Supporting Information

Polyvinylidene fluoride added ceramics powder composite Near-Field Electrospinned piezoelectric fibers based Low frequency dynamic sensor

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S1

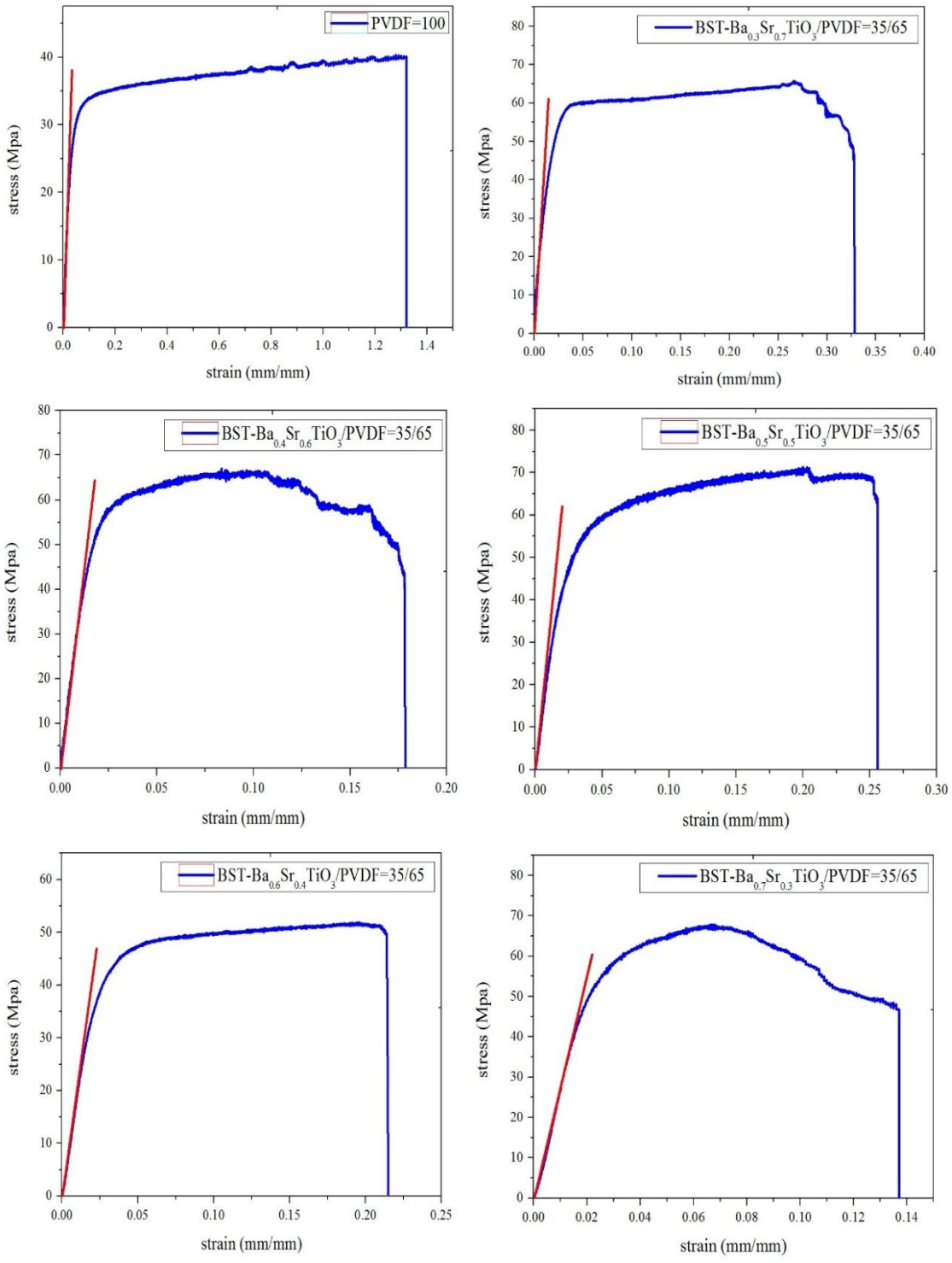


Figure S1: Tensile stress-strain diagram of pure PVDF and $Ba_xSr_{1-x}TiO_3$/PVDF composite fibers

