

## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: Mechanical property of carbon/silicone gel electrode.

File Name: Supplementary Movie 2

Description: Demonstration of charge curve without zener diode for CE-TENG.

File Name: Supplementary Movie 3

Description: Demonstration of charge curve with zener diode for CE-TENG.

File Name: Supplementary Movie 4

Description: Demonstration of lighting green LEDS for CE-TENG.

File Name: Supplementary Movie 5

Description: Demonstration of charging 2.2 $\mu$ F capacitor for CE-TENG.

File Name: Supplementary Movie 6

Description: Demonstration of powering thermos-hygrometer for CE-TENG.