

## **Electronic Supplementary Information**

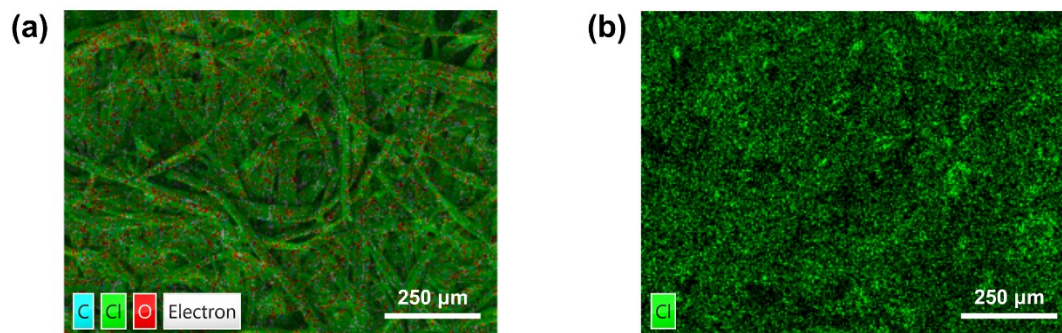
### **Facilely fabricated electrochemical self-powered pressure sensor for multifunctional applications**

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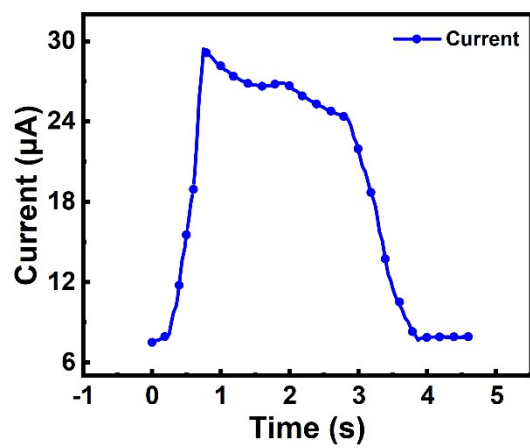
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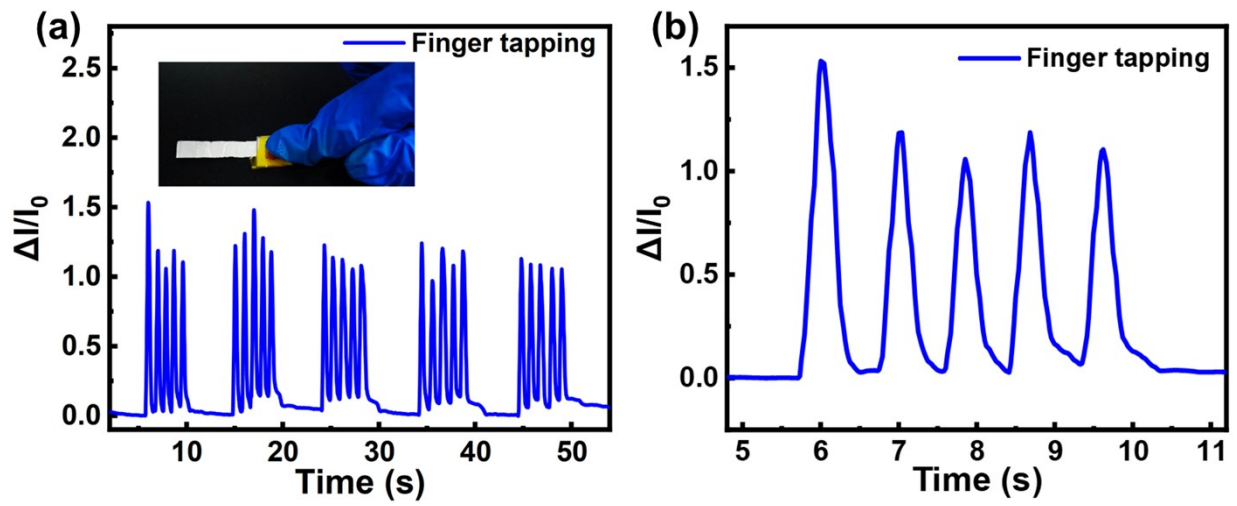
E-mail: zaihuaduan@uestc.edu.cn, taitai1980@uestc.edu.cn



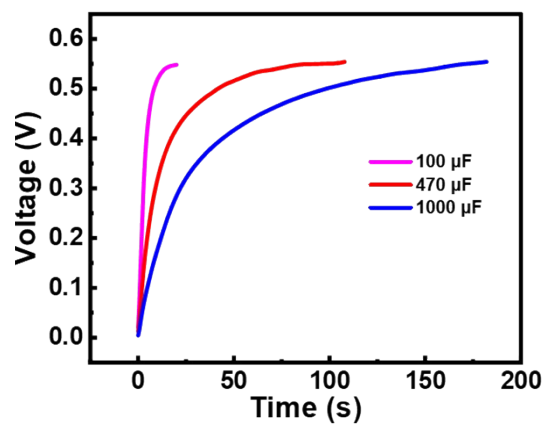
**Fig. S1** (a) EDS mappings of the LiCl paper. (b) Cl element distribution.