S2

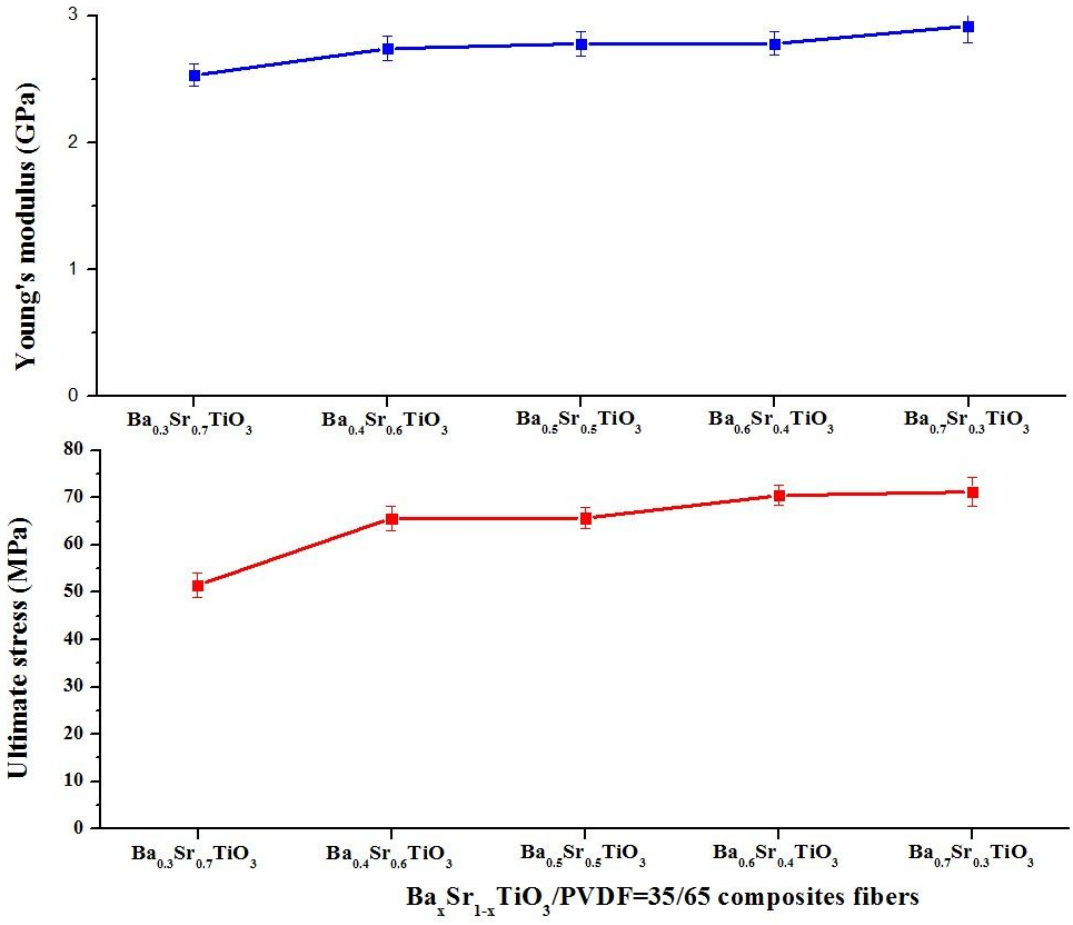


Figure S2: Relationship between Young's modulus and tensile strength of $Ba_xSr_{1-x}TiO_3$/PVDF=35/65 composite fibers

