Supporting Information

Triptycene improved crystallization characteristics in PVDF-based all-organic composites boosts high energy density

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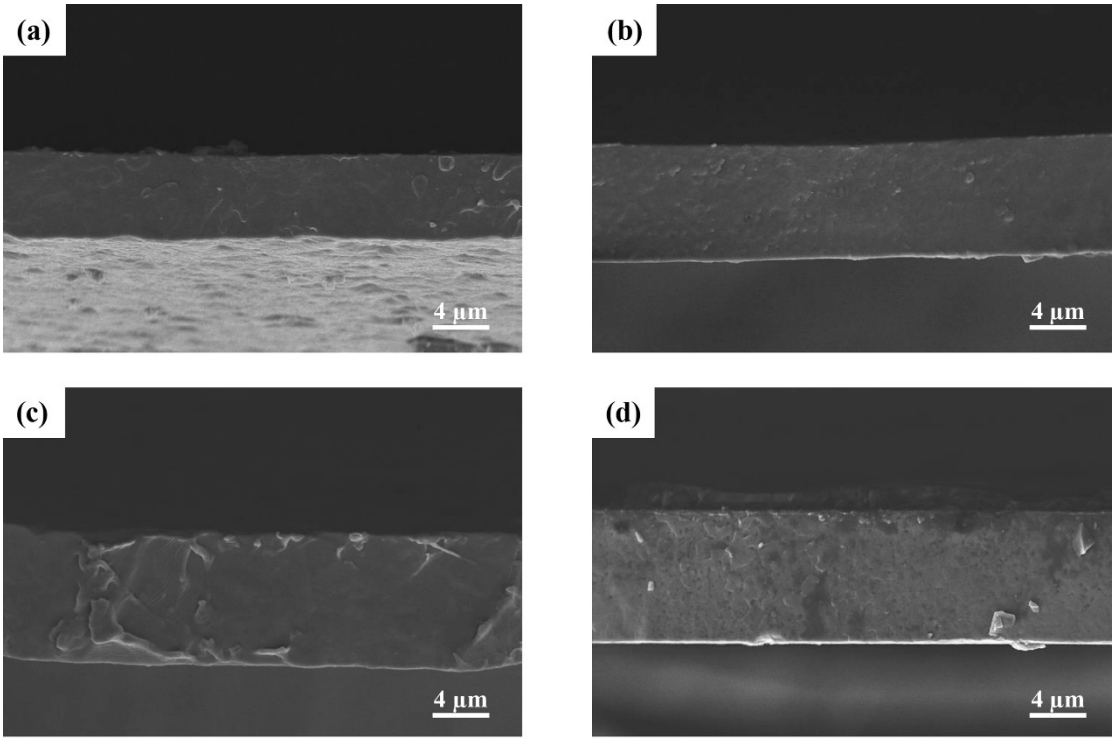

Fig. S1. Cross-section SEM images of PVDF/TE composites with different filler content: (a) 8 wt.%, (b) 10 wt.%, (c) 20 wt.%, (d) 25 wt.%.

