

ELECTRONIC SUPPLEMENTARY INFORMATION (ESI)

Title: Morphotropic phase boundary based BaTi_{0.89}Sn_{0.11}O₃ filler induced polarization tuned P(VDF-TrFE) composites as efficient piezo-tribo hybrid nanogenerators

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Fig. S1

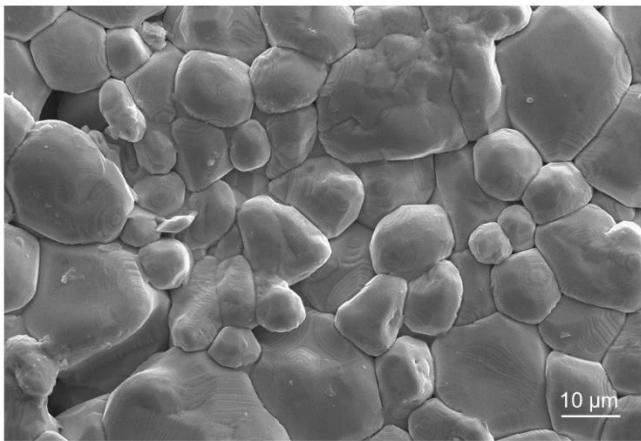


Fig. S1. SEM image of the fabricated BTS pellet.

Fig. S2

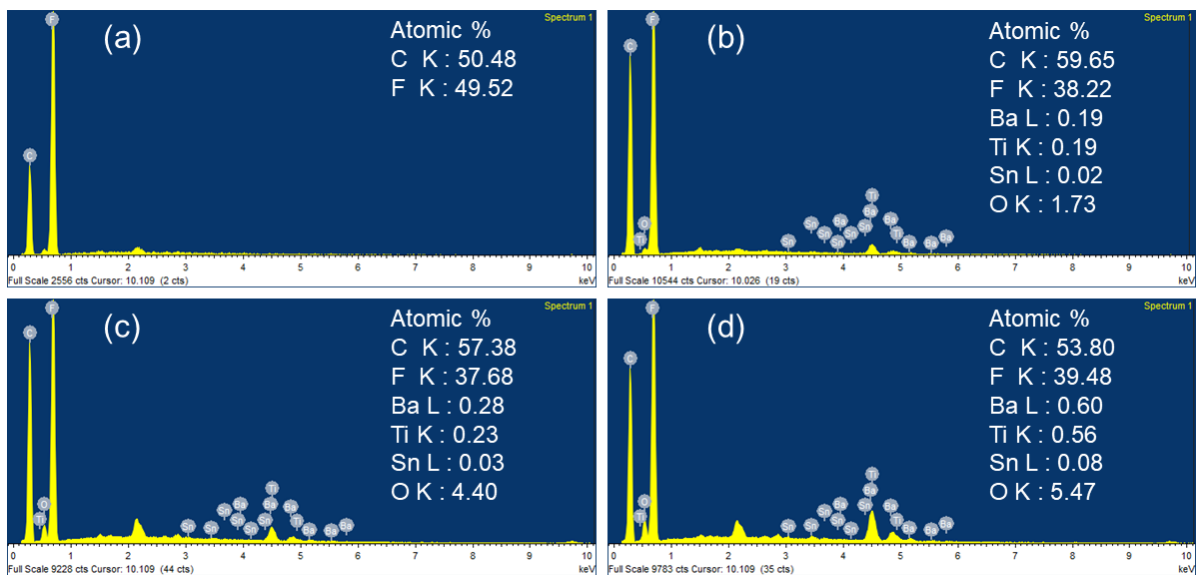


Fig. S2. EDX spectra of (a) P(VDF-TrFE), (b) BTS5W, (c) BTS10W, and (d) BTS15W films.

Fig. S3.