S3

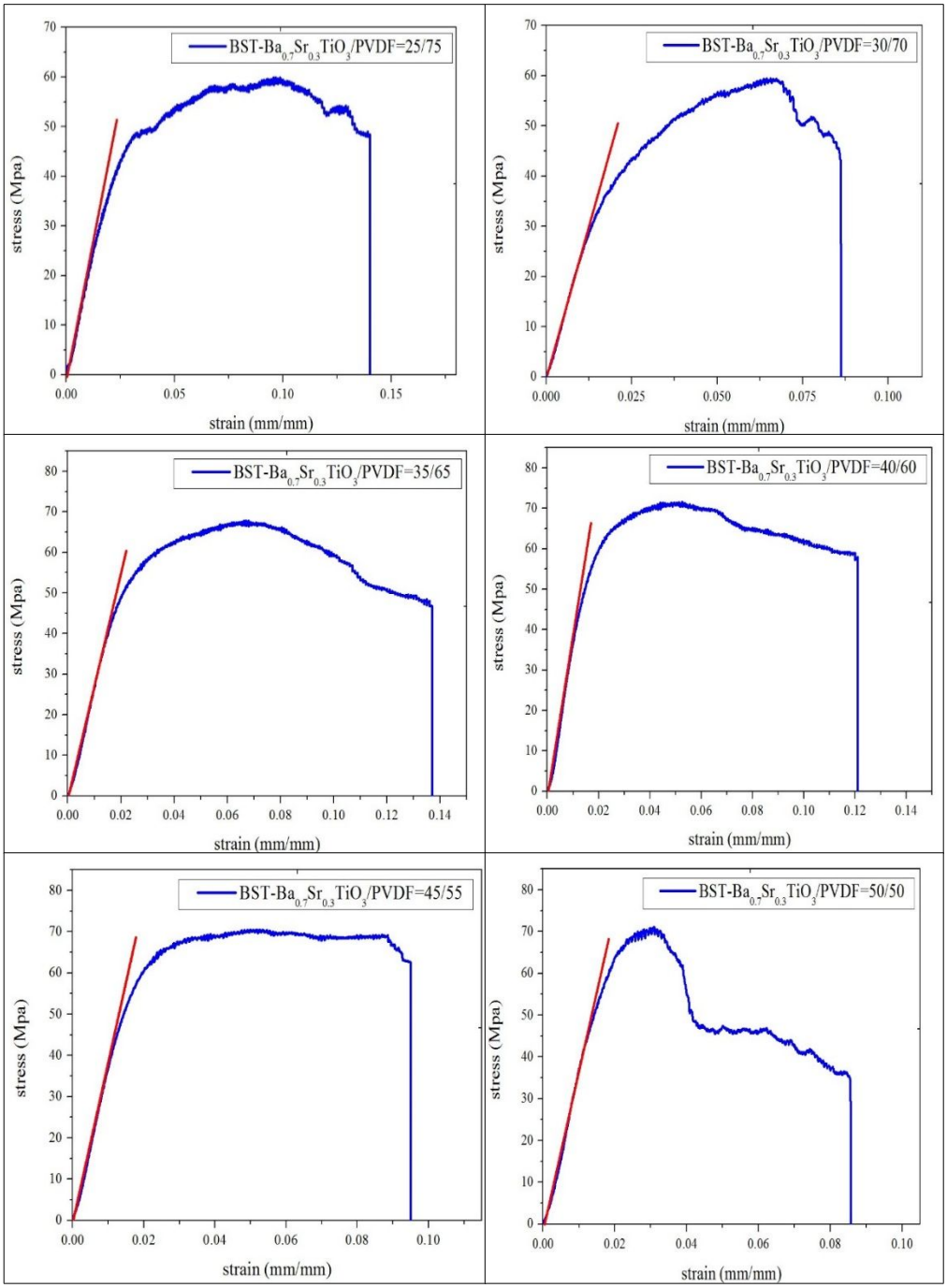


Figure S3: Tensile stress-strain diagram of pure PVDF and $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF composite fibers

S4

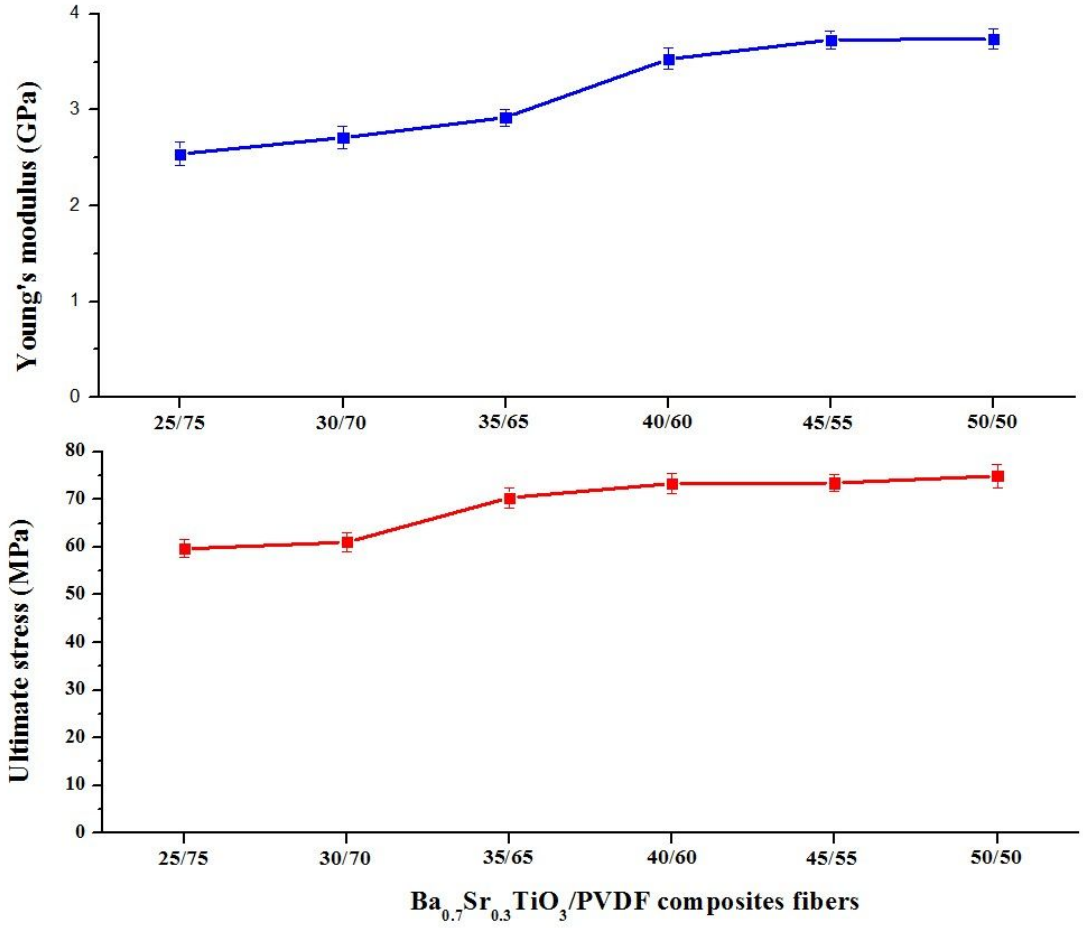


Figure S4: Relationship between Young's modulus and tensile strength of $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF composite fibers

