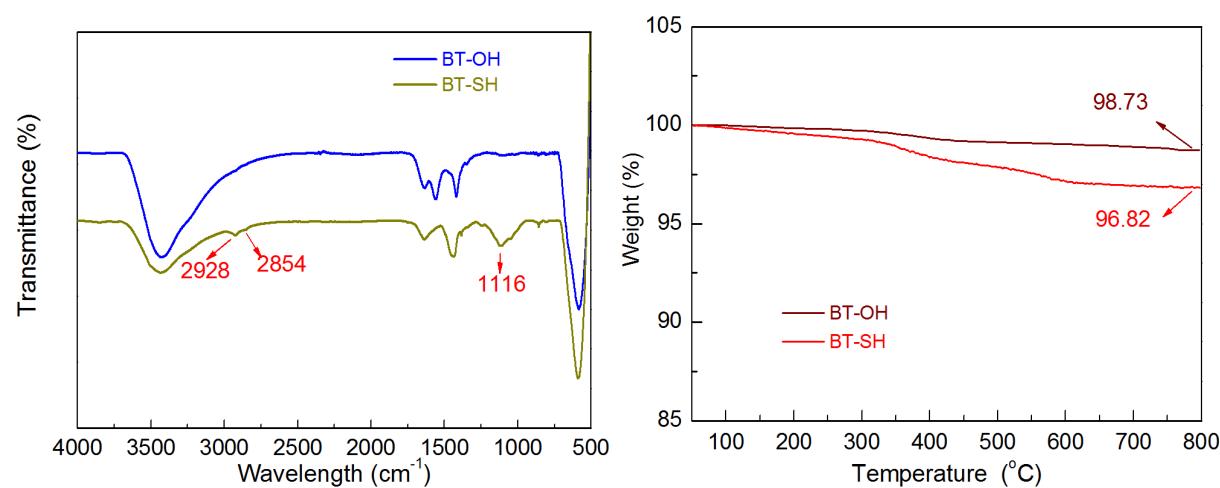


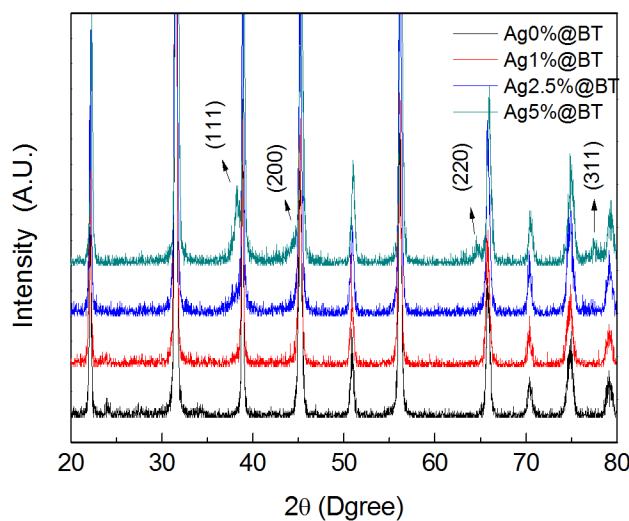
**Electronic Supplementary Information.**

**Core-Satellite Ag@BaTiO<sub>3</sub> Nanoassemblies for Polymer Nanocomposites with High Discharged Energy Density, High Breakdown Strength and Low Dielectric Loss**

