

## Supporting Information

### **Electrospun cellulose-based nanofiber piezoelectric membrane with enhanced flexibility and pressure sensitivity**

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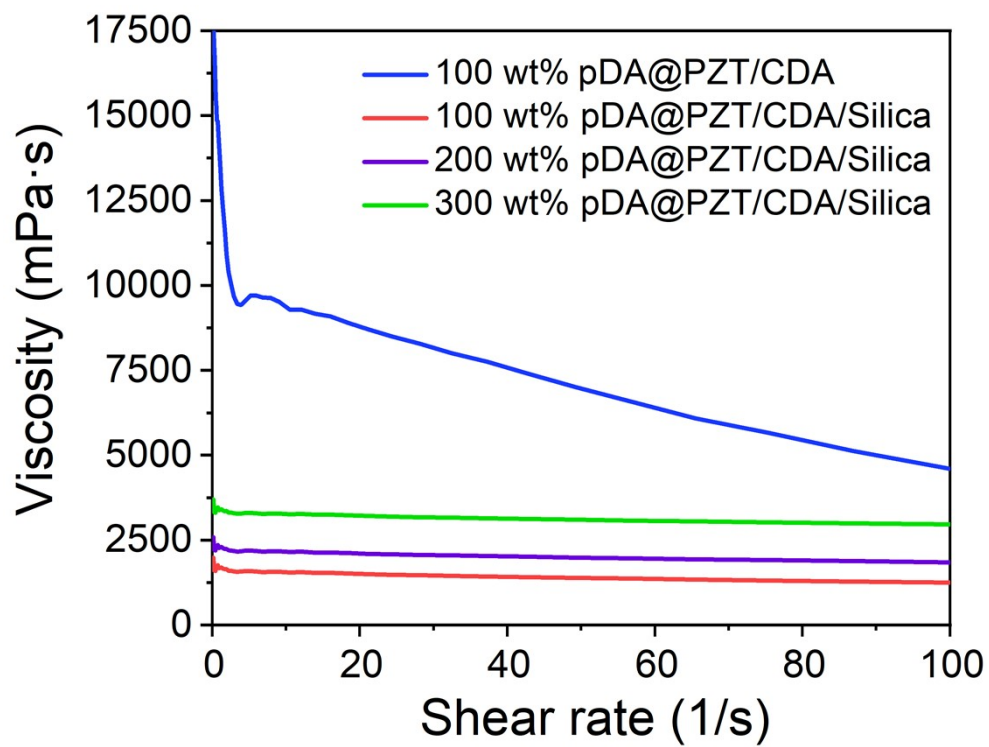
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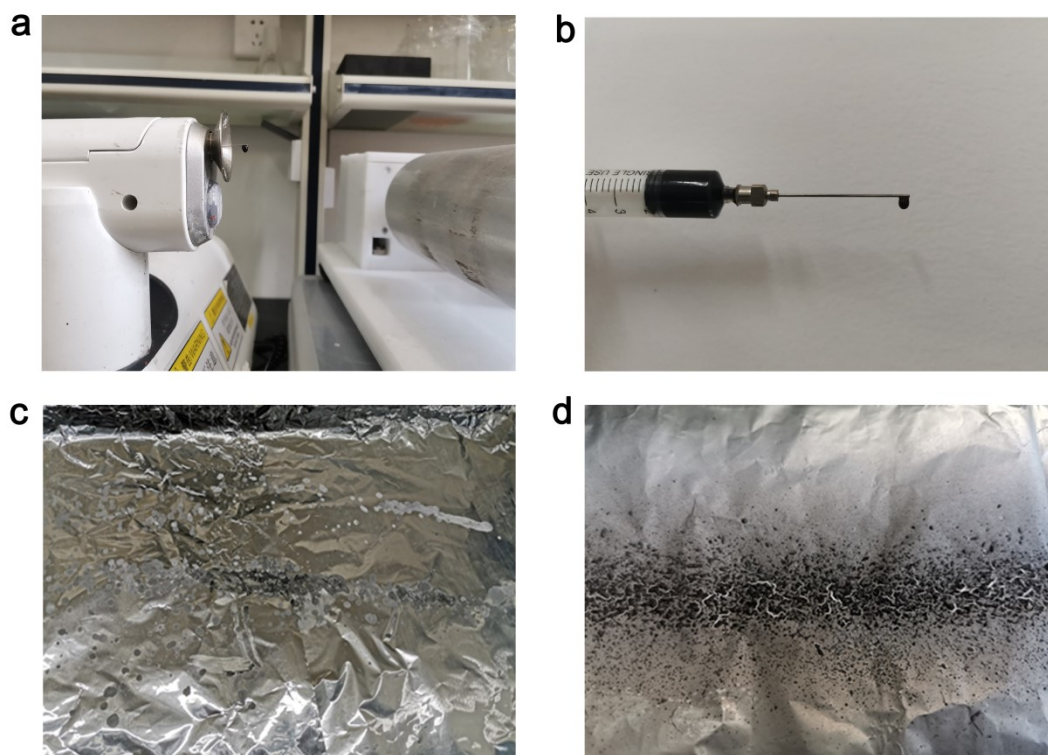
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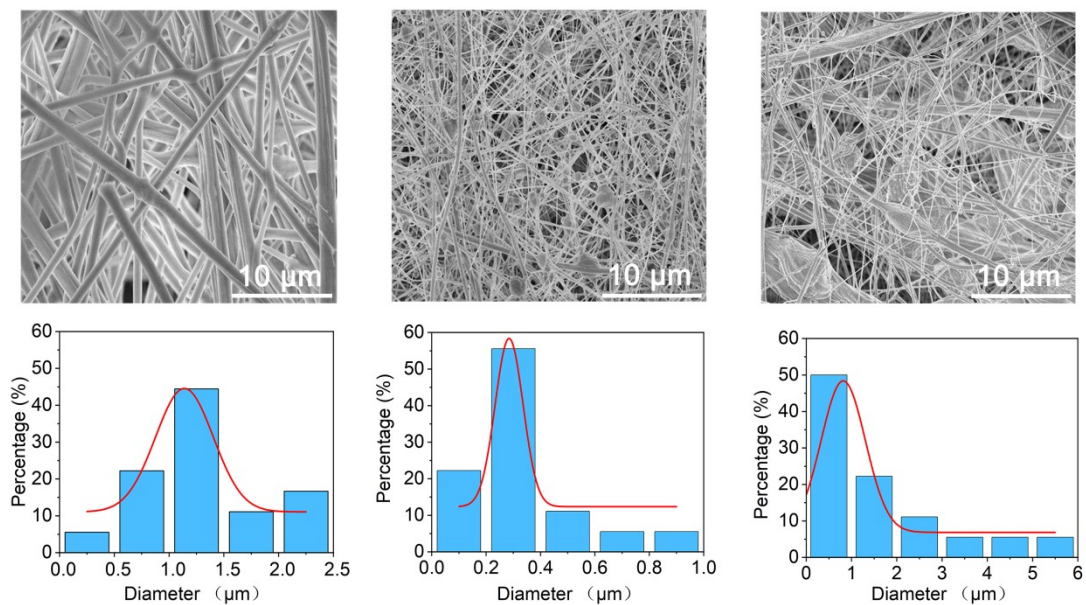
<sup>#</sup>These authors contributed equally to this work.



