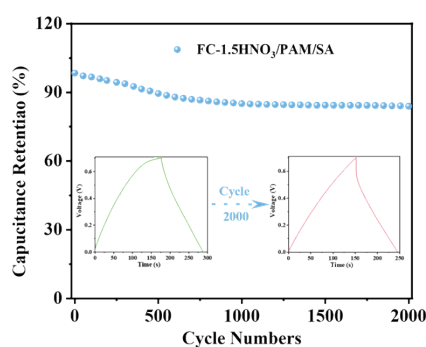
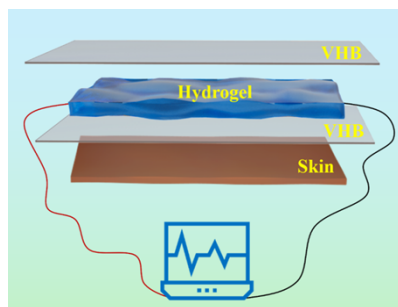


**Fig. S1.** Comparison of the maximum tensile strain of PAM/SA and 3.0HNO<sub>3</sub>/PAM/SA hydrogels.



**Fig. S2.** Capacitance retention curves of FC-1.5HNO<sub>3</sub>/PAM/SA.



**Fig. S3.** Schematic diagram of hydrogel sensor detection system.