

3D Printing of Anisotropic Polymer Nanocomposites with Aligned BaTiO₃ Nanowires for Enhanced Energy Density

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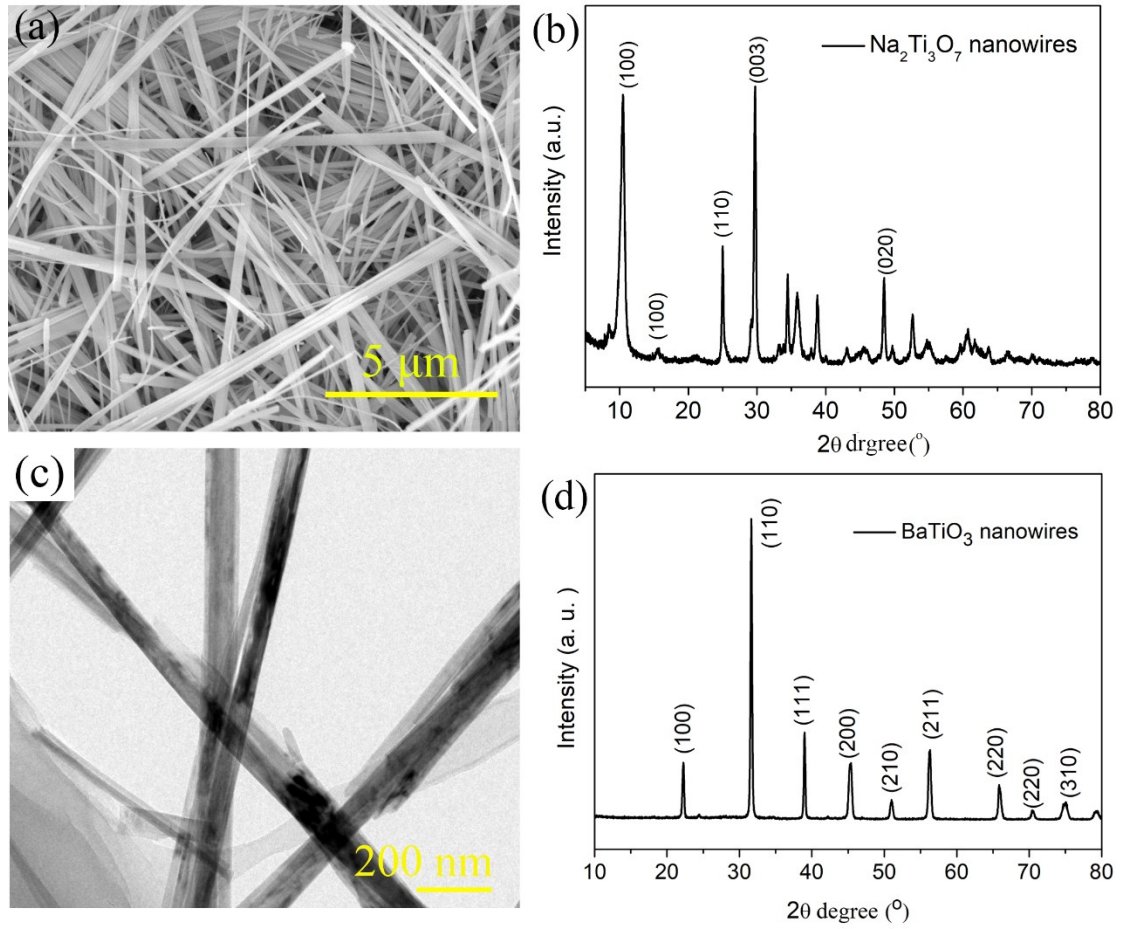


Figure S1 (a) SEM image and (b) XRD pattern of $\text{Na}_2\text{Ti}_3\text{O}_7$ nanowires; (c) TEM image and (d) XRD pattern of BaTiO_3 nanowires

