Supporting Information for

Engineering Metal-Organic Framework Towards Suppressed Leakage Current in Polymer Nanocomposites

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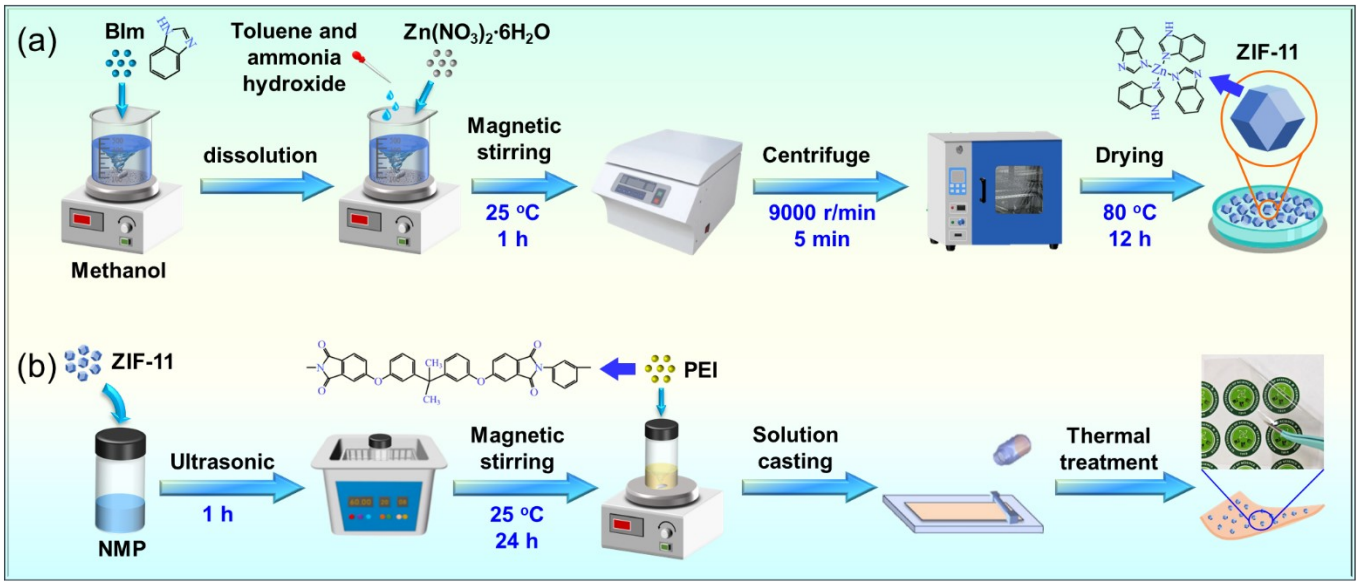

Fig. S1. Schematic illustration for of the preparation of (a) ZIF-11 particles and (b) ZIF-11/PEI nanocomposites.

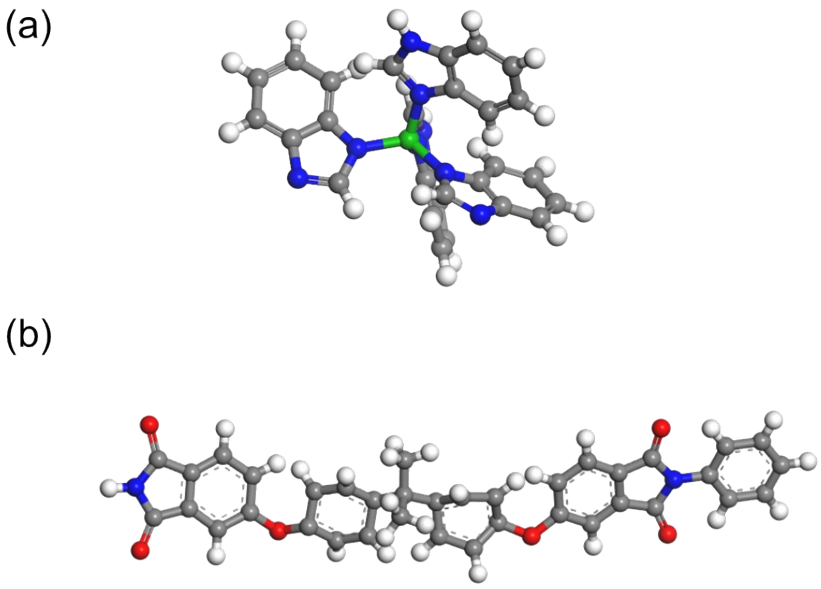

Fig. S2. Structures of (a) ZIF-11 and (b) PEI.

