

Supporting Information

Simultaneously Increased Discharged Energy Density and Efficiency in Bilayer-Structured Nanocomposites with AgNbO₃ Lead-Free Antiferroelectric Nanofillers

Ying Jiang ^a, Zhangmeng Luo ^a, Yue Huang ^b, Meng Shen ^b, Haitao Huang ^c, Shenglin Jiang ^d, Yunbin He ^{a,*}, Qingfeng Zhang ^{a,*}

^a*Hubei Key Lab of Ferro & Piezoelectric Materials and Devices, School of Materials Science & Engineering, Hubei University, Wuhan 430062, China*

^b*School of Physics and Electronic Science, Hubei University, Wuhan 430062, China*

^c*Department of Applied Physics, The Hong Kong Polytechnic University, Hong Kong, China*

^d*School of Optical and Electronic Information and Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, 430074, China*

*Corresponding authors.

E-mail addresses: ybhe@hubu.edu.cn (Y. He), zhangqingfeng@hubu.edu.cn (Q. Zhang)

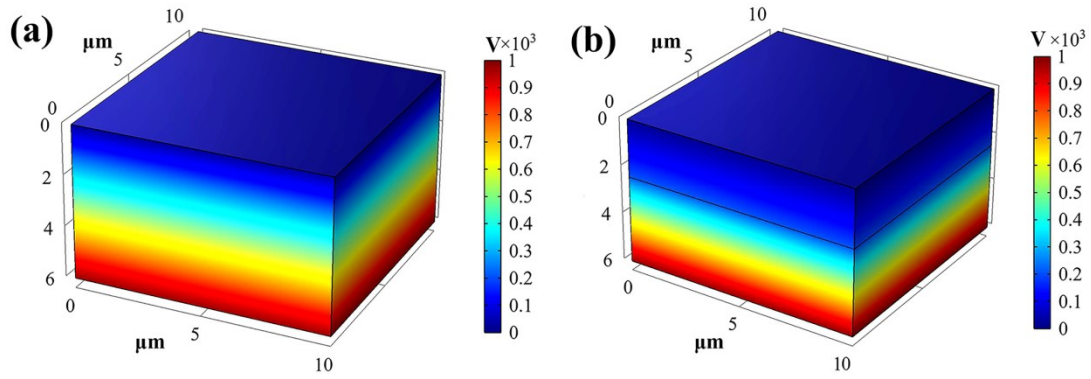


Fig. S1. Electric potential distributions of (a) AN/P(VDF-HFP) and (b) PI-AN/P(VDF-HFP) nanocomposites.

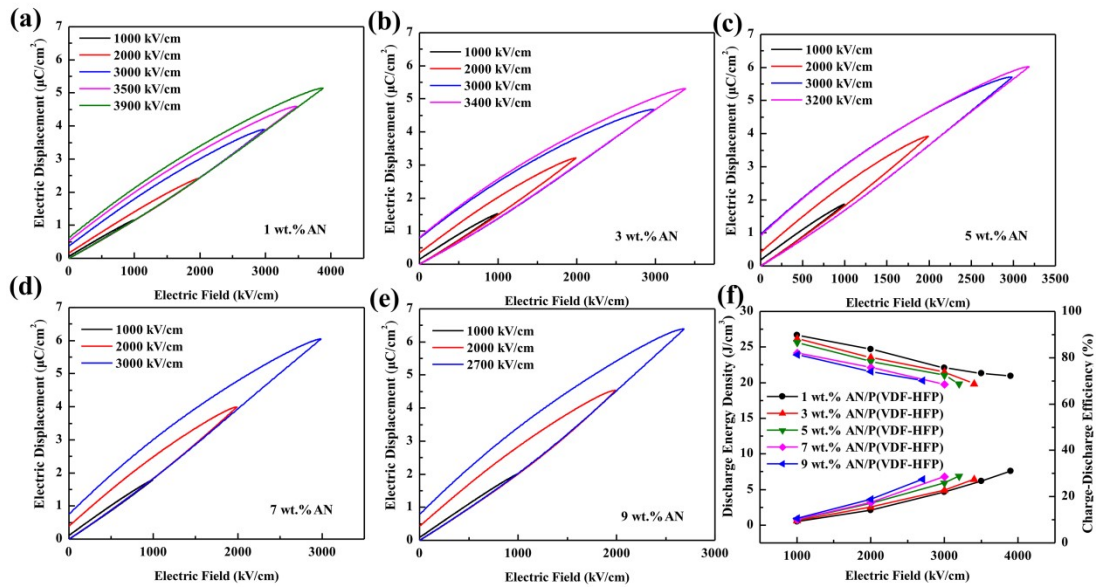


Fig. S2. *D-E* loops of AN/P(VDF-HFP) nanocomposites containing (a) 1 wt.%, (b) 3 wt.%, (c) 5 wt.%, (d) 7 wt.%, (e) 9 wt.% AN NP content at different electric fields and (f) discharged energy density and charge-discharge efficiency of AN/P(VDF-HFP) nanocomposites.

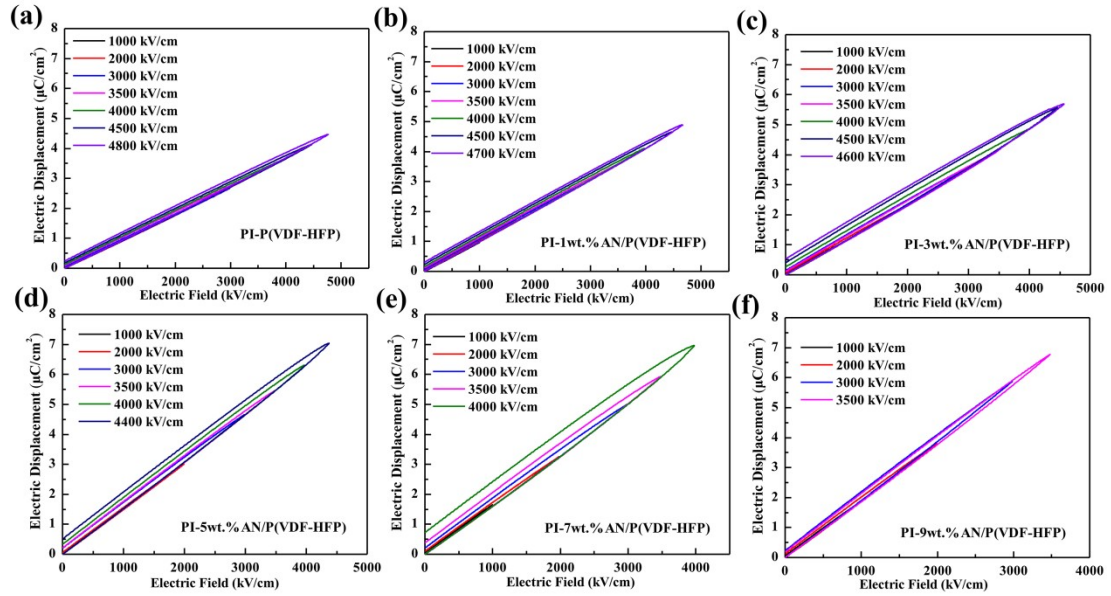


Fig. S3. *D-E* loops of PI-AN/P(VDF-HFP) bilayer nanocomposites containing (a) 0 wt.%, (b) 1 wt.%, (c) 3 wt.%, (d) 5 wt.%, (e) 7 wt.% and (f) 9 wt.% AN NP content at different electric fields.