Supporting Material

Flexible, self-healable, adhesive and wearable hydrogel patch for colorimetric sweat detection

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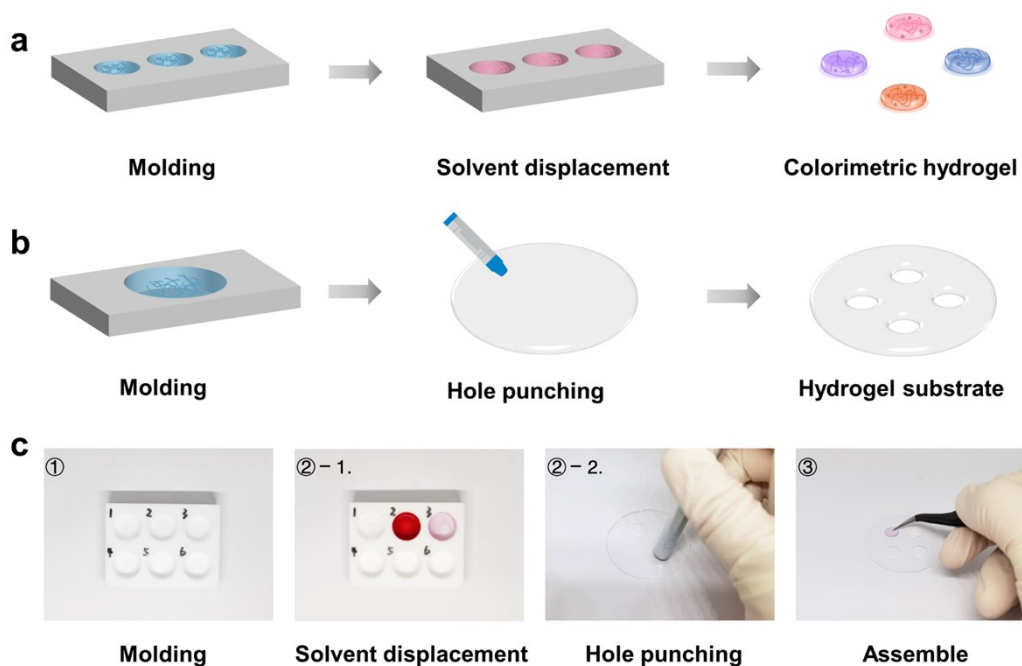
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Figure S1. Schematic diagram of the preparation process of colorimetric hydrogels (a) and hydrogel substrates (b) and the photographs of the preparation process (c).
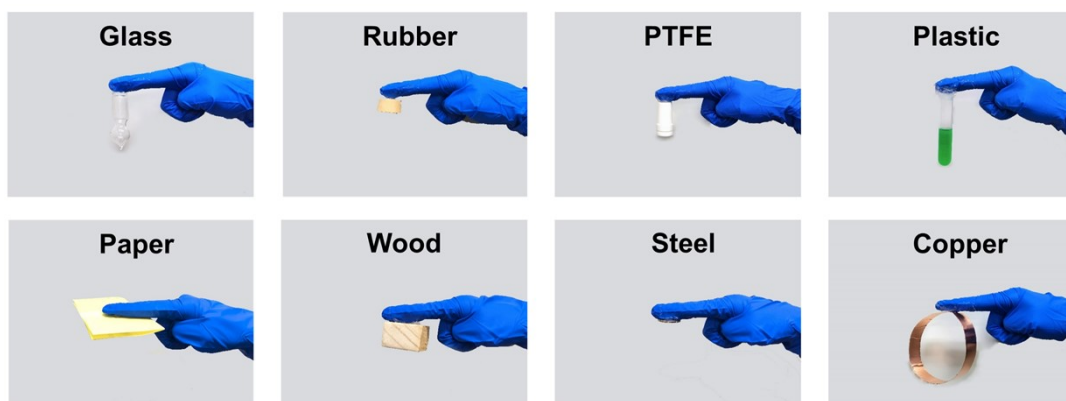