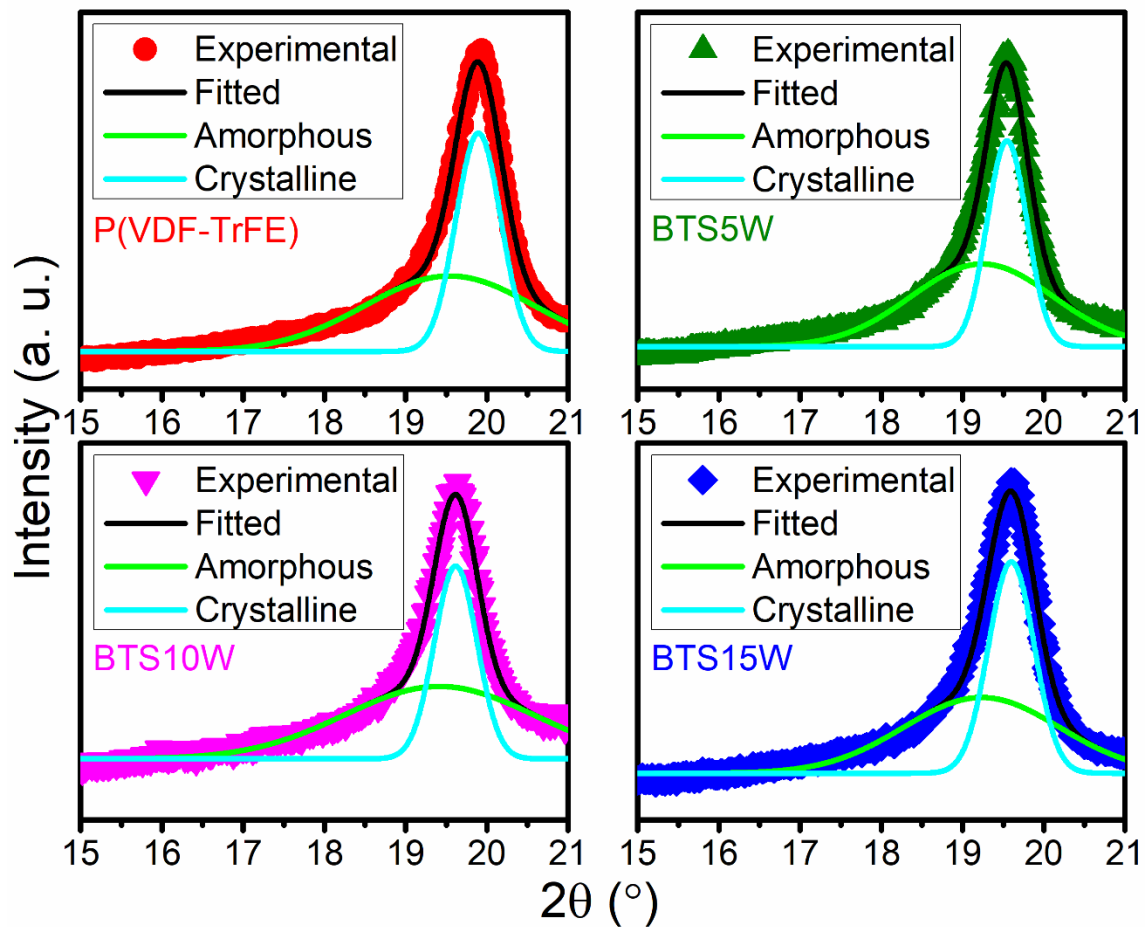


Fig. S3. Deconvoluted 20° XRD peak for all the fabricated composite films.