S5

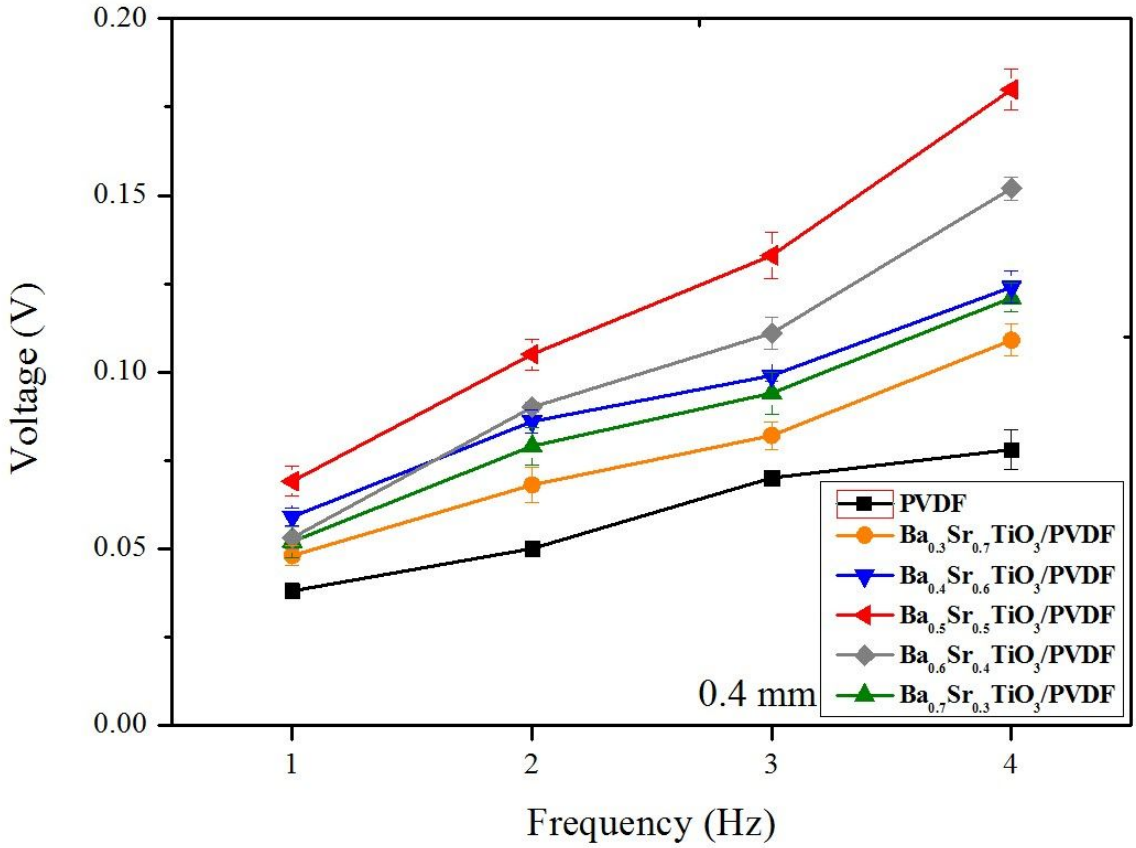


Figure S5: Relationship between frequency and the output voltage of PVDF and BST/PVDF energy harvester

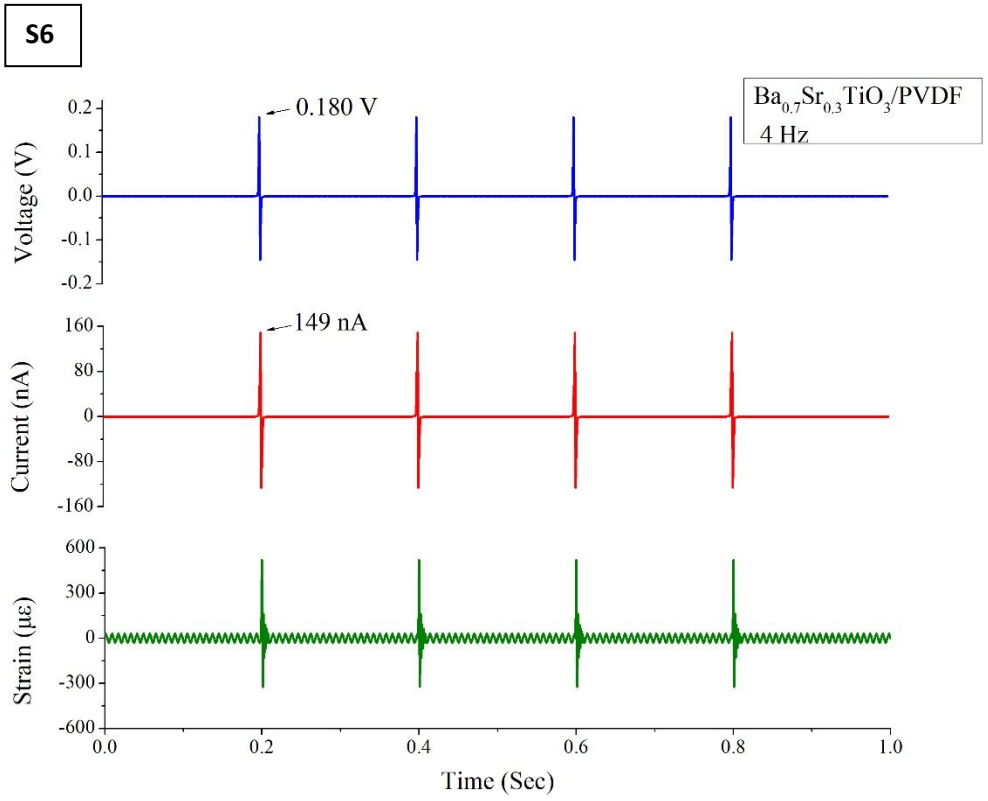


Figure S6: Output voltage of PVDF and$Ba_{0.7}Sr_{0.3}TiO_3$/PVDF piezoelectric fibers tapping parallel electrodes at 4 Hz

