

Supporting Information

Breathable and Large Curved Area Perceptible Flexible Piezo-Resistive Sensors Fabricated with Conductive Nanofiber Assemblies

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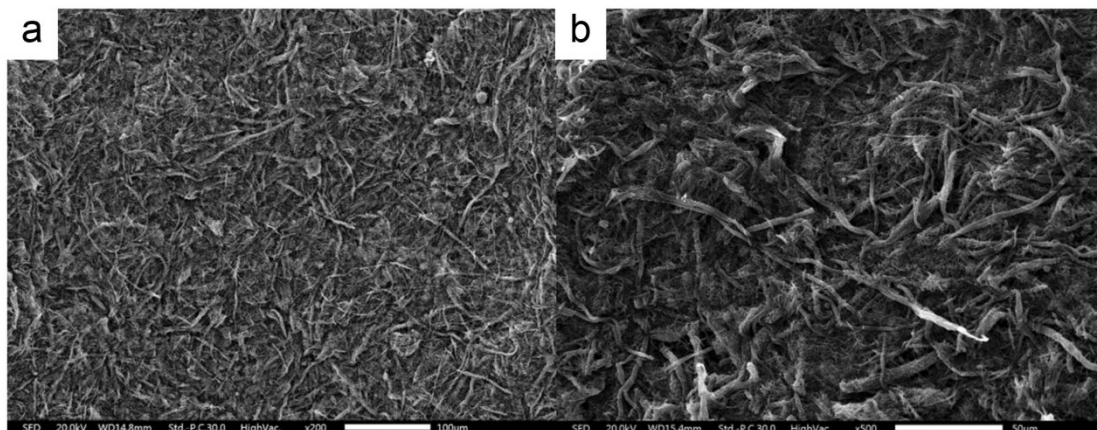


Figure S1. The SEM images of the PPy@EVOH/POE CNAs with magnification of (a) 200 and (b) 500

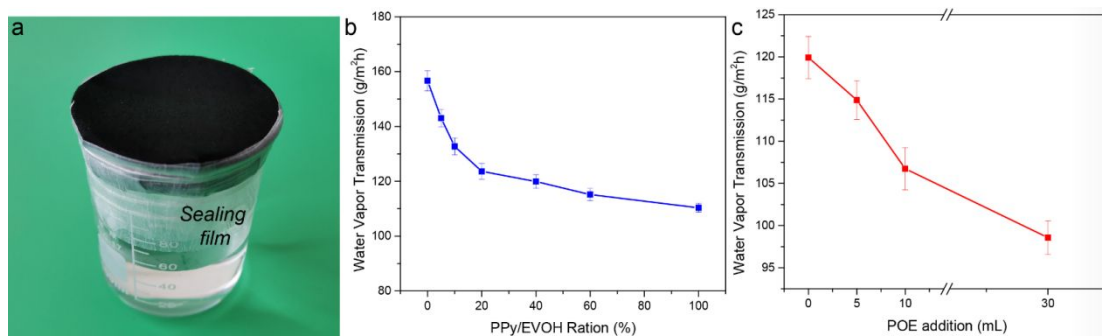


Figure S2. Water transmission ability. (a) The measurement method. The water vapor transmission ability of the fiber assemblies with (b) different PPy/EVOH ratio and (c) POE nanofiber suspension.

