nanomaterials

Supplementary materials

Flexible Piezoresistive Pressure Sensor Based on Electrospun Rough Polyurethane Nanofibers Film for Human Motion Monitoring

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Figure S1. The photograph of the electrospinning unit.

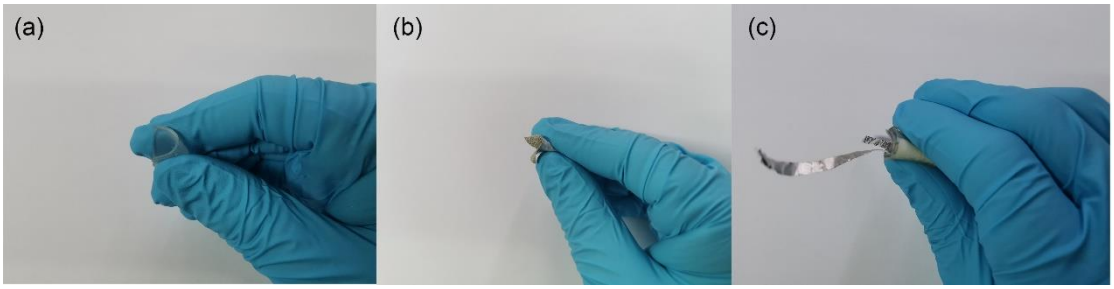

Figure S2. Photographs of (**a**) PDMS, (**b**) PU/Ag film, and (**c**) the fabricated piezoresistive pressure sensor at a bending state.

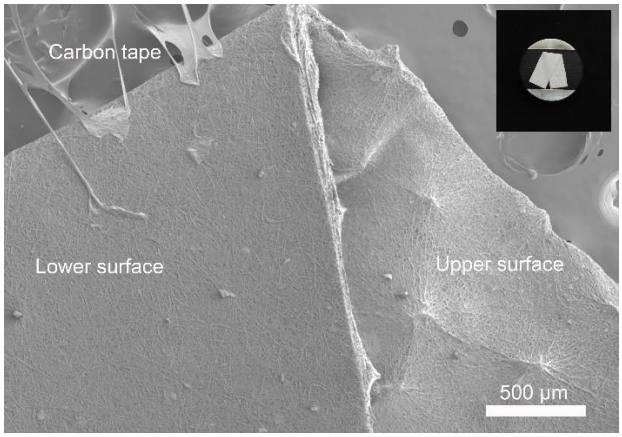

Figure S3. An SEM image of the electrospun PU nanofibers film. The inset is a photograph of the film fixed on the sample holder with carbon tape.

Figure S4. A photograph of the electrospun PU nanofibers film.

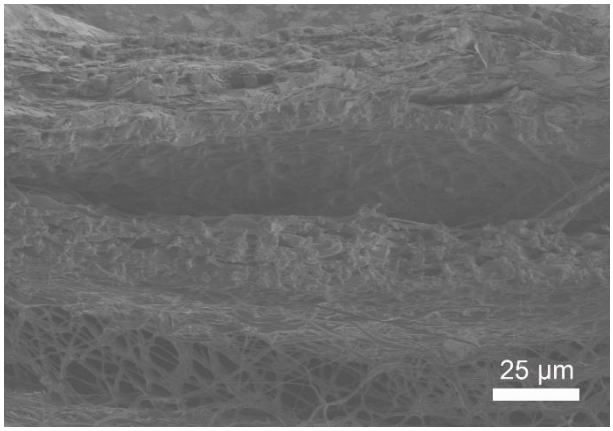

Figure S5. A high magnification cross-section SEM image of PU/Ag film.

Table S1. A comparison of other types of sensors reported recently with the proposed sensor.

Active material	Sensing mechanism	Maximum sensitivity	Stability	Ref.
PI-MWCNTs/microstructured PDMS	Capacitance	1.3 kPa^{-1}	> 4000 cycles	[34]
PDMS/PVDF $BaTiO_3$ filler	Capacitance	4.9 kPa^{-1}	5000 cycles	[35]
PDMS	Capacitance	44.5 kPa^{-1}	5000 cycles	[36]
ITO coated PET/porous PDMS	Capacitance	0.095 kPa^{-1}	N/A	[37]
porous PDMS/CNT film	Capacitance	2.51 kPa^{-1}	5000 cycles	[38]
BCZT/PDMS	Piezoelectric	~0.55 V kPa^{-1}	2×10^6 cycles	[39]
Hierarchical ZnO NRs/PVDF	Piezoelectric	11.07 mV kPa^{-1}	3600 cycles	[40]
ZnO@C/PVDF	Piezoelectric	0.98 V kPa^{-1}	4000 cycles	[41]
MXene/PVDF hybrid film	Piezoelectric	0.0480 V N^{-1}	N/A	[42]
PDA@BTO/PVDF	Piezoelectric	0.38 V N^{-1}	6834 cycles	[43]
Microstructured PU/Ag film	Piezoresistive	10.53 kPa^{-1}	10000 cycles	This work

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