Supplementary Information

Responsive behaviors of bilayer hydrogel with applications in

flexible devices

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(a) (b) 1.6 1.6 Origin 40 °C 1 M HCl Original 40 °C 1 M HCl 1 M NaOH 1 M NaCl 1 M NaOH 1 M NaCl Ethanol Ethanol 1.2 1.2 1 1 °.0 °2/2 s.0 2/2 0.4 0.4 0.0 0.0

Figures

Figure S1. Comparison between the original area and the area after stimulation of PDMAEMA hydrogel (a) and PNIPAM hydrogel (b) (the original area was normalized to 1).



Figure S2. Center angles (a) and curvatures (b) of bilayer hydrogel in deionized water at different temperatures.



Figure S3. Changes in the center angle and curvature of the bilayer hydrogel in a solution with a higher concentration of SDS (1.5 mg/mL) during recovery.



Figure S4. Center angles (a) and curvatures (b) of bilayer hydrogel in NaCl solution with different concentration and the average rate (c) of the two parameters.



Figure S5. Diagram of the circuit.