

Supporting information for:

Triboelectric Charging Sequence Induced by Surface
Functionalization as a Method to Fabricate High
Performance Triboelectric Generators

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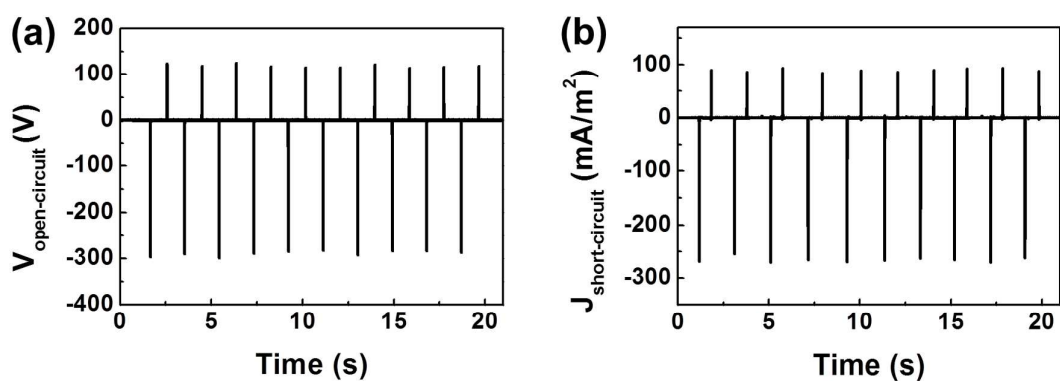


Figure S1. Switching polarity test to verify the validity of output signals of the TEG with P-PET : F-PET contact pair. (a) Measured open-circuit voltage under a reverse connection mode. (b) Measured short-circuit current density under a reverse connection mode.

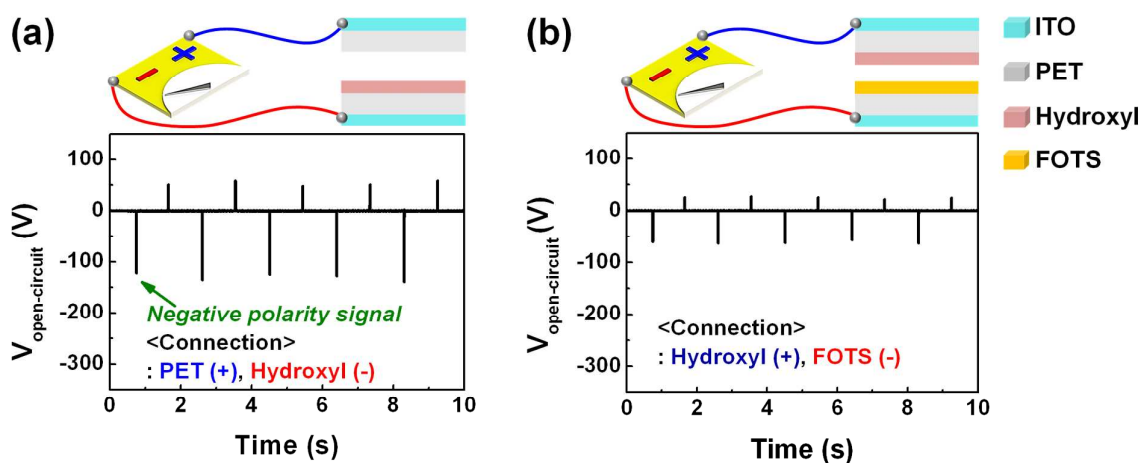


Figure S2. (a) Negative polarity signals from the TEG consisting of non-functionalized PET/ITO as the top and hydroxyl/PET/ITO as the bottom layer. (b) Measured open-circuit voltages from the TEG consisting of hydroxyl/PET/ITO as top and FOTS/PET/ITO as bottom, showing relatively decreased outputs compared with that in (a). Note: the connection configuration was kept the same for both TEGs (Schematic drawings).

