

# Supporting Information

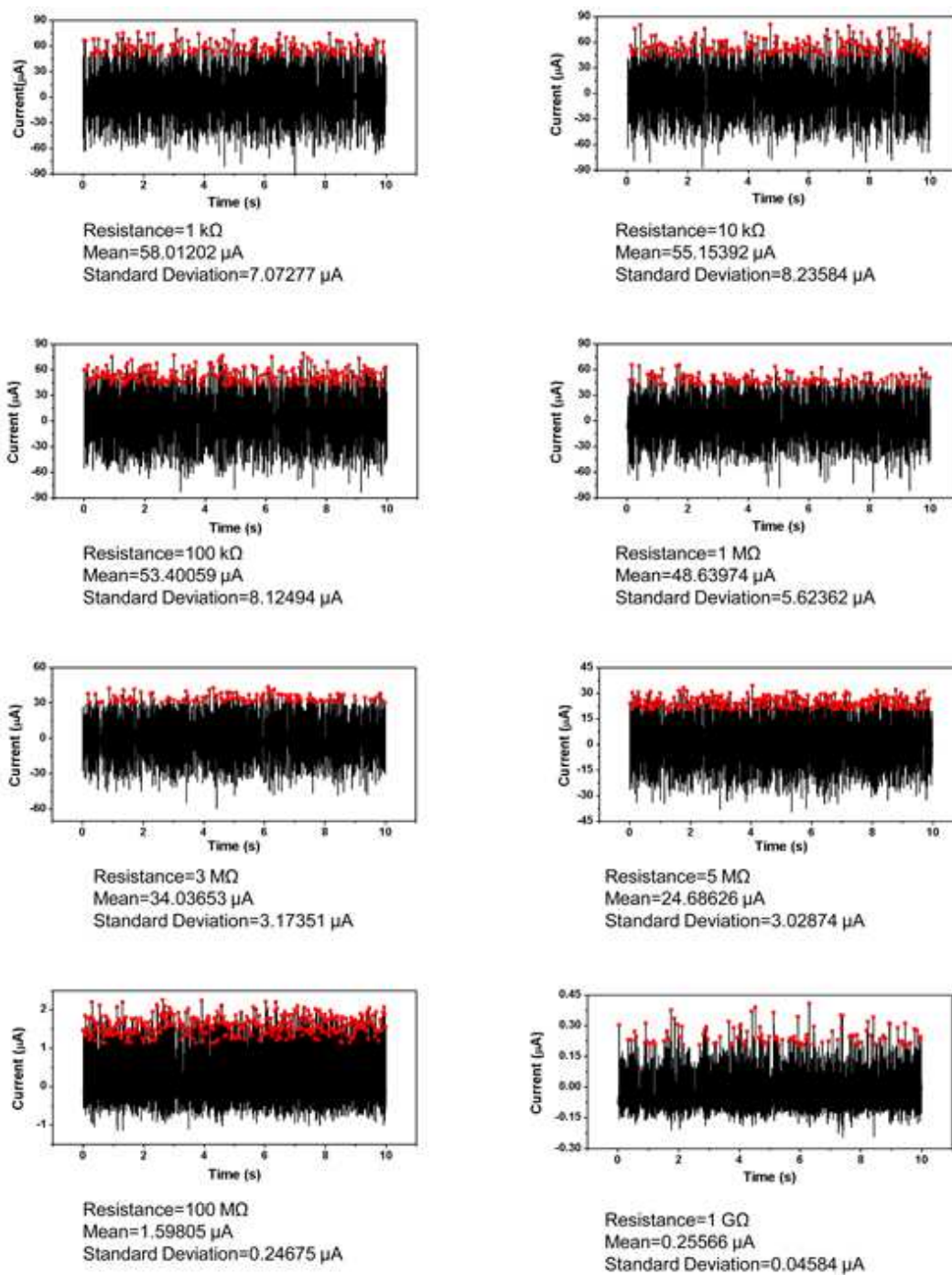
## Hybridized Electromagnetic-Triboelectric Nanogenerator for Scavenging Air-Flow Energy to Sustainably Power Temperature Sensors

