Supporting Information

Human Skin-Inspired Staggered Microstructures for Optimizing Sensitivity of Flexible Pressure Sensor

*Kechen Li and Yuanyuan Yang **

School of Aerospace Engineering, Xiamen University, Xiamen 361000, China

*E-mail: yangyuanyuan@xmu.edu.cn

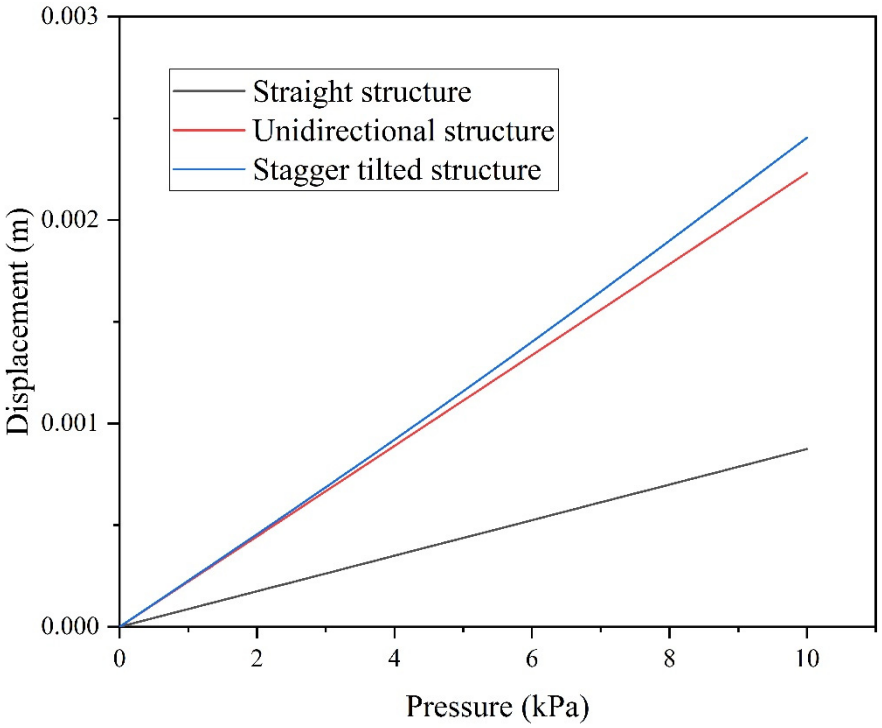

Figure S1. Change curve of the maximum electrode plate displacement under different pressures.

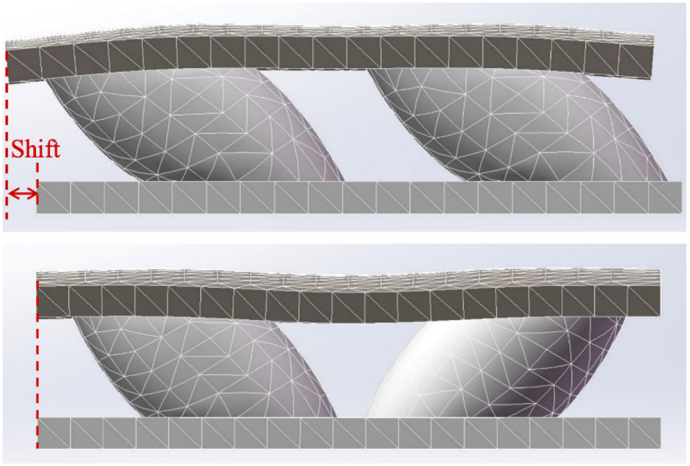

Figure S2. Unidirectional microstructure could cause shift of sensor surface according to the simulation results.

