

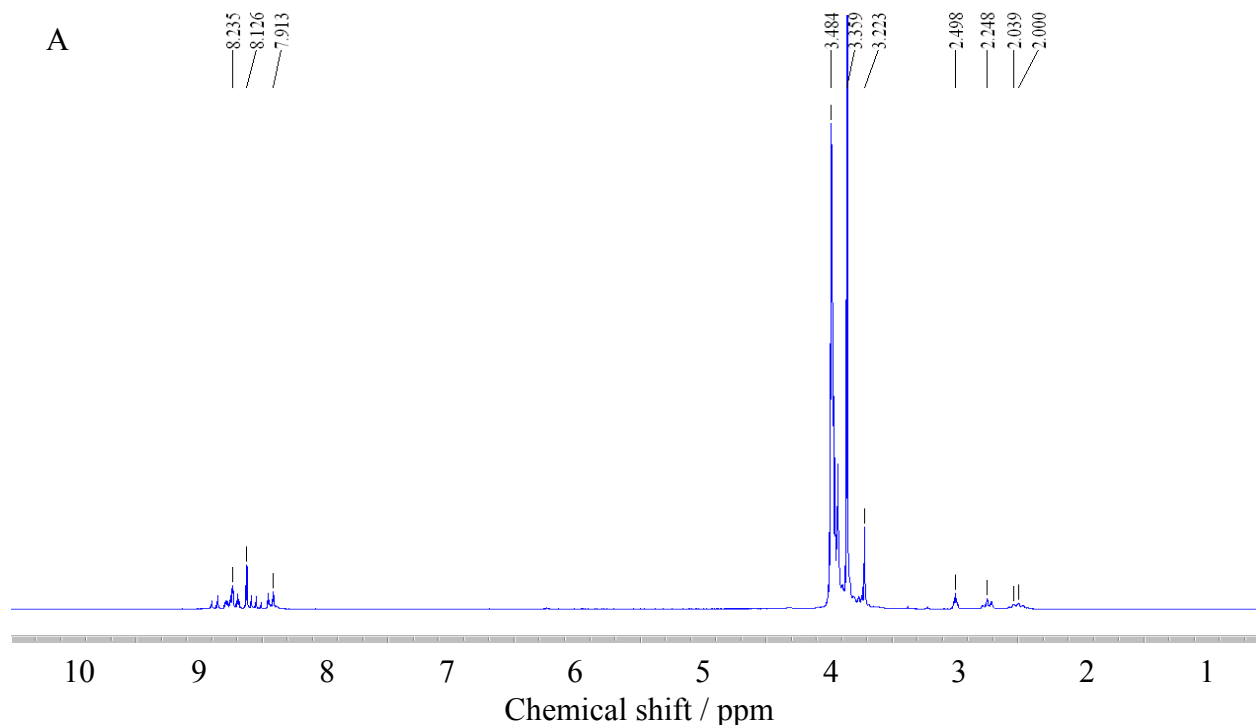
Supporting information

Stable Non Covalent Functionalisation of Multi-walled Carbon Nanotube by Pyrene-Polyethylene Glycol through π - π Stacking

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Figure S1. (A) NMR spectrum of pyrene-PEG. (B) Mass spectrum of pyrene-PEG.



