Electronic Supplementary Material (ESI) for Environmental Science: Nano.

Supporting information

1) Homogeneity of the MWCNT/BSA dispersion in DI water

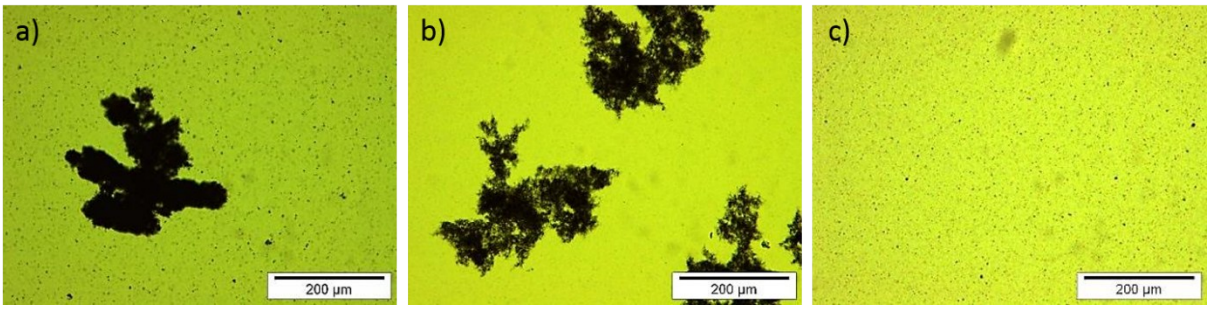

Figure S1. Typical optical microscopy images of MWCNTs dispersed in DI with (a) 0.1 wt.% of BSA after 1h30 in a sonication bath, with (b) 0.05 wt.% of BSA after 7 min submitted to a sonication probe at 25% amplitude in a pulse mode (2s. on/1s. off) and with 0.1 wt.% of BSA and 7 min sonicated by ultrasound probe in the same conditions than those used in the case of (b).

2) Positive control test with TiO_2

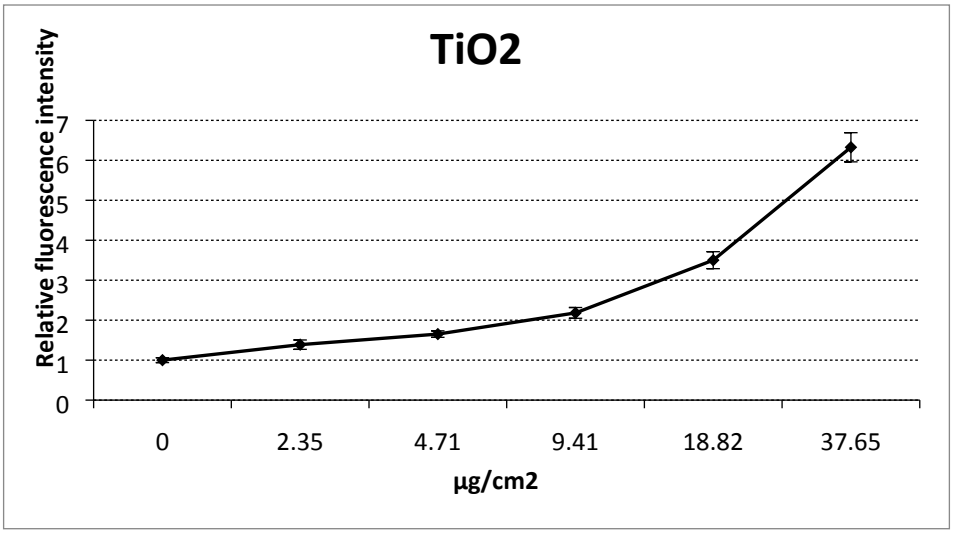

Figure S2. Relative fluorescence intensity of ROS as a function of TiO2 concentration used as a positive control.

