

Supplementary Materials

A Robust Silicone Rubber Strip-Based Triboelectric Nanogenerator for Vibration Energy Harvesting and Multi-Functional Self-Powered Sensing

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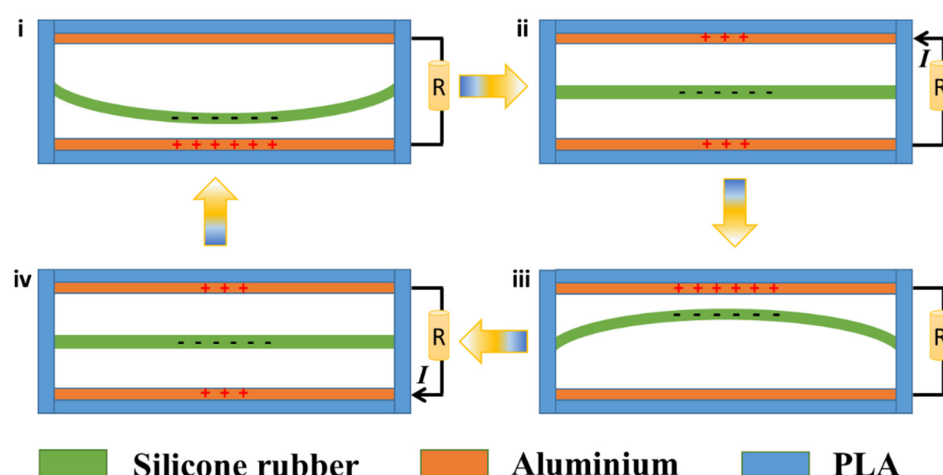


Figure S1. The working mechanism of the N-C model.

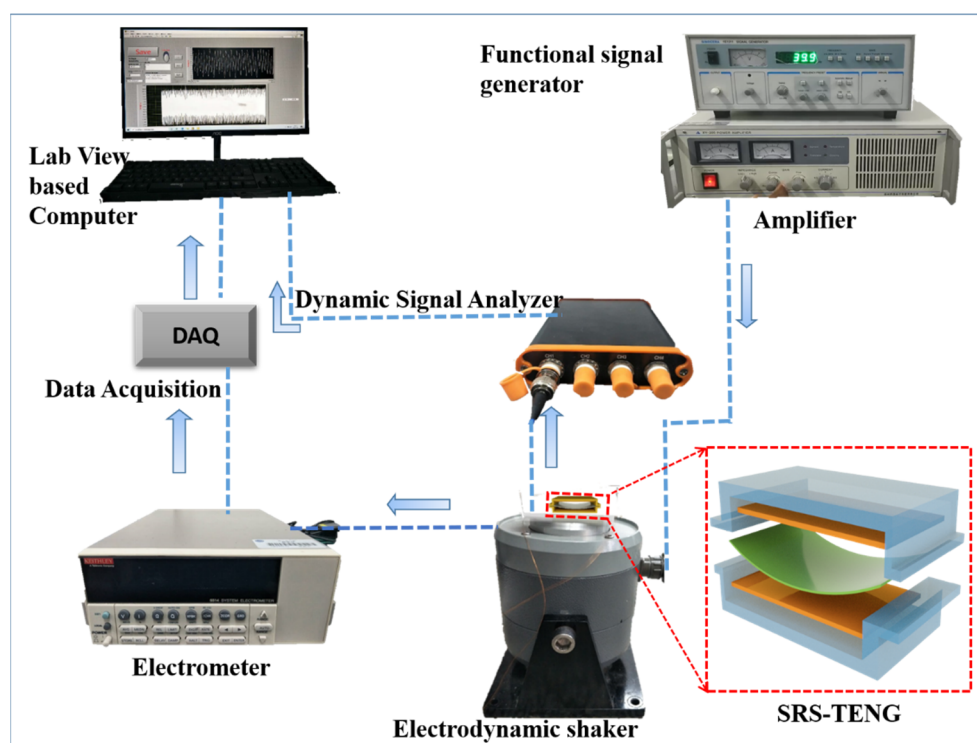


Figure S2. Testing system for SRS-TENG.

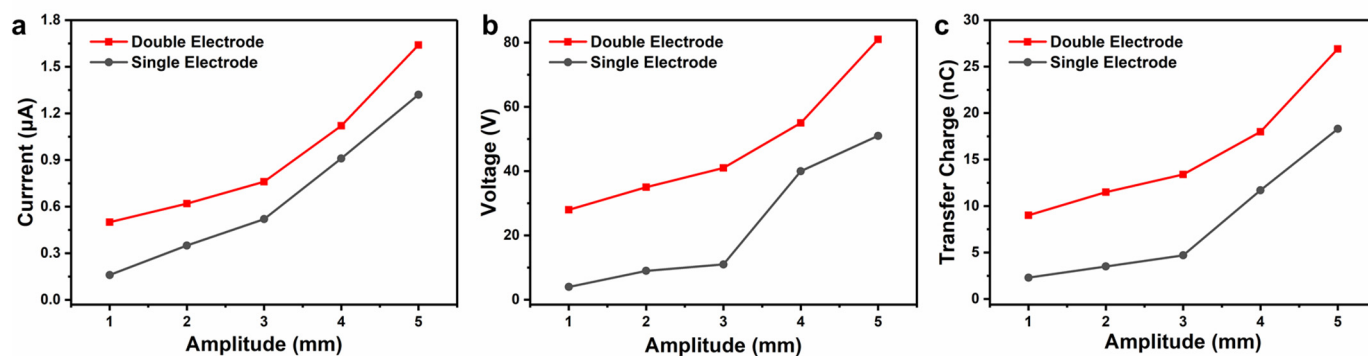


Figure S3. (a) Current, (b) voltage; (c) transfer charge performance comparison between the SRS-TENGs working at double electrode and single electrode mode.

