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Supplementary Information

Self-adaptive high-temperature gels with long-lasting underwater stability for environmentally tolerant flexible sensors and water-writing papers

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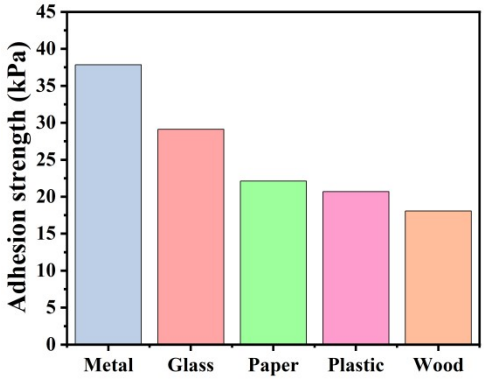

Fig. S1 Adhesion strength of PEA-AA-MAm/IL gels on various substrates.

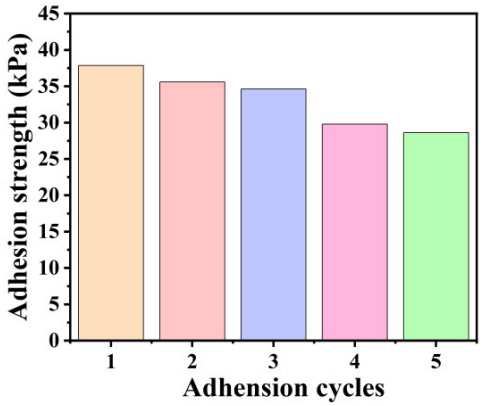

Fig. S2 Cyclic adhesion strength of PEA-AA-MAm/IL gels on a metal (copper) substrate.

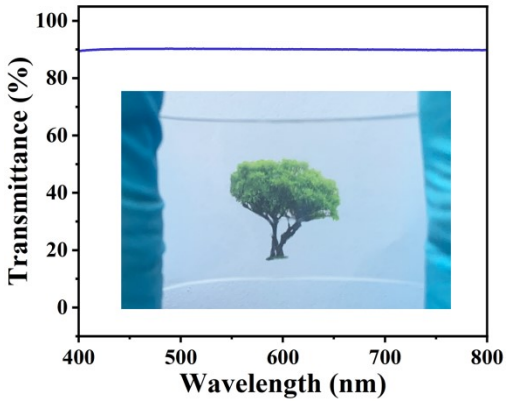

Fig. S3 Visible light (400-800 nm) transmittance spectra of the PEA-AA-MAm/IL gel, and the inset displays its high transparency.

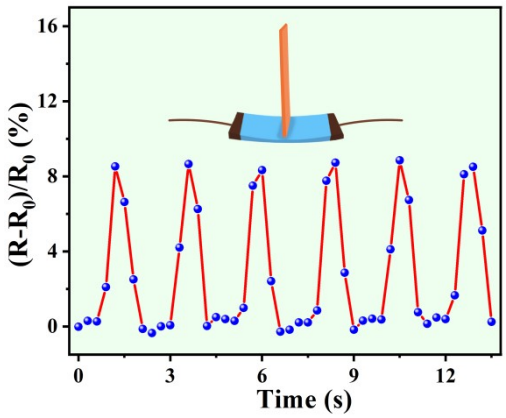

Fig. S4 The electronic response signals of the PEA-AA-MAm/IL gel sensor for pressuring deformation.

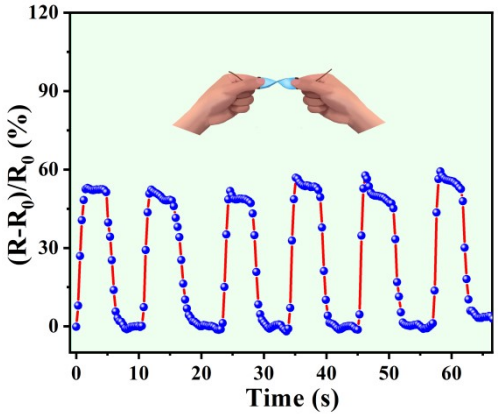

Fig. S5 The electronic response signals of the PEA-AA-MAm/IL gel sensor for twisting deformation.

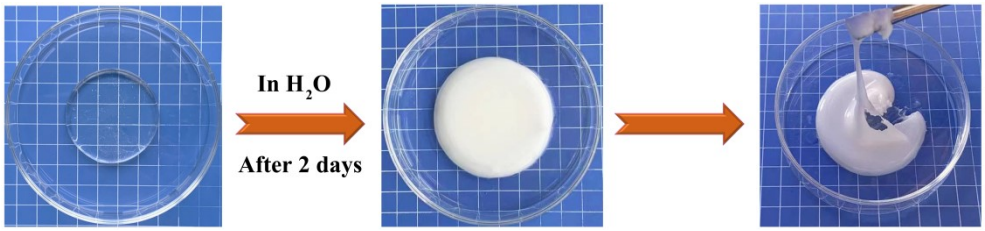

Fig. S6 The swelling behavior of the AA-MAm/IL gel without PEA in water.

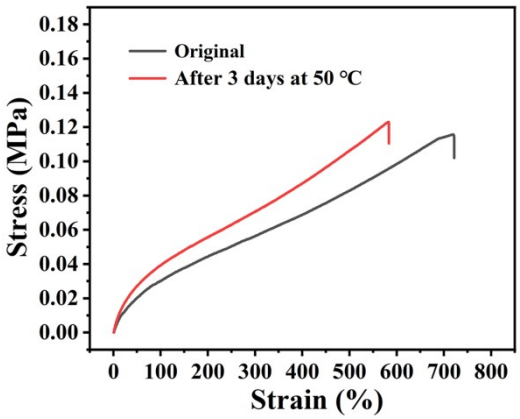

Fig. S7 Tensile curves the PEA-AA-MAm/IL gel before and after being stored at 50 °C for 3 days.