S7

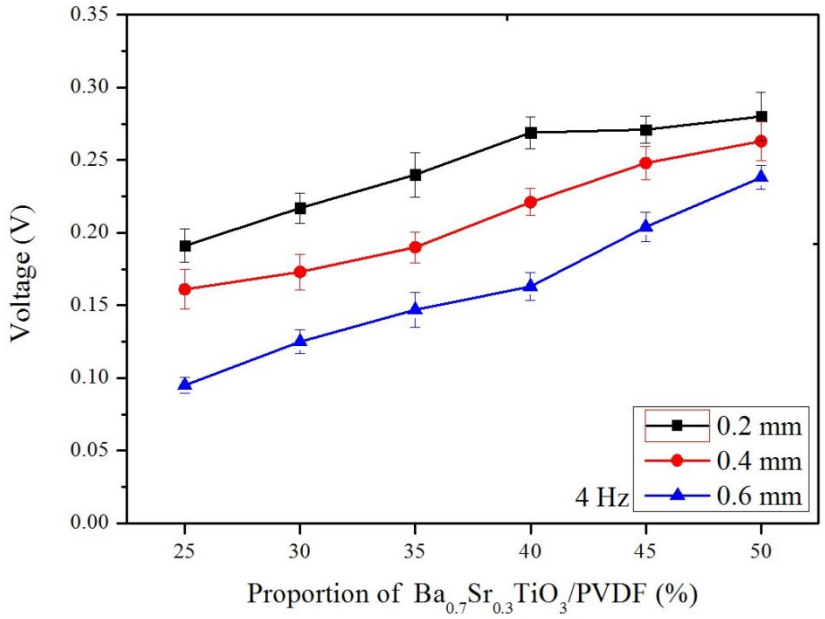


Figure S7: Relationship between the parallel electrode gap and voltage of different ratios

S8

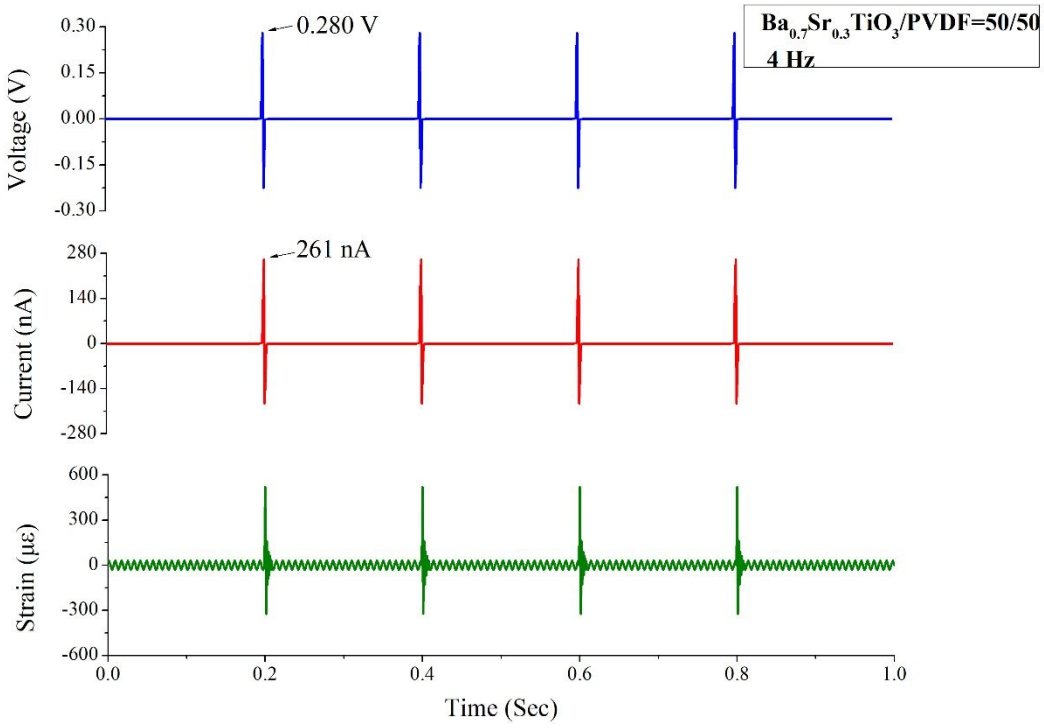


Figure S8: $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF=50/50 composite piezoelectric fibers at a parallel gap of 0.20 mm and a frequency of 4 Hz

