

Superior discharged energy density and efficiency in polymer nanocomposites induced by linear dielectric core-shell nanofibers

Zhongbin Pan,^{*abc} Lingmin Yao,^b Jinjun Liu,^{*a} Xiaoyan Liu,^b Feipeng Pi,^b Jianwen Chen,^d Bo Shen^c and Jiwei Zhai^{*c}

^aSchool of Materials Science and Chemical Engineering, Ningbo University, Ningbo, Zhejiang, 315211, China.

^bSchool of Physics and Electronic Engineering, Guangzhou University, Guangzhou, 510006, China.

^cSchool of Materials Science & Engineering, Tongji University, 4800 Caoan Road, Shanghai 201804, China.

^dSchool of Electronic and Information Engineering, Foshan University, Foshan, 528000, China.

*E-mail: panzhongbin@163.com (Zhongbin Pan), apzhai@tongji.edu.cn (Jiwei Zhai), liujinjun1@nbu.edu.cn (Jinjun Liu)

Supporting Information 1

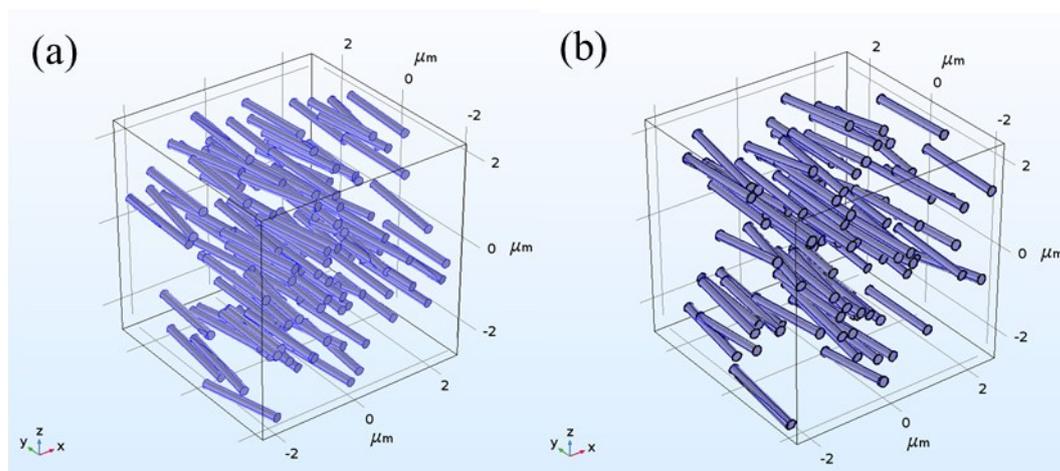


Figure S1 Three-dimensional models of the simulation system for 5 vol.% ST NFs/PVDF and 5 vol.% ST@AO NFs /PVDF composite films.

Supporting Information 2

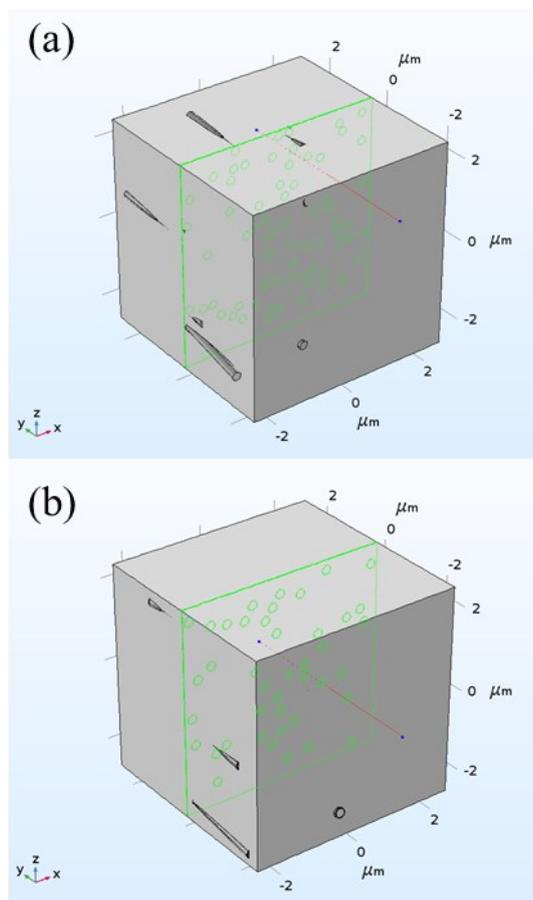


Figure S2 Cross-section images (X-directions) distribution of leakage current density, electric potential, and electric field strength simulated for the 5 vol% ST NFs/PVDF composite films (a) and 5 vol% ST@AO NFs/PVDF composite films (b).

