Supporting Information

Versatile hydrogel towards coupling of energy harvesting and storage for self-powered round-the-clock sensing

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Figure S1. Conductivity of the PAM and PPG hydrogels.



Figure S2. Electrical outputs (a) V_{oc} , (b) I_{sc} and (c) Q_{sc} of the TENG using the PAM hydrogel as the electrode.



Figure S3. (a) V_{oc} , (b) I_{sc} and (c) Qoc of the PPG-TENG under different frequencies.



Figure S4. (a) V_{oc} and (b) Q_{oc} of the PPG-TENG under different mechanical forces.



Figure S5. Fast responsive and recovery time of the PPG-TENG.



Figure S6. Voc of PPG-TENG under different strain states.



Figure S7. (a) Photograph of carbon fiber (CF) and PPy coated carbon fiber (PPy/CF), (b, c) SEM images PPy/CF with different magnifications.



Figure S8. GCD curves of PAMK and PPGK as electrolytes of the SCs.



Figure S9 CV curves of the SC after different washing cycles.