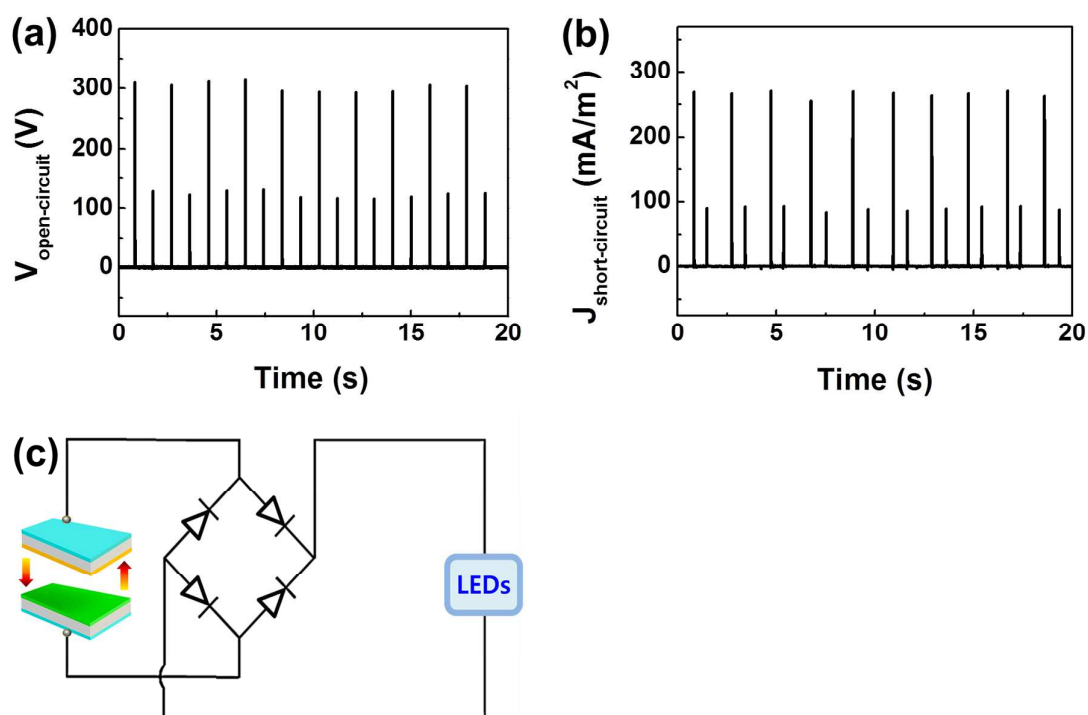


Figure S3. (a) Open-circuit voltage and (b) short-circuit current density pulses converted through a bridge rectifier circuit. (c) Schematic illustration of the bridge rectifier used for blue LEDs driving, consisting of four diodes.

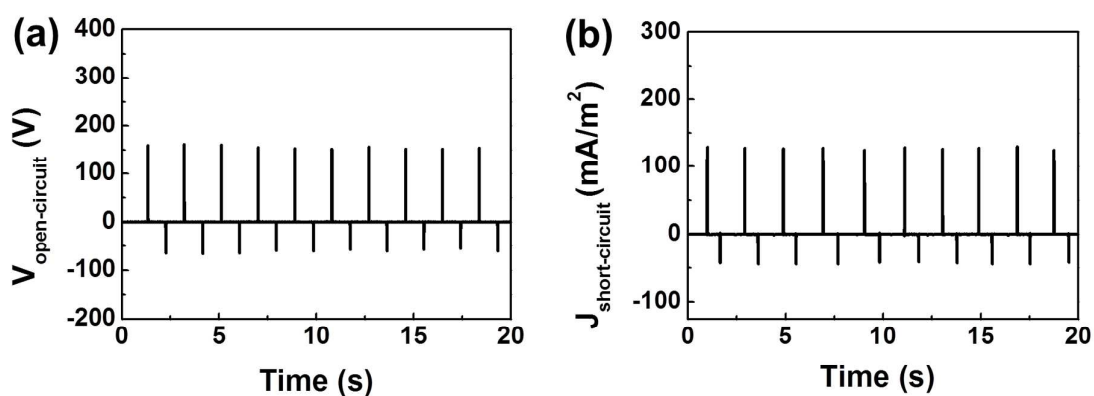


Figure S4. (a) Measured output open-circuit voltage from the TEG based on P-PET : F-PET pair under non-contact mode with gap distance of 1 mm and (b) measured short-circuit current density.

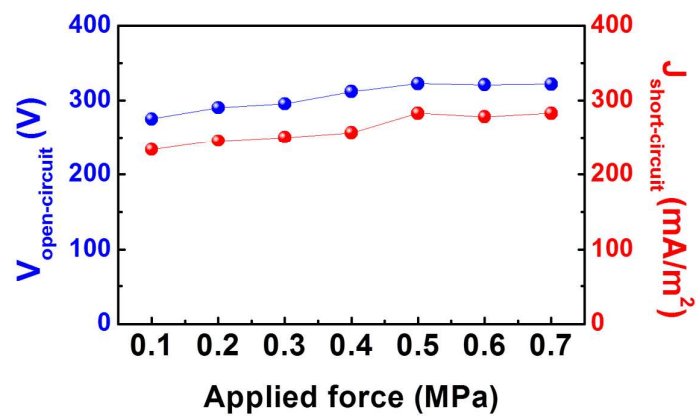


Figure S5. Open-circuit voltage and short-circuit current density as a function of applied force. At the force of 0.5 MPa, the output voltage and current density are saturated.