S9

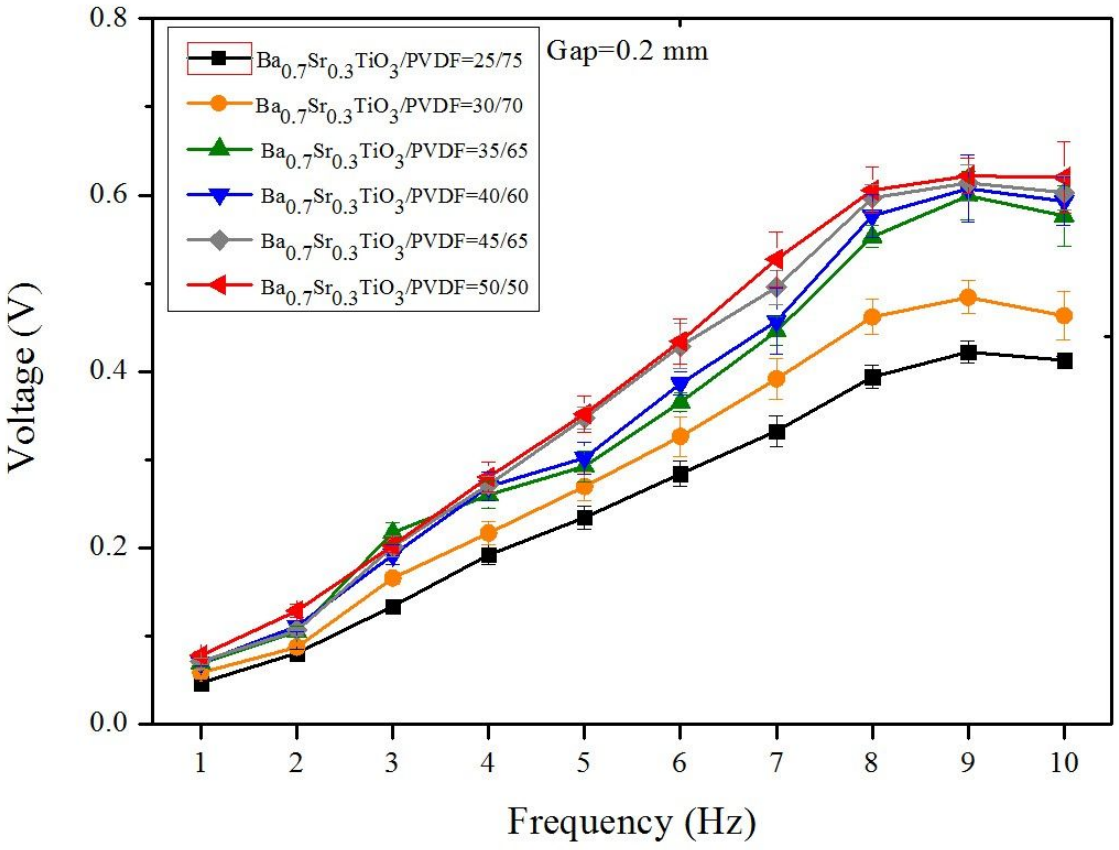


Figure S9: Relationship between frequency and voltage of $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF piezoelectric fibers with different ratios of 0.20 mm parallel electrodes

S10

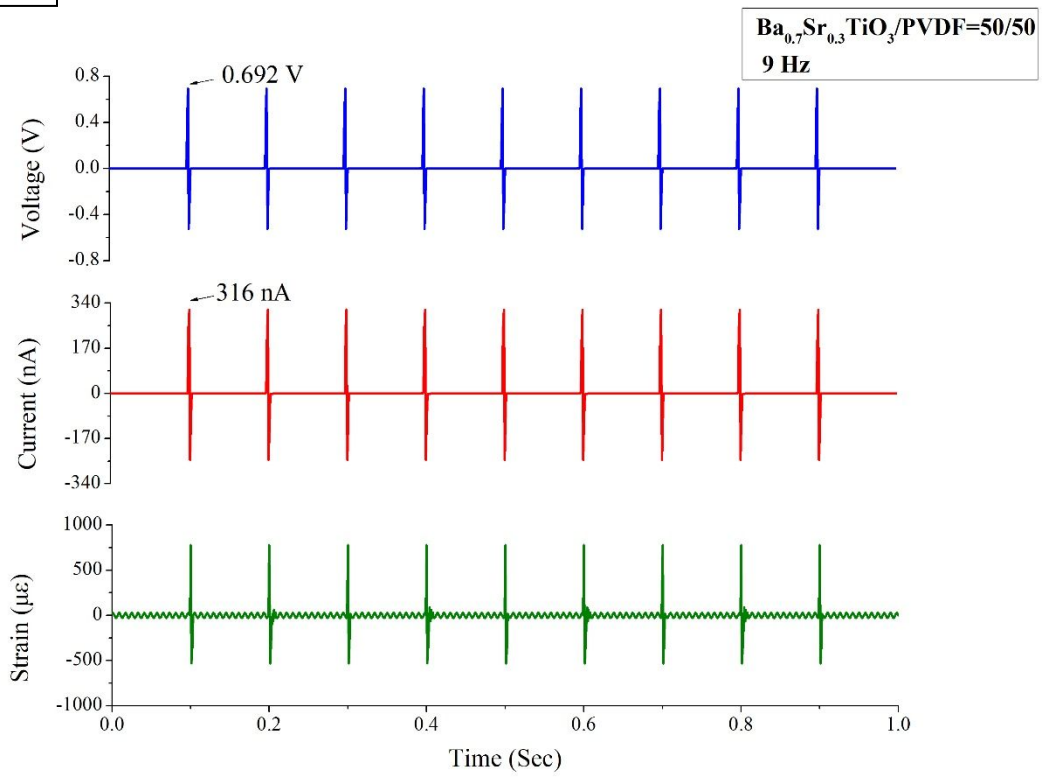


Figure S10: $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF=50/50 composite piezoelectric fibers at a parallel gap of 0.20 mm and a frequency of 9 Hz

