

Supporting Information

**Alternating Multilayer Architecture Boosts Ultrahigh Energy
Density and High Discharge Efficiency in Polymers Composites**

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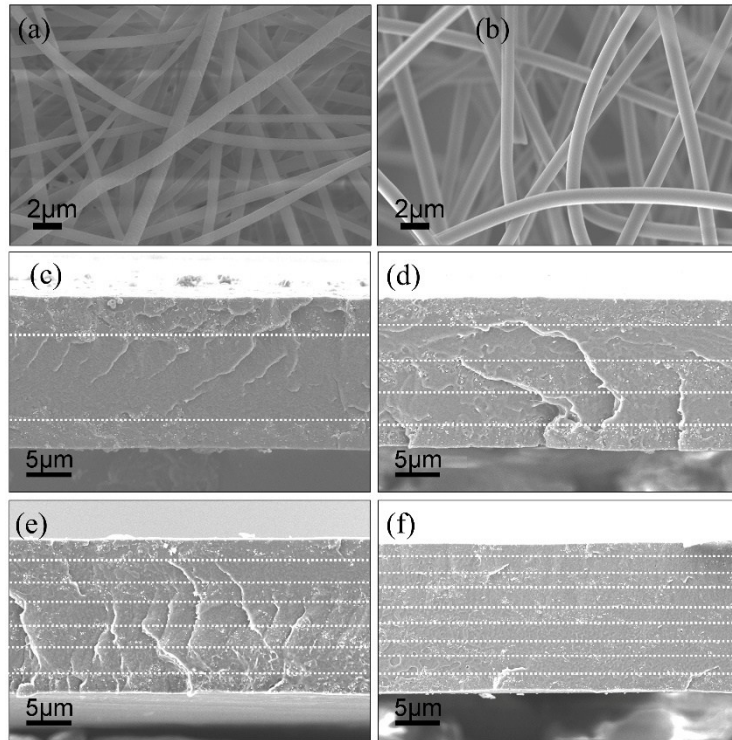


Figure S1. Fiber SEM images of the (a) Pure PMMA and (b) Pure P(VDF-HFP). SEM images of the PMMA/P(VDF-HFP)-BTO_nps multilayer composite films with 3L (c), 5L (d) 7L (e) and 9L (f), respectively.

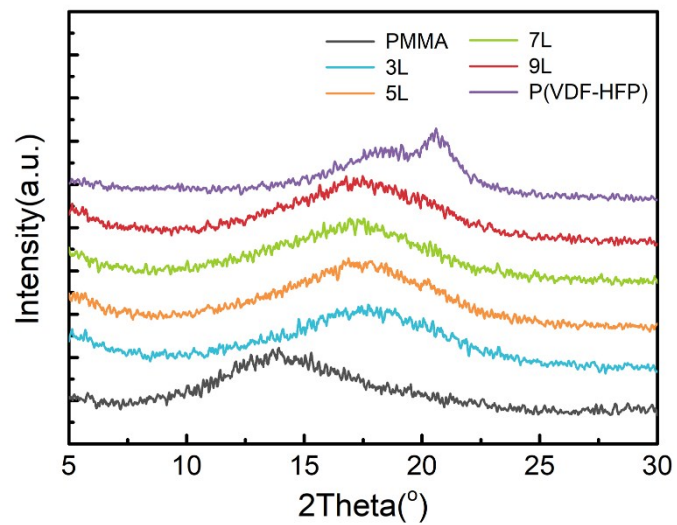


Figure S2. XRD patterns of the multilayer composite films.

