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Supplementary Information

Compositional Tailoring Effect on Electric Field Distribution for Significantly Enhanced Breakdown Strength and Restrained Conductive Loss in Sandwich-Structured Ceramic/Polymer Nanocomposites

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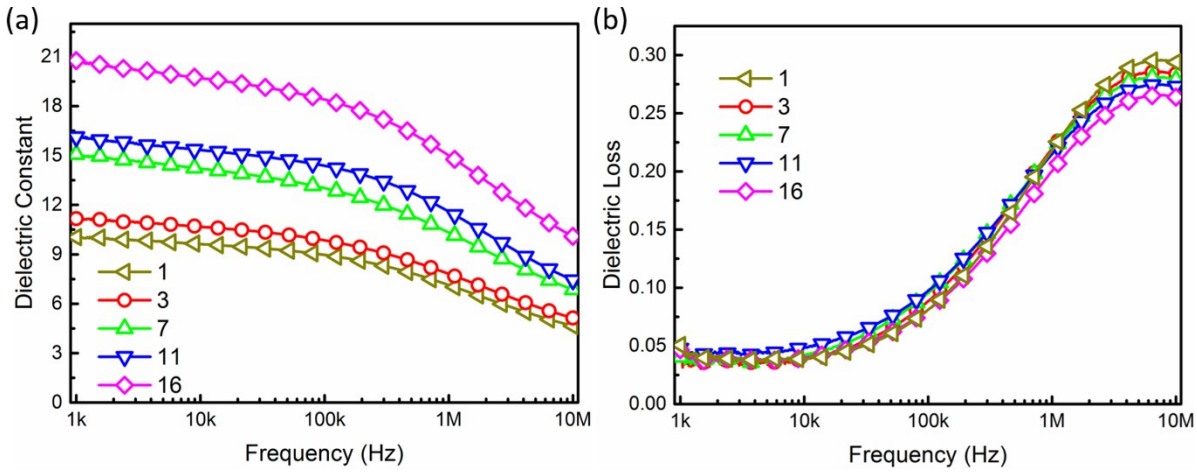

Figure S1. Frequency dependent (a) permittivity and (b) dielectric loss of single layer BT/PVDF nanocomposites.

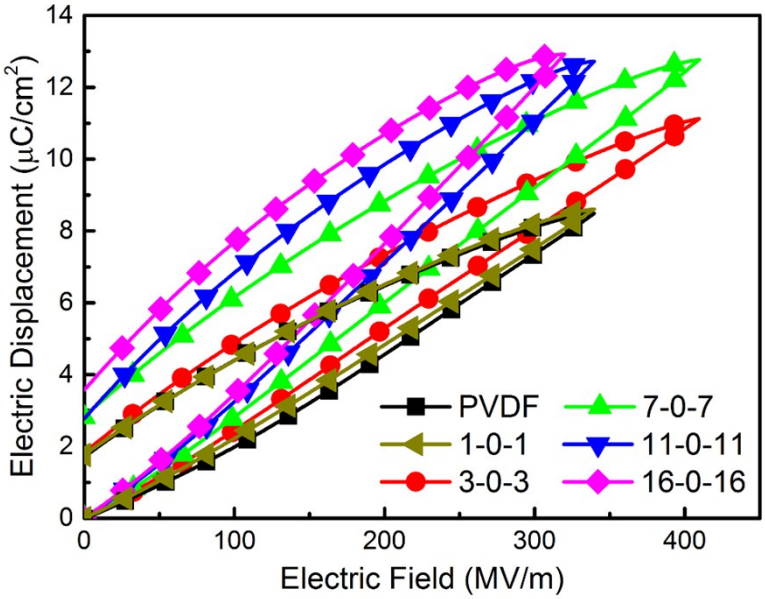

Figure S2. D-E loops of sandwich BT/PVDF nanocomposites and pure PVDF.