3) WST-1 structure

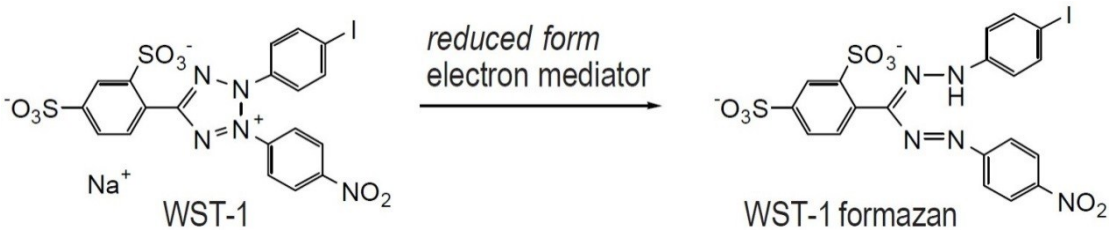

Figure S3. WST-1 formula from Cell Biolabs Inc.

4) Mitotic index

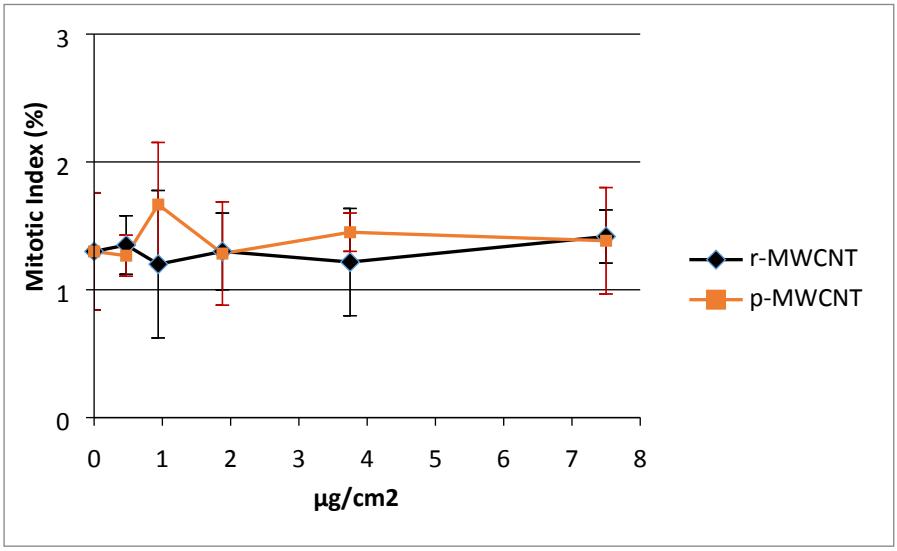

Figure S4. Mitotic index as a function of r-MWCNT (black) and p-MWCNT (orange) concentration

5) Kr-adsorption isotherm

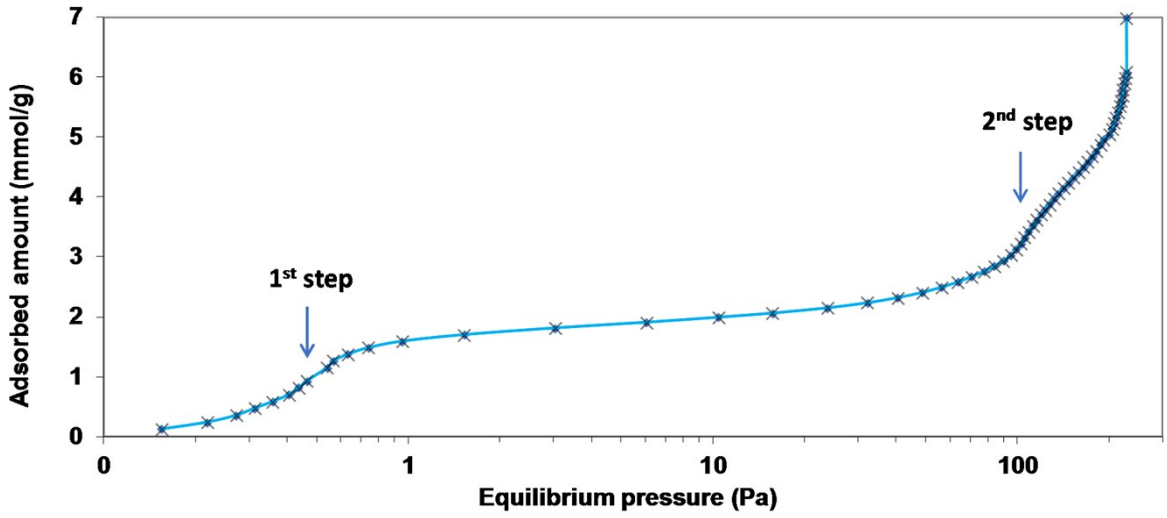

Figure S5. Krypton adsorption isotherm of p-MWCNTs (at 77.3 K).