Fig. S4

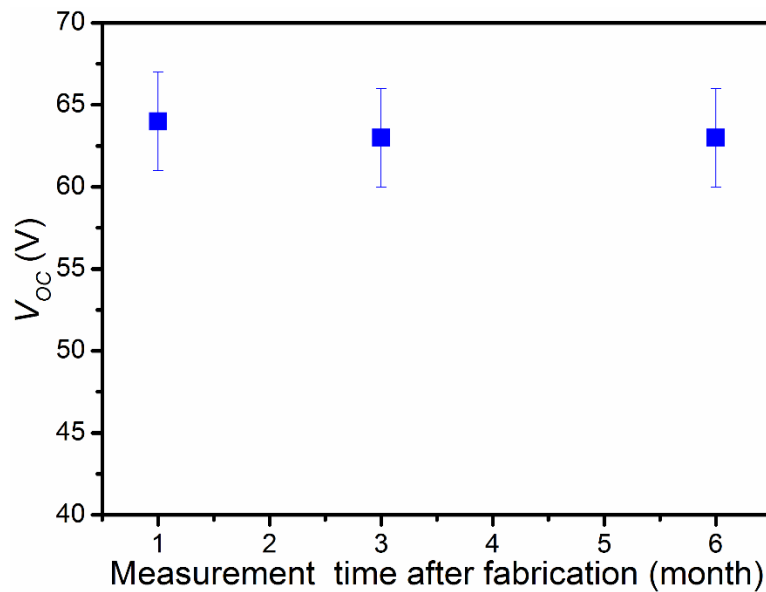


Fig. S4. Average output V_{OC} of the BTS15W-based PENG after certain time gap of its fabrication showing its sufficient stability.

Fig. S5

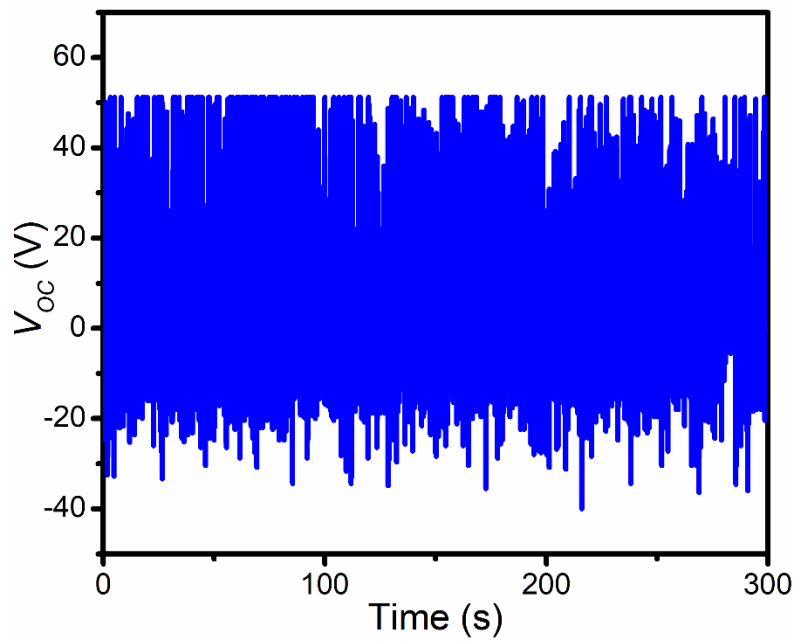


Fig. S5. Long cycle stability test of the BTS15W based PENG.

Fig. S6

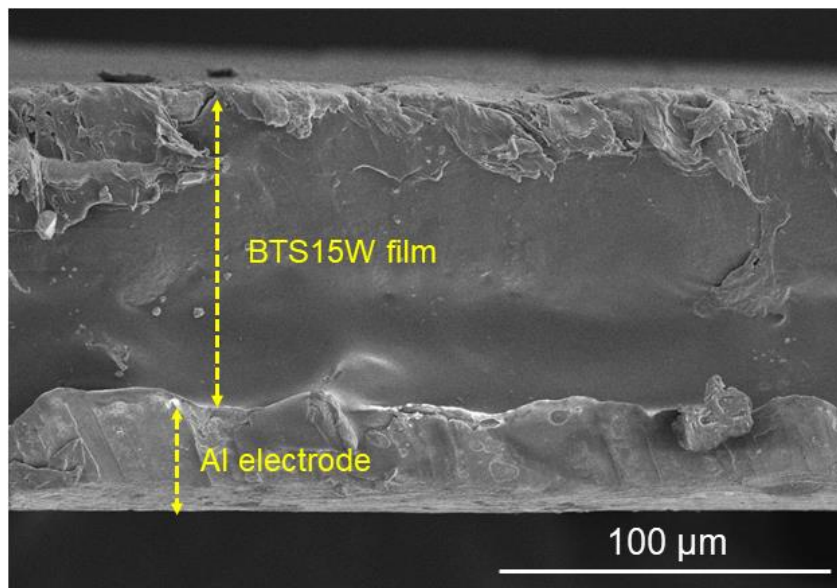


Fig. S6. Cross-sectional SEM image of the BTS15W film electrode with adhesive Al electrode on one surface.

