Supporting Information

A Highly Transparent Ionogel with Strength Enhancement Ability for Robust Bonding in Aquatic Environment

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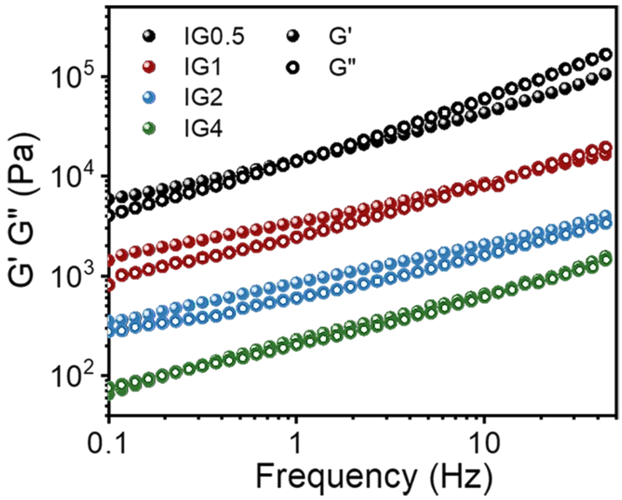

Fig. S1. Frequency dependencies of the storage (G′) and loss (G″) moduli of the IGs.

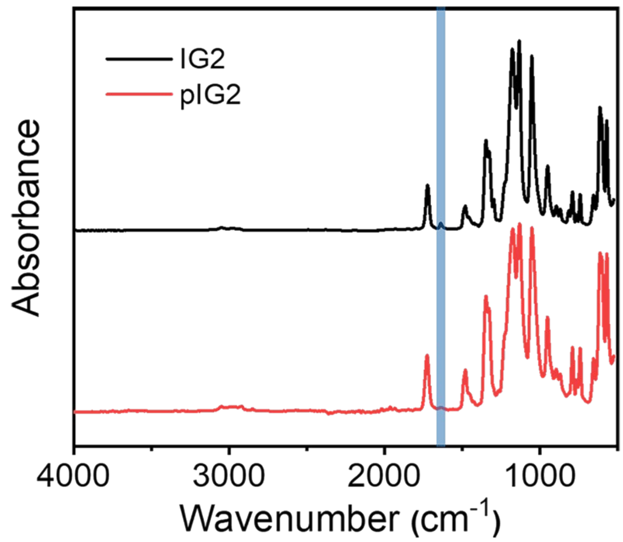

Fig. S2. FTIR spectra of IG2 and pIG2.

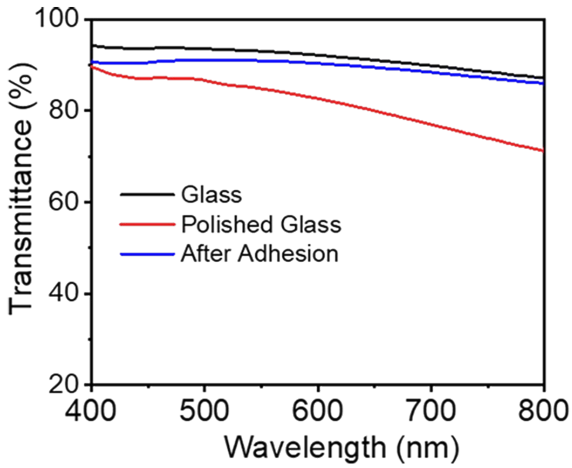

Fig. S3. The transmittance of glass, polished glass and the polished glass after bonding with IG2.

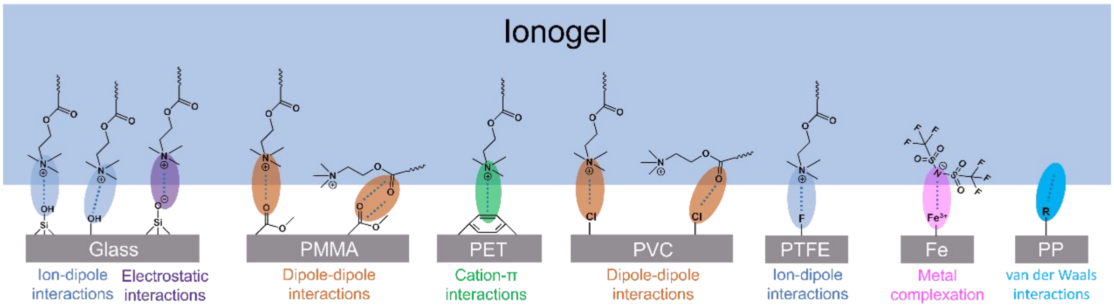

Fig. S4. The possible adhesion mechanisms between the ionogel and different substrates.

