

Supplementary Information

Mussel-inspired adhesive and anti-swelling hydrogel for underwater strain sensing

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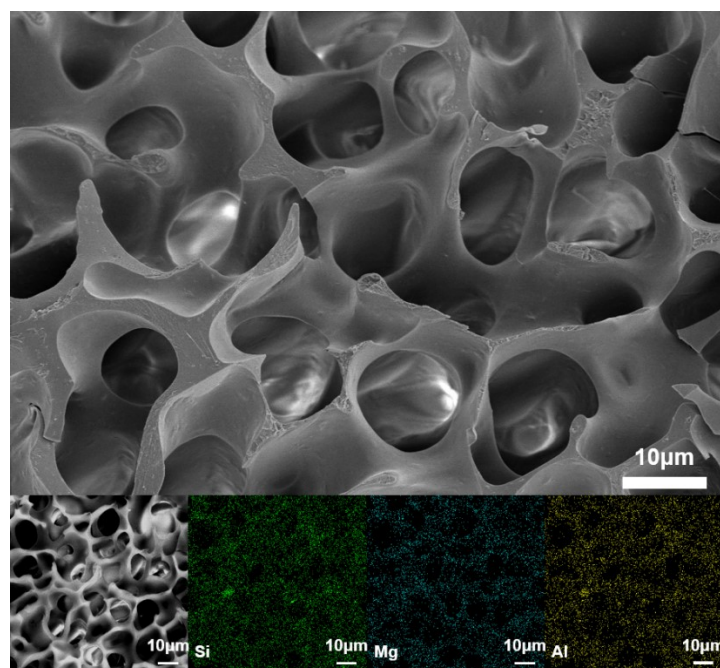


Fig S1 SEM image of PSBMA-TA@MMT hydrogel.

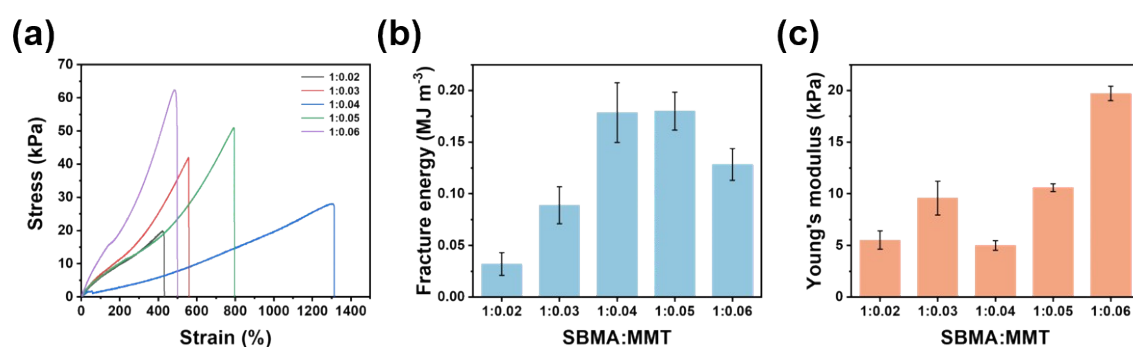


Fig S2 (a) Stress-strain curve of PSBMA/TA@MMT hydrogels with different mass ratio of SBMA to MMT. (b) Fracture energy of PSBMA/TA@MMT hydrogels with different mass ratio of SBMA to MMT. (c) Young's Modulus of PSBMA/TA@MMT hydrogels with different mass ratio of SBMA to MMT.

