Electronic Supplementary Material (ESI) for Nanoscale
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Supplementary Information for:

Contamination-free and damage-free patterning of single-walled carbon nanotube transparent conductive films on flexible substrates

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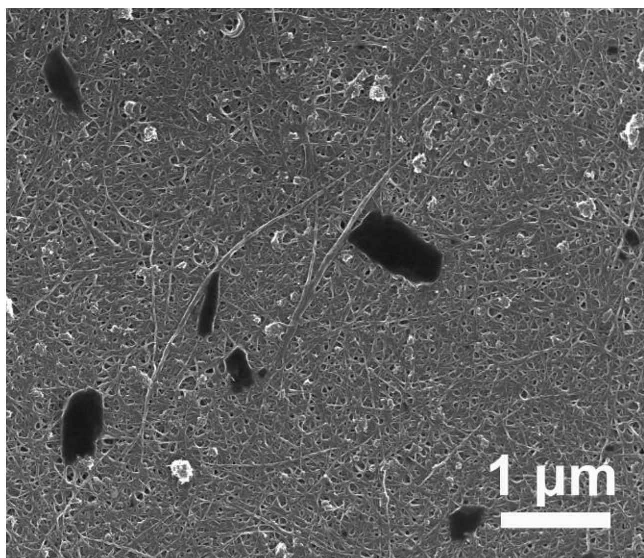

Fig. S1 SEM image of a SWCNT TCF pattern fabricated by the plasma dry etching method. Black stains are PR residues.

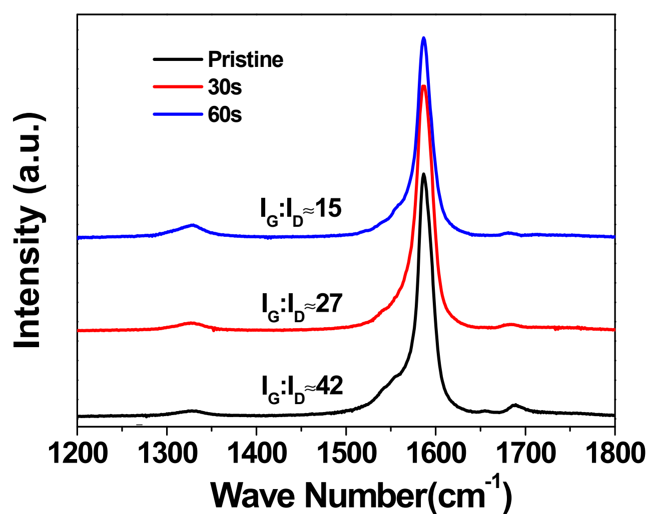

Fig. S2 SWCNT structure evolution under different oxygen plasma treatment times. The Raman spectra show that under 30 and 60 s plasma treatment, the I_G/I_D decreases to 27 and 15, respectively, from 42 for the original SWCNT film, implying damage to the intrinsic structure of the SWCNTs.

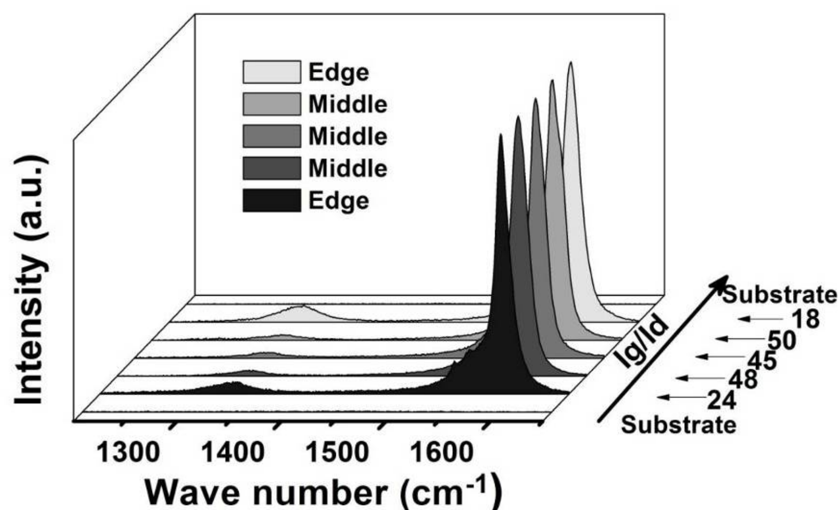

Fig. S3 Raman evolution of D and G bands for an 80 μm-wide SWCNT line pattern fabricated by plasma dry etching. A notable increase of D bands for SWCNTs near the edge can be observed, indicative of structural damage induced by the oxygen plasma.

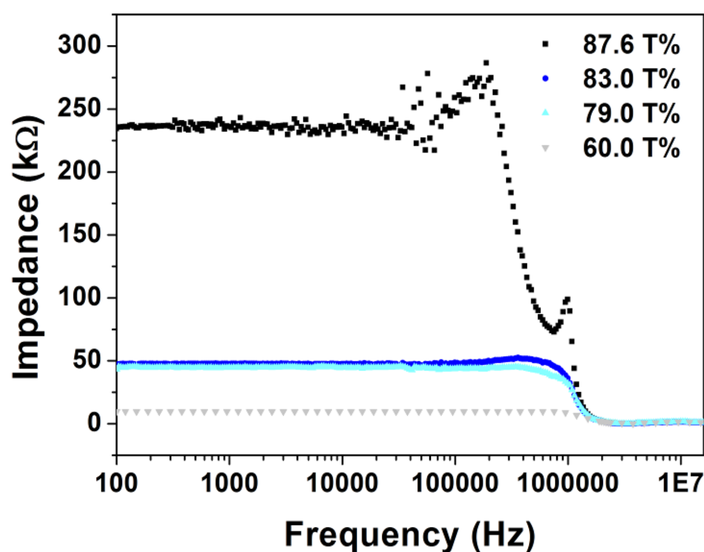

Fig. S4 Impedance spectra of the SWCNT line patterns as a function of frequency.

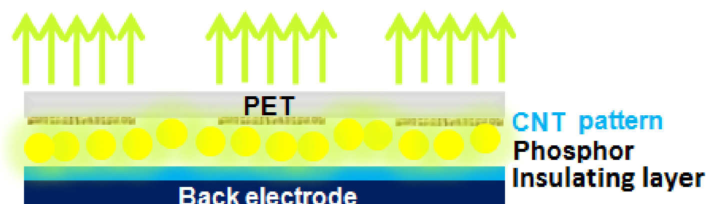

Fig. S5 Schematic structure of the EL device.