Fig. S7

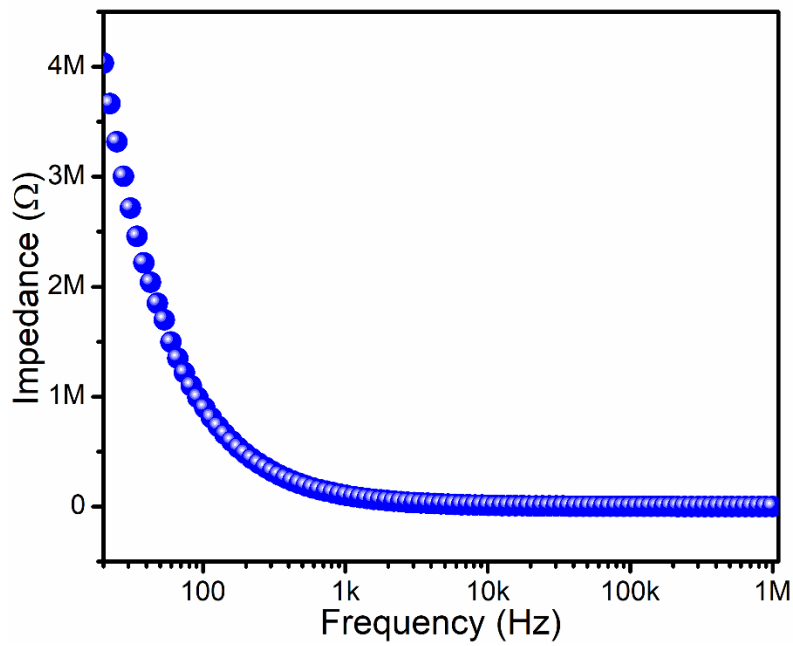


Fig. S7. Frequency dependent impedance spectrum of the BTS15W film.

Fig. S8

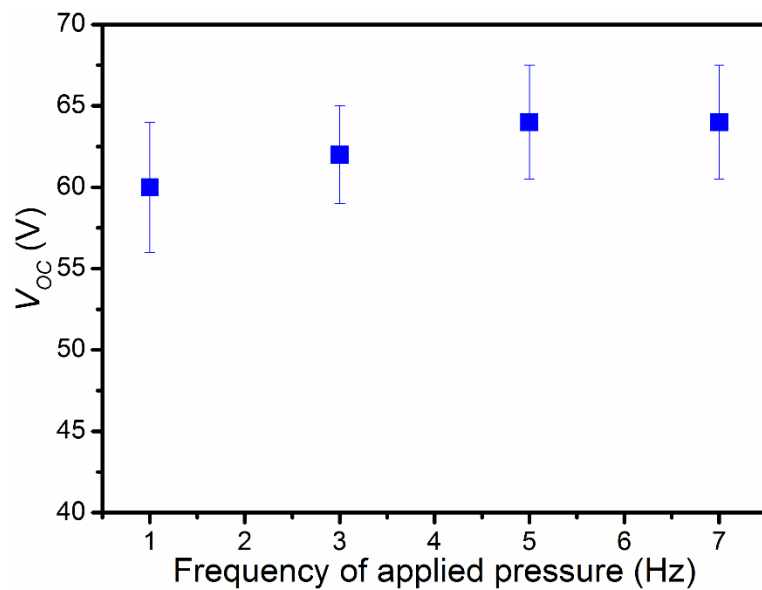


Fig. S8. Variation of average output V_{OC} of the BTS15W-based PENG with the variation of frequency of applied pressure.

Fig. S9



Fig. S9. Powering up a digital hygrometer by using the stored charge of a 10 μ F capacitor (using the rectified output of BTS15W-based HNG).