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

Supplementary materials:

Fabrication and evaluation of adhesion enhanced flexible carbon nanotube transparent conducting films

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Supporting materials:

A large area uniform TCF sample, like A3 paper size, with excellent transmittance fabricated using PAA solution is shown in Fig. S1.

Fig. S1 Sample image of a large area CNT film.

CNT films can be bent all the way without a significant change in sheet resistance (Fig. S2). And after 3000 cycles test, the sheet resistance of CNT films has only a minor increase about 3% as shown in Fig. S3. Hence, SWCNT/PET film performs excellent flexibility.

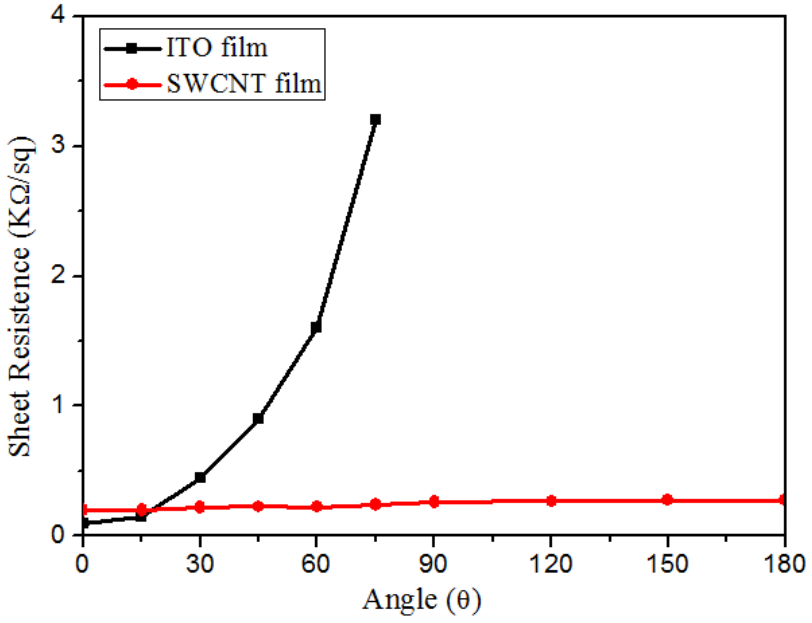

Fig. S2 Flexibility study of SWCNT/PET vs. ITO/PET with sheet resistance as a function of bending angle.

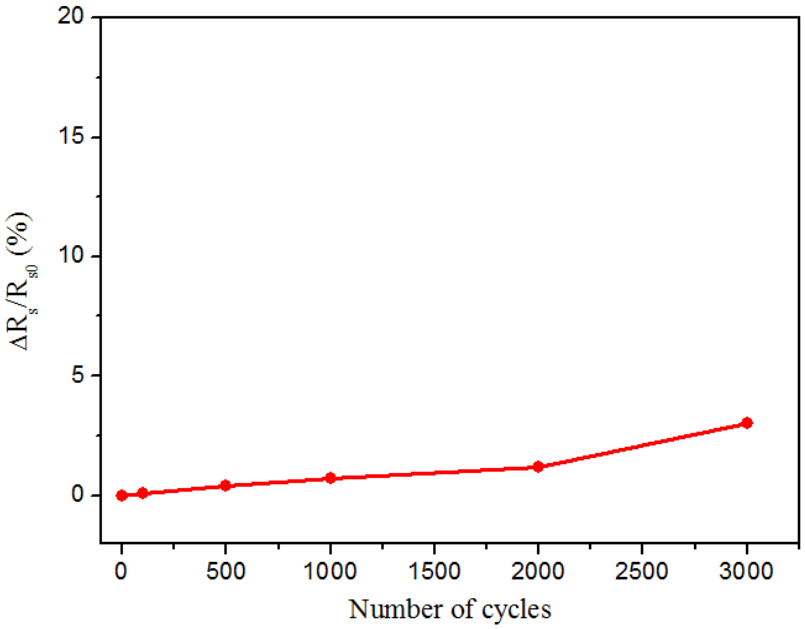

Fig. S3 Cyclic testing of CNT coating on PET substrate.

REFERENCES

[1] N. Saran, K. Parikh, D. S. Suh, E. Muñoz, H. Kolla, and S. K. Manohar. Fabrication and characterization of thin films of single-walled carbon nanotube bundles on flexible plastic substrates. Journal of the American Chemical Society, 2004, 126(14): 4462-4463.

[2] L. Hu, D. S. Hecht, and G. Gruner. Carbon nanotube thin films: fabrication, properties, and applications. Chemical Reviews, 2010, 110(10): 5790-5844.