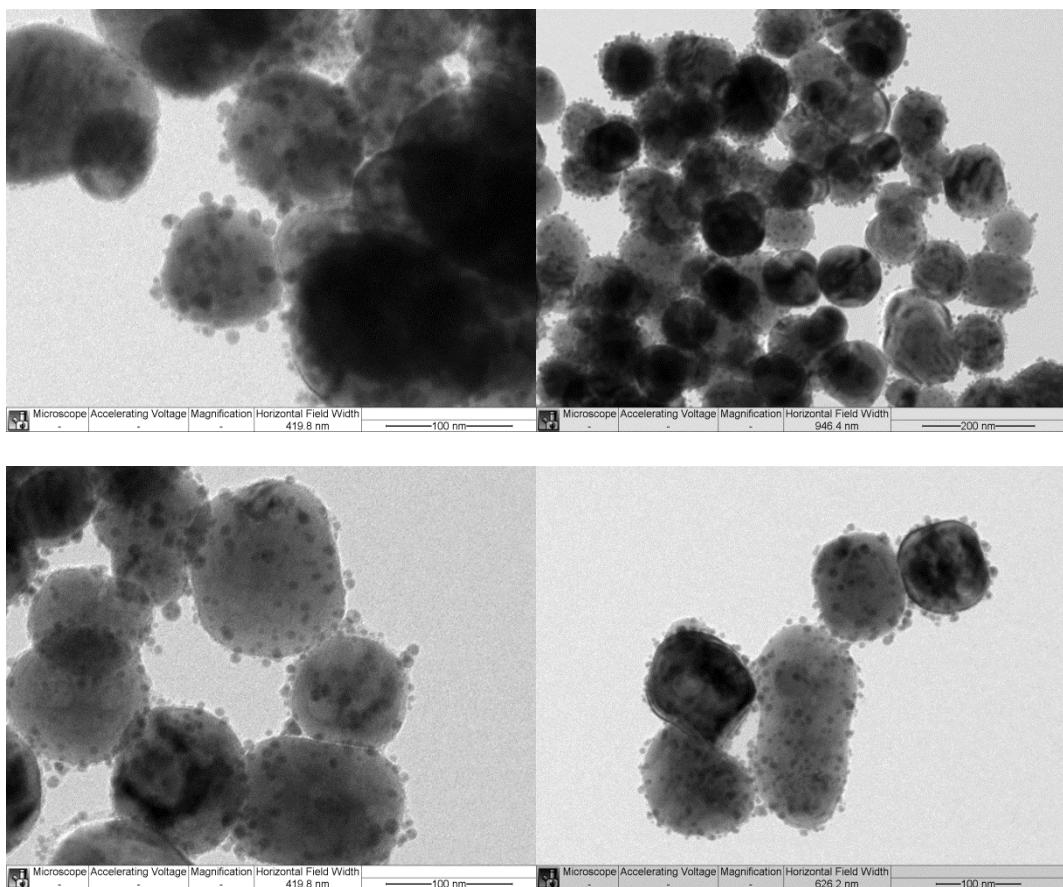
Liyuan Xie, Xingyi Huang\*, Bao-Wen Li, Chunyi Zhi, Toshikatsu Tanaka, Pingkai Jiang\*



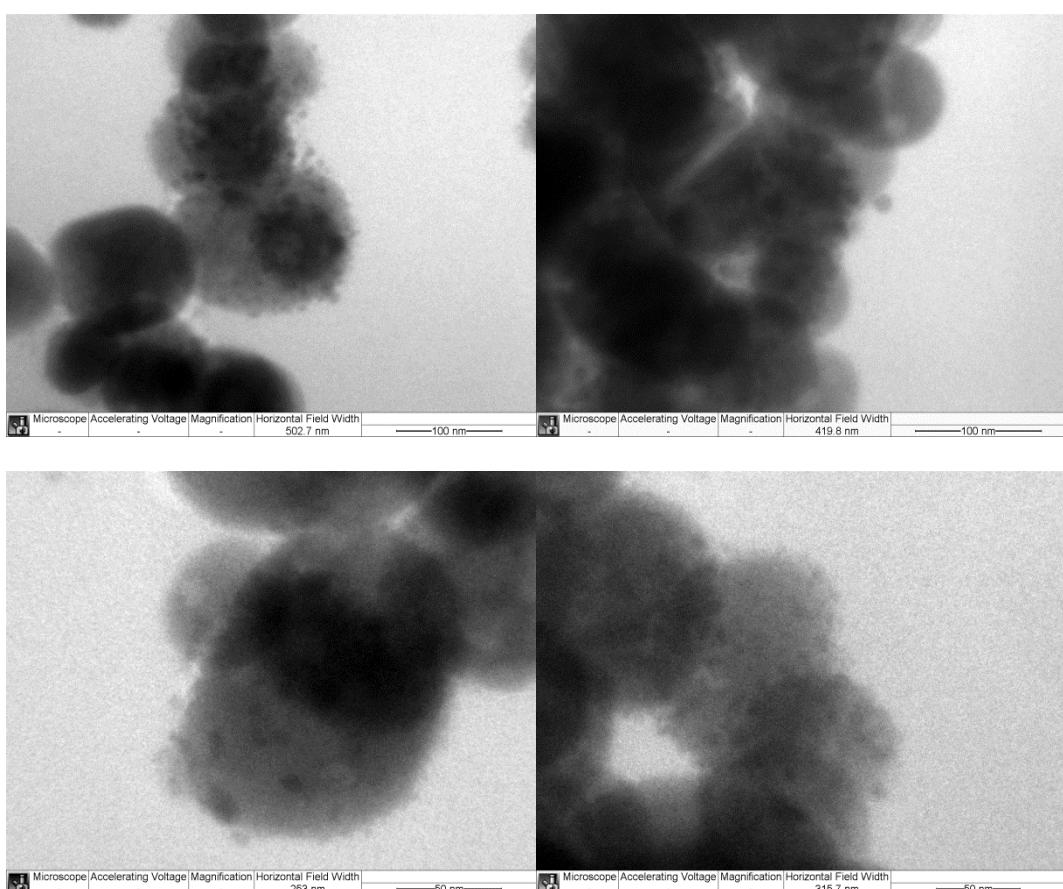
**Figure S1.** (left) FTIR spectra of BT-OH and BT-SH nanoparticle, (right) TGA curves of BT-OH, BT-SH and BT-Ag nanoparticles measured in  $\text{N}_2$ .