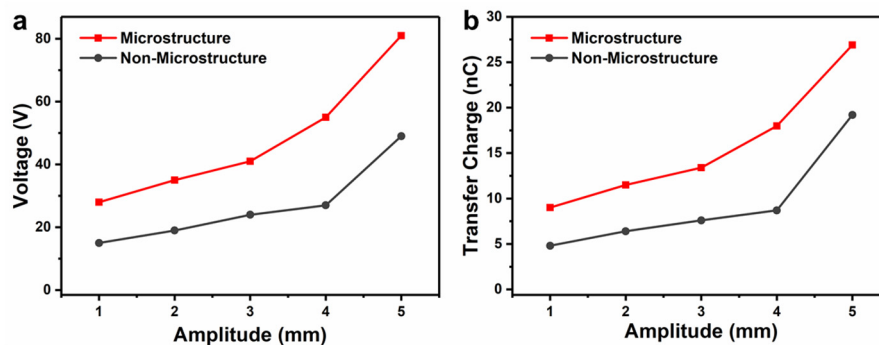


Figure S4. (a) Voltage and (b) transfer charge performance comparison between the SRS-TENGs with or without surface treatment of the strip.

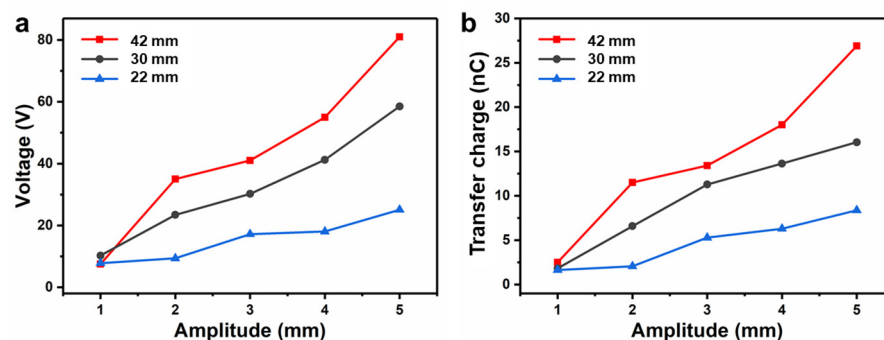


Figure S5. (a) Voltage and (b) transfer charge performance comparison among the SRS-TENGs with different widths of 22, 30 and 42 mm.

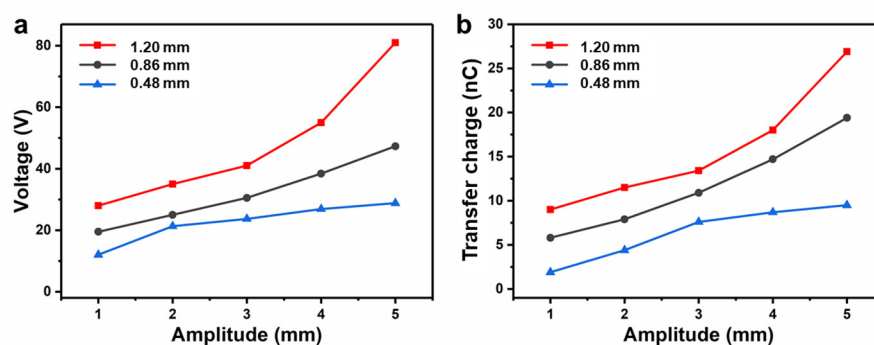


Figure S6. (a) Voltage and (b) transfer charge performance comparison among the SRS-TENGs with different thicknesses of 0.48, 0.86 and 1.2 mm.

Table S1. Spin-coater parameter setting for acquiring strip thickness.

	Acceleration (m/s ²)	Speed (m/s)	Time (s)	Thickness (mm)
1	1000	200	15	0.48
2	1000	200	10	0.86
3	1000	200	5	1.20

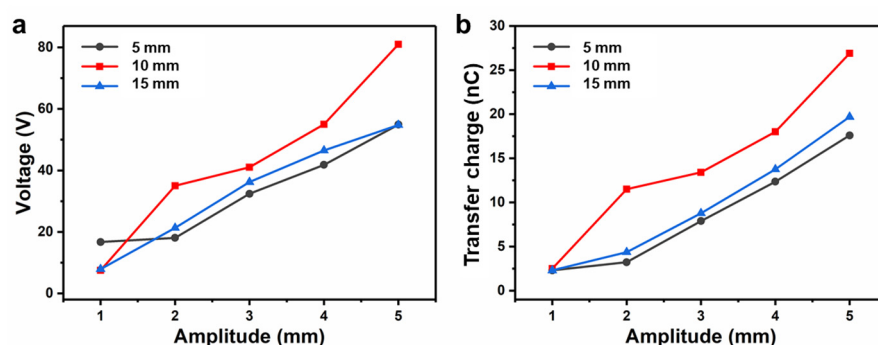


Figure S7. (a) Voltage and (b) transfer charge performance comparison among the SRS-TENGs with different air gaps of 5, 10 and 15 mm.

Video S1. Strip moving status under vibration frequencies of 10, 30 and 50 Hz with constant amplitude of 1 mm.

Video S2. Powering a temperature sensor by the SRS-TENG.

Video S3. Lighting up 112 LEDs by the SRS-TENG.

Video S4. Demonstration of amplitude sensing.

Video S5. Demonstration of vibration alarm system.