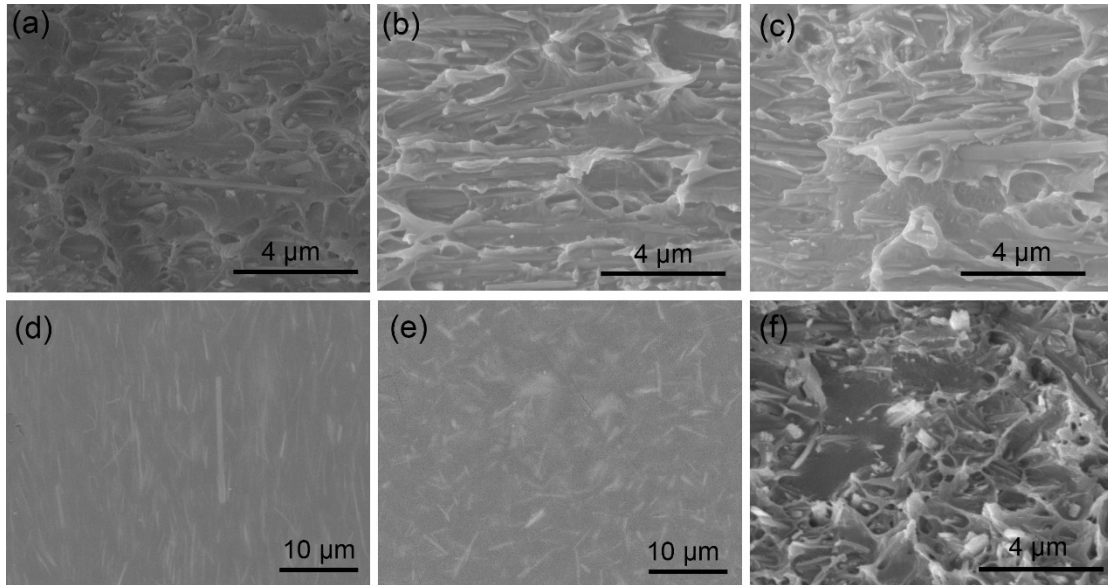


Figure S2 Scanning Electron Microscope (SEM) images of cross-sections of P(VDF-CTFE) nanocomposites with (a) 2.5vol.%, (b) 5.0 vol.%, and (c) 7.5 vol.% aligned BaTiO₃ nanowires, (d) top-surface SEM images of the P(VDF-CTFE) nanocomposites with 5.0 vol.% aligned BaTiO₃ nanowires; For comparison, (e) top-surface (f) cross-section SEM images of P(VDF-CTFE) nanocomposites with 5.0 vol.% randomly distributed BaTiO₃ nanowires.

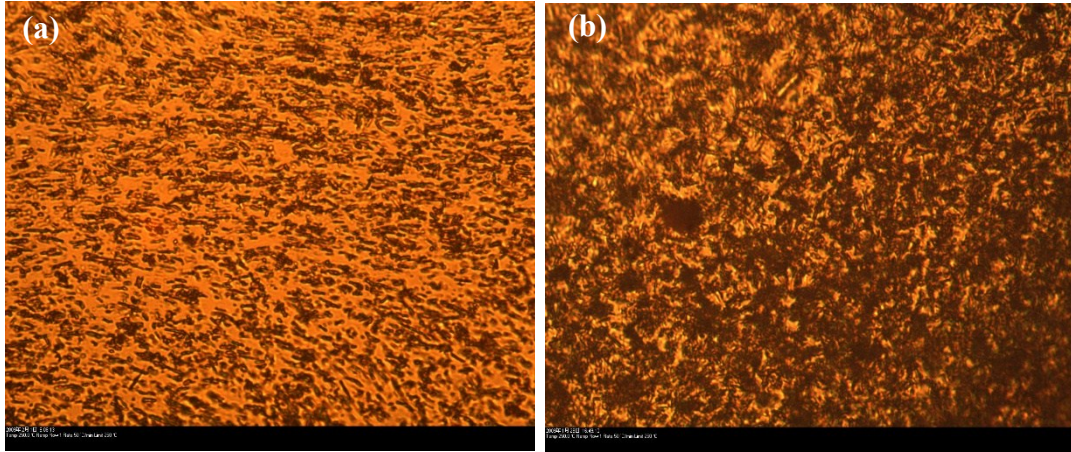


Figure S3 Polarizing microscope (POM) images of the nanocomposites with 5 vol.%
(a) aligned, and (b) randomly distributed BaTiO₃ nanowires.

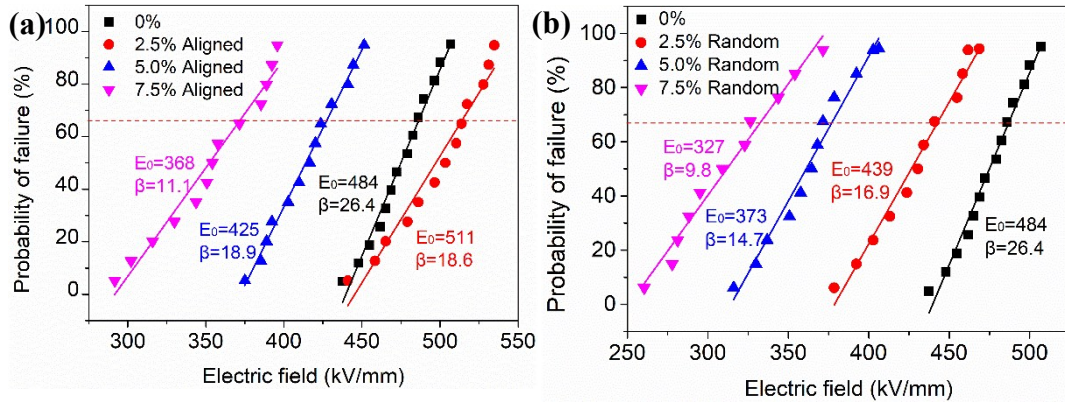


Figure S4 Weibull distributions of the dielectric breakdown strength of P(VDF-CTFE)

nanocomposites filled with (a) aligned and (b) randomly distributed BaTiO₃

nanowires.