

Supporting Information

for

SO₂ gas adsorption on carbon nanomaterials: a comparative study

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Additional experimental data

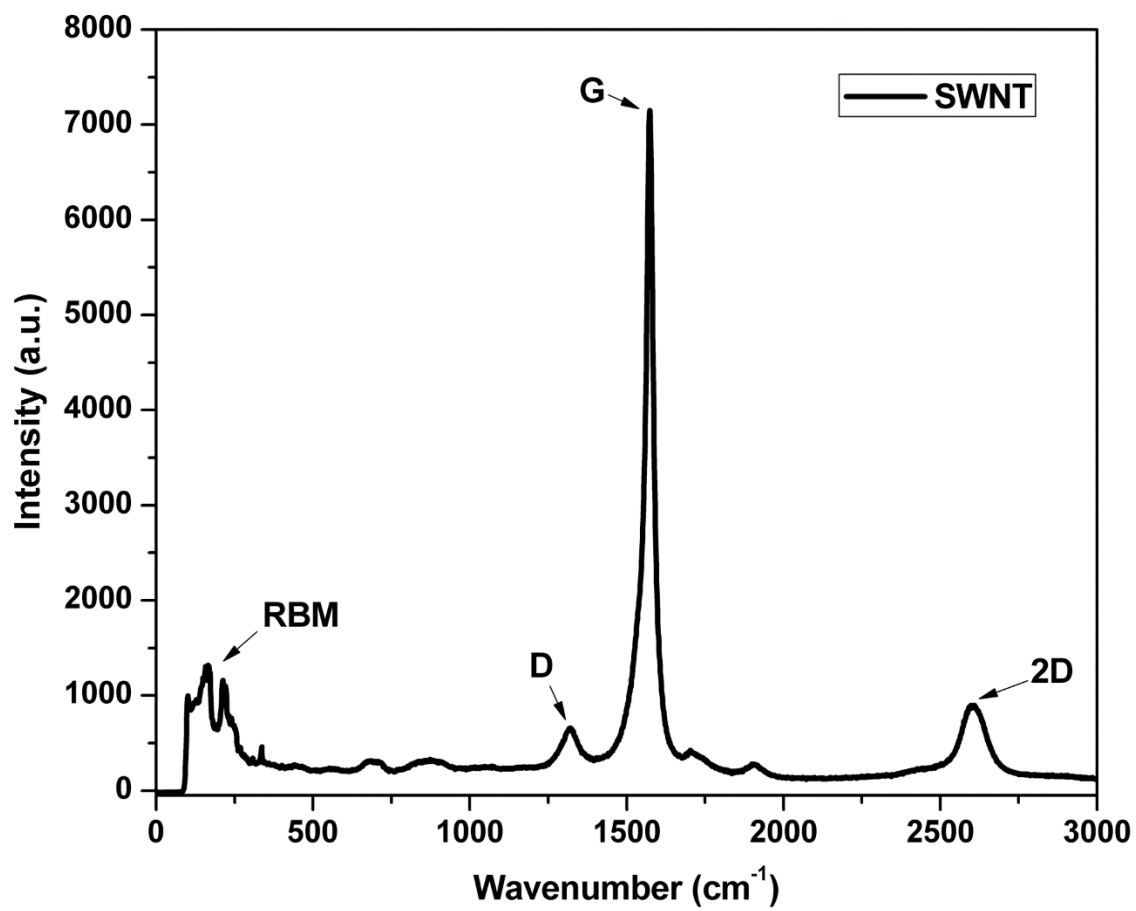


Figure S1: Raman spectrum of SWNTs showing the RBM mode.