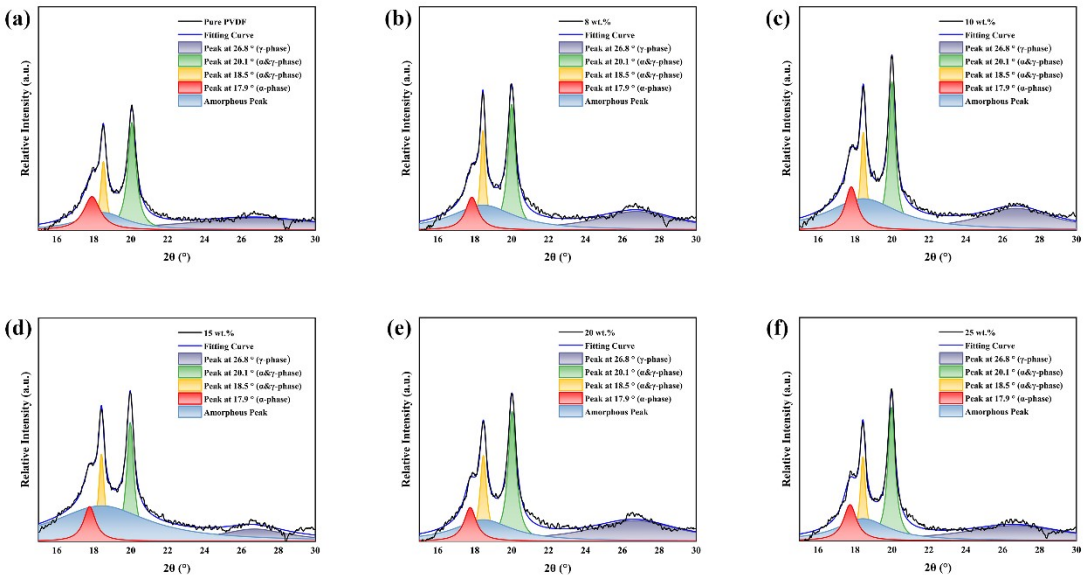

Fig. S2. XRD curves with fitting peaks of (a) pure PVDF and PVDF/TE composites with different filler content: (b) 8 wt.%, (c) 10 wt.%, (d) 15 wt.%, (e) 20 wt.%, (f) 25 wt.%.

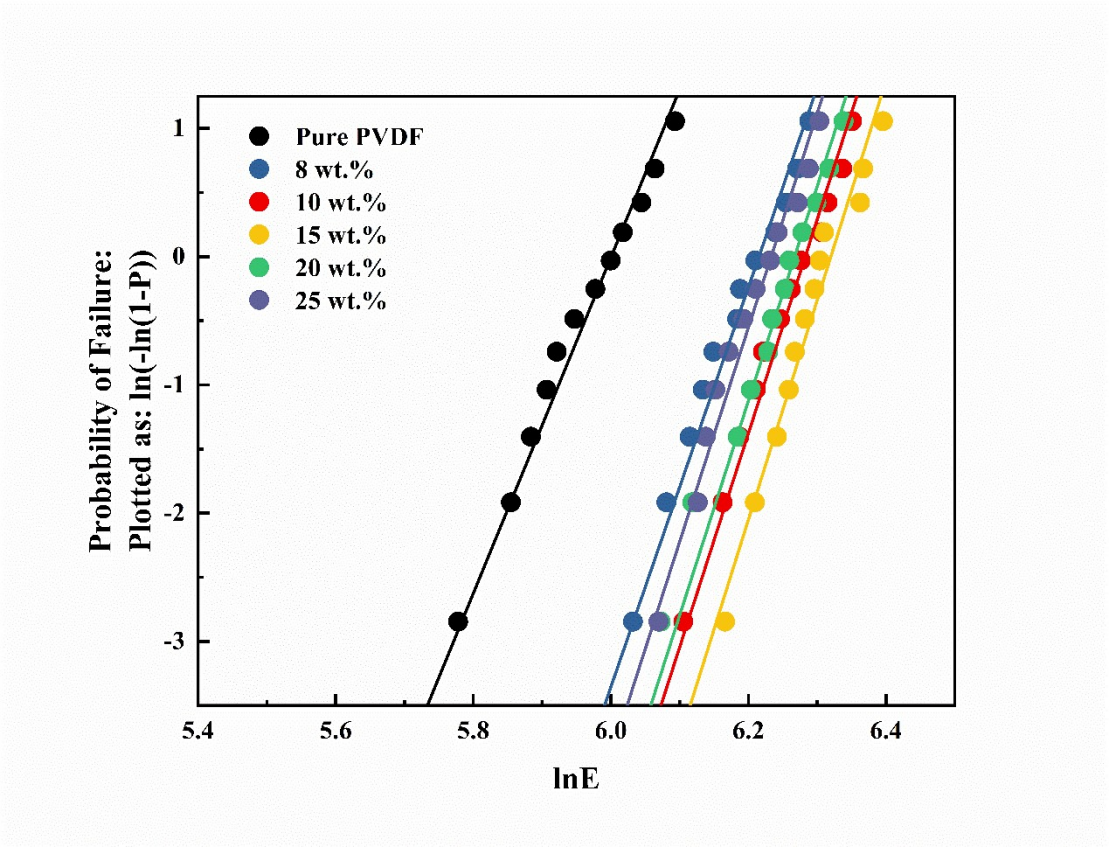

Fig. S3. Weibull breakdown strength of pure PVDF and PVDF/TE composites.