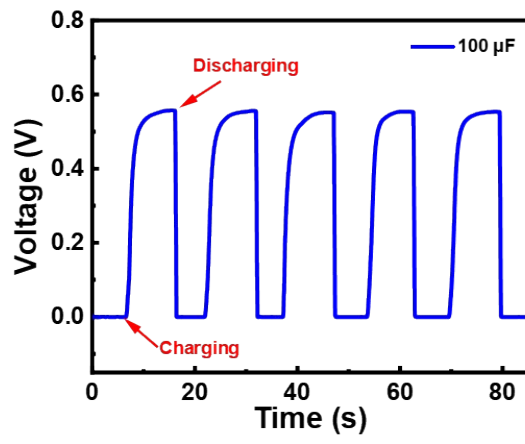
**Fig. S2** Current response and recovery curve of the sensor under 30 kPa and 0 kPa.



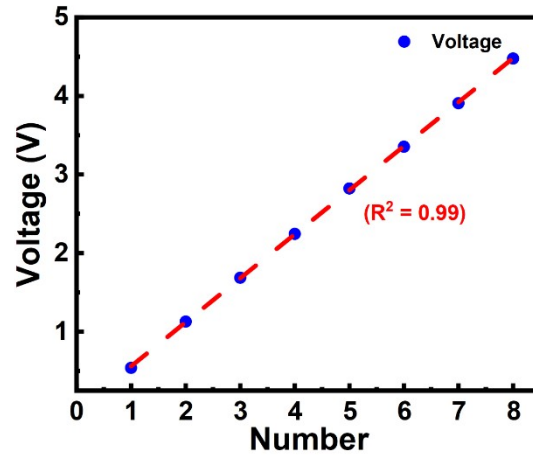
**Fig. S3** (a) Response curve of the sensor under rapid continuous finger pressing. (b) Magnified view of (a).



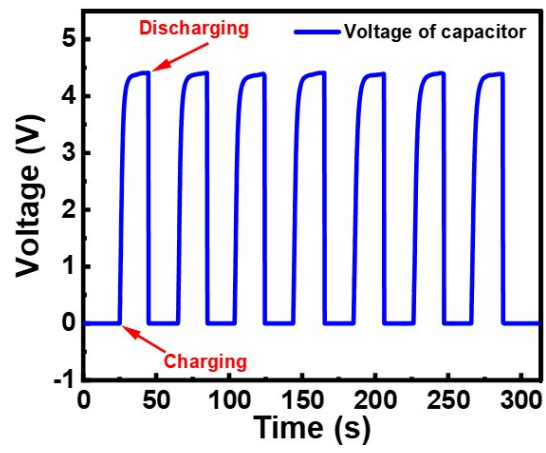
**Fig. S4** Voltage curves of different capacitors charged by a sensor (0 kPa).



**Fig. S5** Repeated voltage curve of a capacitor charged by a sensor (0 kPa).

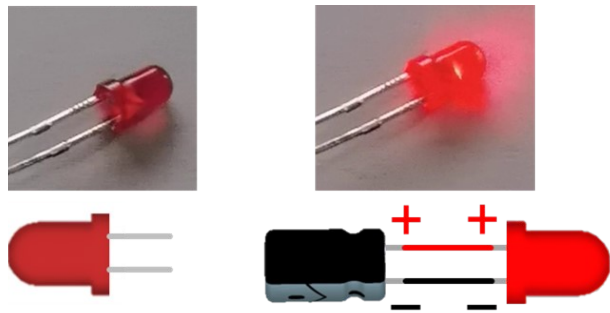


**Fig. S6** Output voltage values of different numbers of sensors connected in series (0 kPa).

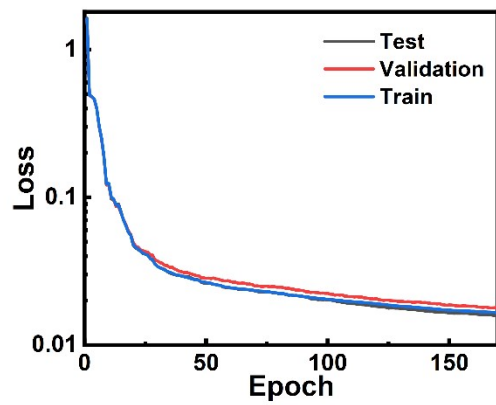


**Fig. S7** Repetitive voltage curve of a capacitor charged by eight sensors connected in series (0 kPa).





**Fig. S8** Photographs of the lighting LED with a charged capacitor.



**Fig. S9** Loss changes of machine learning model during training.