Supporting Information

Study on the surface charge transfer mechanism induced by dual-electric field mutual inductance

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Content

Supplemental Figures

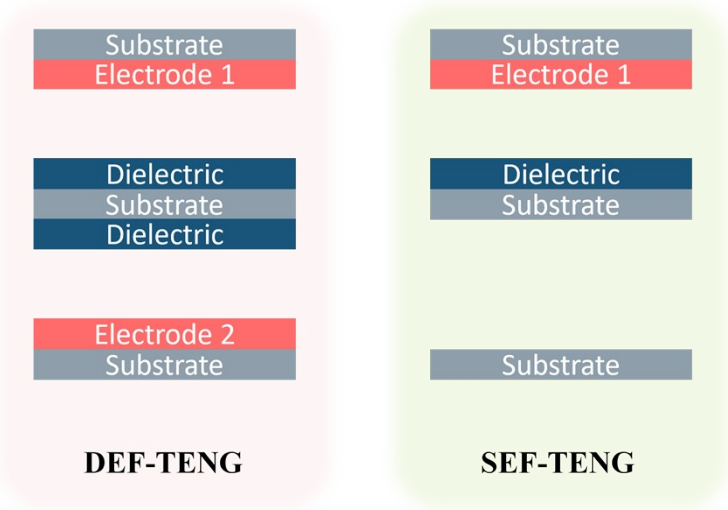

Fig. S1. Device design for DEF-TENG and SEF-TENG.

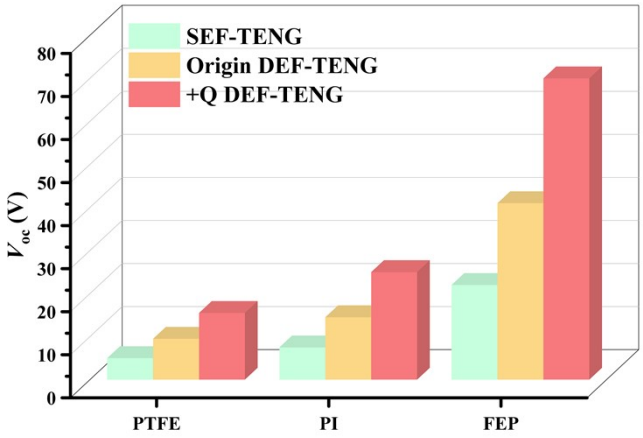

Fig. S2. The triboelectric material test of DEF-TENG by open-circuit voltage.

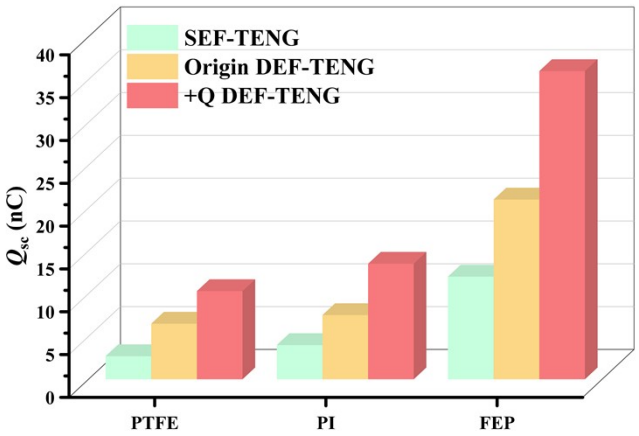

Fig. S3. The triboelectric material test of DEF-TENG by transferred charge.

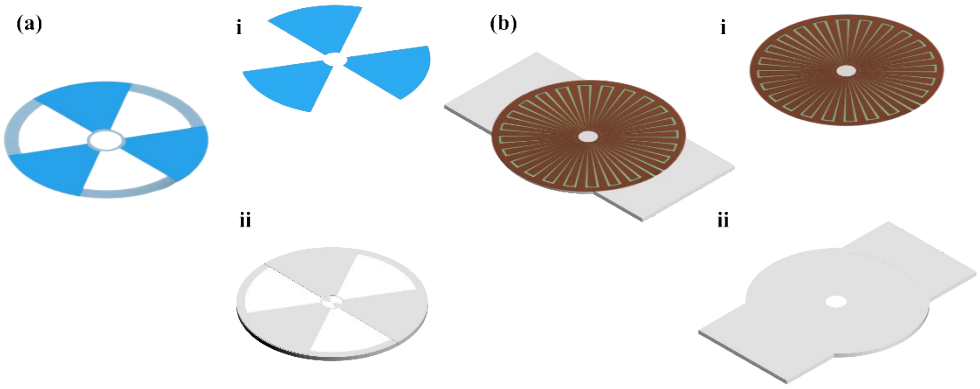

Fig. S4. A 3D schematic diagram of the device structure. (a) Rotor, and (b) Stator.

