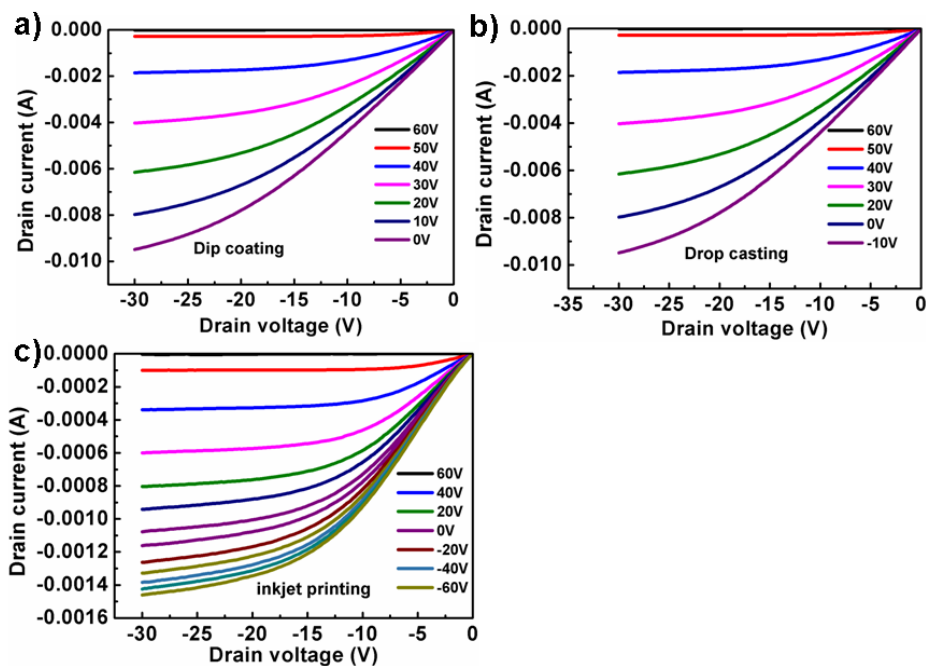
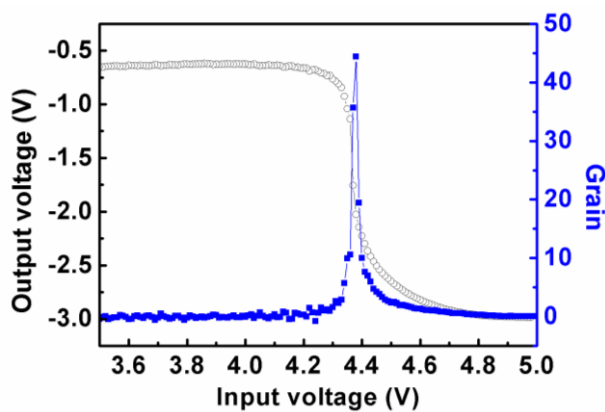


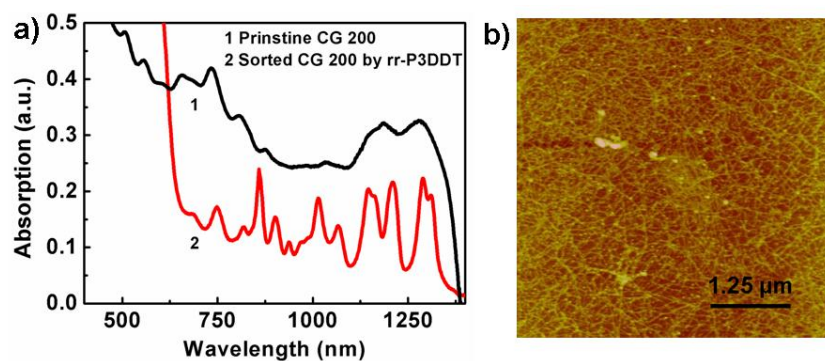
## Supporting Information



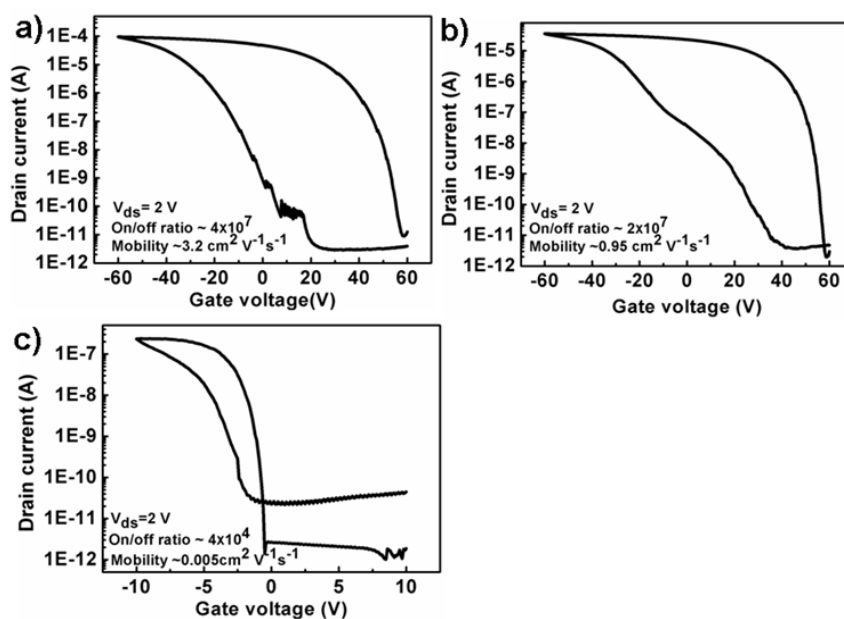
**Figure S1.** Output characteristics of TFTs based on rr-P3DDT sorted arc discharge SWCNTs by (a) dip-coating methods, (b) drop-coating and (c) inkjet printing methods.



**Figure S2.** Input-output and gain characteristics of an inverter at  $V_{dd} = -3$  V. The value of gain is 45.



**Figure S3.** (a) Absorption spectra of pristine CG 200 SWCNTs in 1% SDS aqueous solution and sorted sc-SWCNTs from CG 200 by rr-P3DDT in toluene, and (b) AFM image of sorted sc-SWCNTs from CG 200 in the device channel.



**Figure S4.** Transfer characteristic of TFTs based on sorted sc-SWCNTs from CG 200 on pre-patterned gold on  $\text{SiO}_2/\text{Si}$  substrates via (a) dip coating, (b) drop casting methods and (c) on printed silver electrode arrays on glass substrates by dip coating, respectively.