Supporting Information 3

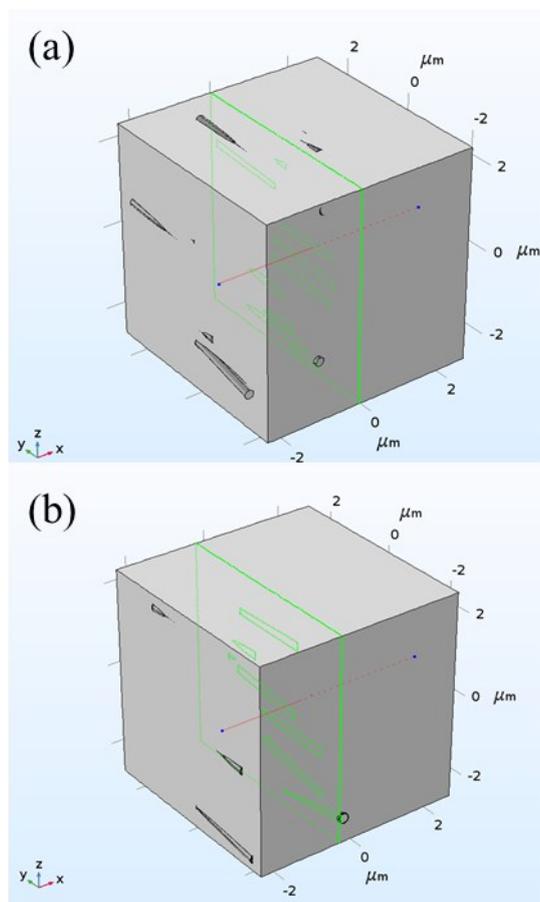


Figure S3 Cross-section images (Y-directions) distribution of leakage current density, electric potential, and electric field strength simulated for the 5 vol% ST NFs/PVDF composite films (a) and 5 vol% ST@AO NFs/PVDF composite films (b).

Supporting Information 4

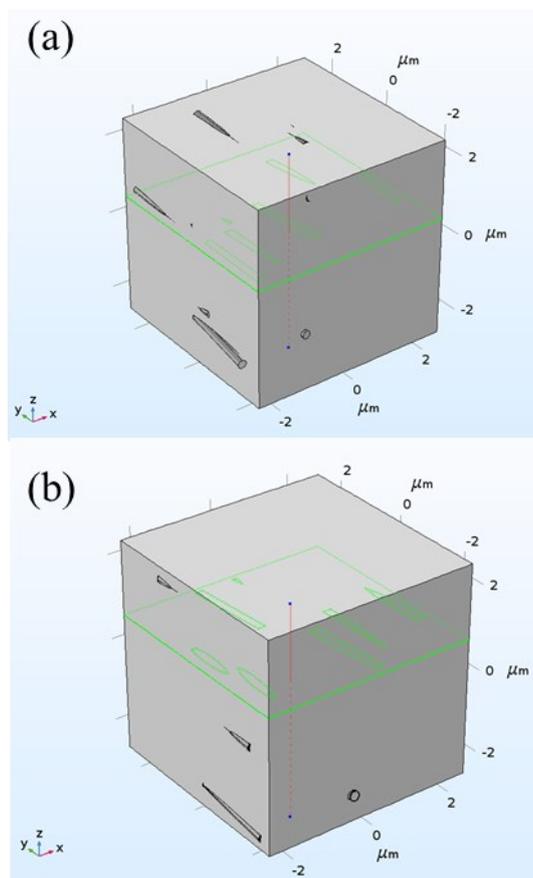


Figure S4 Cross-section images (Z-directions) distribution of leakage current density, electric potential, and electric field strength simulated for the 5 vol% ST NFs/PVDF composite films (a) and 5 vol% ST@AO NFs/PVDF composite films (b).