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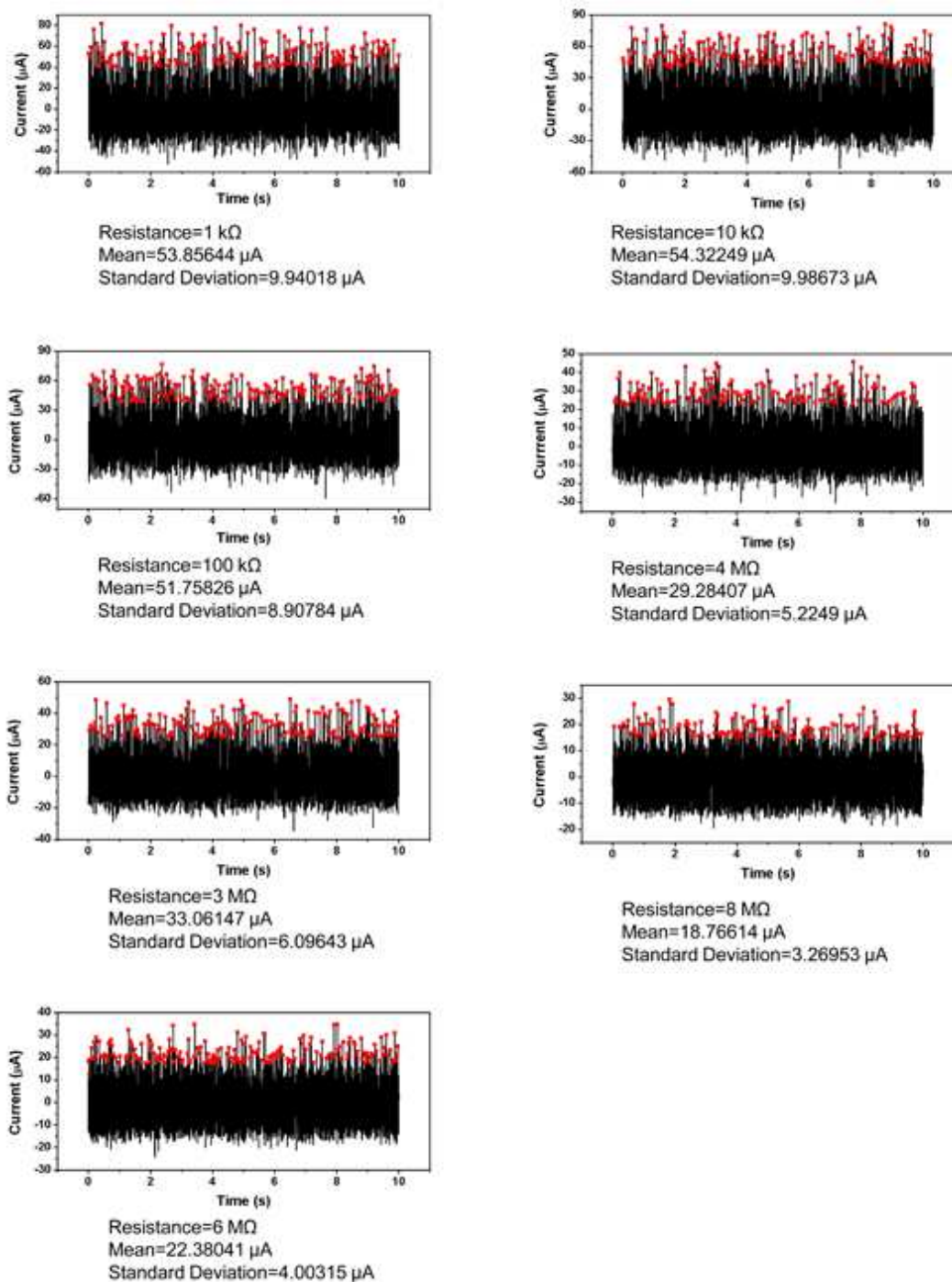
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