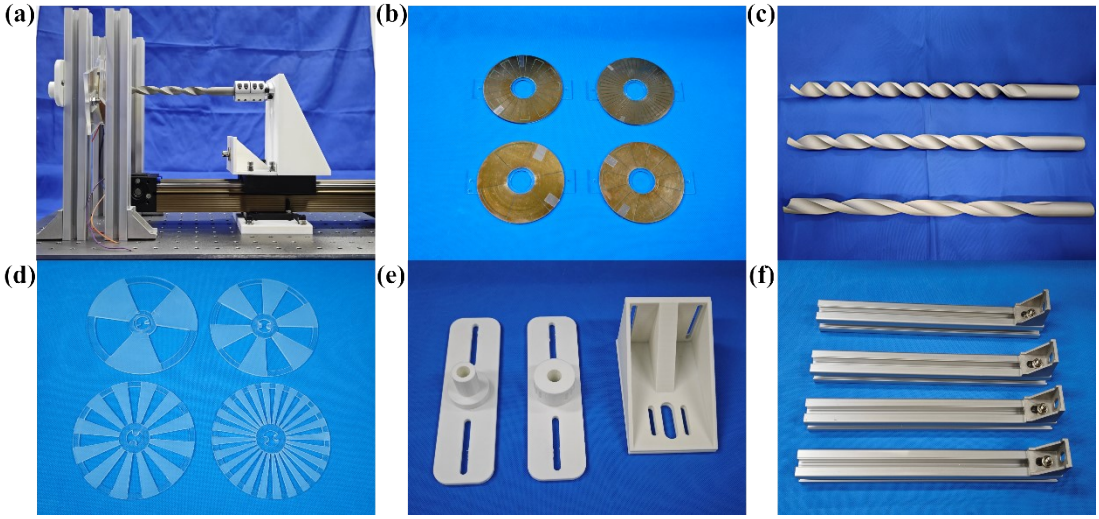

Fig. S5. Photographs of **(a)** a DEF-TENG and its **(b)** Stator, **(c)** Chain screw, **(d)** Rotor, **(e)** Sleeve, **(f)** Pedestal.

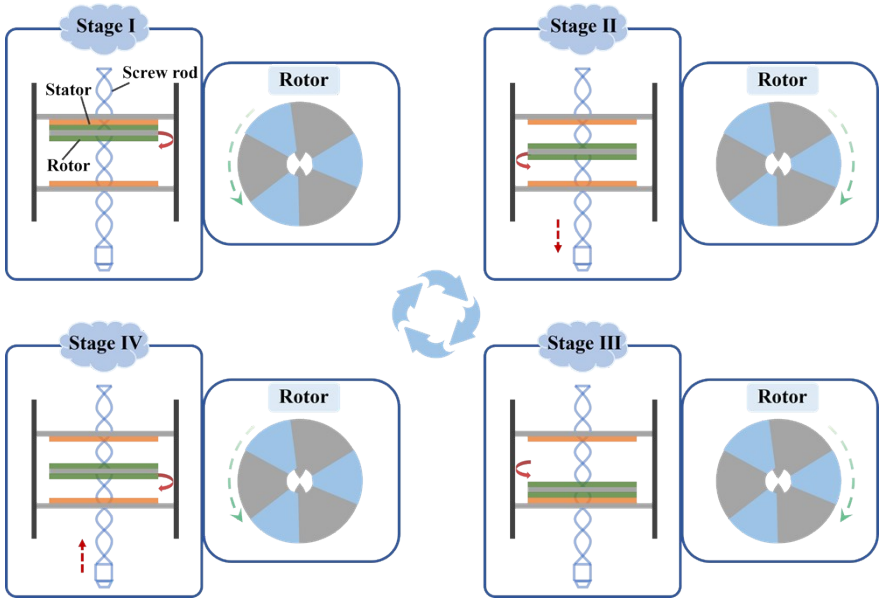

Fig. S6. Schematic diagram of the movement process of DEF-TENG.

