

Supporting Information

From Cotton to Wearable Pressure Sensor

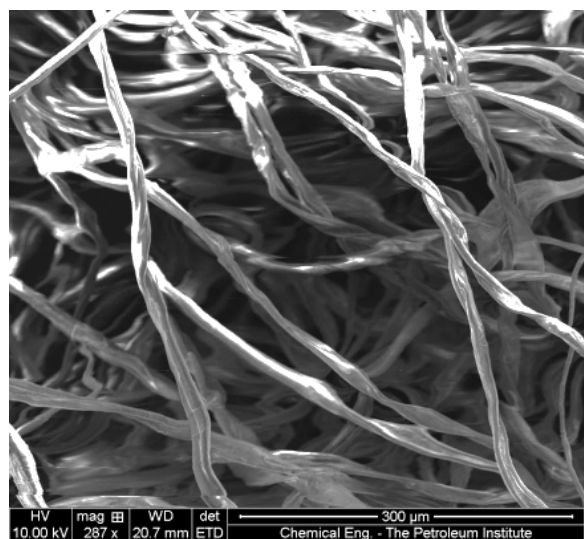
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Table S1. Electrical conductivities of CCs and CC composites.

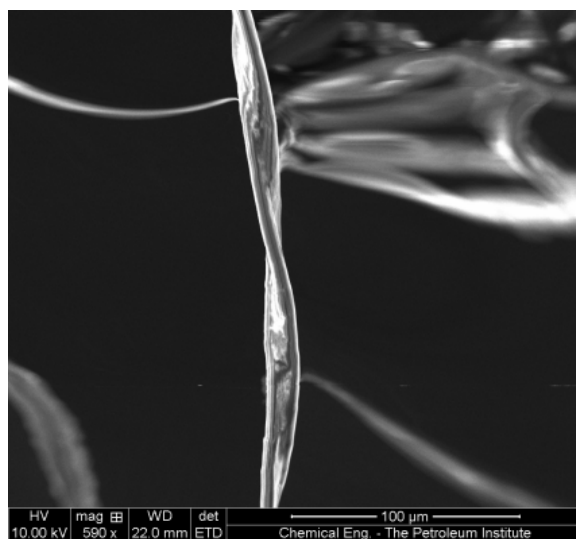
Electrical conductivity	CC	HCC	PDMS	CC/PDMS	HCC/PDMS
Average (S/m)	11.17	35.10	1.18×10^{-11}	0.36	1.74
SD (S/m)	2.43	3.21	4.87×10^{-12}	0.14	0.11

Table S2. Compression stress at 20% strain and modulus of PDMS and CC/PDMS composite.

Samples	Compression stress at 20% strain (MPa)		Modulus (MPa)	
	Average	SD	Average	SD
PDMS	0.558	0.031	3.15	0.15
CC/PDMS	0.705	0.083	4.35	0.53



(A)



(B)

Figure S1. SEM images of raw cotton (A) and (B).



Figure S2. Photograph shows the low resistance of CC (158.6Ω).

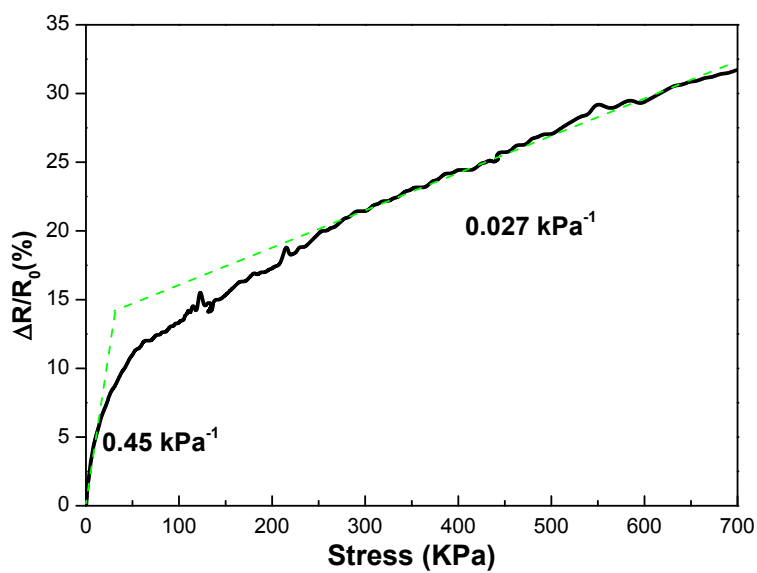
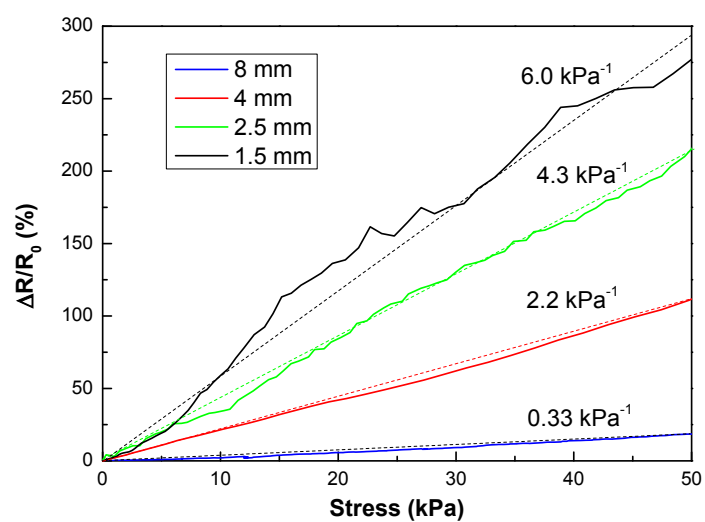


Figure S3. The RCR response of HCC/PDMS composite sensor (3 mm) under compression.



(B)

Figure S4. The effect of thickness on the sensitivity of CC/PDMS composite sensor.

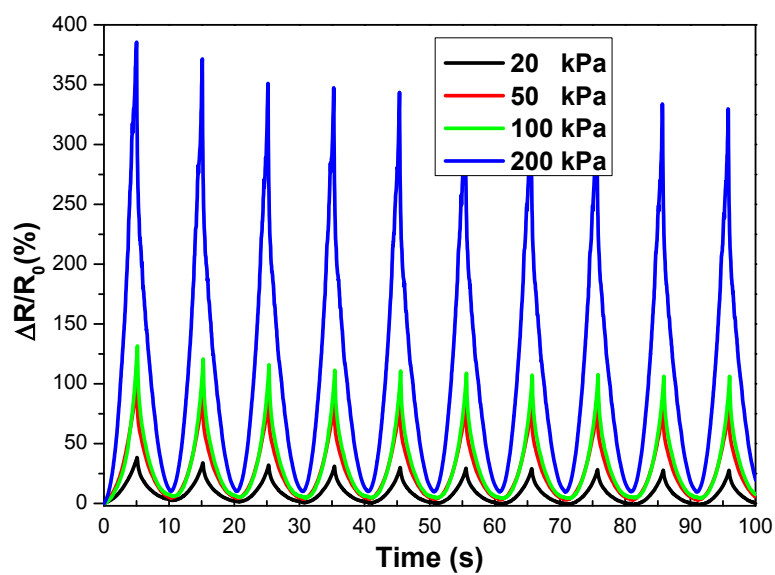


Figure S5. Response of CC/PDMS sensor under repeated compression-relaxation cycles with various maximum pressures: 20, 50, 100, and 200 kPa.