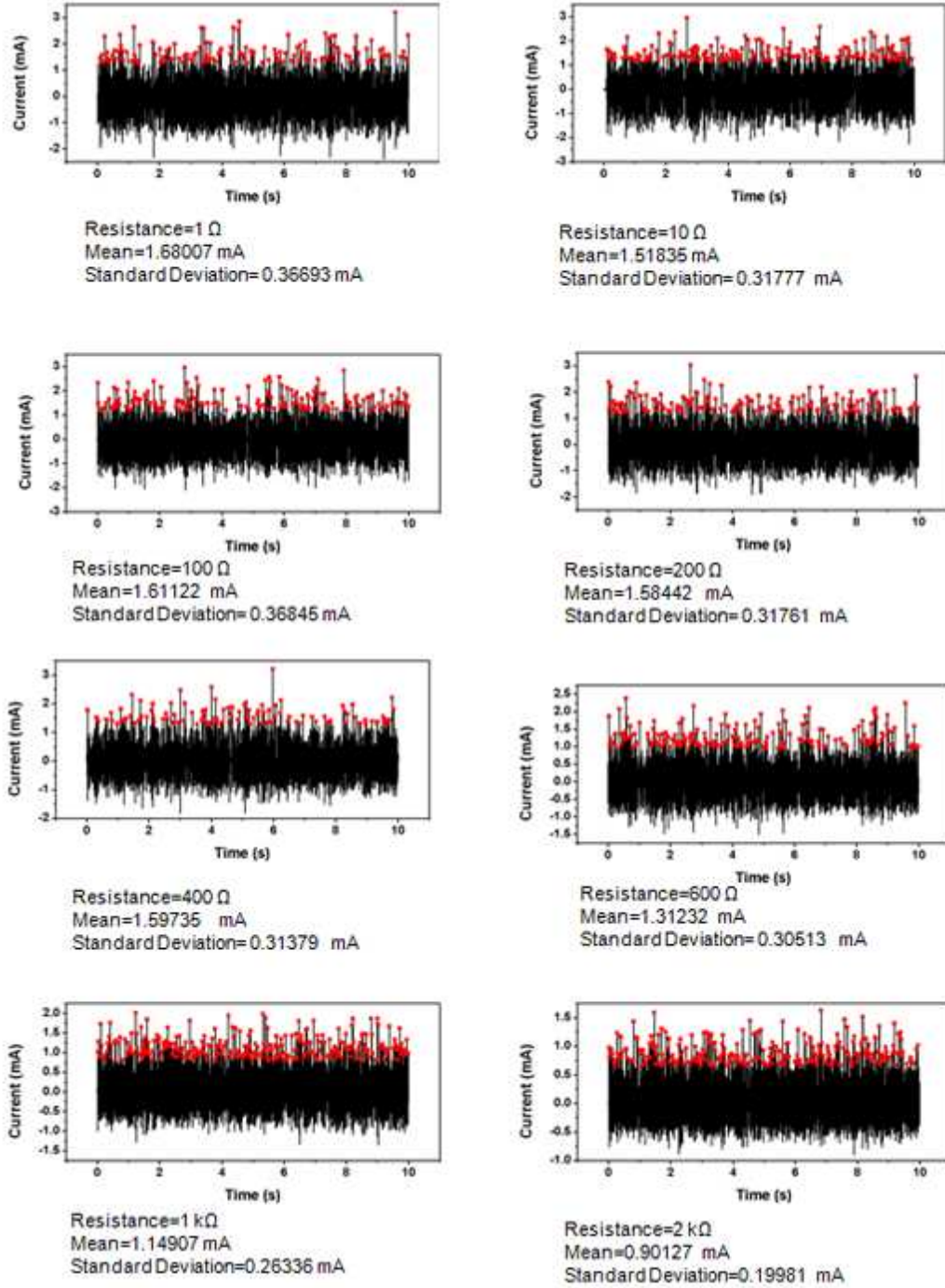
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