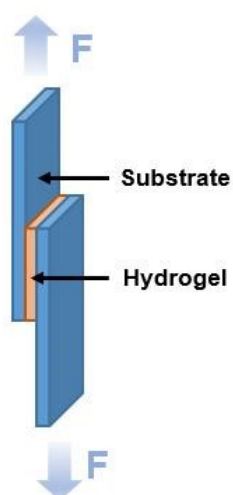


Fig S3 Schematic diagram of lap shear test

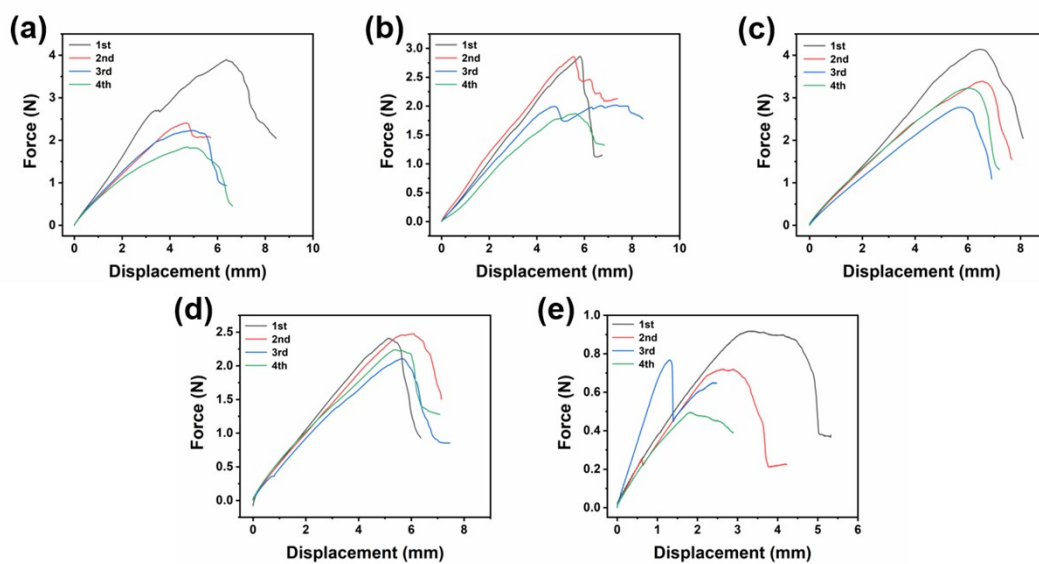


Fig S4 Force displacement curve of repeated lap shear test of the PSBMA-TA@MMT hydrogels. (a) Glass;(b) Zn;(c) Wood; (d) Leather;(e) Porcine skin

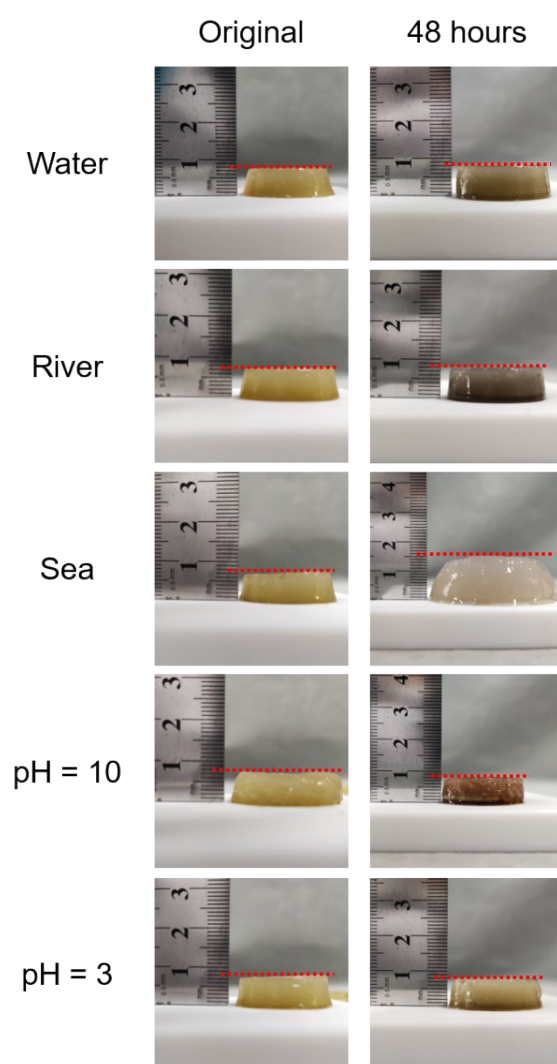


Fig S5 Photos of the PSBMA/TA@MMT hydrogel soaked in different liquid for 48 hours.

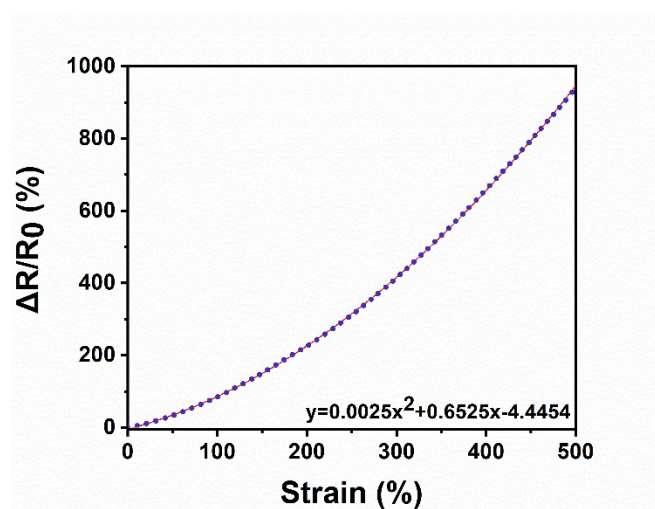


Fig S6 Relative resistance variation $((R-R_0)/R_0)$ of the PSBMA-TA@MMT hydrogel at different strains

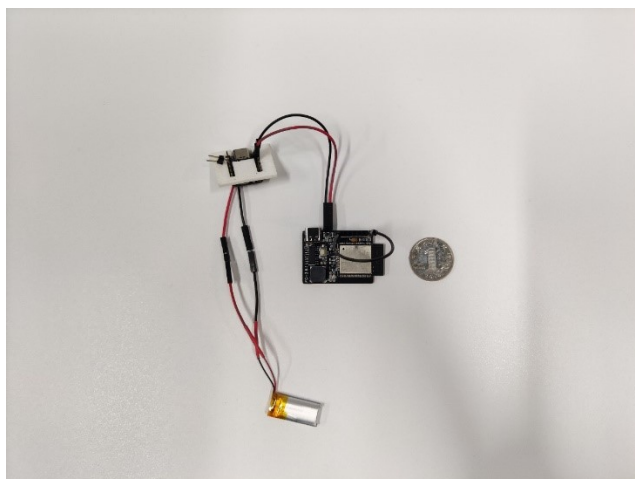


Fig S7 Photo of Bluetooth transmission module of PSBMA-TA@MMT hydrogel-based sensor