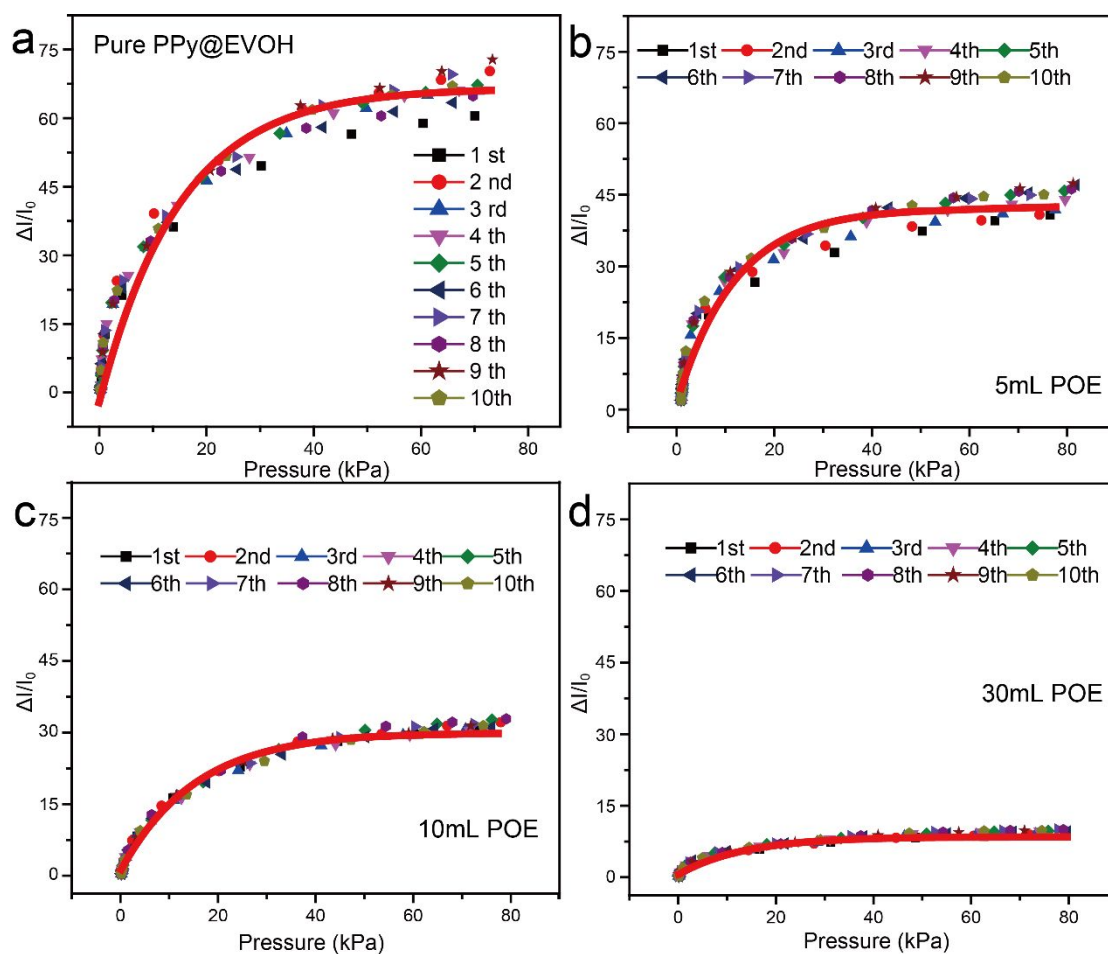


Figure S3. The first 10 times results of the multiple pressing and releasing test for the PPy@EVOH/POE nanofibrous piezo-resistive sensors with POE volume of (a) 0 mL, (b) 5 mL, (c) 10 mL and (d) 30 mL.

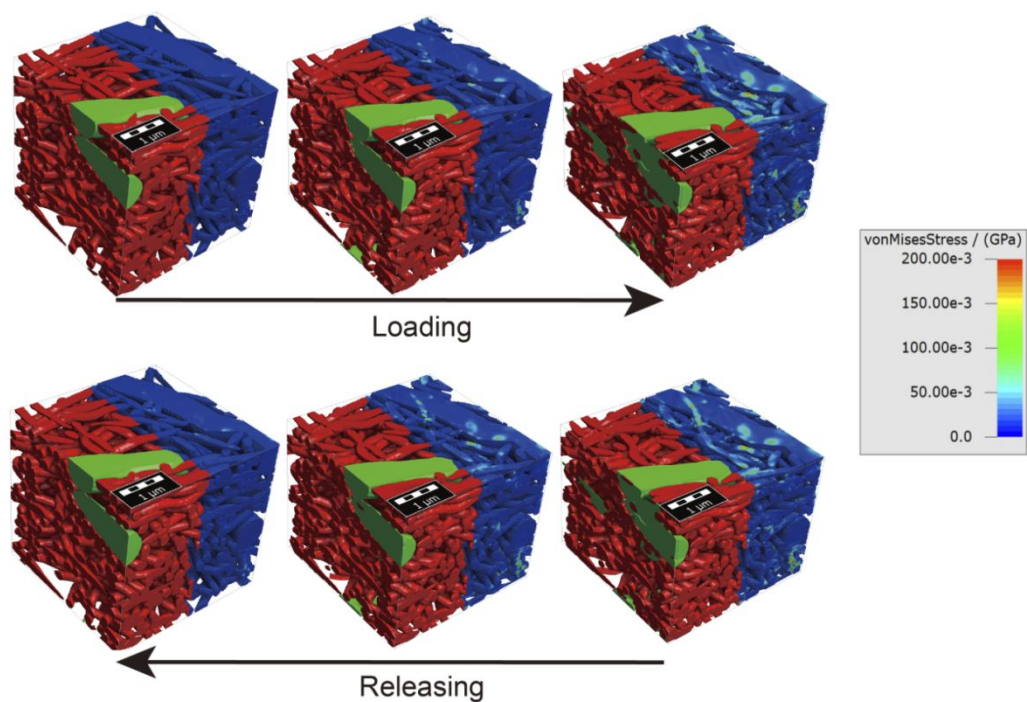


Figure S4. The photographs of the established mechanical model of the PPy@EVOH/POE CNAs while it was compressed and released.