Figure S2. The hydrogel exhibited universal adhesiveness on various material surfaces: glass, rubber, PTFE, plastic, paper, wood, steel and copper.
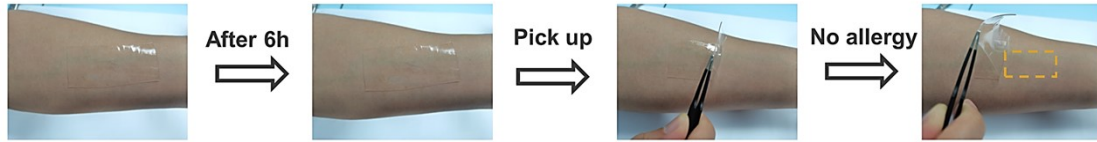
Figure S3. The photographs of the hydrogel attached to the arm of a human body for 6 hours, no allergic reaction was observed after picking up.
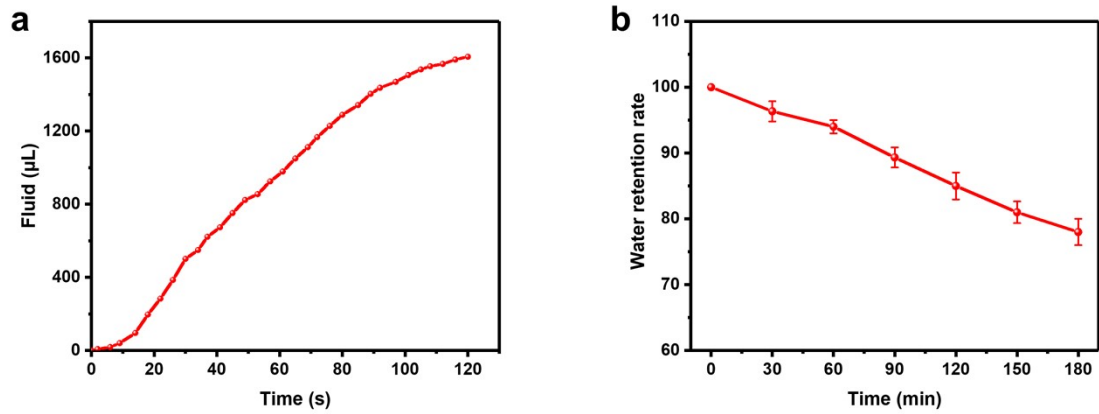

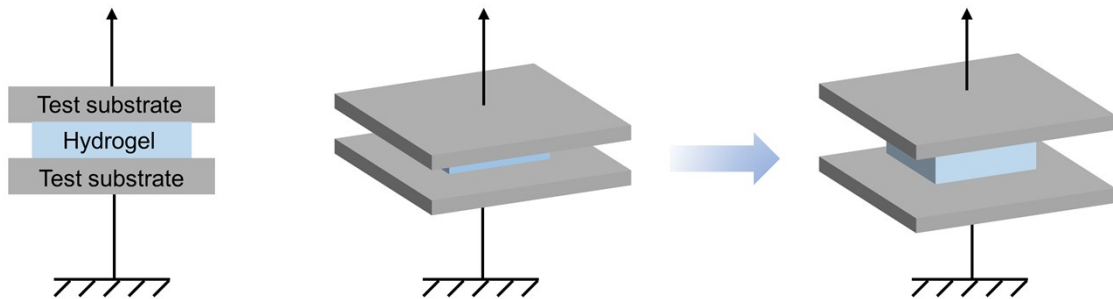**Figure S4.** The water absorption speed (a) and the water retention rate (b) of the hydrogel patch.

Figure S5. Schematic description of the tensile adhesion tests.