S11

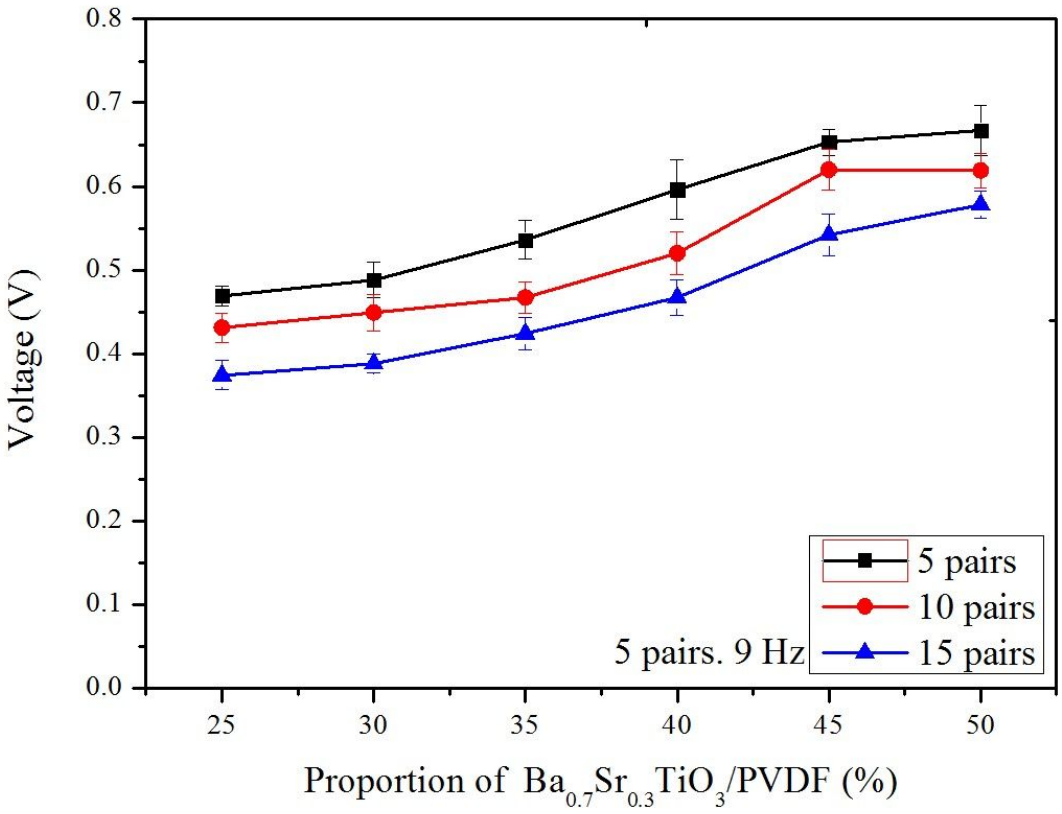
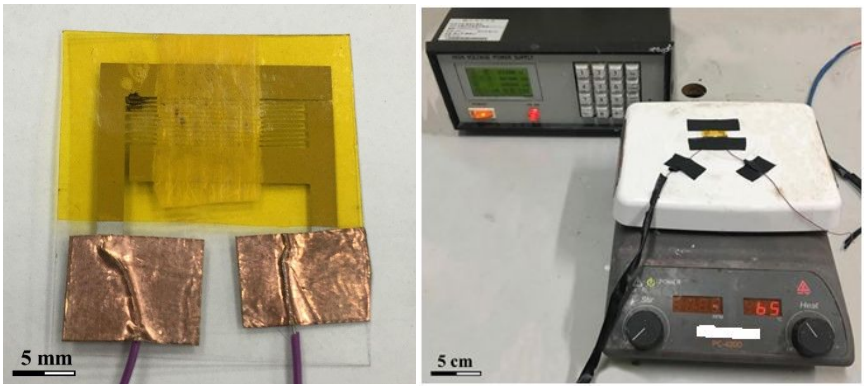


Figure S11: Relationship between pole number and voltage of $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF piezoelectric fibers

S12



S12 (a) S12 (b)

Figure S12: Polarization of composites fibers (a) collapsed electrode with polarization failure and (b) BST/PVDF composites fibers attached to the IDT for 1-hour repolarization process (1400 V and 65 °C)