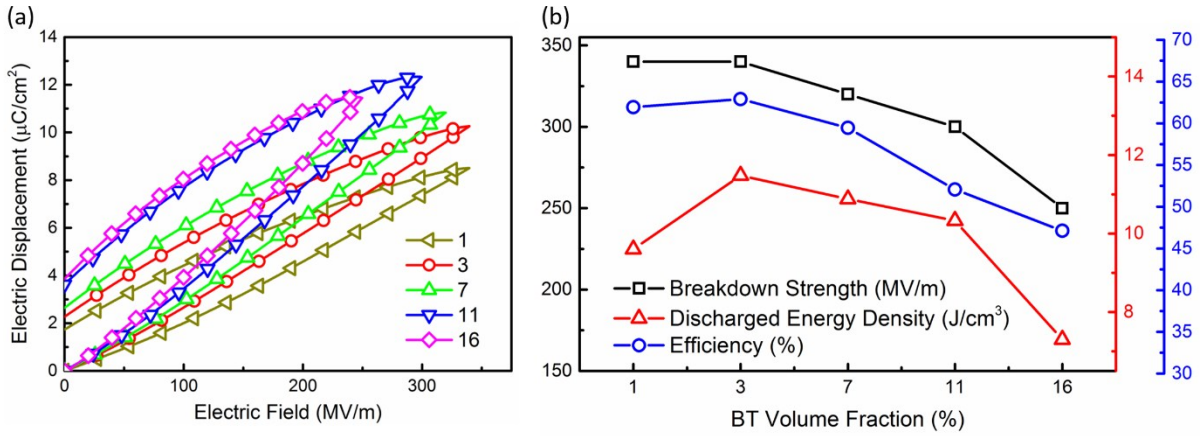

Figure S3. (a) D-E loops and (b) energy storage properties of single layer BT/PVDF nanocomposites.

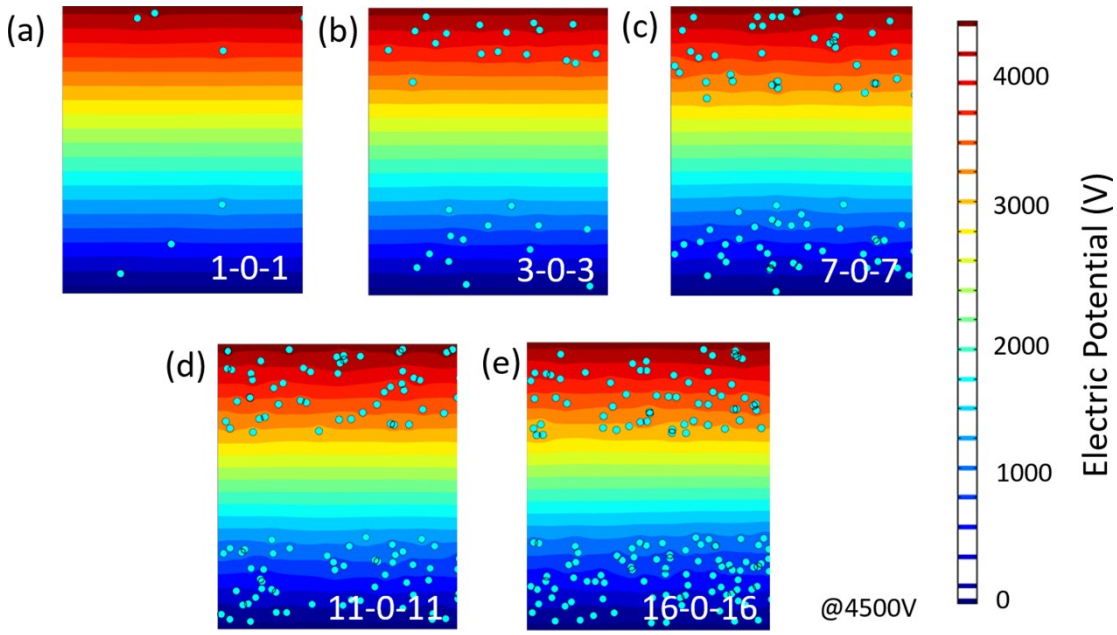

Figure S4. The distribution of electric potential in sandwich BT/PVDF nanocomposites with (a) 1 vol%, (b) 3 vol%, (c) 7 vol%, (d) 11 vol%, and (e) 16 vol% BT nanoparticles in outer layers by finite element simulation.

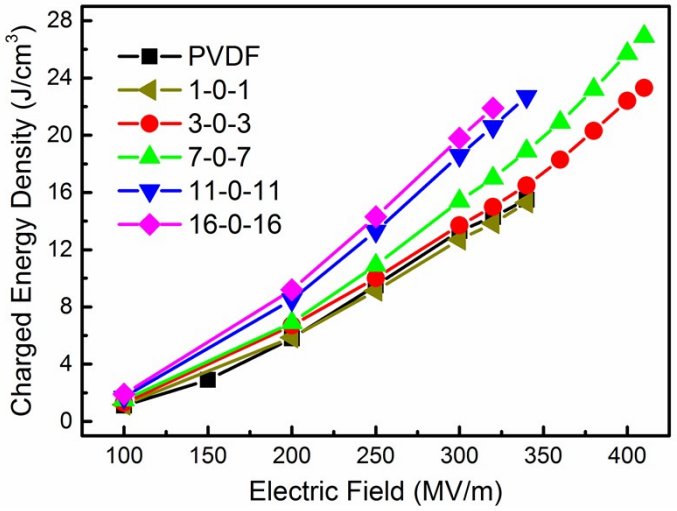

Figure S5. Charged energy density of sandwich BT/PVDF nanocomposites measured at varied electric fields.