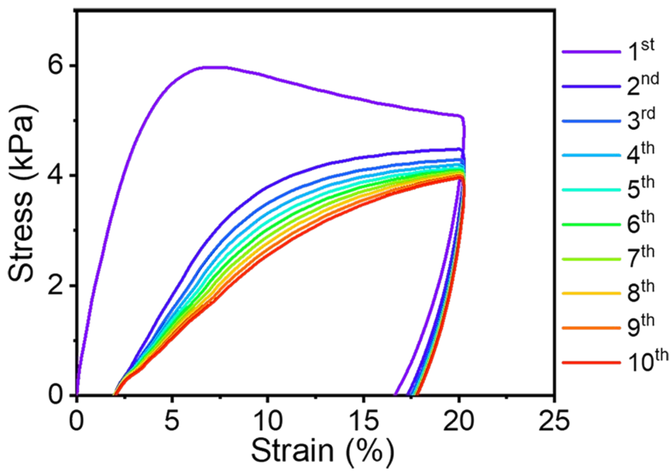

Fig. S5. Stress-strain curves of the pIG2-N0.4 under cyclic loading in the strain ranges of 20%.

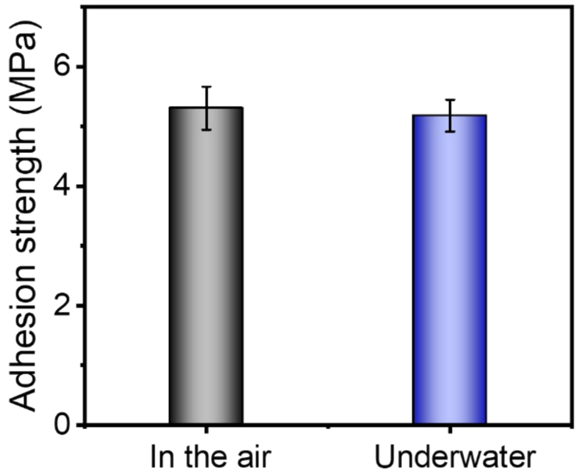

Fig. S6. The adhesion strength of pIG2-N0.4 for glasses in the air and underwater.

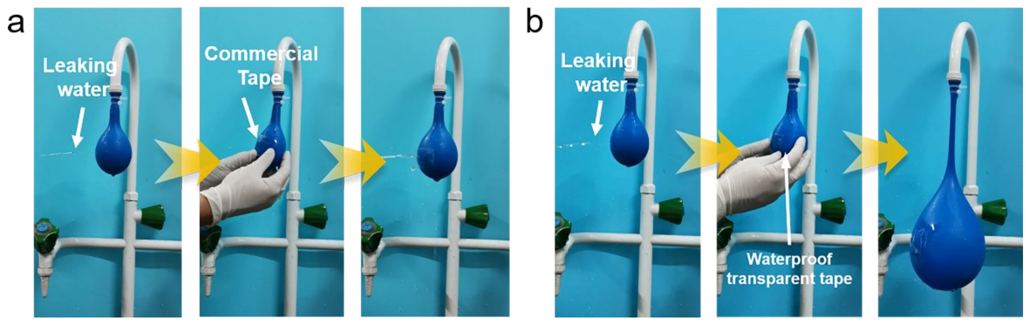

Fig. S7. The adhesion ability of (a) commercial tape and (b) WTT in wet environment.

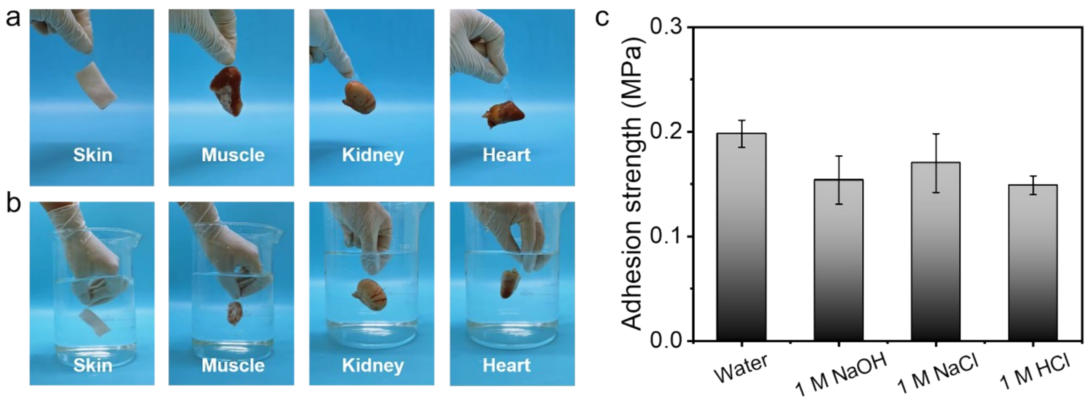

Fig. S8. Digital picture of adhesion ability of WTT for different tissues a) in the air and b) underwater. c) The adhesion strength of WTT to porcine skin in different environment.

Supporting Video S1. The underwater adhesion ability of ionogels.

Supporting Video S2. Adhered glasses can bear the weight of an adult (~68 kg) and allow the adult to move up and down.

Supporting Video S3. Commercial transparent tapes can't stop rubber balloon from leaking water.

Supporting Video S4. WTT can effectively adhere to rubber balloon without being affected by the wet environment and the rushing current.

Supporting Video S5. WTT has repair capability underwater.