Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supporting information

Controllable distribution of conductive particles in polymer blends via bilayer structure design: a strategy to fabricate shape-memory composites with tunable electro-responsive properties

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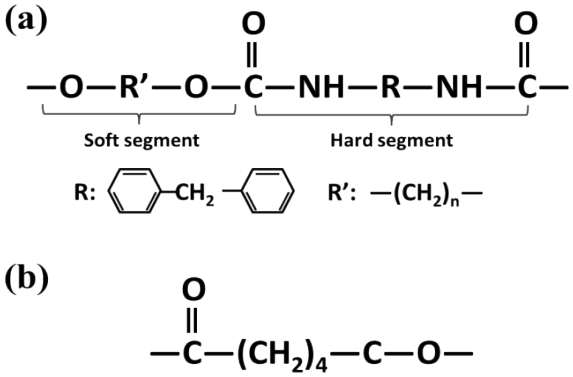

Fig. S1 Molecular structures of (a) TPU and (b) PCL.

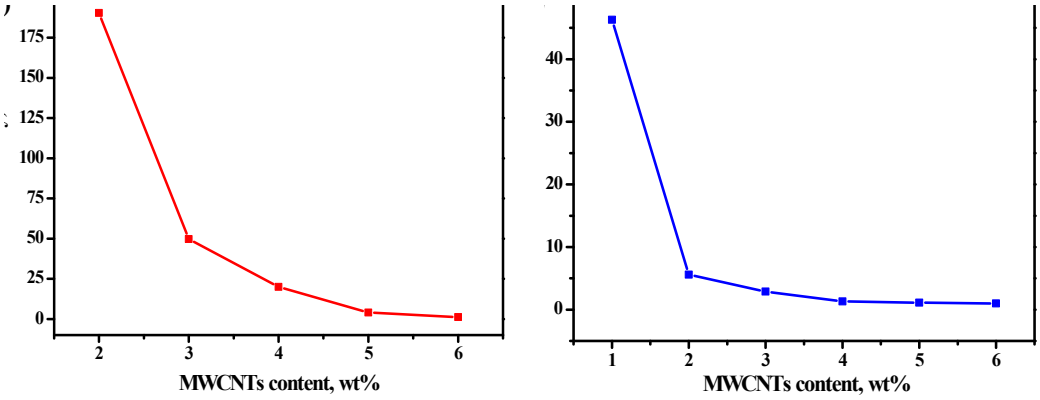

Fig. S2 Electrical resistivity of the TPU/MWCNT and PCL/MWCNT composites.

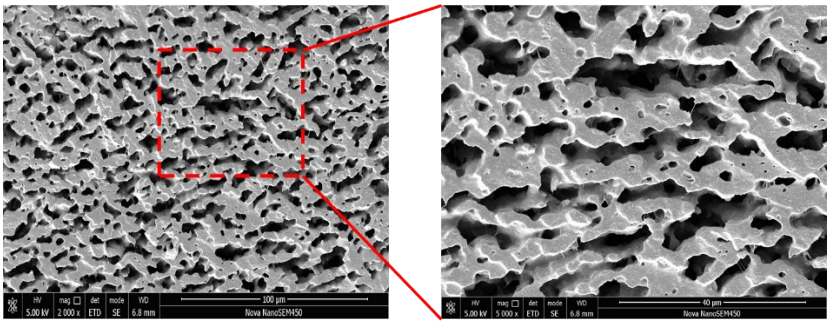

Fig. S3 SEM pictures of the TPU/PCL/MWCNT blending composite after etching PCL.

Fig. S4 Image of the acetone etchant after soaking the TPU/PCL/MWCNT blending composite for 24 h.

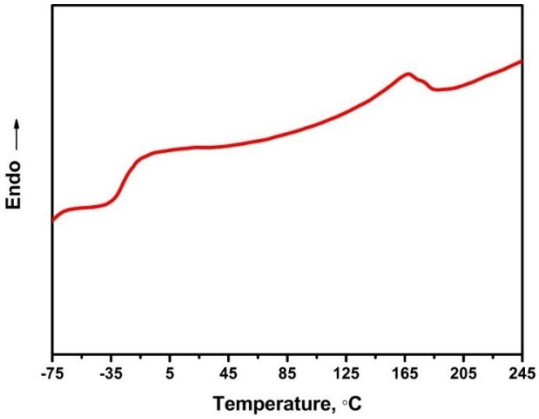

Fig. S5 DSC heating curve of TPU.

Video S1 The electro-responsive shape recovery progress of the cTPU5/PCL bilayer composite at 20V (MP4)

Video S2 The electro-responsive shape recovery progress of the TPU/cPCL5 bilayer composite at 5V (MP4)

Video S3 The electro-responsive shape recovery progress of the cTPU3/cPCL2 bilayer composite at 15V (MP4)

Video S4 The electro-responsive shape recovery progress of the cTPU3/cPCL2 bilayer composite at 10V (MP4)