

Electronic Supplementary Information for

Synthesis of Outer Tube-selectively Nitrogen-Doped Double-Walled Carbon Nanotubes by Nitrogen Plasma Treatment

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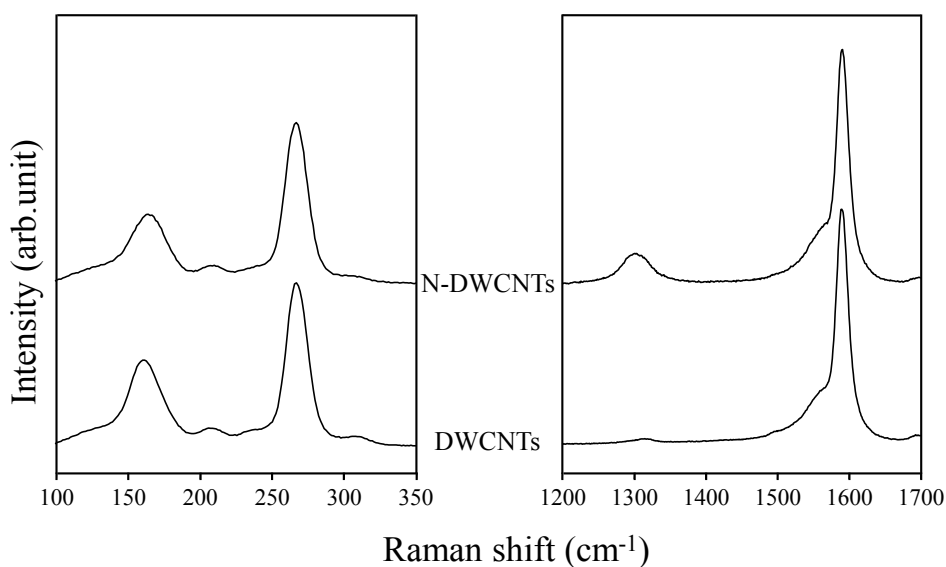


Figure S1. Low and high frequency regions of Raman spectra for the pristine and N doped DWCNTs (3 min) using a 785nm laser line.

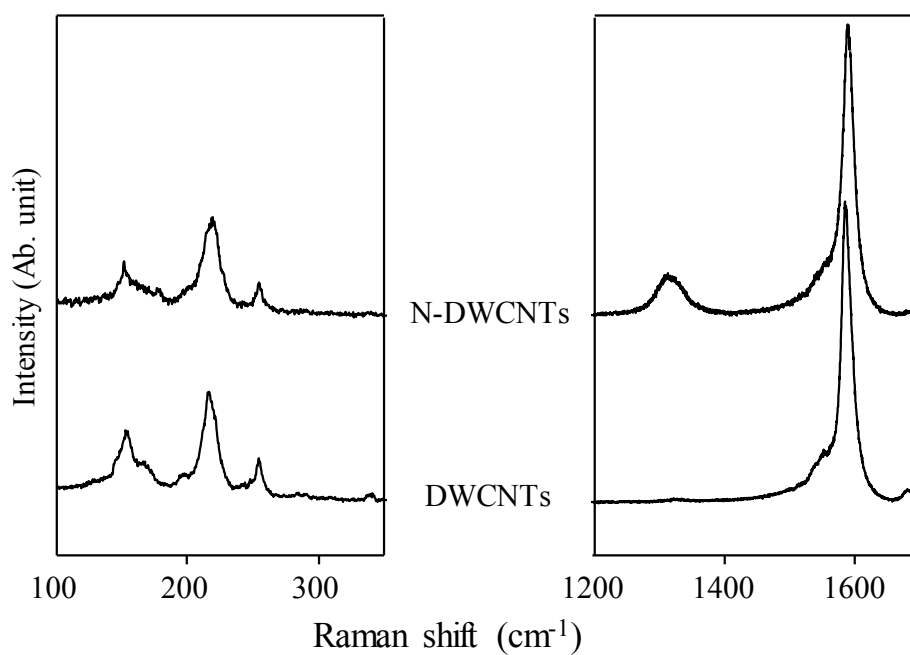


Figure S2. Low and high frequency regions of Raman spectra for the pristine and N doped DWCNTs (3 min) using a 633nm laser line.