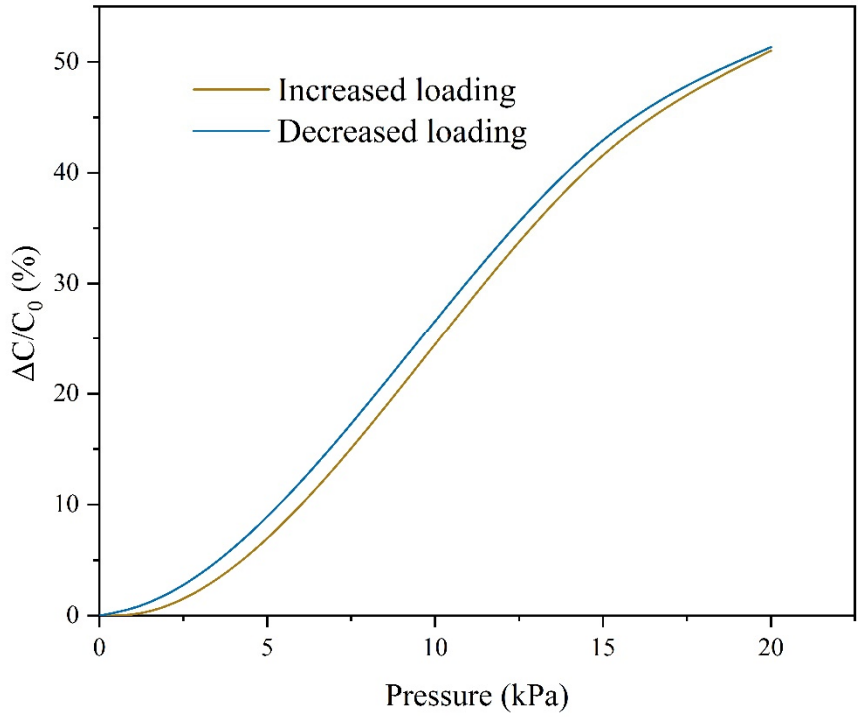

Figure S3. The hysteresis characteristic curve of the sensor.

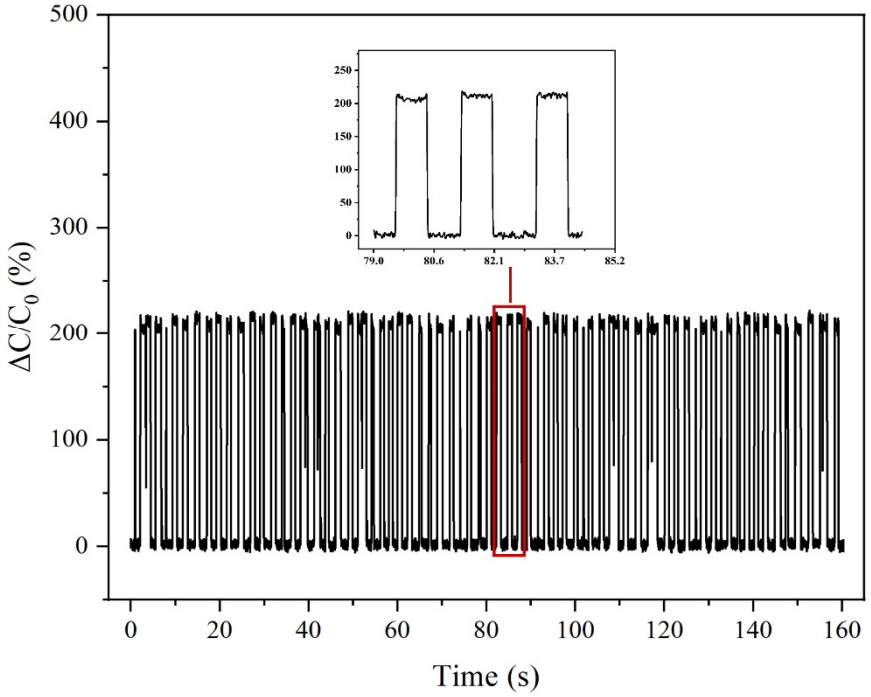

Figure S4. The durability test curve of the sensor.

Table S1. Comparison of sensor properties.

Ref.	Mechanism.	Materials.	Structure.	Response time.	Sensitivity.
[1]	Piezoresistive	PDMS/MWCNTs	Microporous	203 ms	0.0179 kPa^{-1}
[2]	Piezoresistive	PVA/glycerol/ PGA	-	230 ms	GF = 2.14
[3]	Piezoresistive	CNT/GNP/PDMS	Two-dimensional	620 ms	GF = 18.49
[4]	Piezoresistive	Graphene/MXene-PDMS	Porous skeleton	110 ms	0.053 kPa^{-1}
[5]	Capacitive	PDMS	Slant pyramid	-	0.0281 kPa^{-1}
[6]	Capacitive	PDMS	Micro dome	225 ms	0.0044 kPa^{-1}
[7]	Piezoresistive	GNP/SR/AgNF	Interlocked truncated sawtooth	200 ms	0.45 V N^{-1}
[8]	Piezoresistive	Graphene/Silver composites	Interlaced bump	~350 ms	0.034 kPa^{-1}
Our work	Capacitive	PDMS	Staggered slant cylinder	~0.2-0.3s	0.071 kPa^{-1}

Reference

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