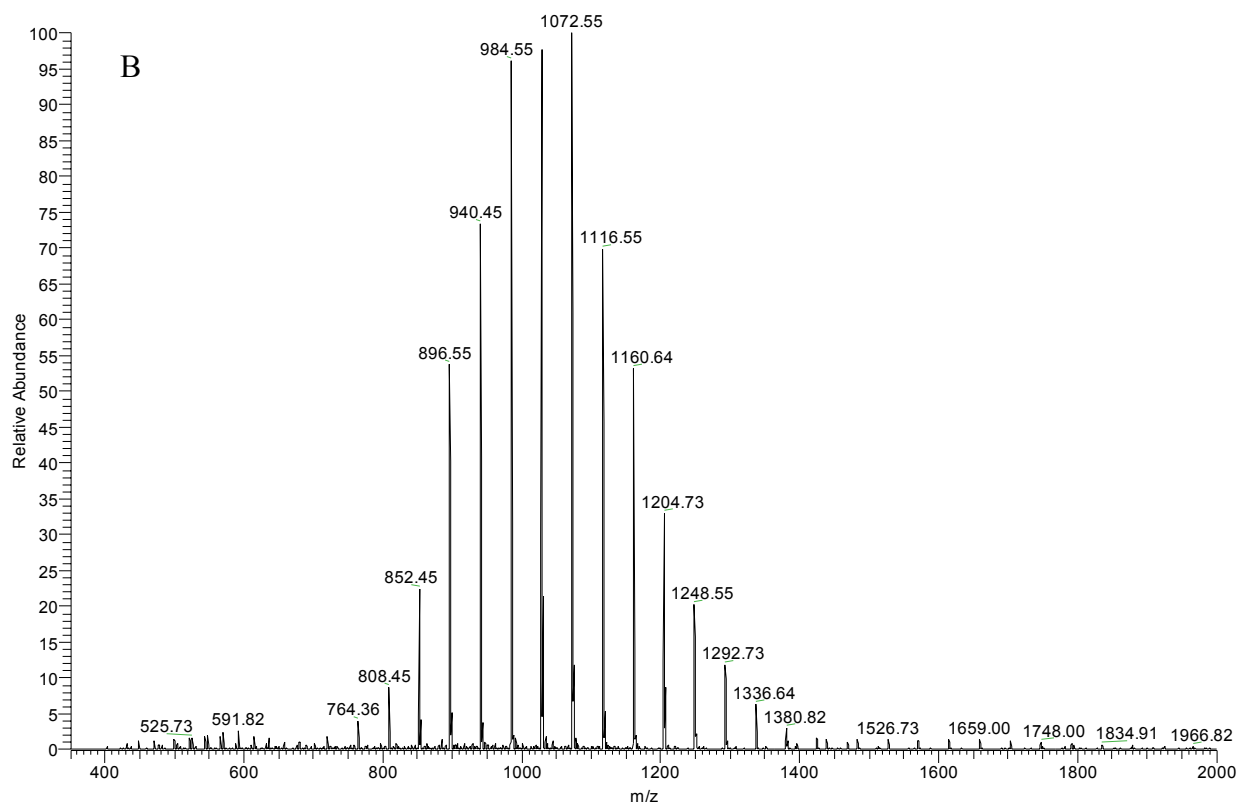


Figure S2. Calibration curve of MWNTs in SDS aqueous solution (1 wt%).

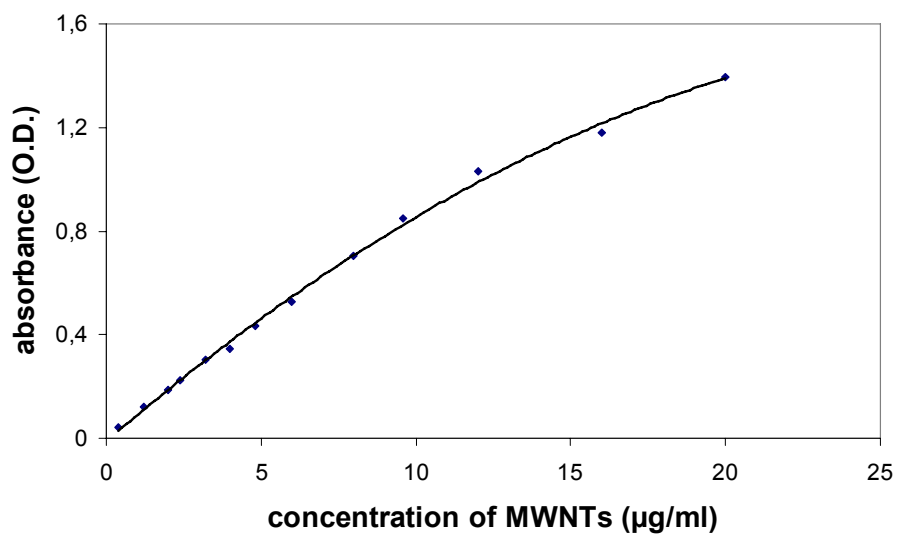


Figure S3. TGA curve of MWNT-1 after seven cycles of dialysis.