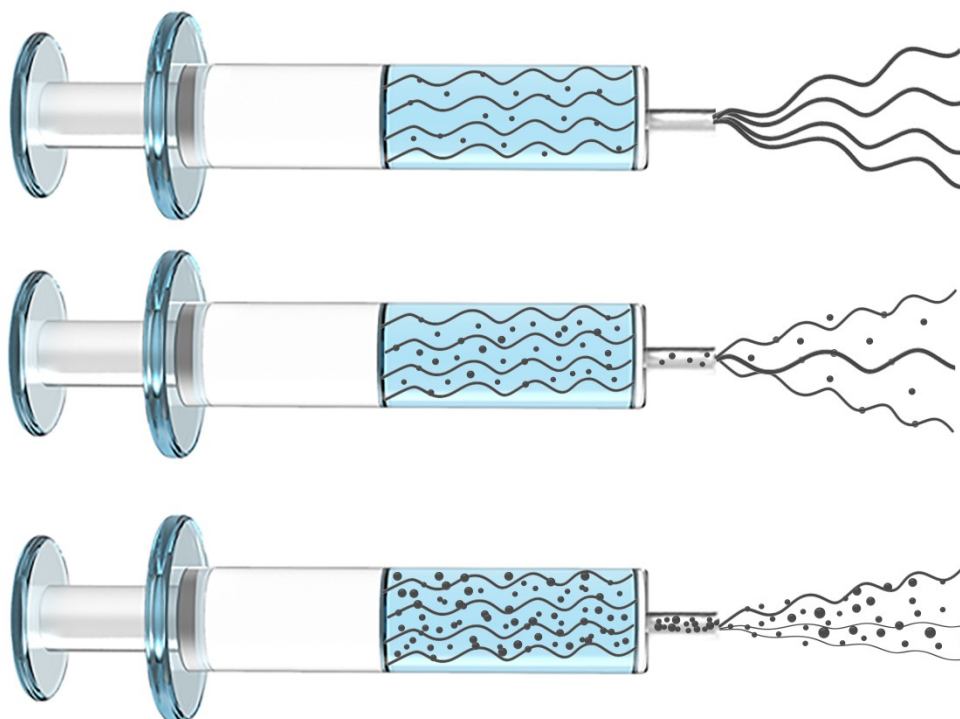
**Fig. S1.** Effects of silanol and PZT content on the viscosity of the precursors.