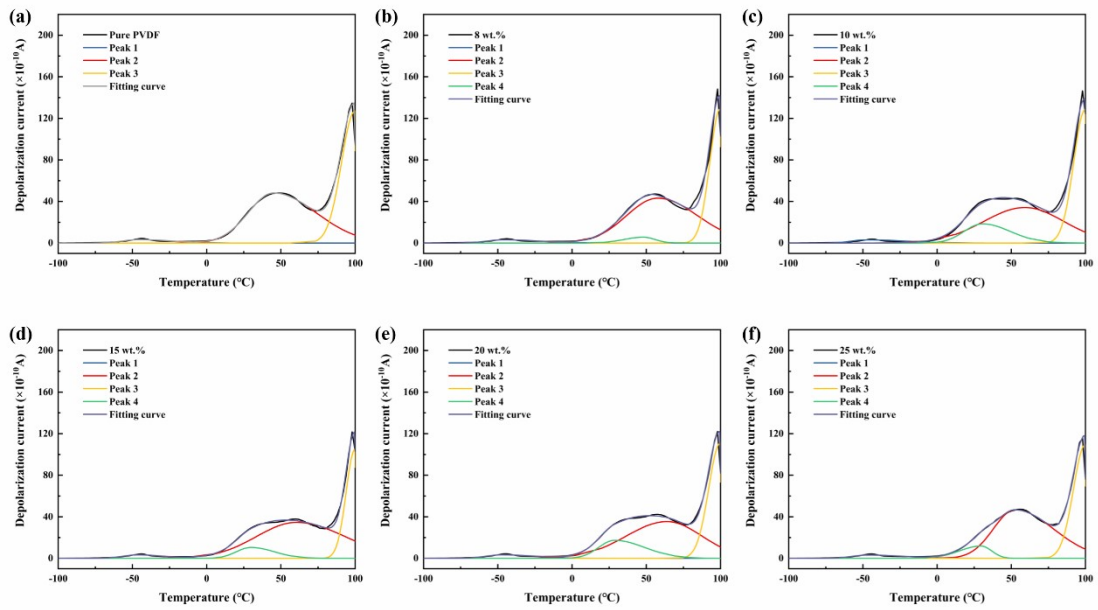

Fig. S4. TSDC curves with fitting peaks of (a) pure PVDF and PVDF/TE composites with different filler content: (b) 8 wt.%, (c) 10 wt.%, (d) 15 wt.%, (e) 20 wt.%, (f) 25 wt.%.

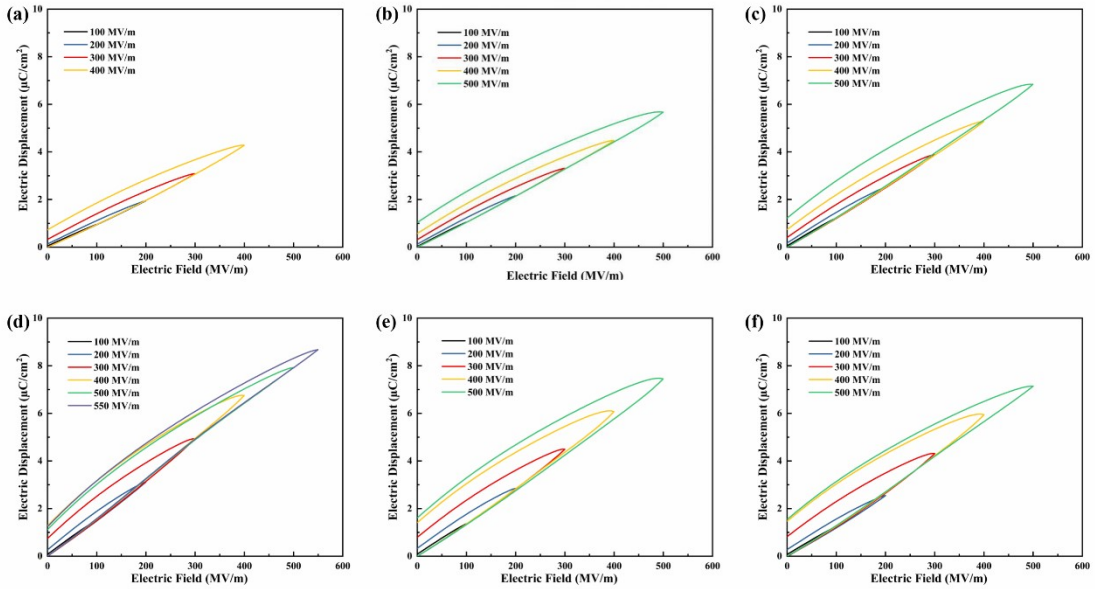

Fig. S5. D-E curves of (a) pure PVDF and PVDF/TE composites with different filler content: (b) 8 wt.%, (c) 10 wt.%, (d) 15 wt.%, (e) 20 wt.%, (f) 25 wt.%.

