

### Supporting Information

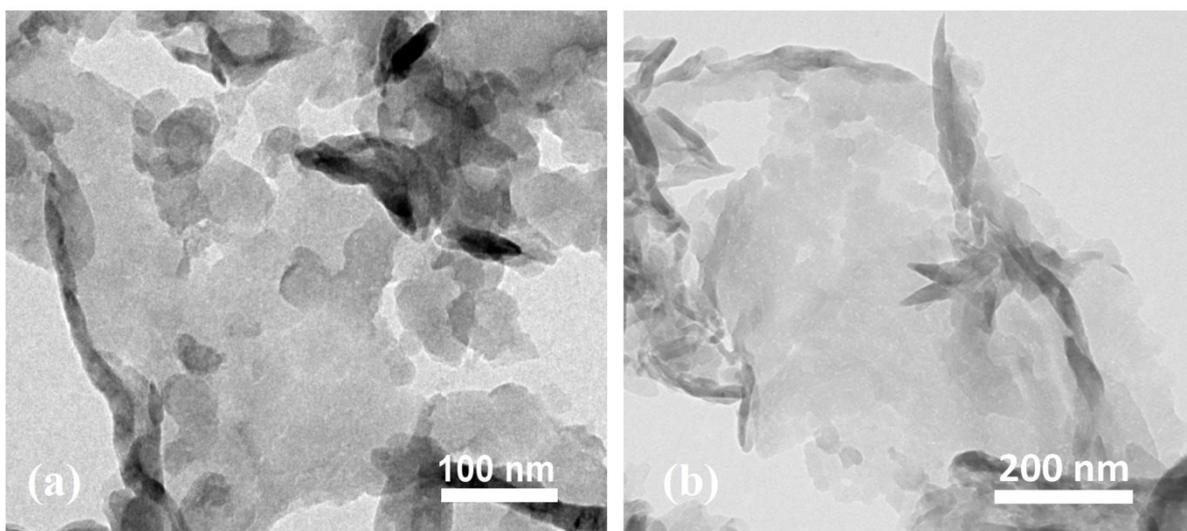


Figure S1: TEM images of g-C<sub>3</sub>N<sub>4</sub> nanosheets (a) pristine, (b) after annealing at 350 °C.

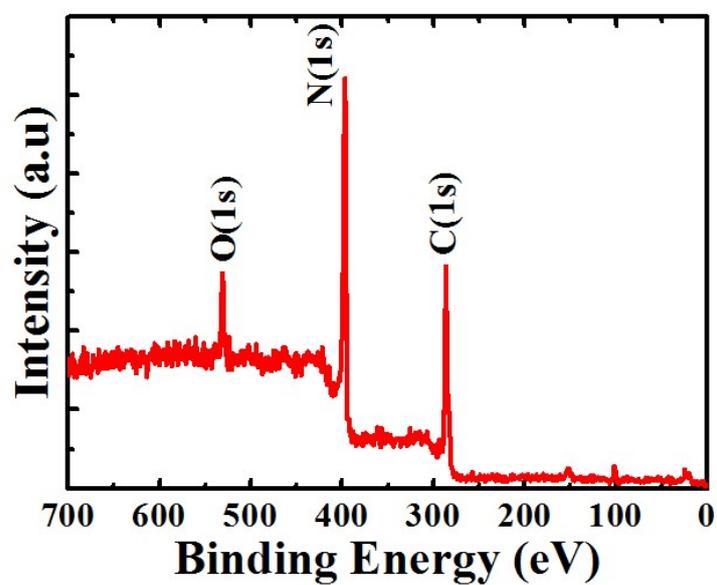


Figure S2: XPS survey spectrum of g-C<sub>3</sub>N<sub>4</sub> nanosheets.

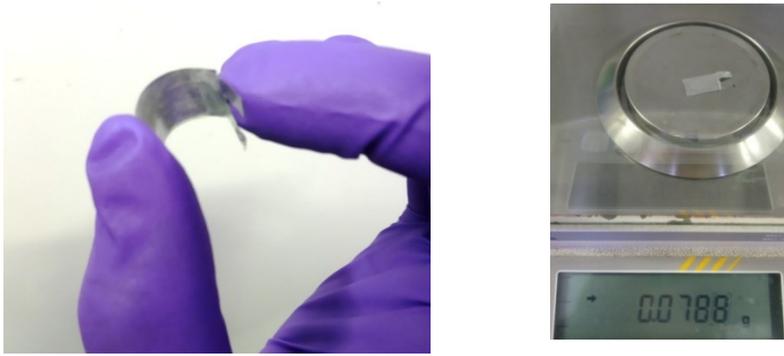


Figure S3: Photographs of a flexible TENG device in bent condition and placed under a weighing machine.

