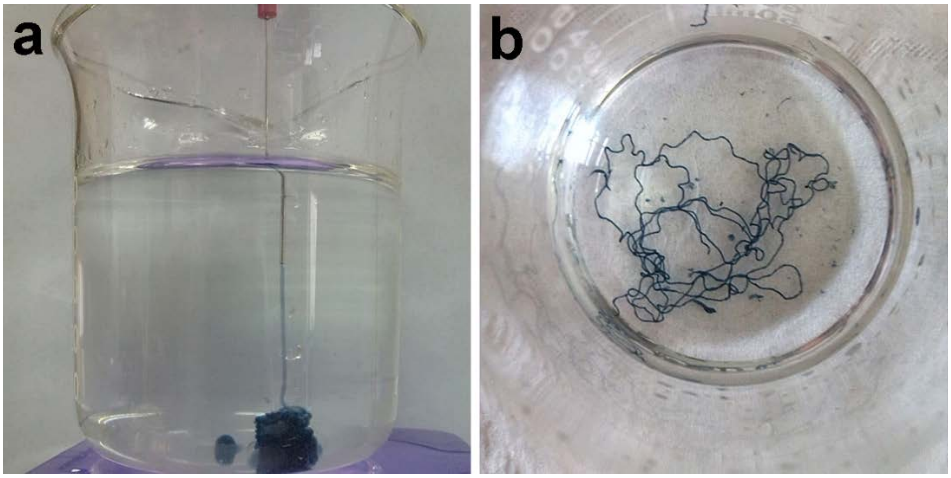

Figure S1 (a) Digital photograph of the wet-spinning fibers in the $CaCl_2$ coagulation using 2 mg ml^{-1} PEDOT: PSS solution.

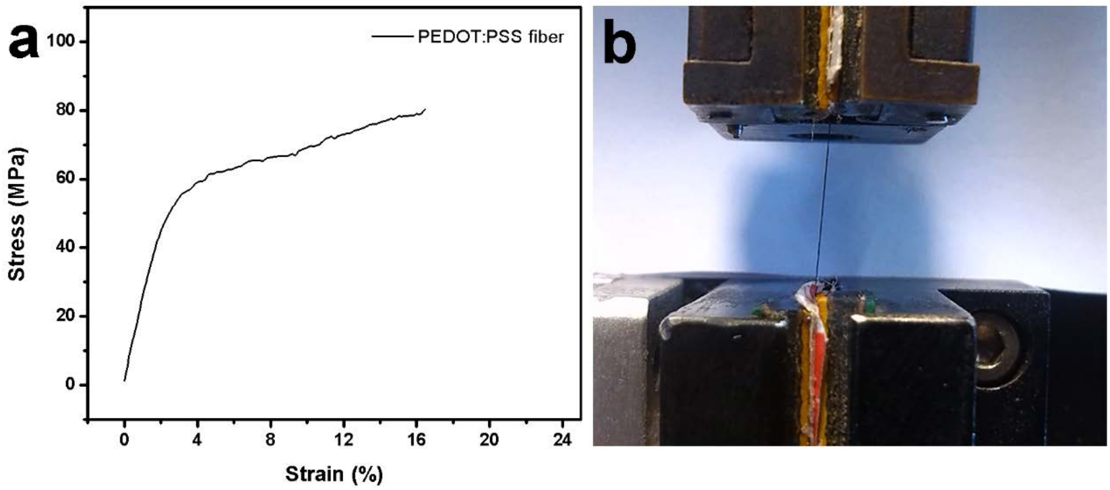

Figure S2 (a) Typical strain-stress curves of the PEDOT: PSS fibers. (b) Photograph of the testing state of the single fiber.