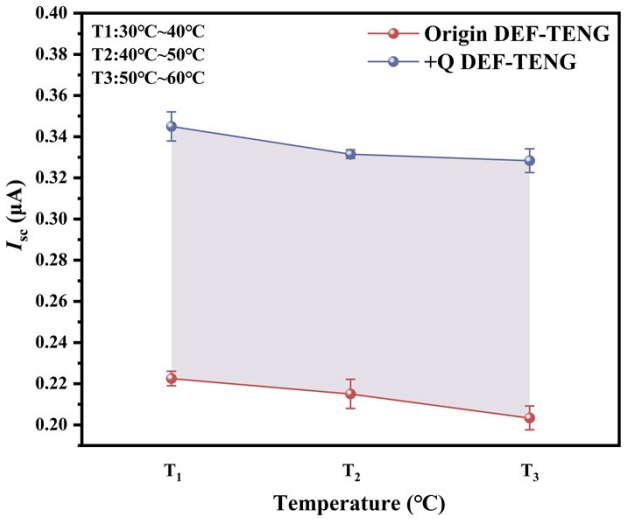

Fig. S7. The temperature test of DEF-TENG by short-circuit current.

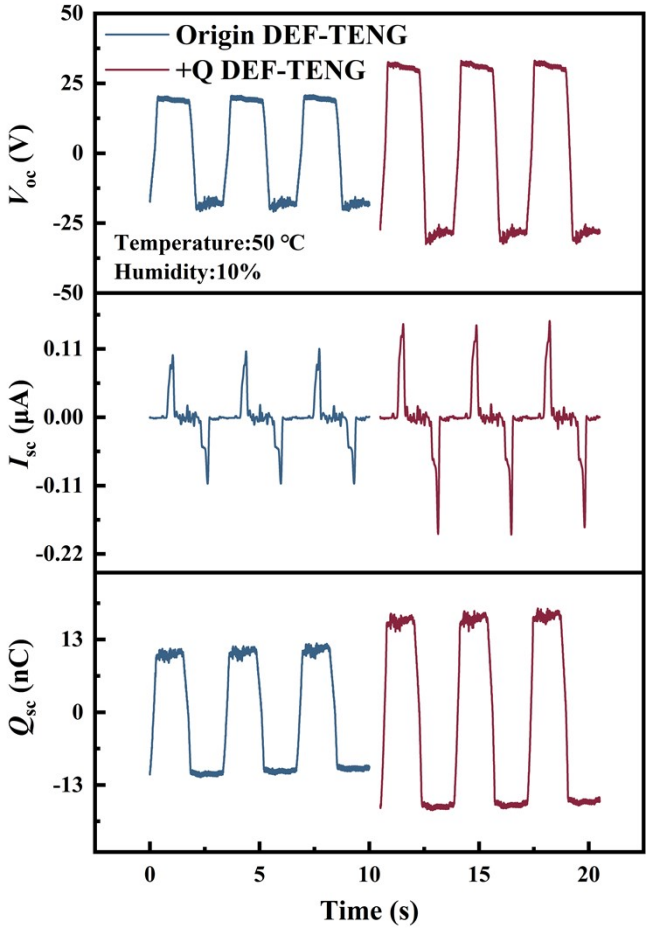

Fig. S8. Output waveform of DEF-TENG at the temperature and the humidity are 50℃ and 10%.

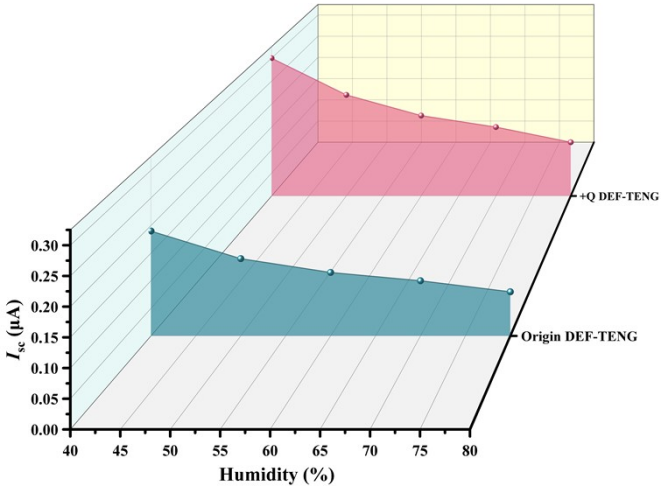

Fig. S9. The effects of humidity on the short-circuit current of DEF-TENG.

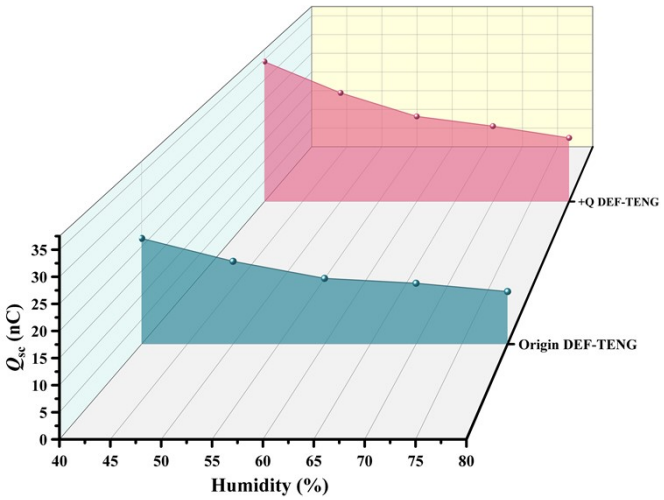

Fig. S10. The effects of humidity on the transferred charge of DEF-TENG.