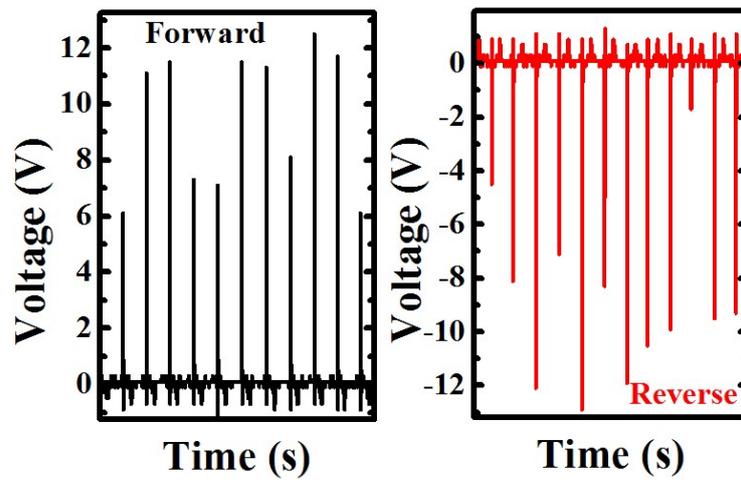


Figure S4: Nature of output voltage generated by the TENG upon changing the polarity.



Figure S5: Photograph of output generation by touching a bent TENG.

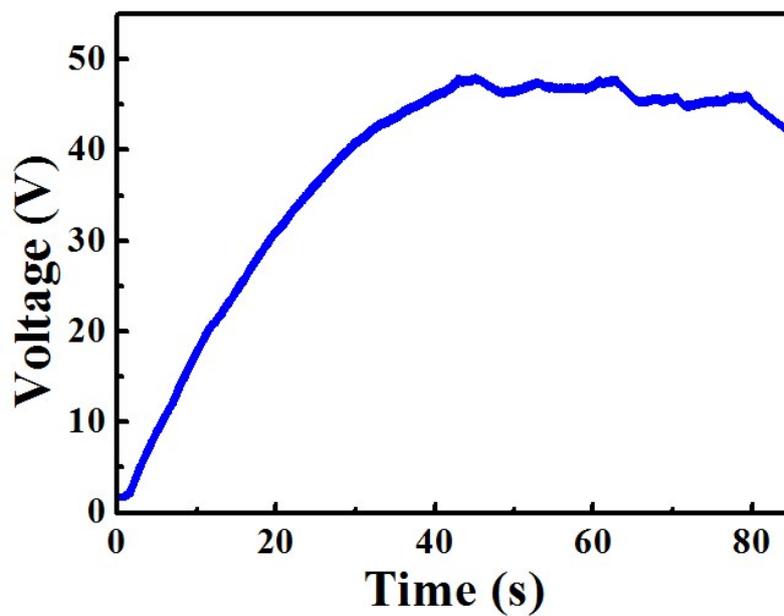


Figure S6: Charging characteristics of a capacitor ( $0.26 \mu\text{F}$ ) by finger tapping on TENG subjected to water spraying experiment.

