

Dual-Mode Textile Sensor Based on PEDOT:PSS/SWCNTs Composites for Pressure–Temperature Detection

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Sensing material	Pressure Sensitivity (kPa ⁻¹)	Pressure Response Time (ms)	Seebeck Coefficient (μV/K)	Temperature Response Time (s)	Ref
PEDOT:PSS@MS	0.411	42	9.42	1.2	[49]
PEDOT:PSS/CNT@ Melamine	-3.35%	134	35.9	>5	[50]
PEDOT:PSS/Spacer fabric	0.058	<80	25	<2	[51]
PEDOT:PSS/Ti ₃ C ₂ T _x	3.05	157	22.7	>10	[52]
PEDOT:PSS/SWCN Ts/CS@PET Textile	32.4	21	25	0.65	Our work

Table S1. The comparison of sensing performance with other sensors.

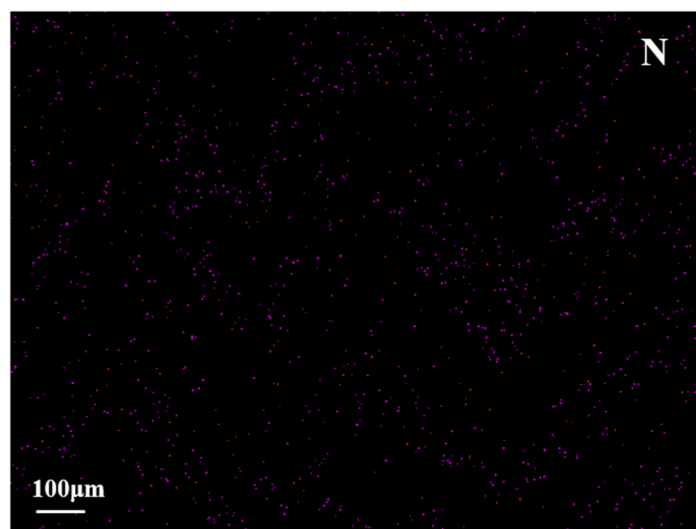


Figure S1. EDS mapping images of N element.

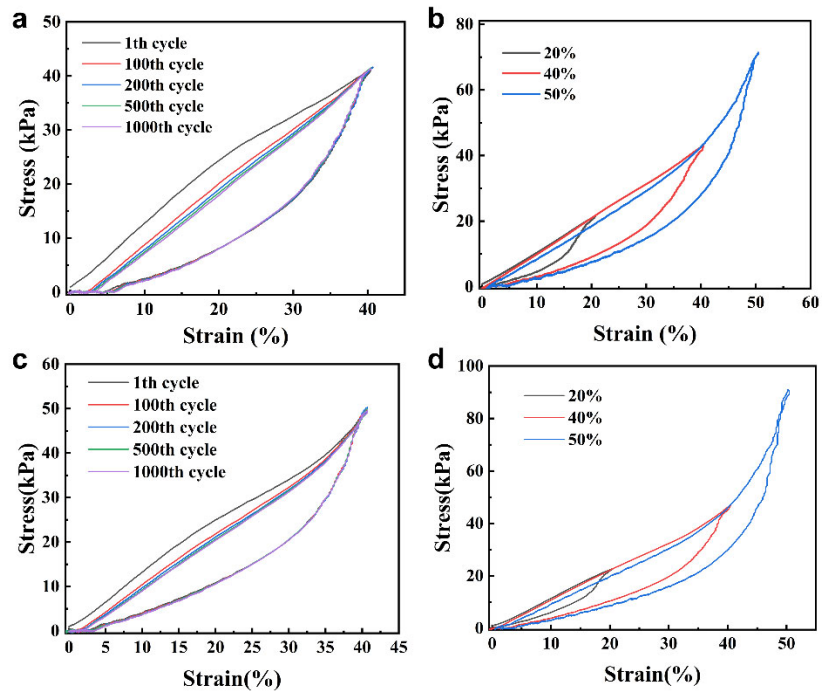


Figure S2. The compressive stress-strain curves of PET textile and PSCP sensor. (a) Compressive stress-strain curves for PET textile at different strains (20, 40 and 50%). (b) Compressive stress-strain curves for PET textile at 40% strain for 1000 cycles. (c) Compressive stress-strain curves for PSCP sensor at different strains (20, 40 and 50%). (d) Compressive stress-strain curves for PSCP sensor at 40% strain for 1000 cycles.

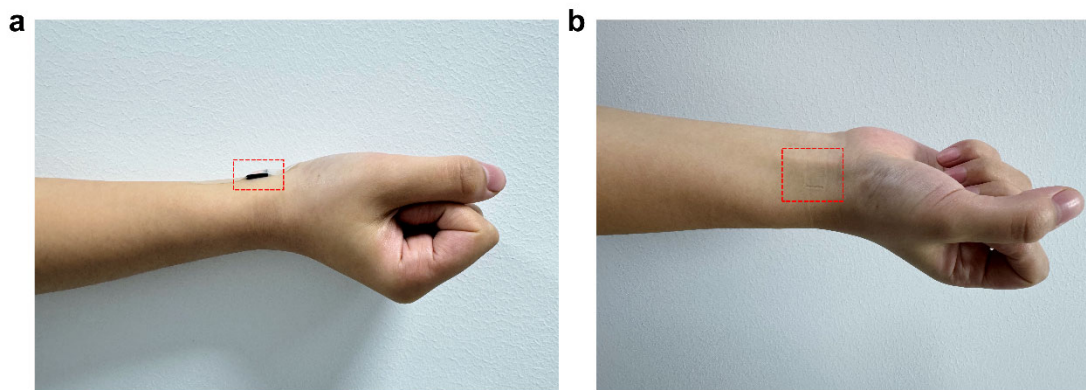


Figure S3. (a) Physical diagram of the PSCP sensor fitting to the wrist. (b) Image of the skin on the surface of the wrist after five hours of wearing the PSCP sensor.