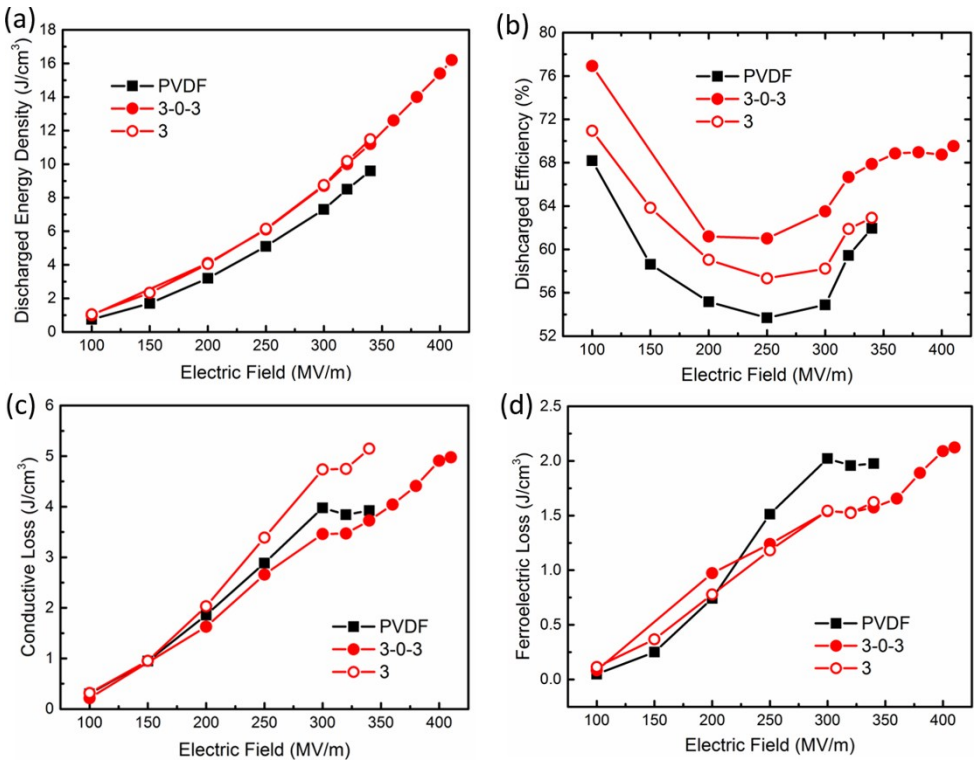

Figure S6. (a) Discharged energy density, (b) discharge efficiency, (c) conductive loss, and (d) ferroelectric loss of "3-0-3", "3", and pure PVDF measured at varied fields.

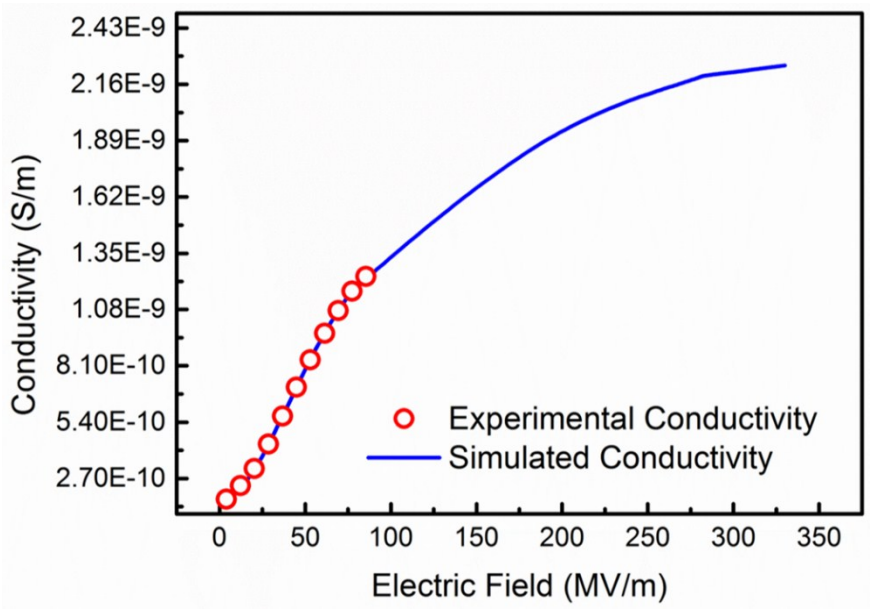

Figure S7. (a) Experimental conductivity and simulated conductivity by interpolation fitting method of pure PVDF films.