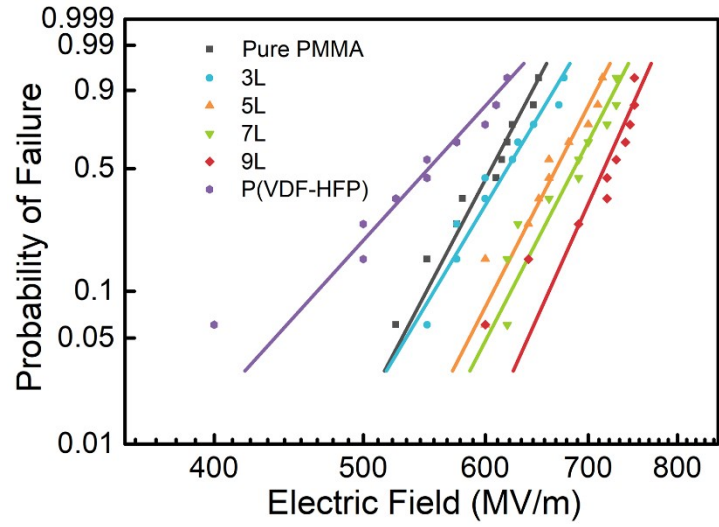


Figure S3. Weibull distributions of electric breakdown strength at room temperature for multilayer composite films.

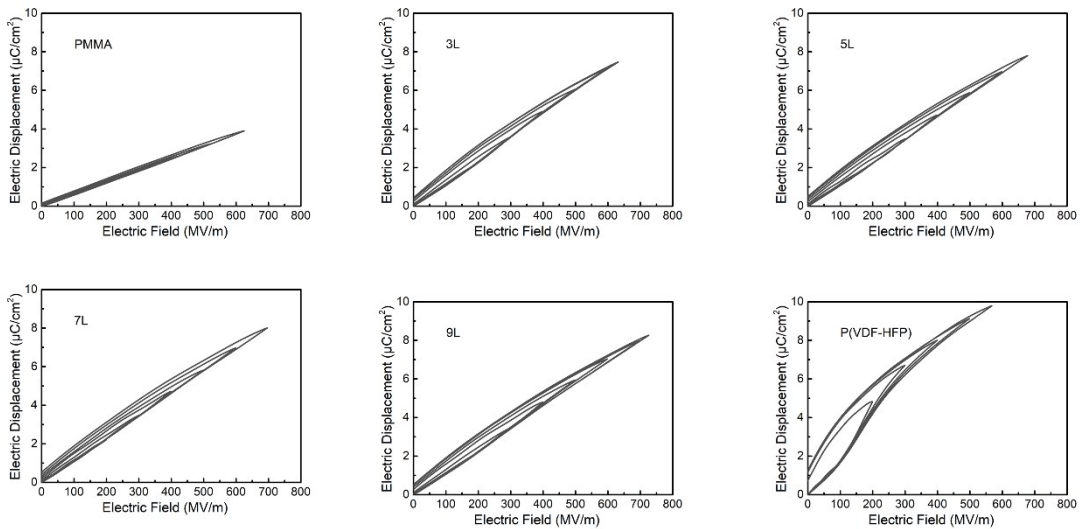


Figure S4. Unipolar electric displacement-electric field (D - E) loops for multilayer composite films.

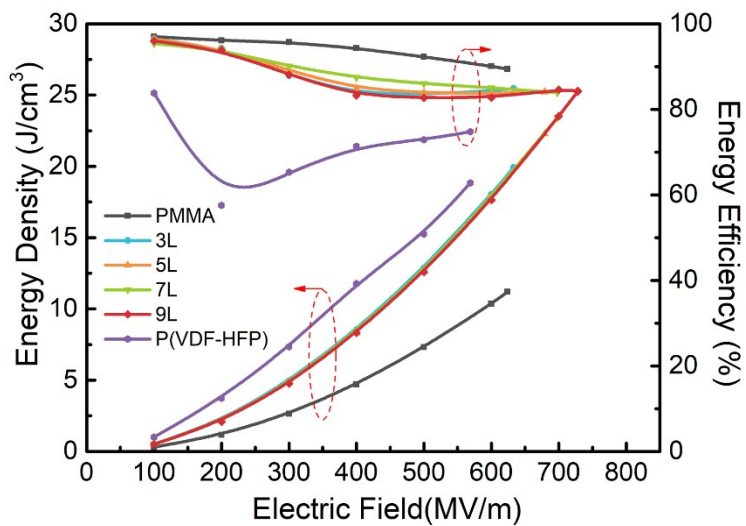


Figure S5. Discharged energy density and charge–discharge efficiency of the multilayer composite films as a function of the electric field.