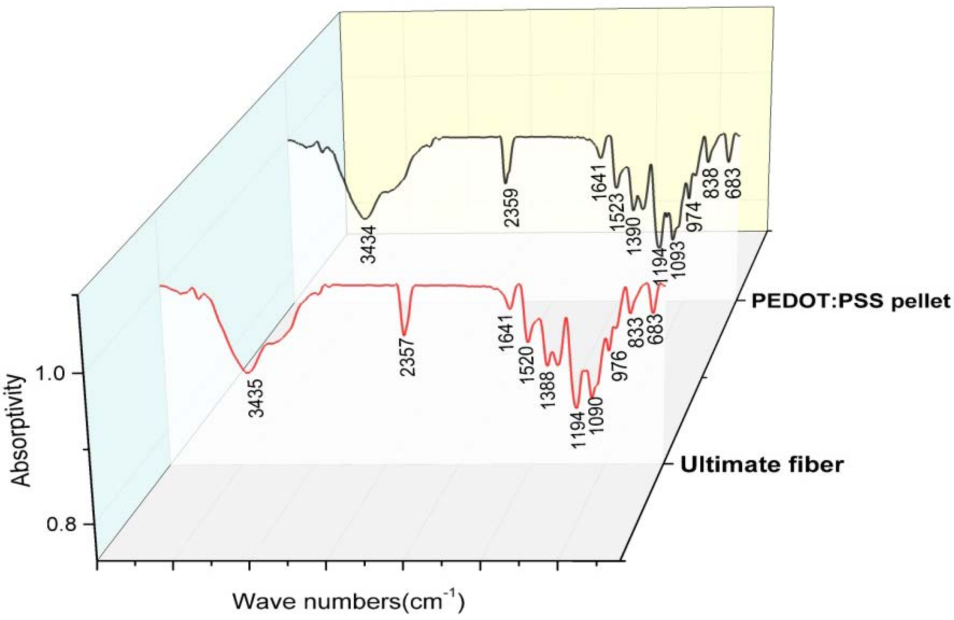

Figure S3. Spectroscopy of the PEDOT: PSS pellets and the finally obtained fibers.

For the spectra of the PEDOT: PSS pellet as shown in Fig. S3, it can be seen that the presence of PEDOT can be confirmed by absorption peaks. The characteristic peaks can be observed at 974, 838, 683 cm^{-1} (C-S bond vibration of the thiophene ring)[14,15] , 1194 ,1093 cm^{-1} (C-O-C stretching in ethylene oxide group)[14,15,16], 1523, 1390 cm^{-1} (C=C and C-C in the backbone of PEDOT) [14,15,16], and 1641 cm^{-1} (C-C stretching in the backbone of PSS) [16], respectively. The peak at 2359 cm^{-1} may come from the C-H stretching in PEDOT and PSS. Compared with the spectra of PEDOT: PSS pellets and PEDOT: PSS fibers, we can observe that there is not obviously different. Therefore, we think the material of the fibers is PEDOT: PSS.

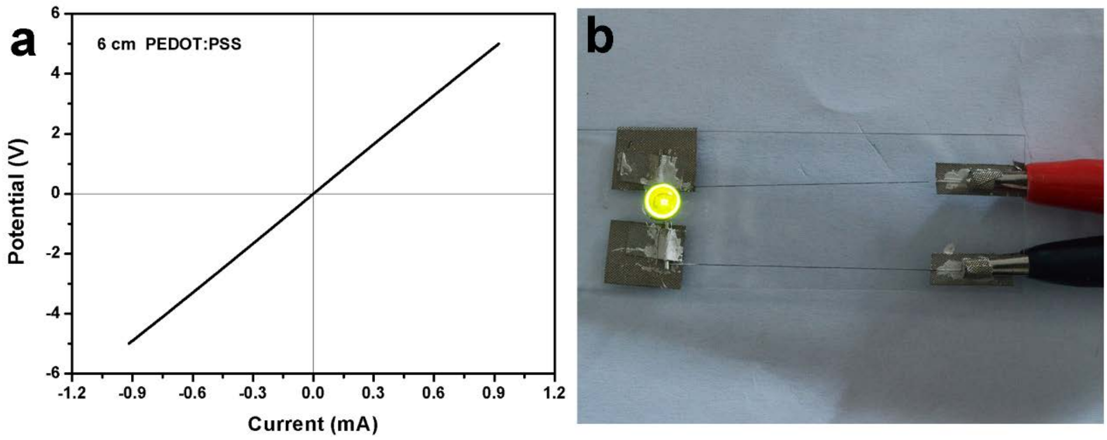

Figure S4 (a) Typical I-V curve of the single PEDOT: PSS fiber with the length of 6 cm. (b) LED lamp was lighted up by using the prepared PEDOT: PSS fiber as the conductive wire.

