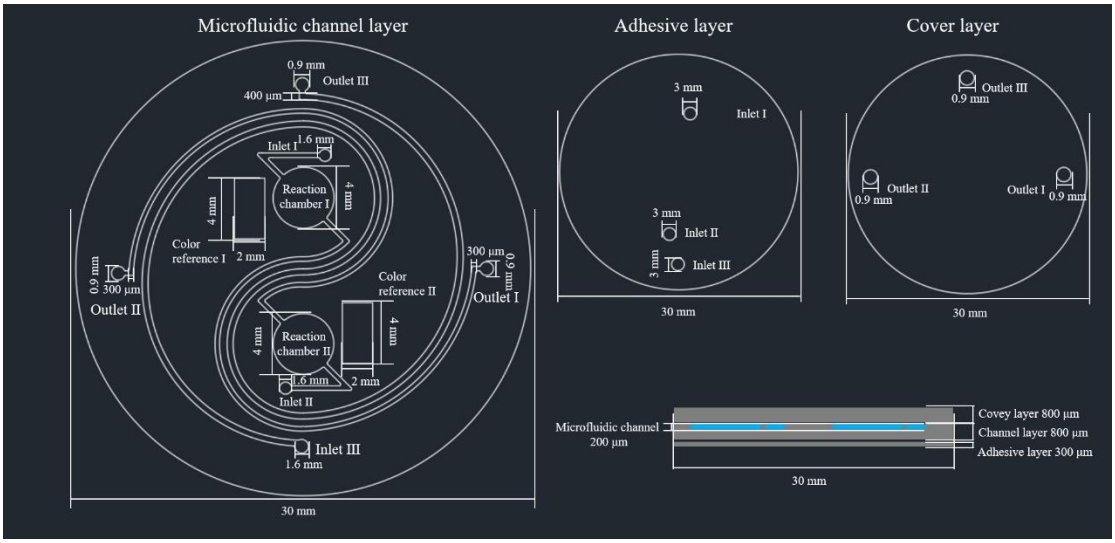


Figure S2. The detailed chip design parameters.

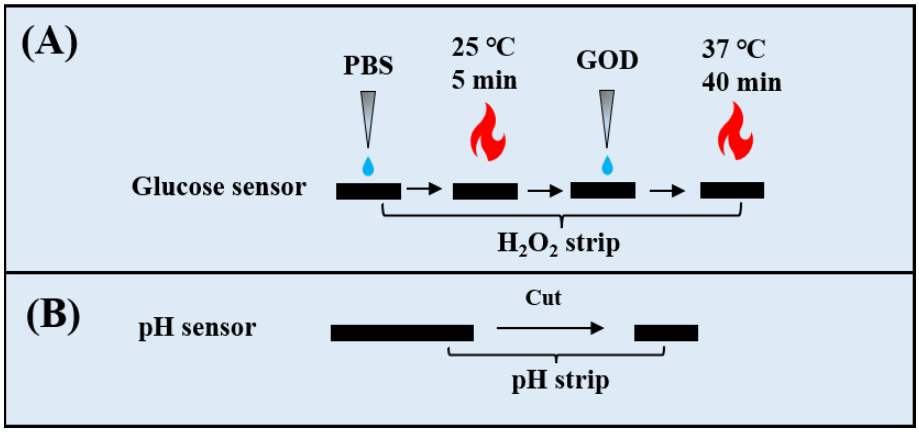


Figure S3. Paper-based glucose and pH sensors fabricated process. (A) The fabrication process of the glucose sensor is as follows: First, cut the H_2O_2 test strip into small discs (diameter: 3 mm). 2.5 μL of pH=5.7 PBS solution was dropped on the test paper and dried at 25°C for 10 min. Then, 2.5 μL of 200 U/mL GOD solution prepared with pH=5.7 PBS solution was dropped on the paper and dried at 37°C for 40 min. The functionalized glucose sensor was stored at 4°C for later use. (B) The production of pH sensor only needs to cut the pH test paper into 3 mm diameter discs for later use, which is very convenient.

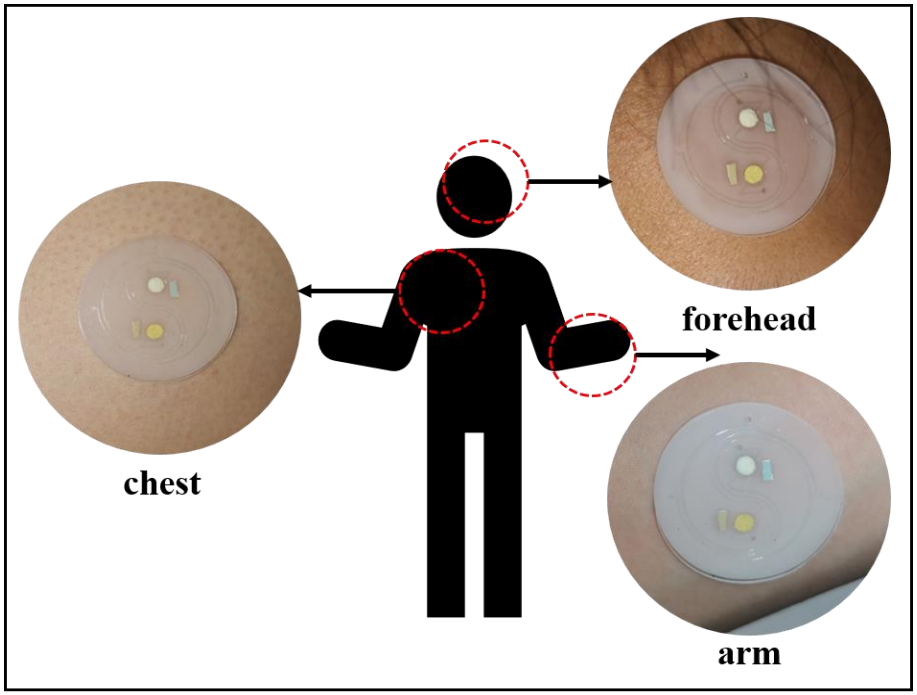
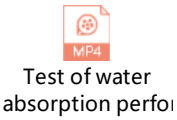


Figure S4. Microfluidic sweat chip chips are attached to different parts of the human body (forehead, arm, chest, etc.).



Video S1: Using blue ink to test the water absorption performance of the microfluidic sweat chip.