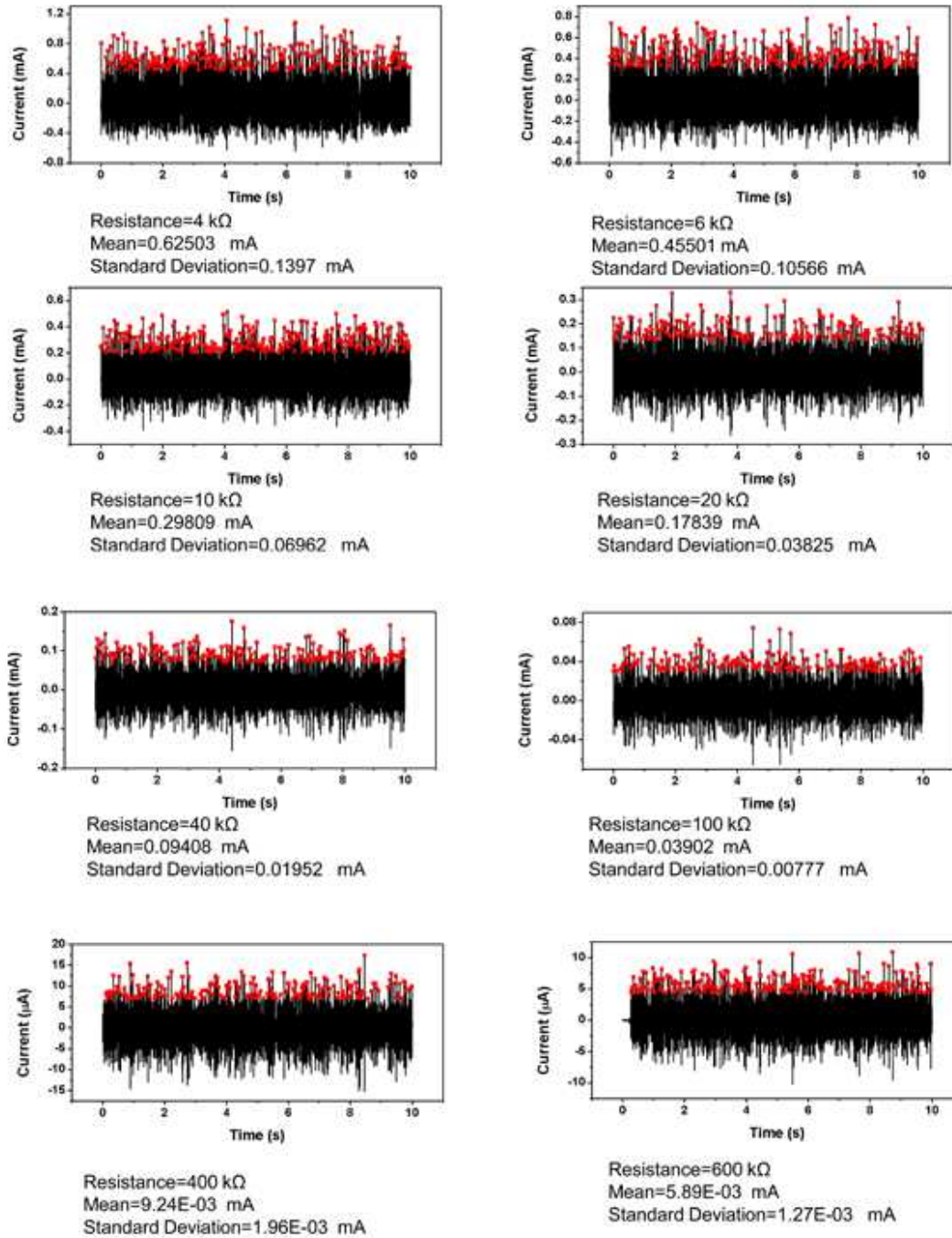
**Figure S1** Original data of TENG 1 under the different loading resistances.