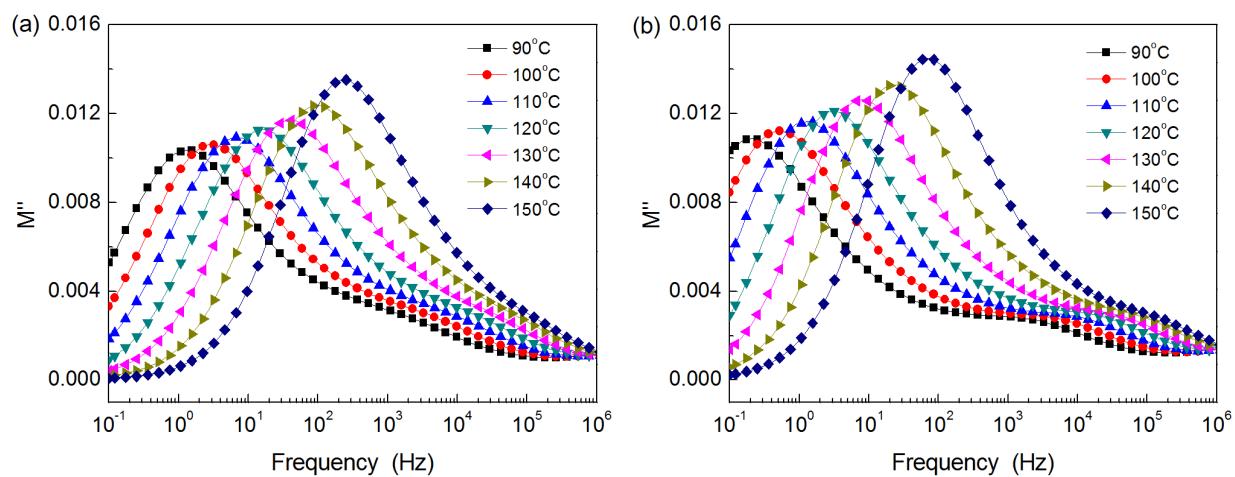
**Figure S2.** XRD spectra of the BT nanoparticles and Ag @ BT nanoparticles with different amount of Ag.



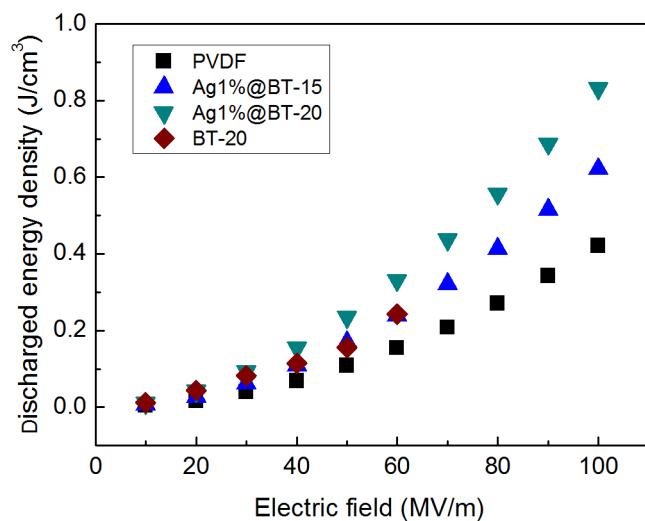
**Figure S3.** TEM images of Ag1%@BT nanoparticles.



**Figure S4.** TEM images of Ag1%@BT /PVDF nanocomposite.



**Figure S5.** Imaginary electric modulus of PVDF/BT (a) and PVDF/Ag@BT (b) nanocomposites



**Figure S6.** Discharged energy density for PVDF/Ag1%@BT nanocomposites. Note: When the electric field is larger than 60 MV/m, the discharged energy density data of the PVDF nanocomposites with 20% BT is not available because of breakdown of the sample.