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Supplementary Material

Ultrathin Stretchable All-Fiber Electronic Skin for Highly Sensitive Self-Powered Human Motion Monitoring

Yapeng Shi [1,2], Tianyi Ding [3], Zhihao Yuan [1], Ruonan Li [1], Baocheng Wang [1,2], Zhiyi Wu [1,2,4,*]

[1] Beijing Institute of Nanoenergy and Nanosystems, Chinese Academy of Sciences, Beijing 101400, China; shiyapeng@binn.cas.cn (Y.S.); 1907301106@st.gxu.edu.cn (Z.Y.); liruonan0918@163.com (R.L.); wangbaocheng@binn.cas.cn (B.W.)
[2] School of Nanoscience and Technology, University of Chinese Academy of Sciences, Beijing 100049, China
[3] State Key Laboratory of Physical Chemistry of Solid Surfaces, iChEM, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen 361005, China; tyding@stu.xmu.edu.cn
[4] CUSTech Institute of Technology, Wenzhou 325024, China
* Correspondence: wuzhiyi@binn.cas.cn

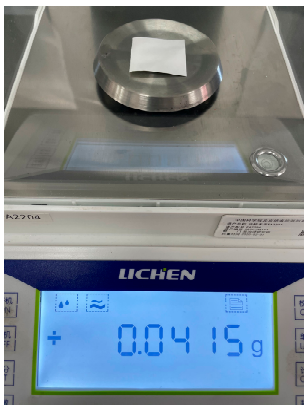

Figure S1. Photograph of the TE-skin with a total weight of 41.5 mg (3×3 cm^2).

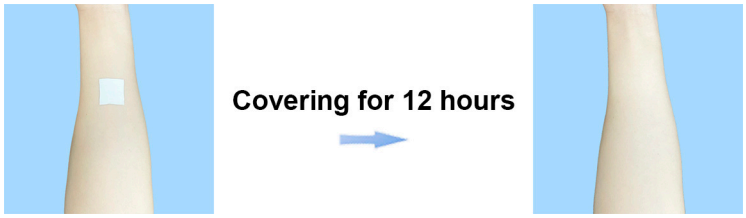

Figure S2. The biocompatibility test of the TE-skin.

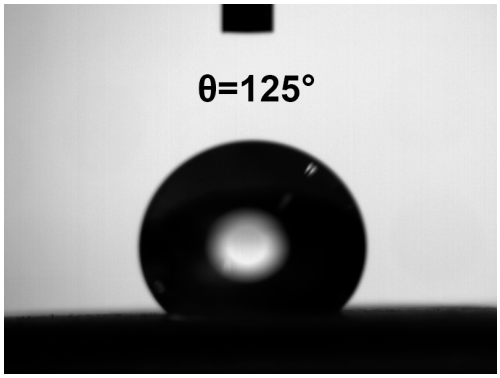

Figure S3. The contact angle of the TPU film.

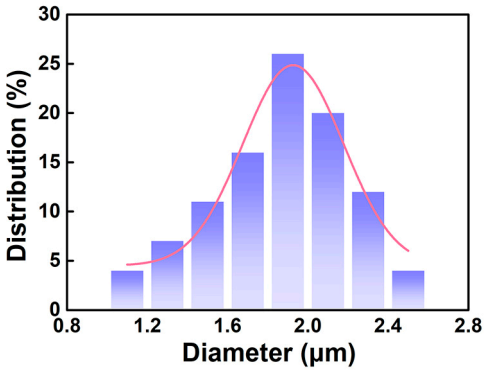

Figure S4. The diameter distribution of the TPU fibers.

