Supplementary Information

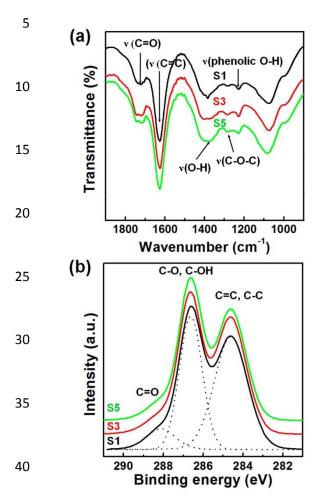
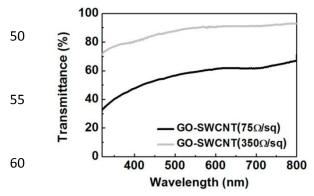


Figure S1. (a) FT-IR and (b) XPS spectra of size-sorted GO (S1 (blackline), S3 (red-line), S5 (green-line)).



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Figure S2. Transmittance spectra of GO-SWCNT electrodes with different sheet resistance values.

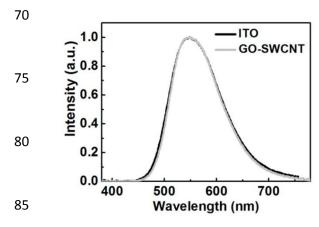
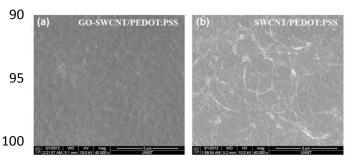
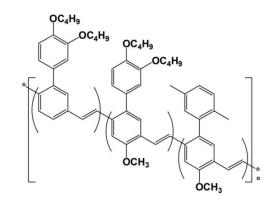


Figure S3. The EL spectra of GO-SWCNT based PLED and ITO-based PLED.



 $\begin{tabular}{lll} Figure & S4. & SEM & images & of & (a) & GO-SWCNT/PEDOT:PSS & and & (b) \\ SWCNT/PEDOT:PSS & layer. & & (b) \\ \hline \end{tabular}$



120 Figure S5. Molecular structure of super yellow.

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