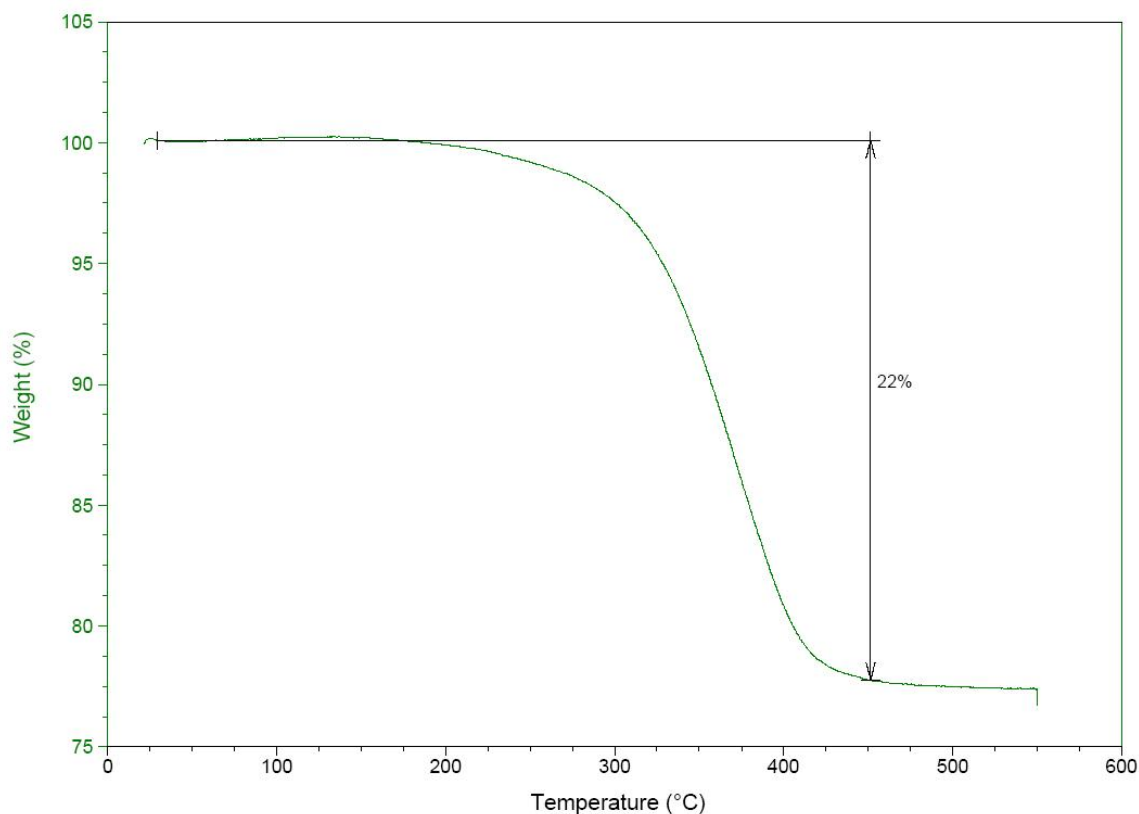


Figure S4. Decomposition of XPS C 1s spectra of MWNT arrays (MWNTs/Si) before (A) and after (B) functionalisation by MeO-PEG-NH₂. It is a control experiment for the functionalization of MWNTs/Si by pyrene-PEG 1. The C-O component does not increase significantly after the functionalization, which suggests that the PEG molecules cannot be functionalized on MWNTs without pyrene.

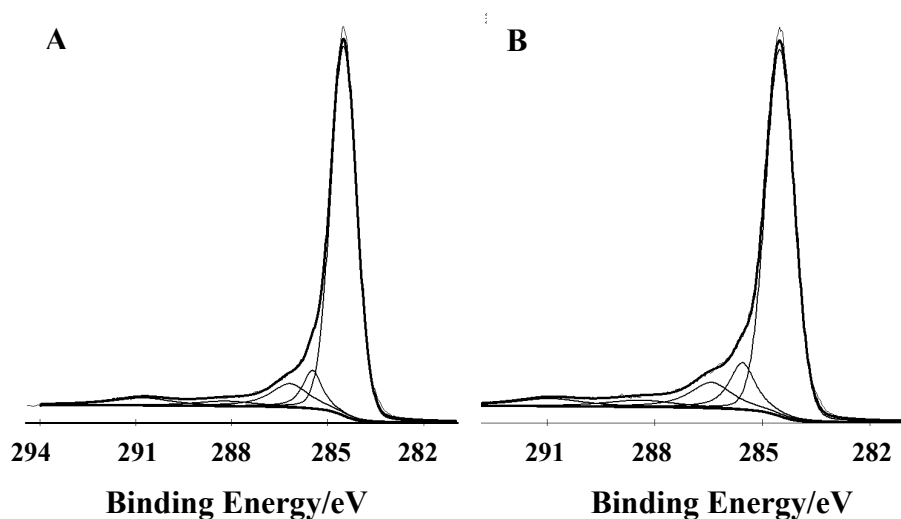


Figure S5. Measurements of contact angle with distilled water on the MWNTs/Si surface before (A) and after (B) the functionalization with **1**..

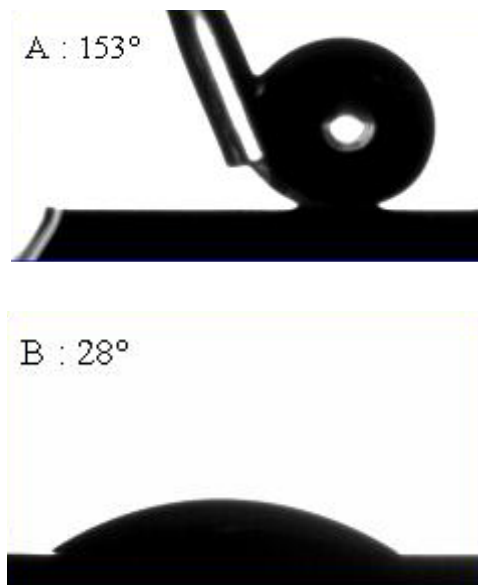


Table S1. XPS survey scan results of MWNTs/Si and *f*-MWNTs/Si before and after the adsorption of streptavidin.

		Before adsorption			After adsorption		
	XPS Line	BE (eV)	FWHM	Atom %	BE (eV)	FWHM	Atom %
MWNTs/Si	C 1s	284,51	0,746	95,39	284.56	0.898	81.85
	O 1s	531,74	3,694	3,22	531.79	3.072	10.83
	N 1s	397,42	8,002	1,39	399.72	4.445	7.32
<i>f</i> -MWNTs/Si	C 1s	284,50	0,843	91,23	284.57	0.89	88.40
	O 1s	532,41	2,998	7,18	532.38	3.02	7.78
	N 1s	398,34	7,190	1,59	400.12	3.85	3.82