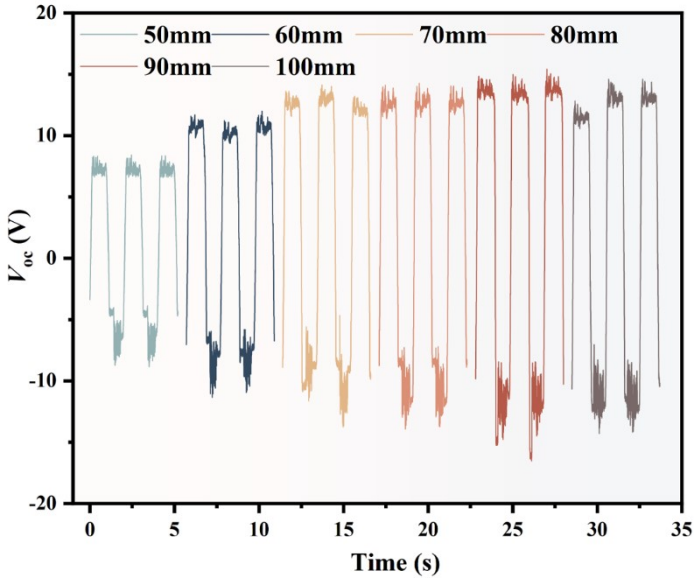

Fig. S11. Driving stroke influences on the open-circuit voltage of the DEF-TENG.

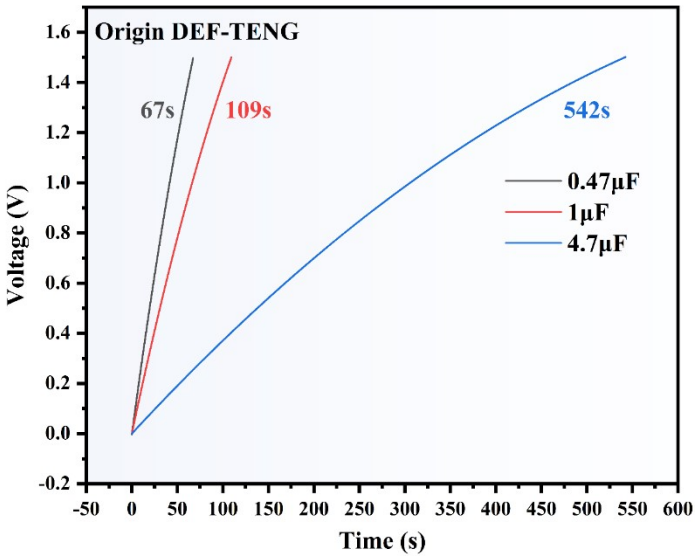

Fig. S12. Diagram of the charging curve of origin DEF-TENG for different capacitors.

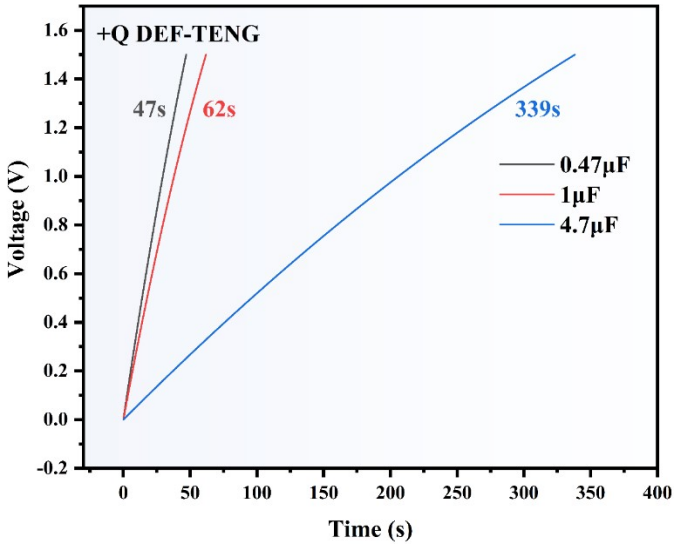

Fig. S13. Diagram of the charging curve of +Q DEF-TENG for different capacitors.