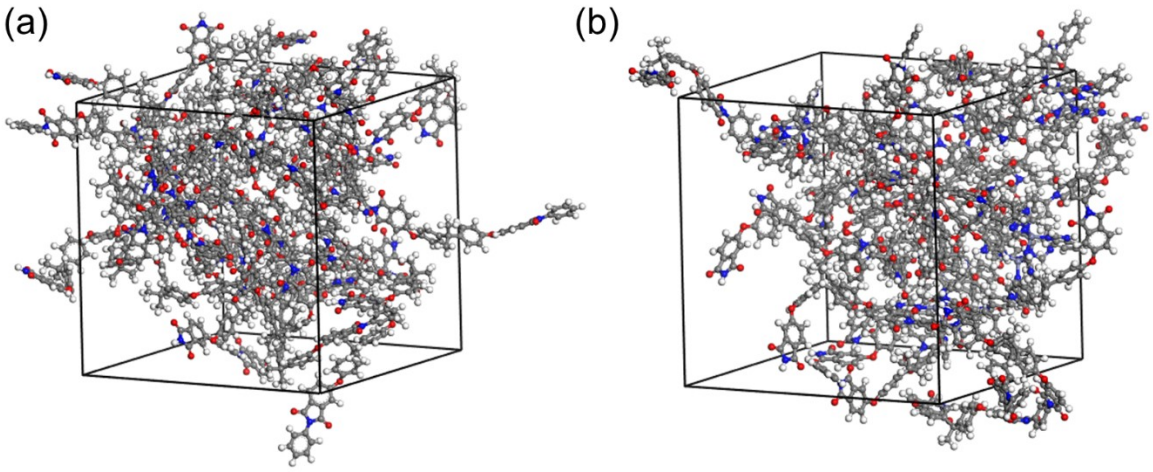

Fig. S3. Polymer configuration of (a) pure PEI, (b) ZIF-11/PEI nanocomposite.

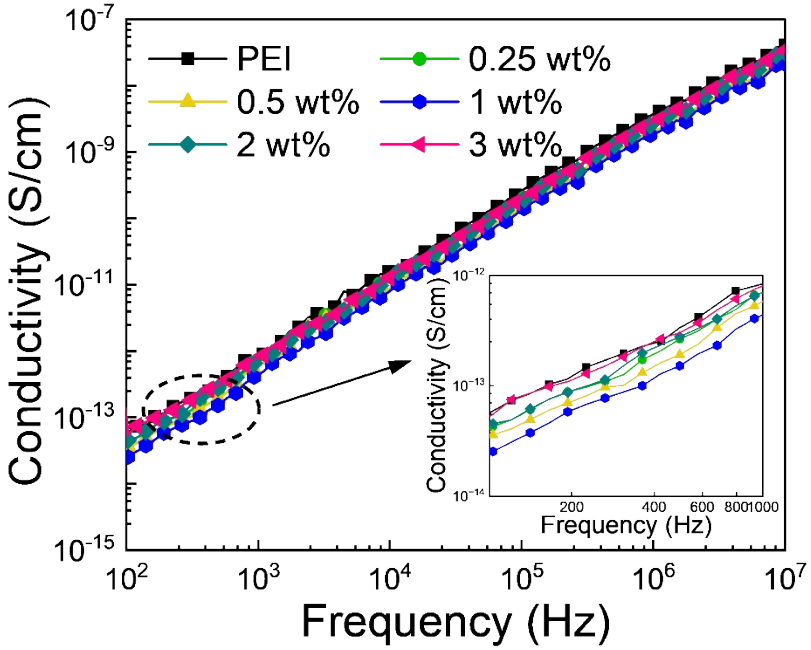

Fig. S4. The conductivity of PEI and ZIF-11/PEI nanocomposites at different frequencies.