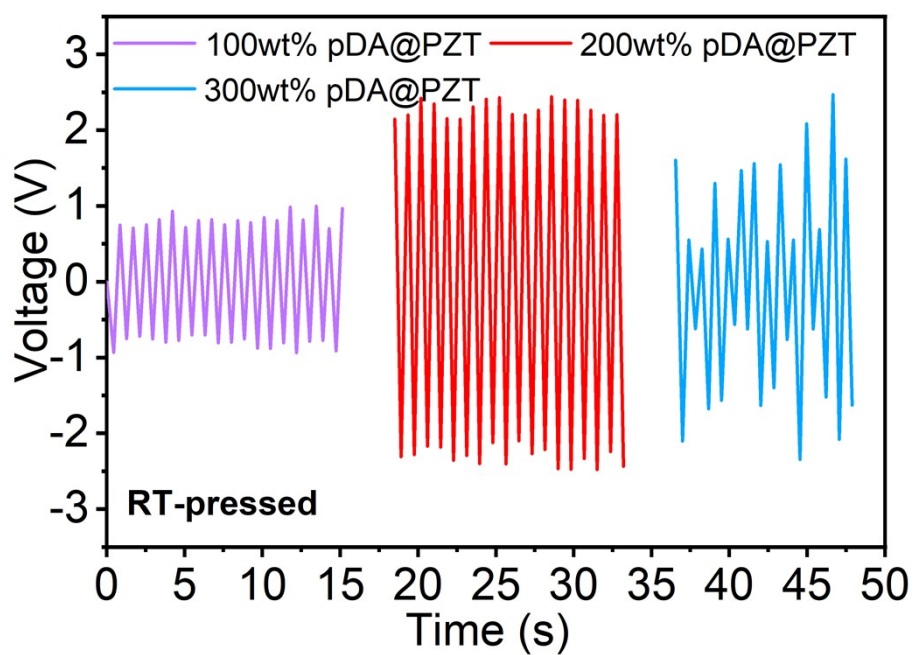
**Fig. S2.** The difficulty in jet splitting and the clogging of the needle while electrospinning the precursor without silanol. a, b) The clogging of the needle while electrospinning the precursor without silanol. c, d) Results of electrospinning precursors in the absence of silanol after a period of time



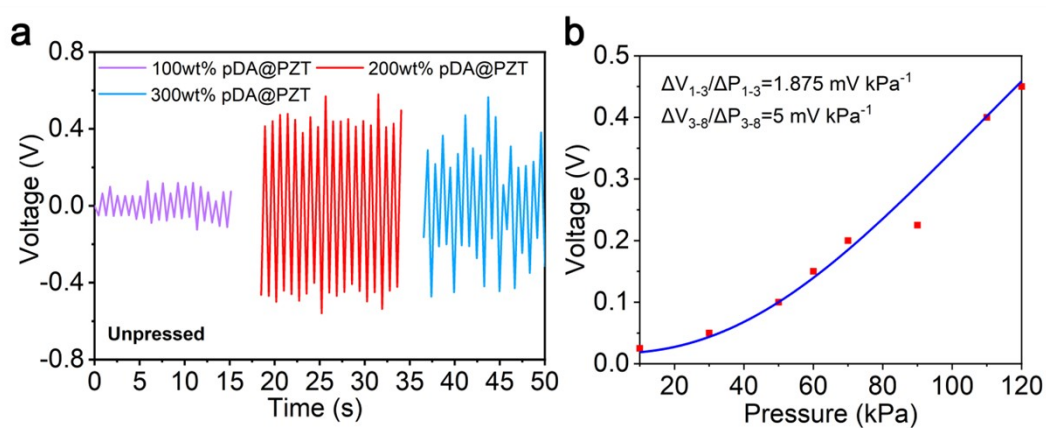
**Fig. S3.** Diameter distribution of the as-electrospun hybrid nanofibers with different pDA@PZT contents.



**Fig. S4.** Illustration of the decreased diameters of as-electrospun hybrid nanofibers with the increase in the NP addition.



**Fig. S5.** Voltage outputs of the PF films with different pDA@PZT contents.



**Fig. S6.** (a) Output voltage and (b) sensitivity of untreated EF samples.