Figure S6. On-demand assembly processes of a complete wearable hydrogel with
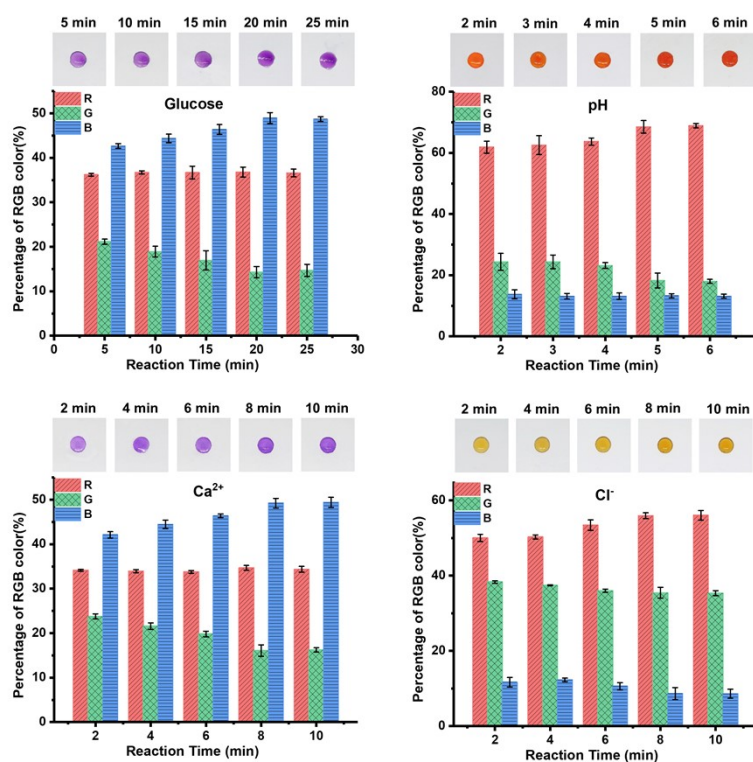
colorimetric arrays.

Figure S7. Normalized % RGB value vs. reaction time of the colorimetric response. Analyte concentrations: glucose 2mM; PH 4; Ca^{2+} 16mM; Cl^- 100mM. Data are presented as mean ± s.e.m. (n = 3).
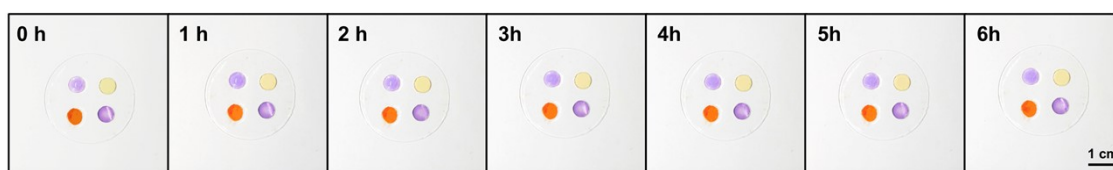

Figure S8. Optical images of a wearable hydrogel patch on a white background collected hourly during a 6 hour period.
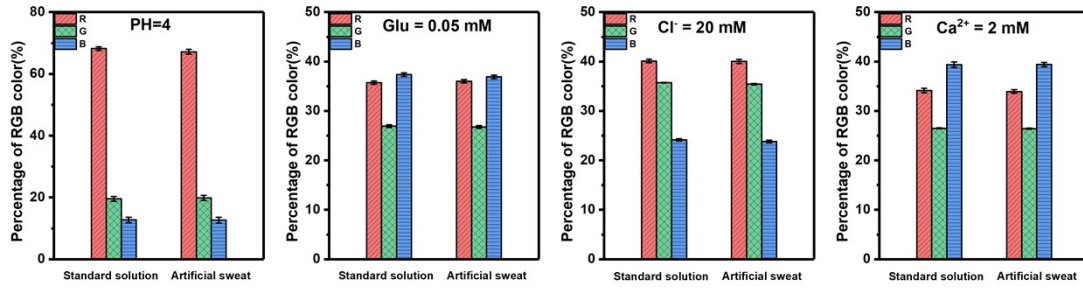
Figure S9. The influence of various temperatures on the colorimetric analysis performance of wearable hydrogels, where each image corresponds vertically to the color point of the temperature described below. Data are presented as mean ± s.e.m. (n = 3).