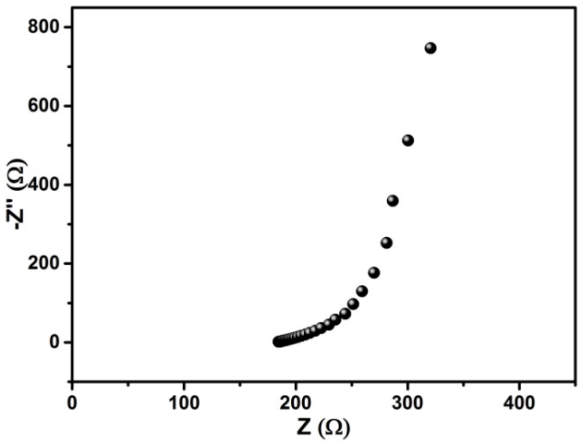

Figure S5. Nyquist plots of PEDOT: PSS YSCs

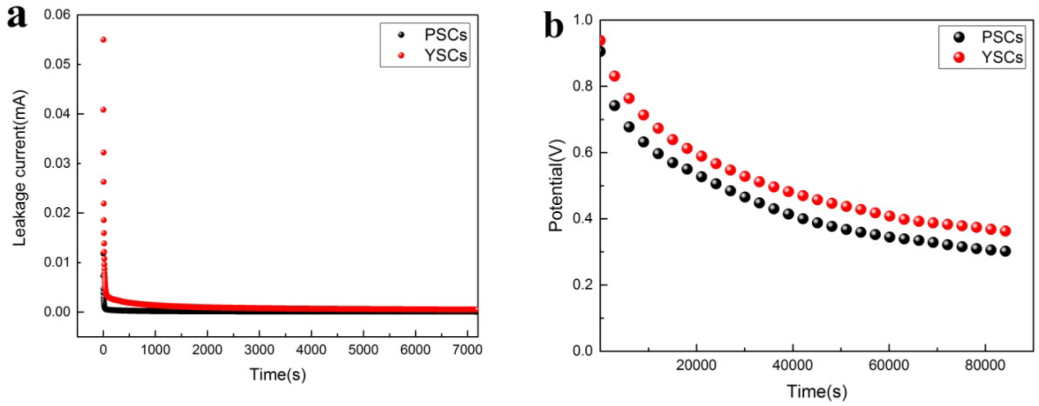

Figure S6. (a) Leakage current curves of the PSCs and YSCs charged at 2 μA to 1.0 V and kept at 1.0 V for 2 h. (b) For the self-discharge character, the open circuit voltage of the PSCs and YSCs vs. time

Table 1 | Comparison of our YSCs with the reported fiber-shaped SCs in terms of capacitance (C, areal capacitance (C_s), volume capacitance (C_V) and mass capacitance (C_M)), energy density (E), mass energy density (E_M),and Areal power density(Ps)							
Ref.	**Electrode materials**	**C**			**E**		
		C_s (mF cm^{-2})	**C_V (F cm^{-3})**	**C_M (F g^{-1})**	**E_s (μWh cm^{-2})**	**E_V (mWh cm^{-3})**	**E_M (mWh g^{-1})**
This Work	**PEDOT**	**119**	**23.8**	**35.3**	**4.13(Ps:12.5 μWcm^{-2})**	**0.83**	**1.23**
Ref [1]	**Graphene fiber**	**1.7**			**0.17**		
Ref [2]	**PEDOT coated MWNT/Pt**	**73**	**179**			**1.4**	
Ref[3]	**PEDOT/PSS yarn**			**10**			
Ref [4]	**rGO-MoS_2 yarn**		**30**				
Ref [5]	**Pen ink film**	**19.5**			**2.7**		
Ref[6]	**GO@CMC**	**177**	**158**		**3.84(Ps:20 μW cm^{-2})**	**0.18**	
Ref [7]	**ZnO nanowires/MnO_2 fiber**	**2.4**			**0.027**		
Ref [8]	**CNT fiber**		**15.59**			**0.629**	
Ref [9]	**CNT-RGO fiber**		**38.8**			**3.4**	
Ref [10]	**Graphene**	**3.3**	**3.77**				
Ref [10]	**GF-PANI**	**66.6**	**76.1**				
Ref[11]	**CNT and Ti fibres**	**0.6**			**0.15**		
Ref[12]	**PANI/stainless steel**	**41**			**0.95**		
Ref[13]	**Carbon/MnO2**		**2.5**			**0.22**	

CNT: carbon nanotube GO: graphene oxide

CMC: sodium carboxymethyl cellulose S/MWNT: single/multiwalled nanotube

PANI: polyaniline PEDOT: poly (3,4-ethylenedioxythiophene)

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