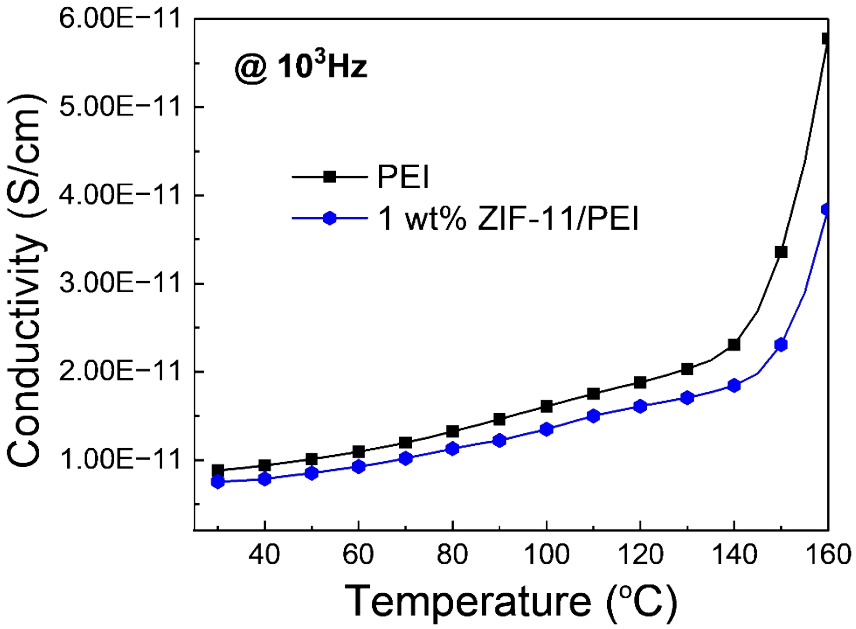

Fig. S5. The temperature dependence of conductivity at 10^3 Hz for PEI and 1 wt% ZIF-11/PEI.

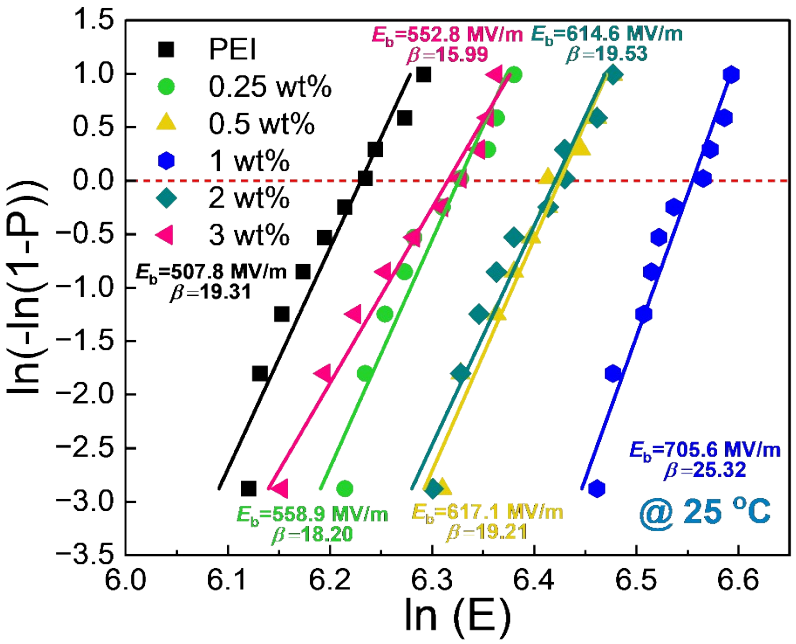

Fig. S6. Weibull distribution analysis of the breakdown strength for PEI and ZIF-11/PEI nanocomposites at 25 °C.