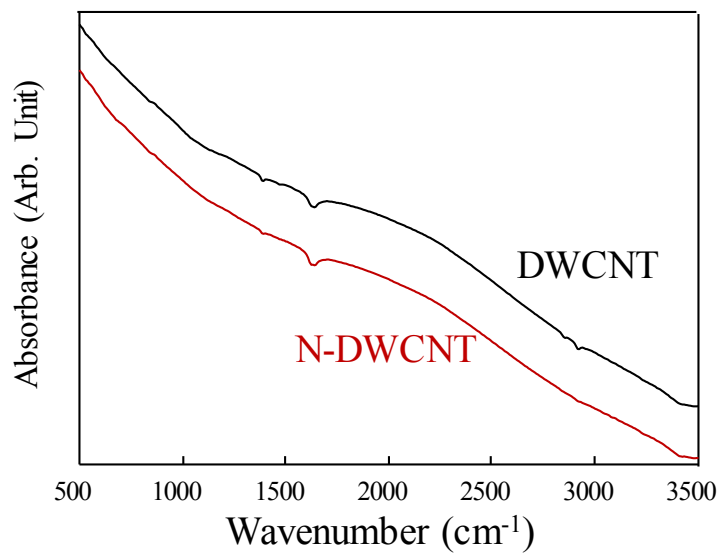


Figure S3. FT-IR spectra of DWCNTs before and after nitrogen plasma treatment. Note that plasma treatment we used is 3 min.

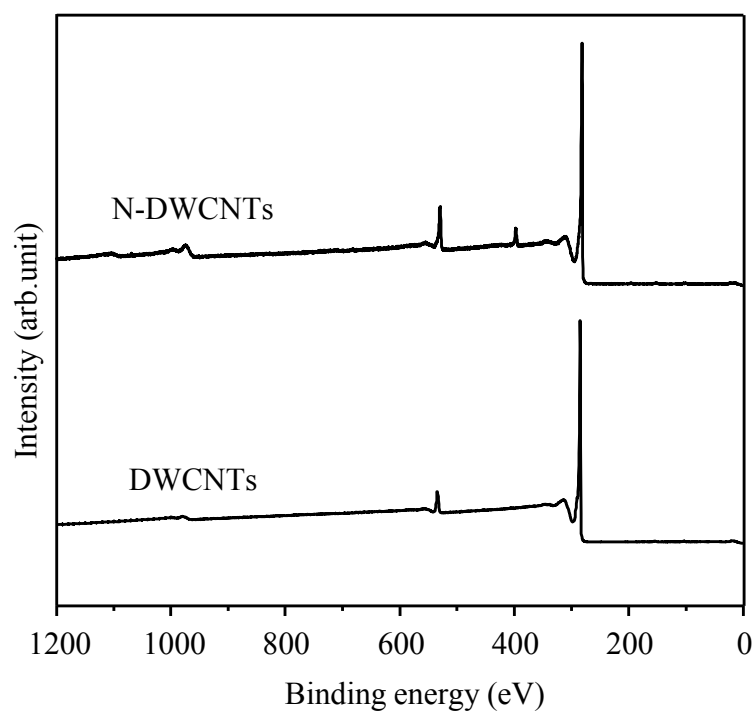


Figure S4. Wide-scan XPS spectra of DWCNTs before and after nitrogen plasma treatment (note that plasma treatment time is 3 min.)

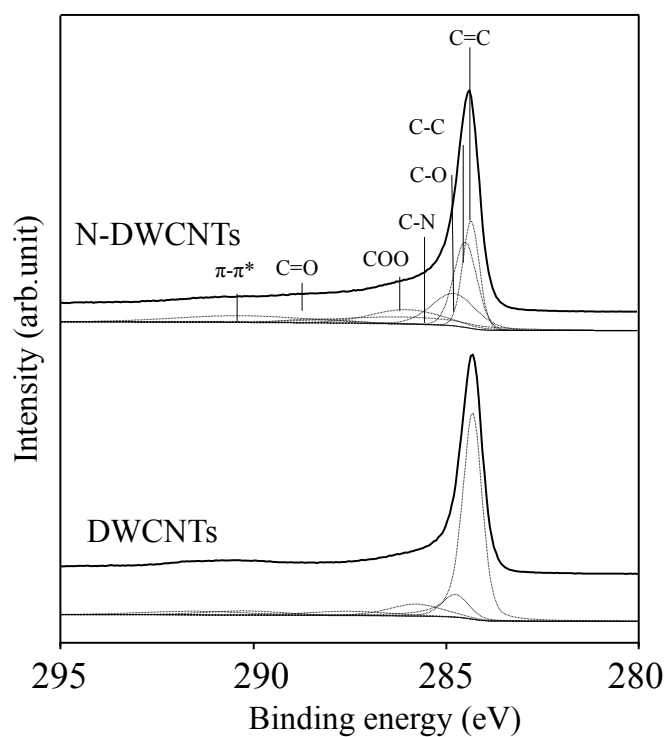


Figure S5. C1s XPS spectra of DWCNTs before and after nitrogen plasma treatment (note that plasma treatment time is 3 min.).

Table S1. Elemental analysis of DWCNTs before and after nitrogen plasma treatment using XPS.

sample	Assignment (atom %)		
	Carbon	Oxygen	Nitrogen
DWCNTs	98.1	1.80	0
N-DWCNTs (3min)	87.6	8.08	4.30