Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A

"Grafting to" route to PVDF-HFP-GMA/$BaTiO_3$ nanocomposites with high dielectric constant and high thermal conductivity for energy storage and thermal management application

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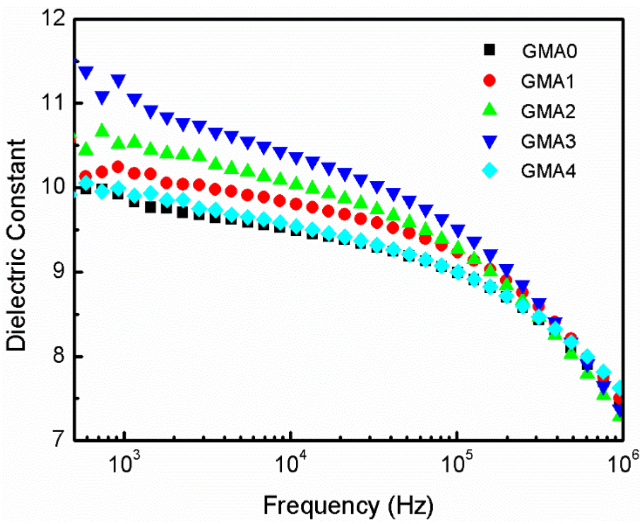

Figure S1. Frequency dependence of dielectric constant for different PVDF-HFP-GMA.

Table S1. Feed ratios of GMA monomer and PVDF-HFP and dielectric constant of different PVDF-HFP-GMA at 1 kHz.

Sample	GMA0	GMA1	GMA2	GMA3	GMA4
Weight Ratio (GMA/PVDF-HFP)	0	0.2	0.5	1.0	2.5

Dielectric Constant (1 kHz)	9.8	10.1	10.6	11.0	10.0

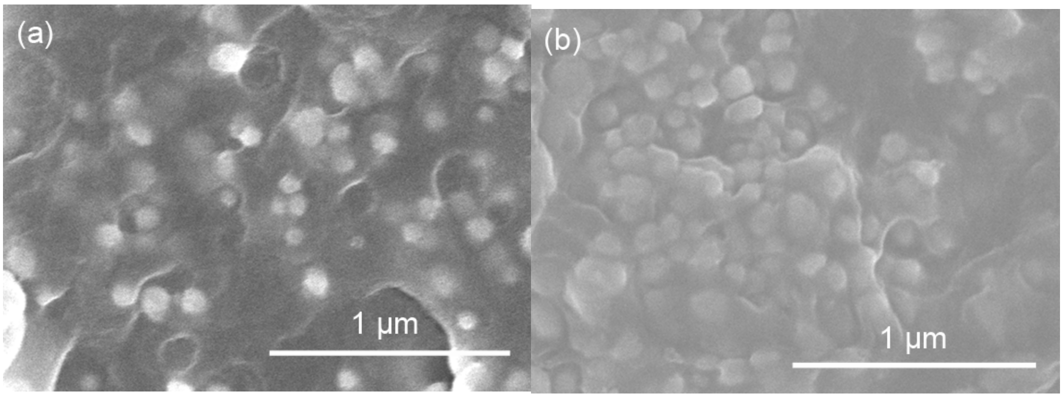

Figure S2. SEM images of fractured surface of (a) PVDF-HFP-GMA/BT and (b) PVDF-HFP/BT. The BT nanoparticle loading is 20 vol% for the two samples.

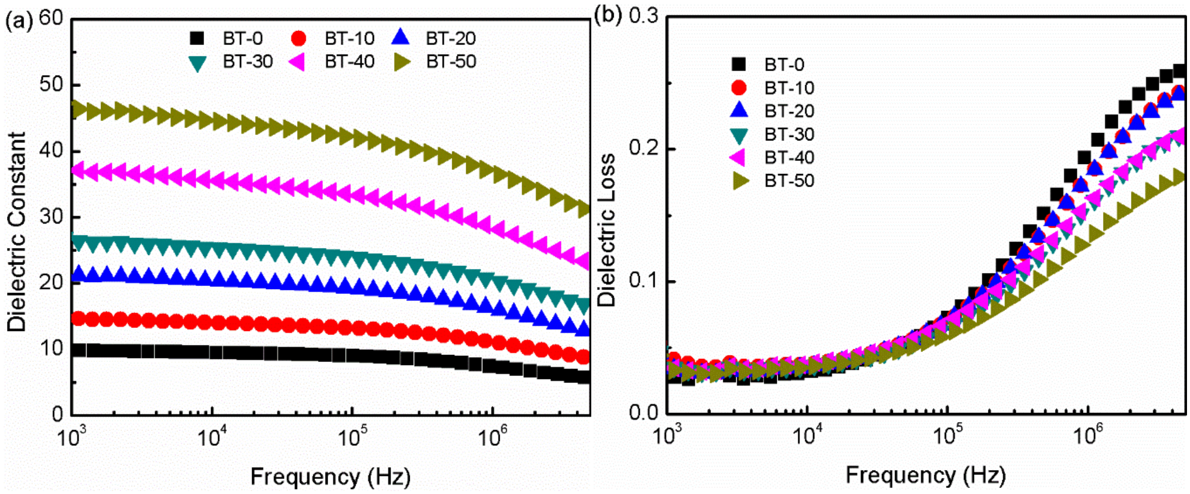

Figure S3. Frequency dependence of dielectric responses of PVDF-HFP/BT nanocomposites at room temperature: (a) dielectric constant, (b) dielectric loss tangent

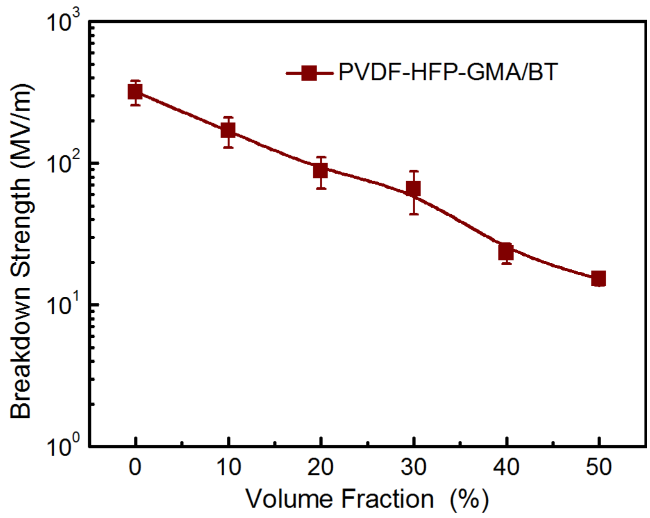

Figure S4. DC breakdown strength of PVDF-HBP-GMA/BT nanocomposites.