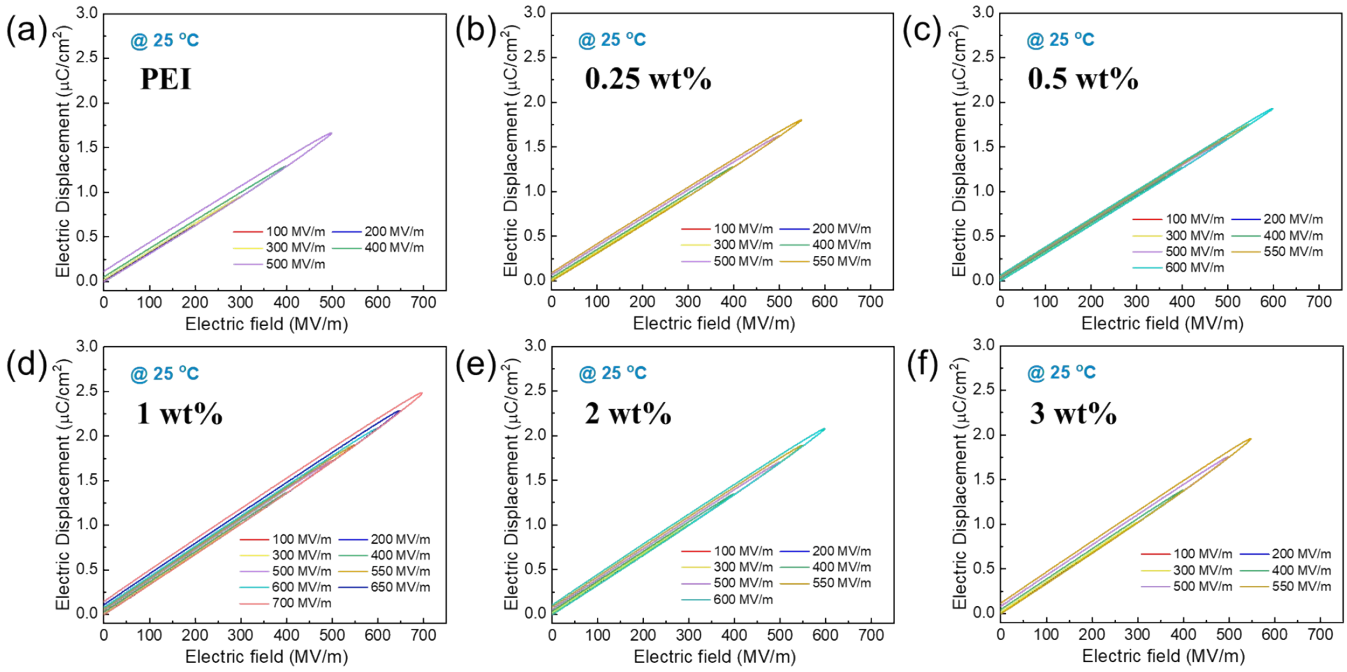

Fig. S7. *D-E* loops of (a) raw PEI. (b) 0.25 wt% ZIF-11/PEI. (c) 0.5 wt% ZIF-11/PEI. (d) 1 wt% ZIF-11/PEI. (e) 2 wt% ZIF-11/PEI and (f) 3 wt% ZIF-11/PEI at different electric field at room temperature.

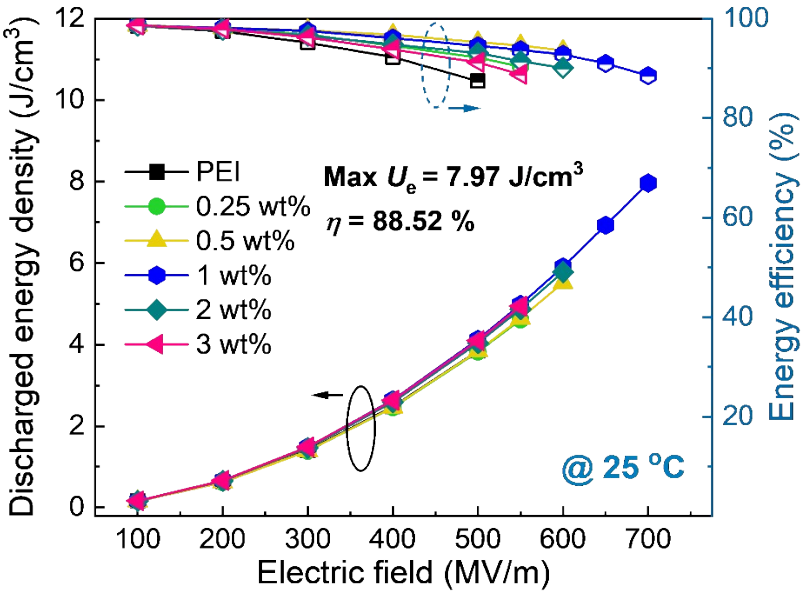

Fig. S8. Energy storage properties of pure PEI and ZIF-11/PEI nanocomposites at room temperature.