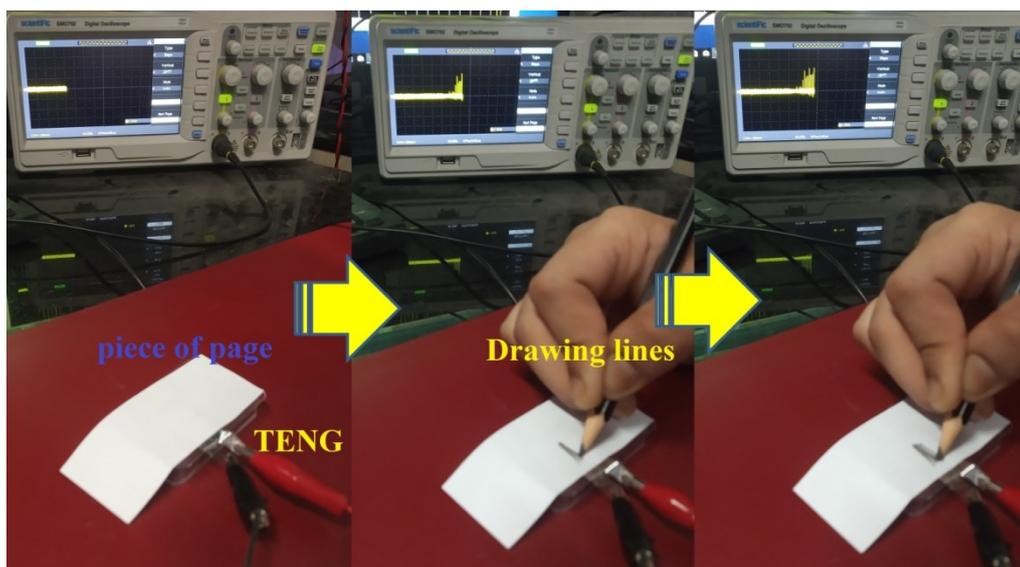


Figure S7: Photograph of output generation upon writing on a piece of paper placed over a TENG device.

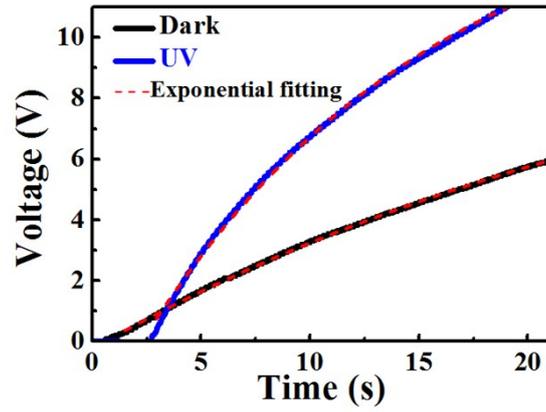


Figure S8: Charging dynamics of a capacitor (0.26  $\mu\text{F}$ ) by a TENG device using finger tapping under dark and UV illumination conditions.

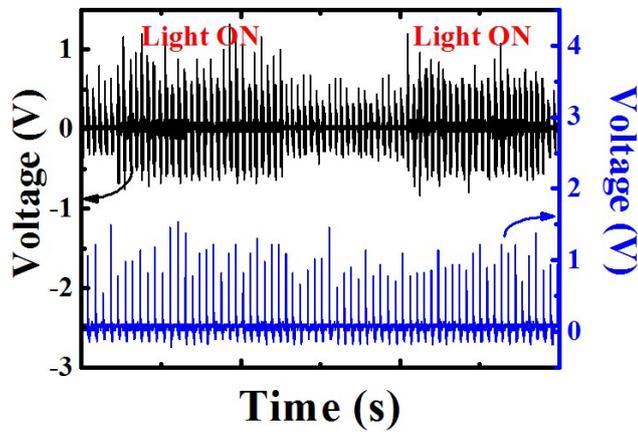


Figure S9: Output voltage generated by the TENG under UV (black) and violet (blue) light illumination.

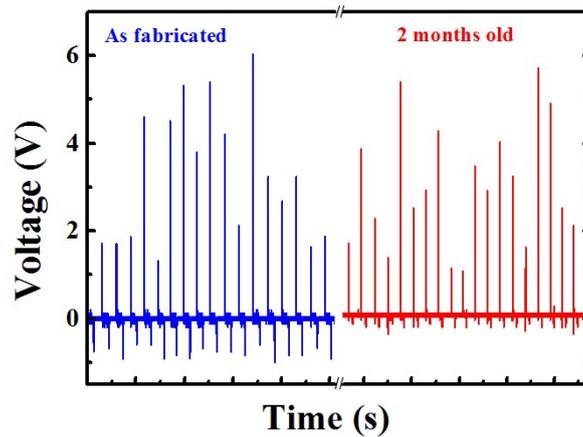


Figure S10: Output voltage generated by the as-fabricated and aged TENG devices.

Table S1: Comparison of performance of photo-induced TENG devices.

<b>Triboelectric material</b>	<b>Platform</b>	<b>Photo induced change in current/voltage (in %)</b>	<b>Responsivity</b>	<b>Reference</b>
TiO <sub>2</sub>	Rigid	-	~ 280 A/W	[28]
MoS <sub>2</sub>	Rigid	-	727.87 A/W	[40]
PZT	Rigid	90	15 mA/W (Average)	[41]
MAPbI <sub>3</sub>	Rigid	37.5	7.5 V/W (Average)	[42]
MAPbI <sub>x</sub> Cl <sub>3-x</sub>	Rigid	55.7	10 <sup>4</sup> V/W	[26]
g-C <sub>3</sub> N <sub>4</sub>	Flexible	130	117.1 V/W	Present work