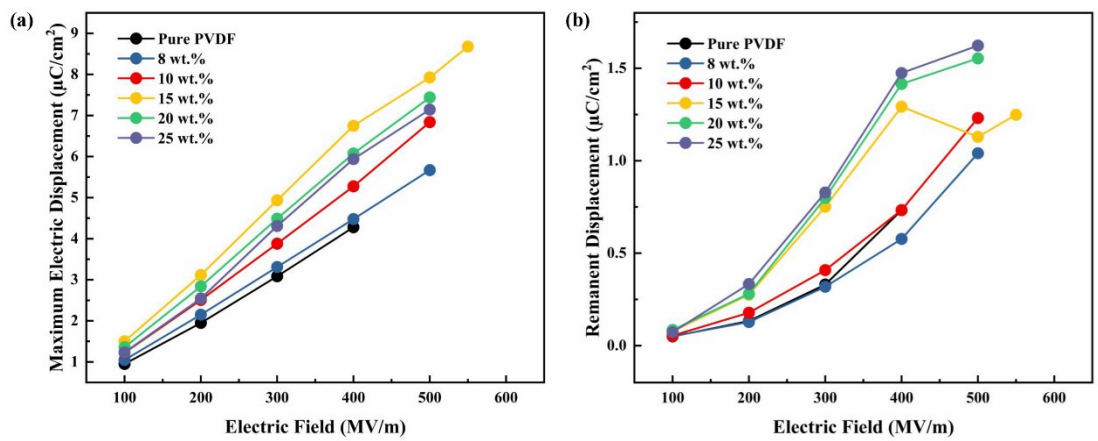

Fig. S6. (a) Maximum electric displacement and (b) remanent displacement at various electric fields related to the TE weight fraction in composites.

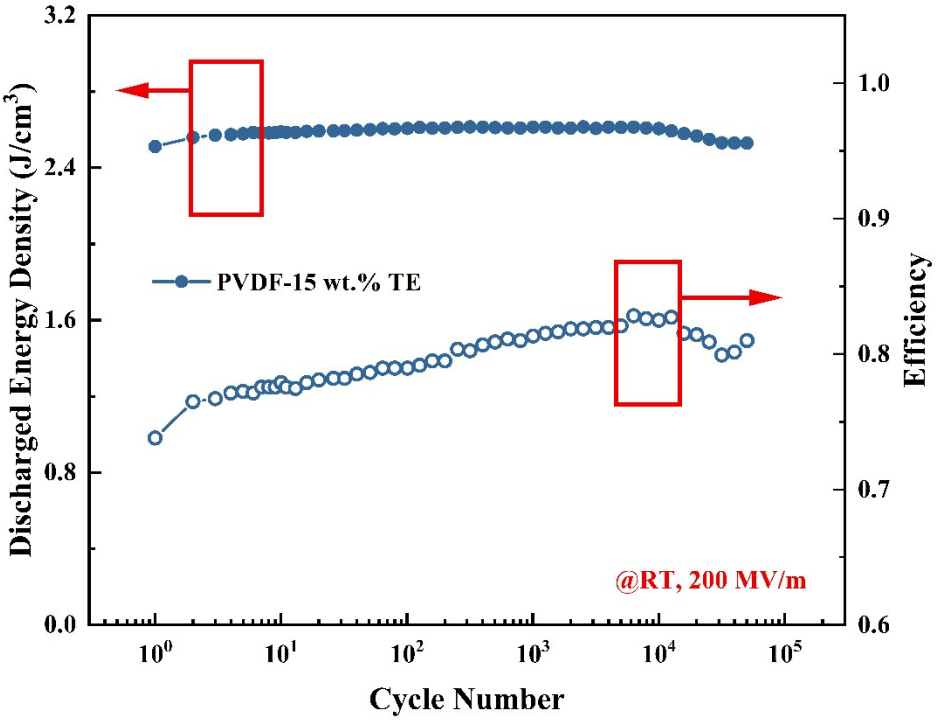

Fig. S7. Cycling stability of PVDF-15 wt.% at RT and 200 MV/m