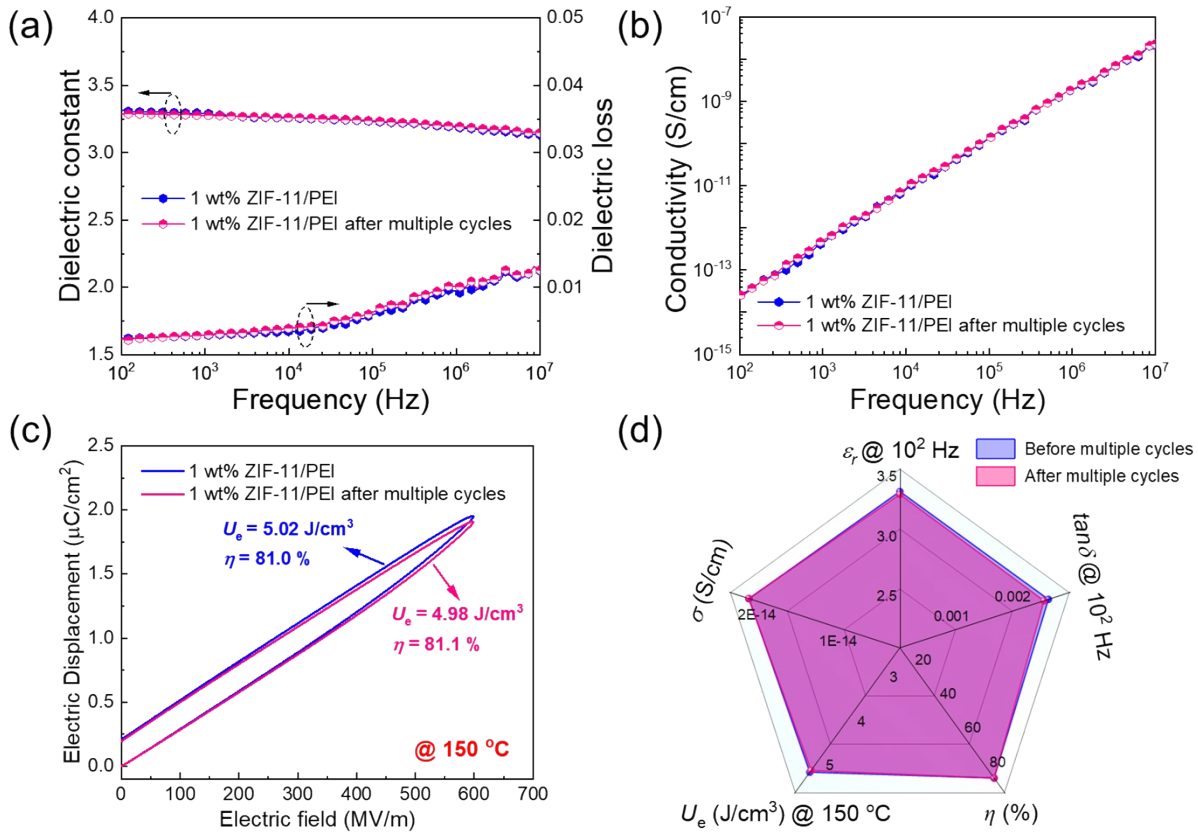

Fig. S9. Variation of (a) ε_r, *tanδ* and (b) σ with frequency for 1 wt% ZIF-11/PEI nanocomposites before and after multiple cycles. (c) *D-E* loops of the 1 wt% ZIF-11/PEI nanocomposites before and after multiple cycles. (d) The radar plot summarizes the main performance parameters of the 1 wt% ZIF-11/PEI nanocomposites before and after multiple cycles.