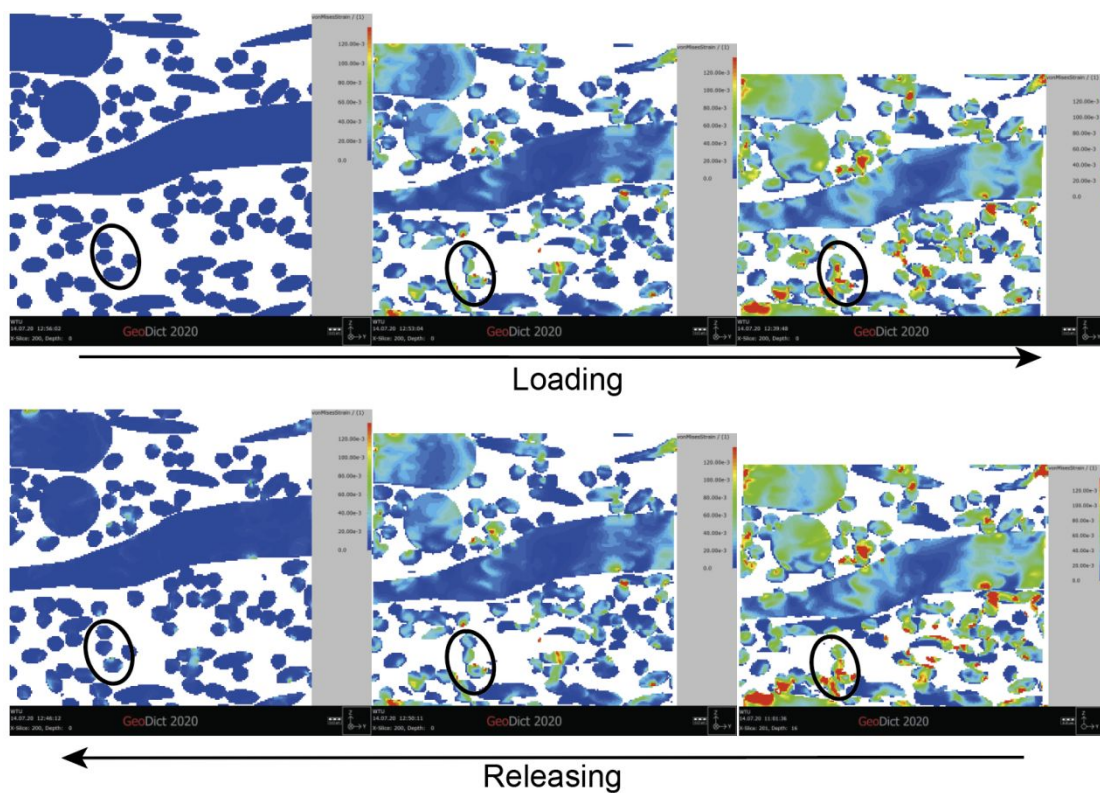


Figure S5. The cross-section photographs of the mechanical model in Figure S4.

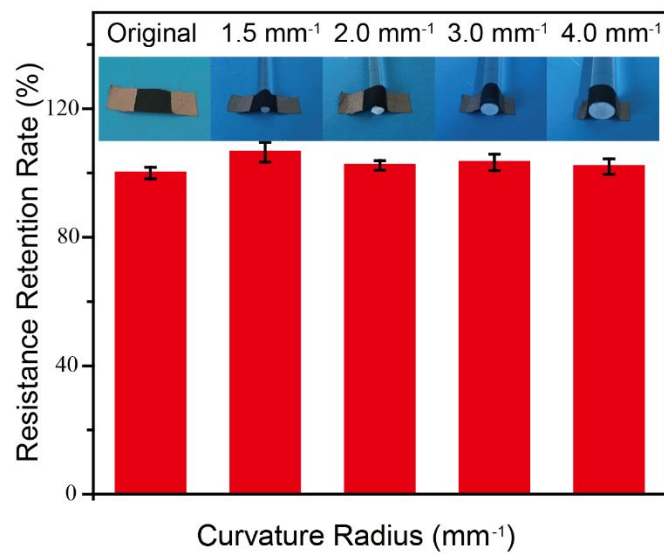


Figure S6. The normalized resistance retention rate of the PPy@EVOH/POE CNAs which were bent with curvature radius of 1.5 mm^{-1} , 2.0 mm^{-1} , 3.0 mm^{-1} and 4.0 mm^{-1} .