**Figure S2** Original data of TENG 2 under the different loading resistances.

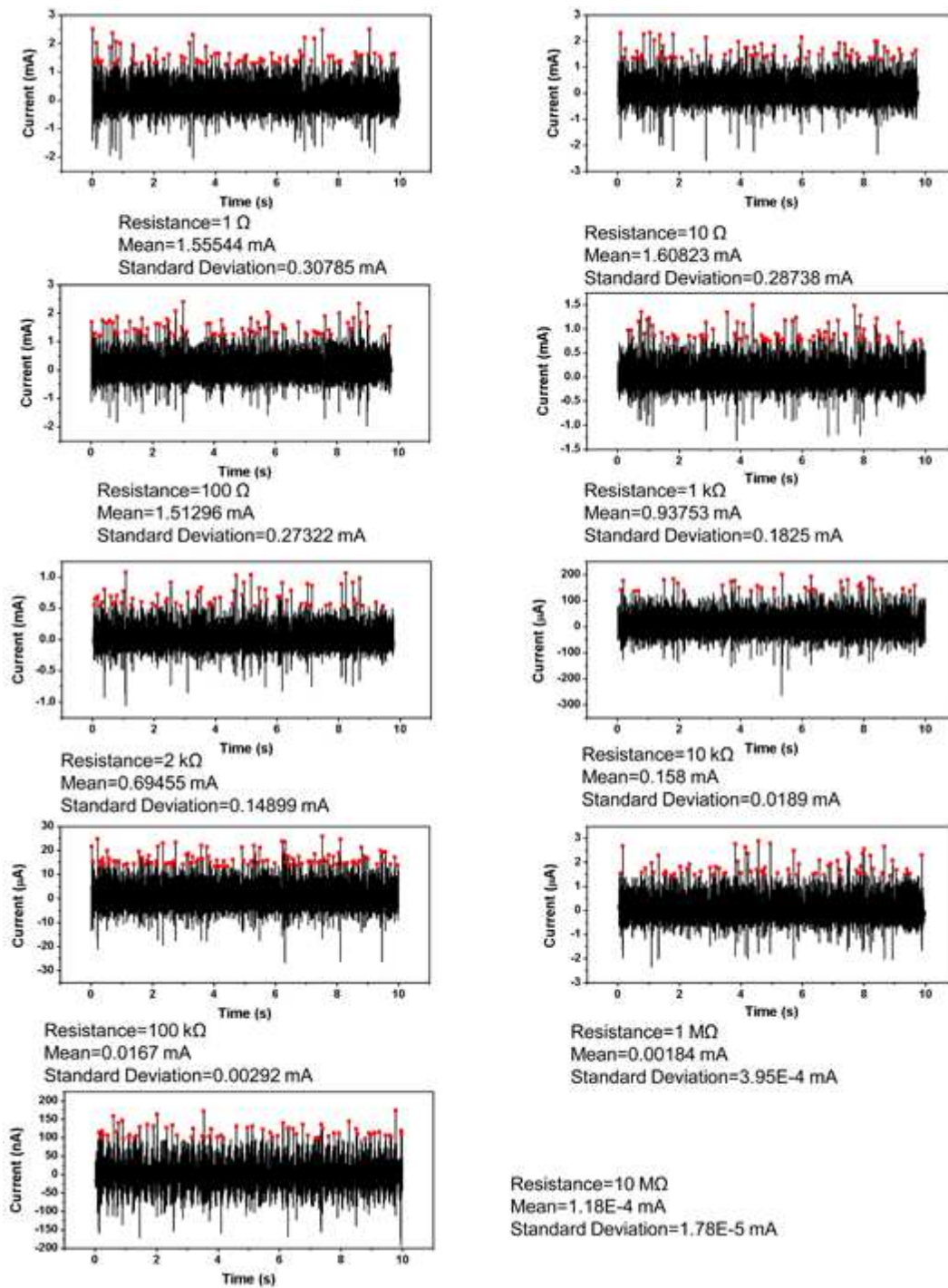


**Figure S3** Original data of TENG 1 after using a transformer under the different loading resistances.

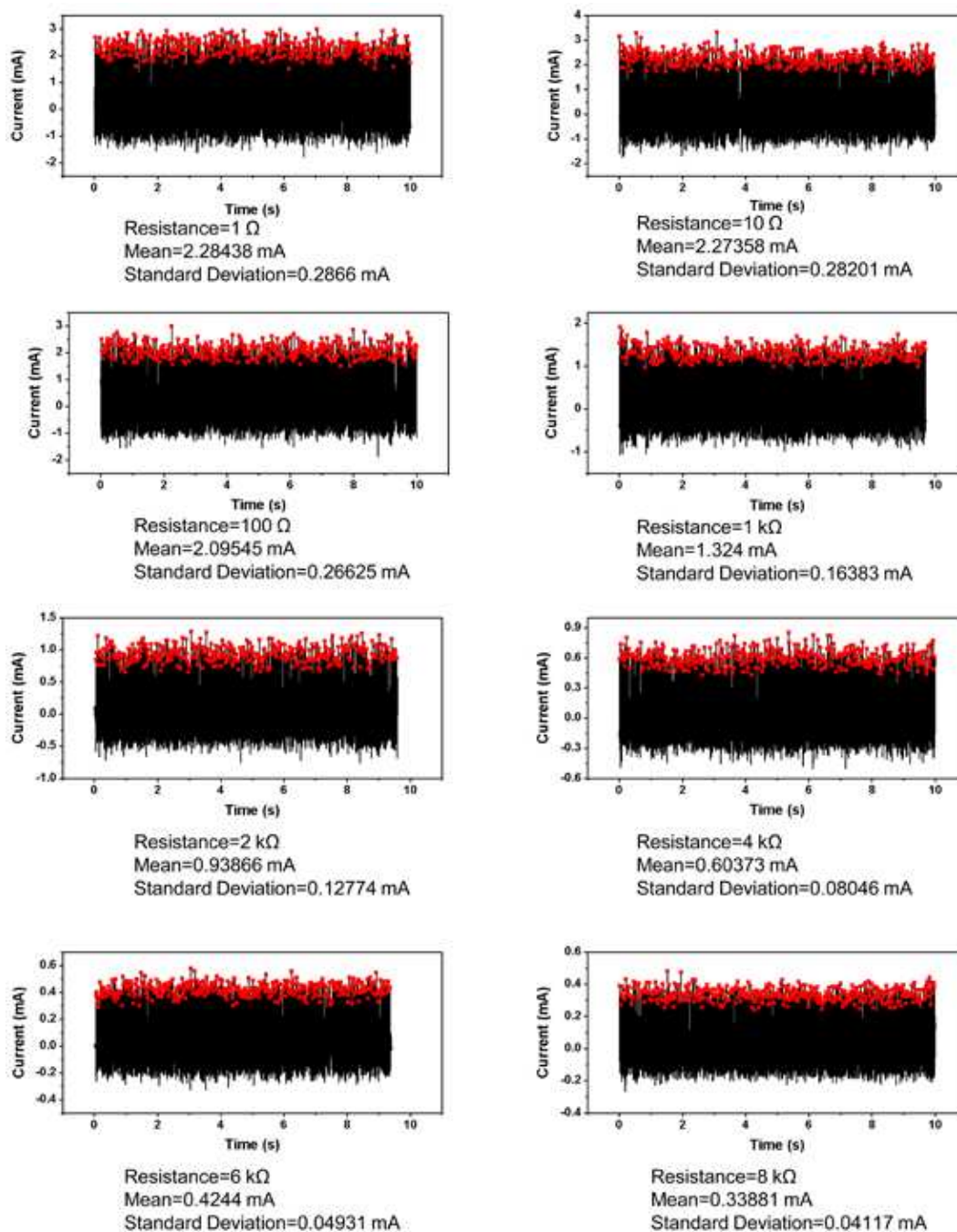


**Figure S4** Original data of TENG 1 after using a transformer under the different loading resistances.





**Figure S5** Original data of EMG 1 under the different loading resistances.



**Figure S6** Original data of EMG 2 under the different loading resistances.



**Figure S7** Photograph of a fabricated self-powered temperature sensor system.



# Movie files

**Movie file-1.** Air-flow driven vibration behavior of the kapton film.

**Movie file-2.** The hybridized nanogenerator driven LEDs.

**Movie file-3.** The hybridized nanogenerator driven LEDs for providing the illumination for reading printed text.

**Movie file-4.** The hybridized nanogenerator driven capacitor for sustainably powering temperature sensors.

**Movie file-5.** The human mouth blowing induced air-flow to drive the hybridized nanogenerator for powering a temperature sensor.

**Movie file-6.** Self-powered temperature sensor system that is based on the human mouth blowing induced air-flow to drive the hybridized nanogenerator.