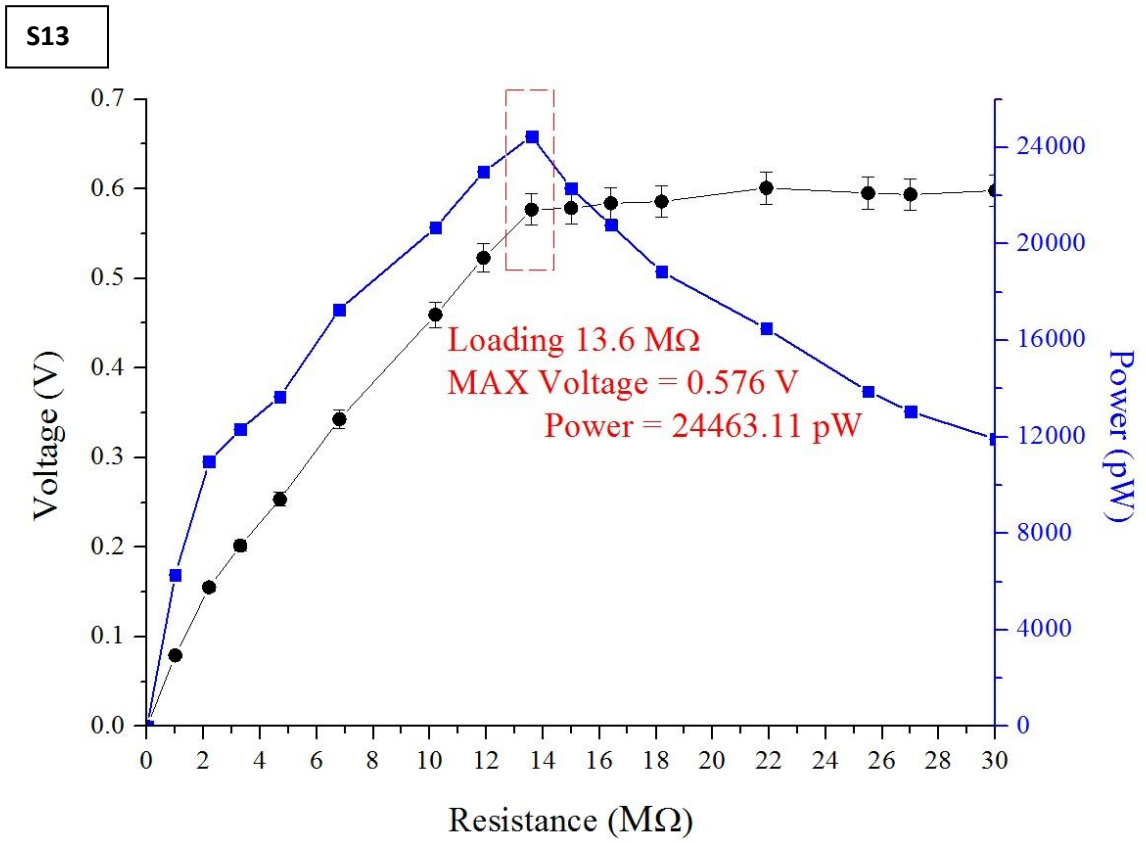


Figure S13: Load voltage and output power of $Ba_{0.7}Sr_{0.3}TiO_3$/PVDF=50/50 energy harvester

S14

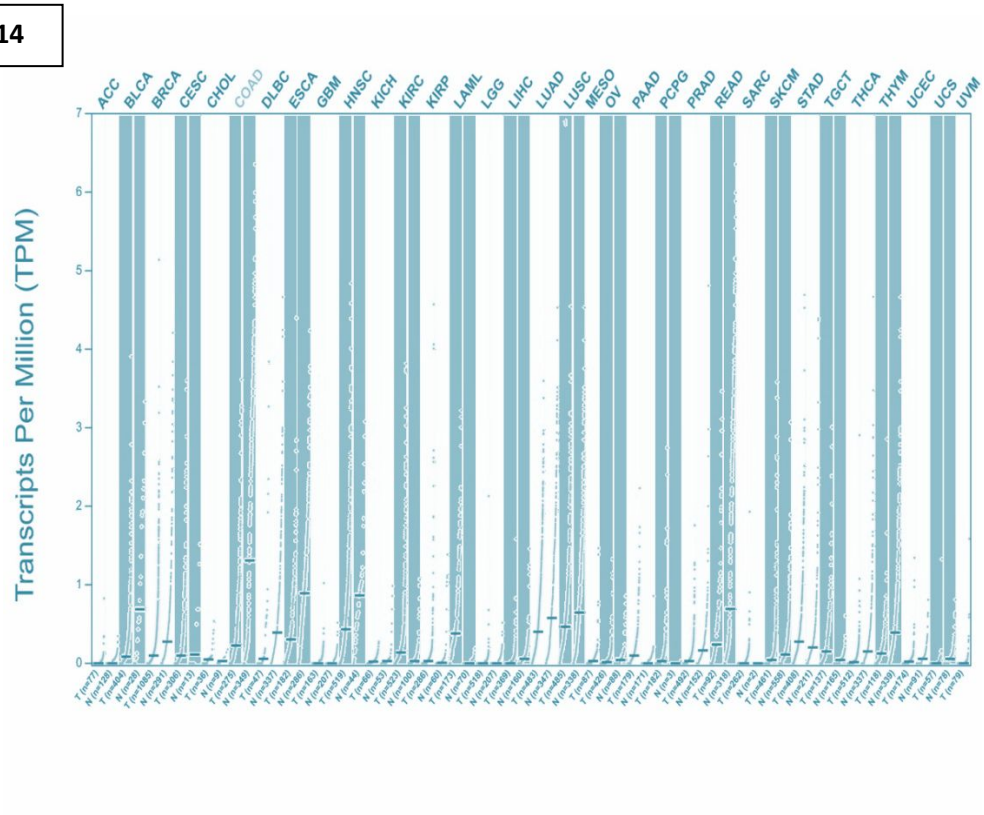


Figure S14: Expression landscape from in TCGA cohorts. Pan-cancer expression landscape where "T" stands for tumor tissue and "N" stands for paired normal tissue. The expression abundance is measured by log-normalized transcripts per million (TPM).