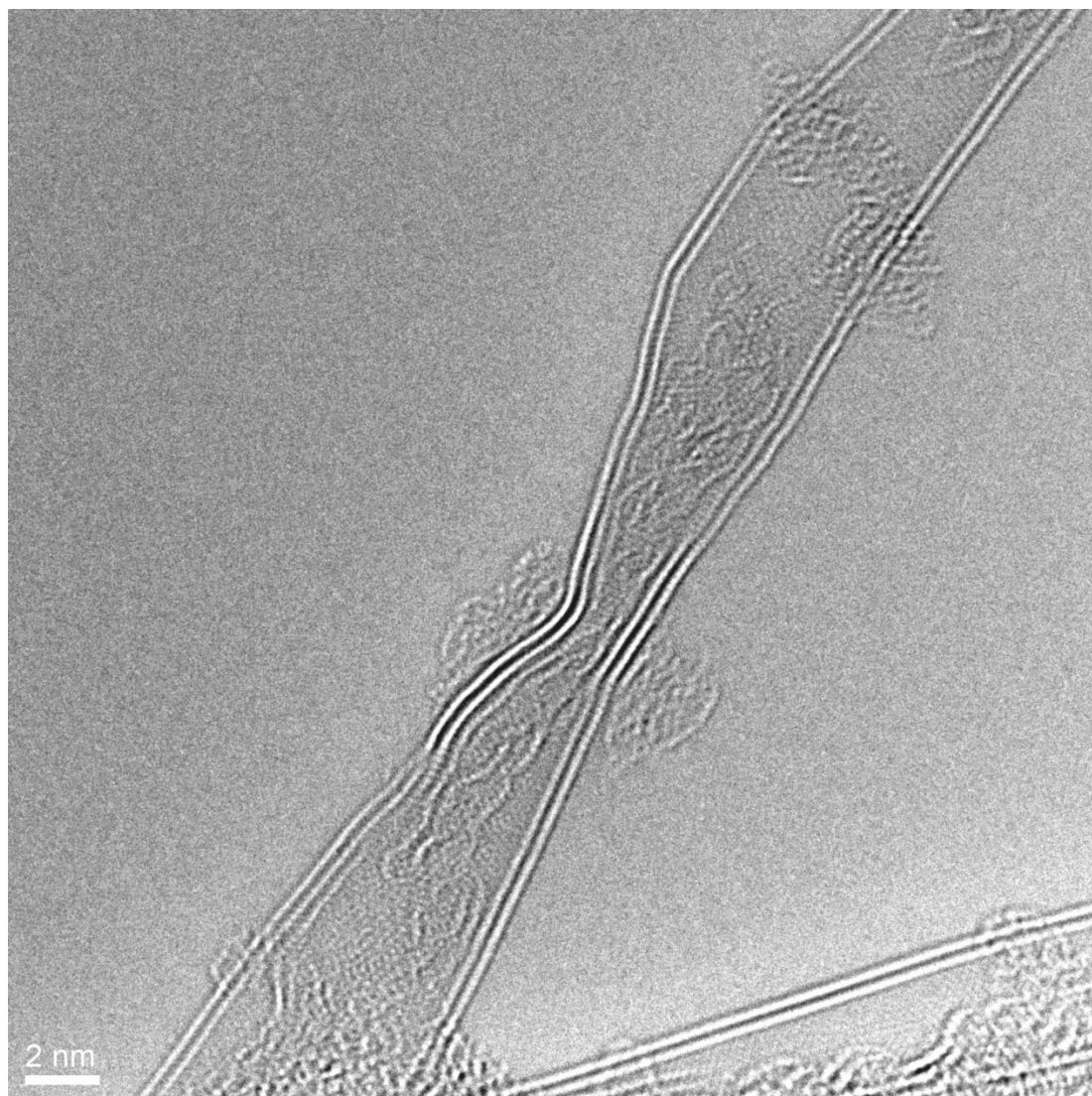


Figure S2: High-resolution TEM image of an isolated CNT unhinged from a VACNT array showing defects in the CNT and the accompanying variation of the diameter along the length of the CNT.

Table S1: XPS quantitative analysis of the different adsorbents.

sample	C (atom %)	N (atom %)	O (atom %)
CNHs	93.01	1.08	5.91
GO	83.9	0	16.1
MWNTs	100	—	—
VACNTs	98.57	—	1.43
SWNTs	92.3	1.2	6.5
Norit R1 Extra	91.9	—	8.1

Table S2: Deconvolution results of the XPS high-resolution C 1s scan of the different adsorbents.

sample	C (atom %)				
	C=C	C–C	C–O/C–N	C=O	π – π^*
CNHs	74.22	6.83	3.95	4.40	3.61
GO	68	–	10.5	4.1	1.3
MWNTs	93.3	1.9	–	–	4.8
VACNTs	68.88	15.58	3.24	6.53	4.34
SWNTs	78.1	6.1	2.4	2.8	2.9
Norit R1	78.5	5.1	3.0	2.6	2.7