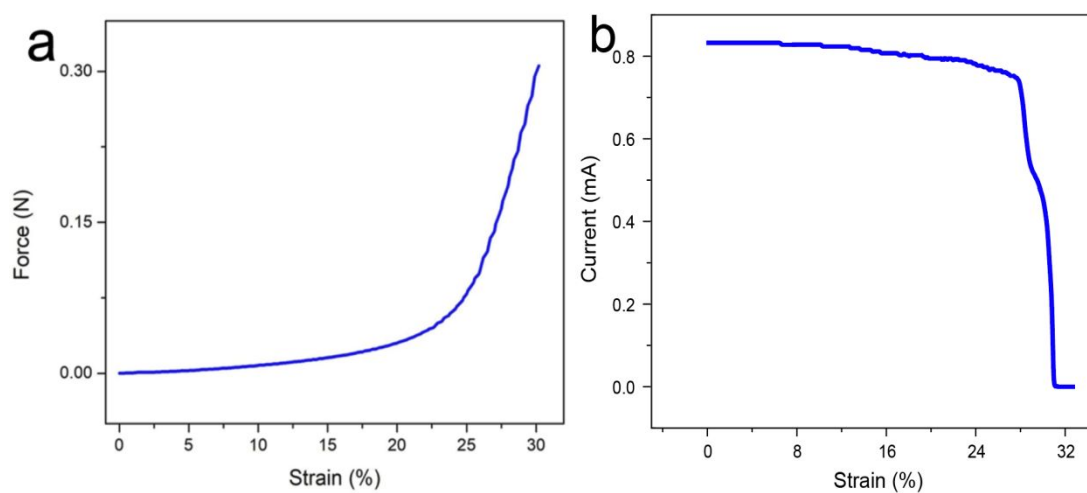


Figure S7. (a) The force versus strain curve and (b) the current versus strain curve of the PPy@EVOH/POE CNA with thickness of 70 μm .

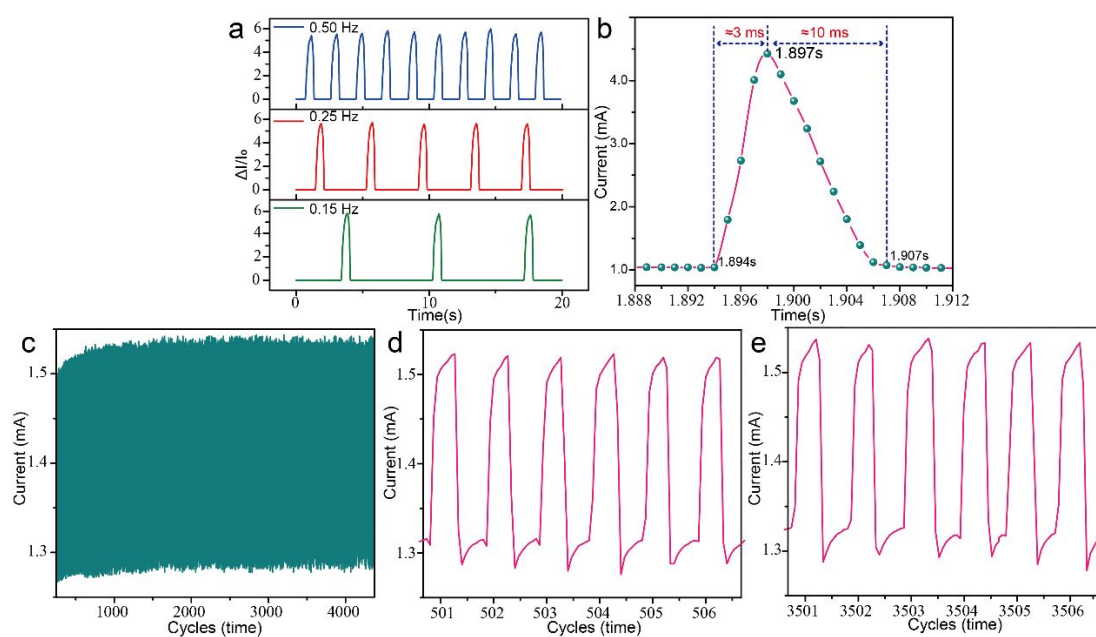


Figure S8. The sensing performance of the piezo-resistive sensor assembled with PPy@EVOH/POE CNAs (70 μm). (a) The relative current curves at different frequencies, (b) The response time and recovery time, (c) The durability of 4500 cycles, (d-e) The partial magnification of (c).