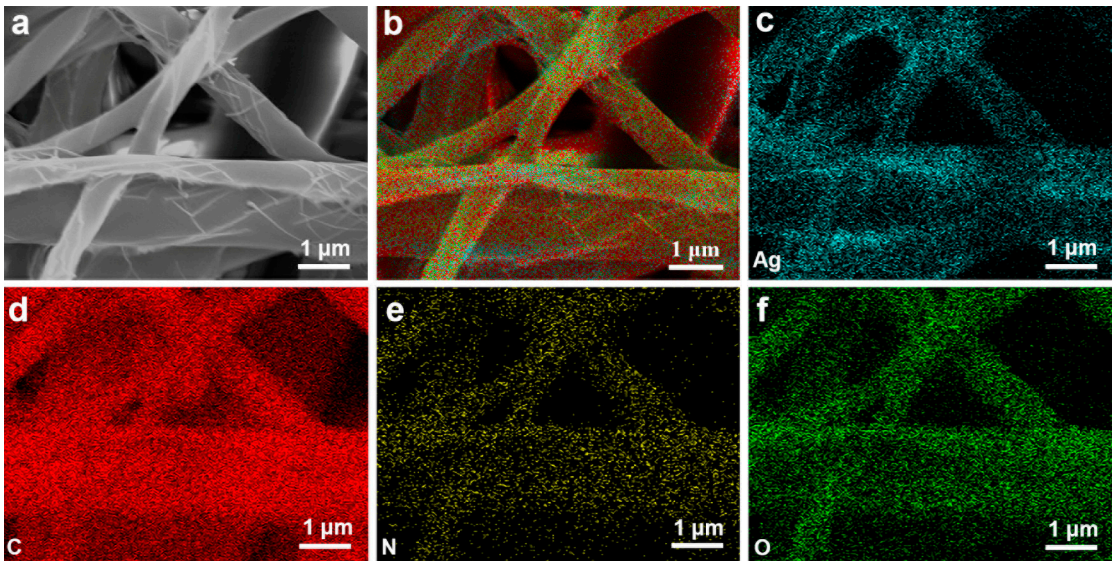

Figure S5. Energy dispersive spectrometer (EDS) analysis of Ag NW deposited on the TPU fibers. (**a**) SEM image. (**b**) element overlay. (**c**) Ag element mapping. (**d**) C element mapping. (**e**) N element mapping. (**f**) O element mapping.

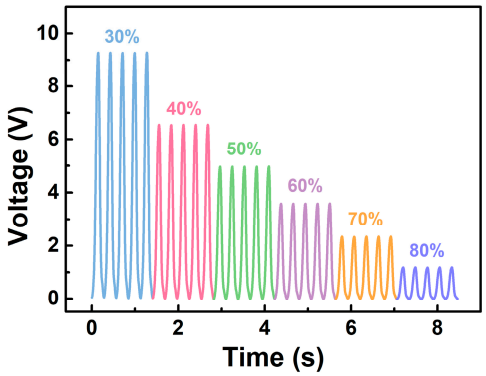

Figure S6. The open-circuit voltage of the TE-skin under different relative humidity.

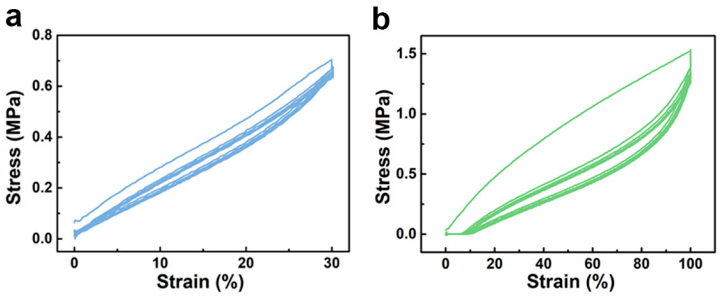

Figure S7. The **successive** loading-unloading stress-strain of the TE-skin stretched to the strains of (**a**) 30% and (**b**) 100% for 5 cycles.

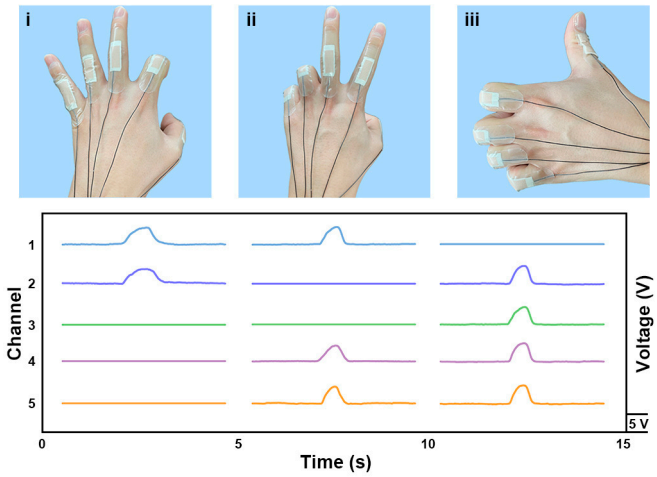

Figure S8. Different hand gestures of (**i**) the "ok" sign (**ii**) the "victory" sign and (**iii**) the "good" sign with the corresponding electrical signals.

Table S1. Comparison of the power output with some previous works.

Materials	Power Output (mW m^{-2})	Reference
Silk Protein /CNT	6	[1]
TPU/Ag NW@rGO	6	[2]
PDMS/Ag NW/TPU	6.1	[3]
PVA-PVDF/Cu/FEP	21.15	[4]
TPU/Ag NW	28.8	This work

References

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