As presented in Fig. S5, krypton adsorption isotherm on p-MWCNT at 77.3 K has two steps. Stepwise isotherms, known as "type VI" in the IUPAC classification, are representative of multilayer adsorption on uniform fractions of the surface. This global characterization technique (25.9 mg were analyzed) shows that the purification method does not destroy all uniform parts of the MWCNT surface.

6) HRTEM images of the raw and the purified MWCNTs

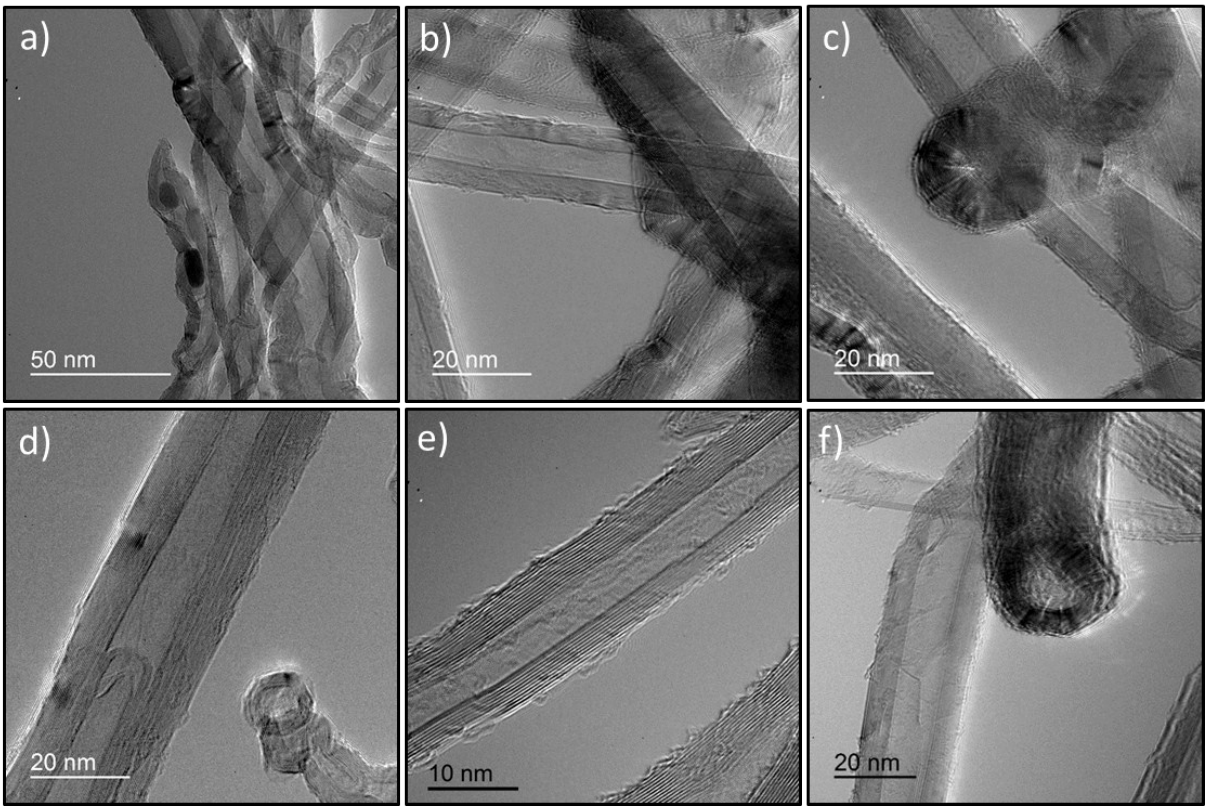

Figure S6. HRTEM images of the raw MWCNT sample (a, b and c) and the purified MWCNT sample at 800 °C (d, e and f).