Supporting Information 5

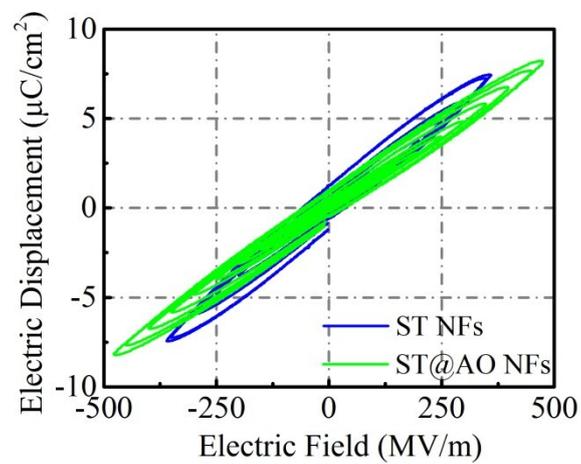


Figure S5 D-E curves of 5 vol% ST NFs/PVDF composite films and 5 vol% ST@AO NFs/PVDF composite films.

Supporting Information 6

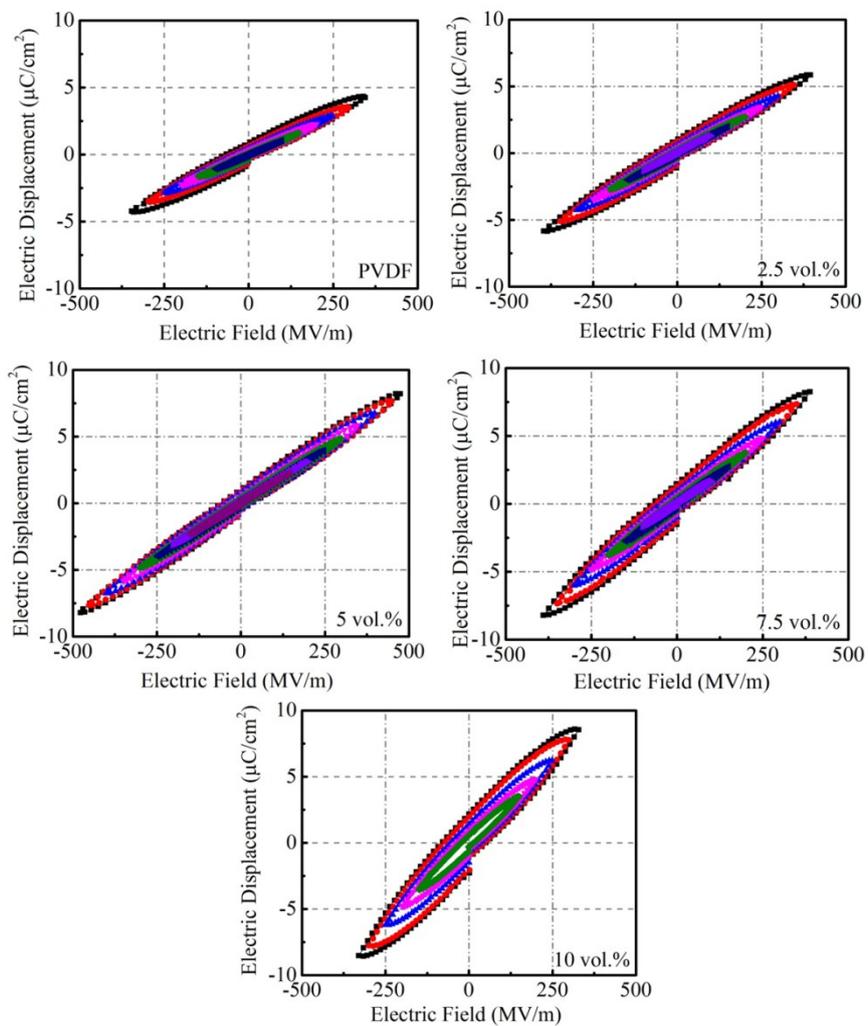


Figure S6 D-E curves of pure PVDF and ST@AO NFs/PVDF composite films with different contents fillers.