Electronic Supplementary Material (ESI) for Inorganic Chemistry Frontiers.

HBPEI-grafted carbon nanotubes for the effective retention of Pd^{2+} and Pt^{2+} through complexation

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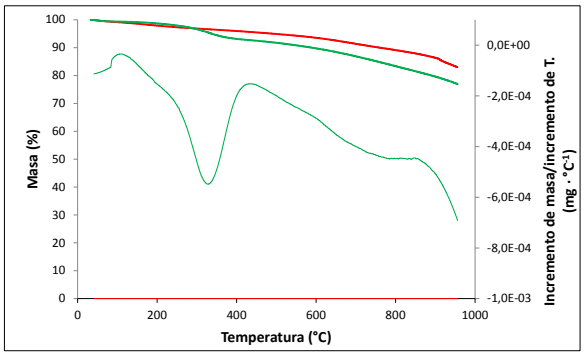
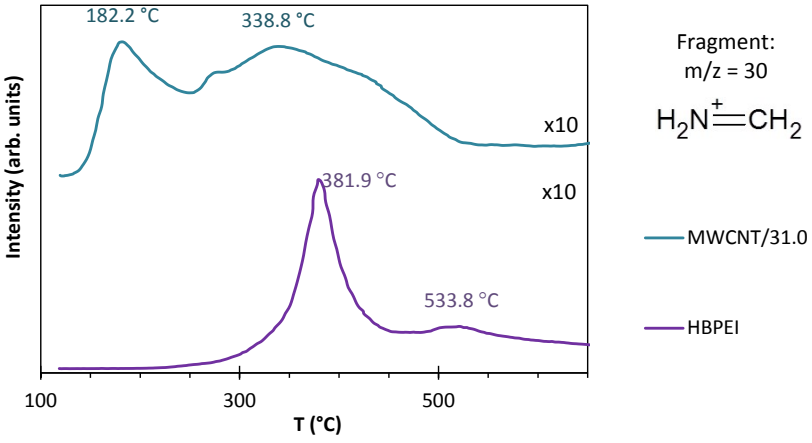
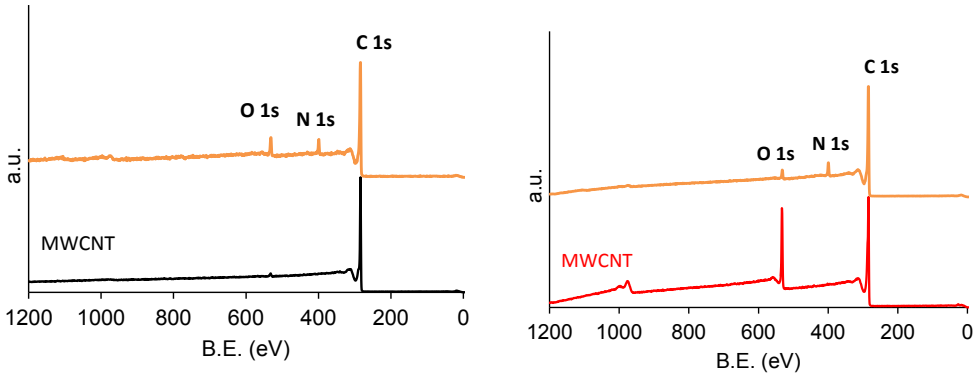
Electronic Supplementary Information



S1. TG of the pristine nanotubes (red) and MWCNT/8.3 (green). The DTG of the latter is also shown.



S2. TPD of the m/z=30 fragment of the pure HBPEI and MWCNT/30.9 hybrid.



S3. Left: XPS wide spectra of the original nanotubes (MWCNT, black) and after the functionalization with HBPEI (orange). Right: XPS wide spectra of oxidized carbon nanotubes (red) and after the functionalization with HBPEI (orange).

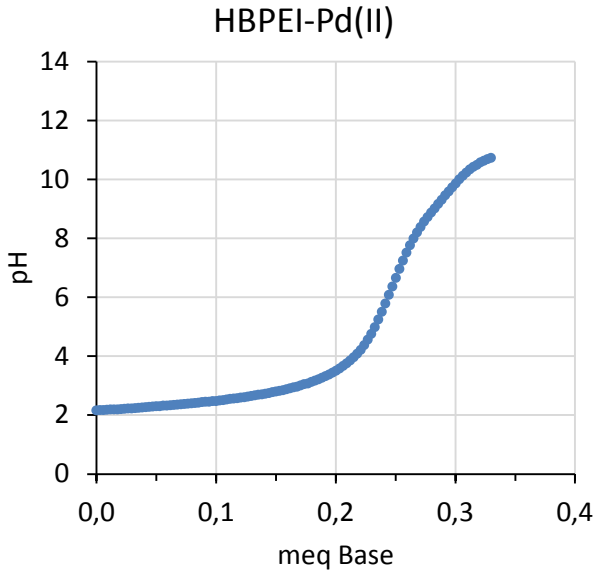


Figure S4. Potentiometric titration plot of the Pd^{2+}-HBPEI complexes in aqueous solution.

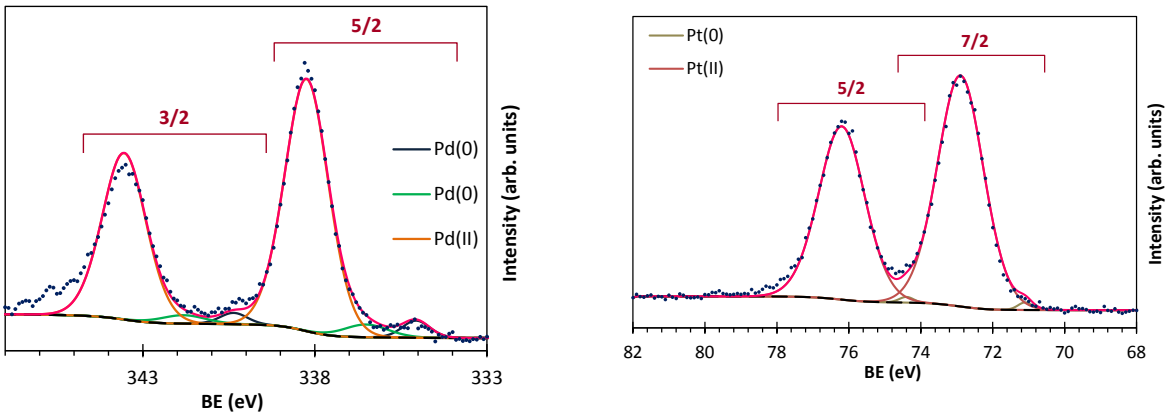
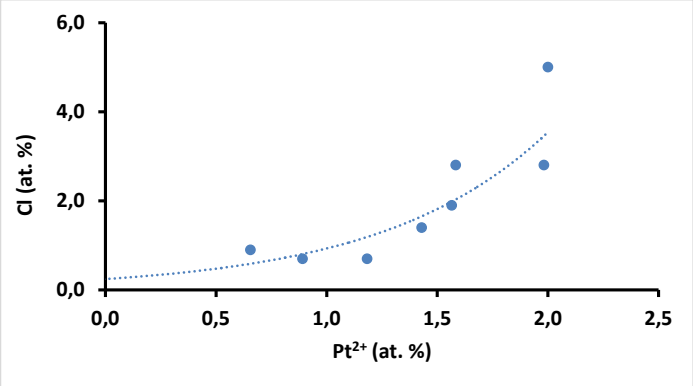
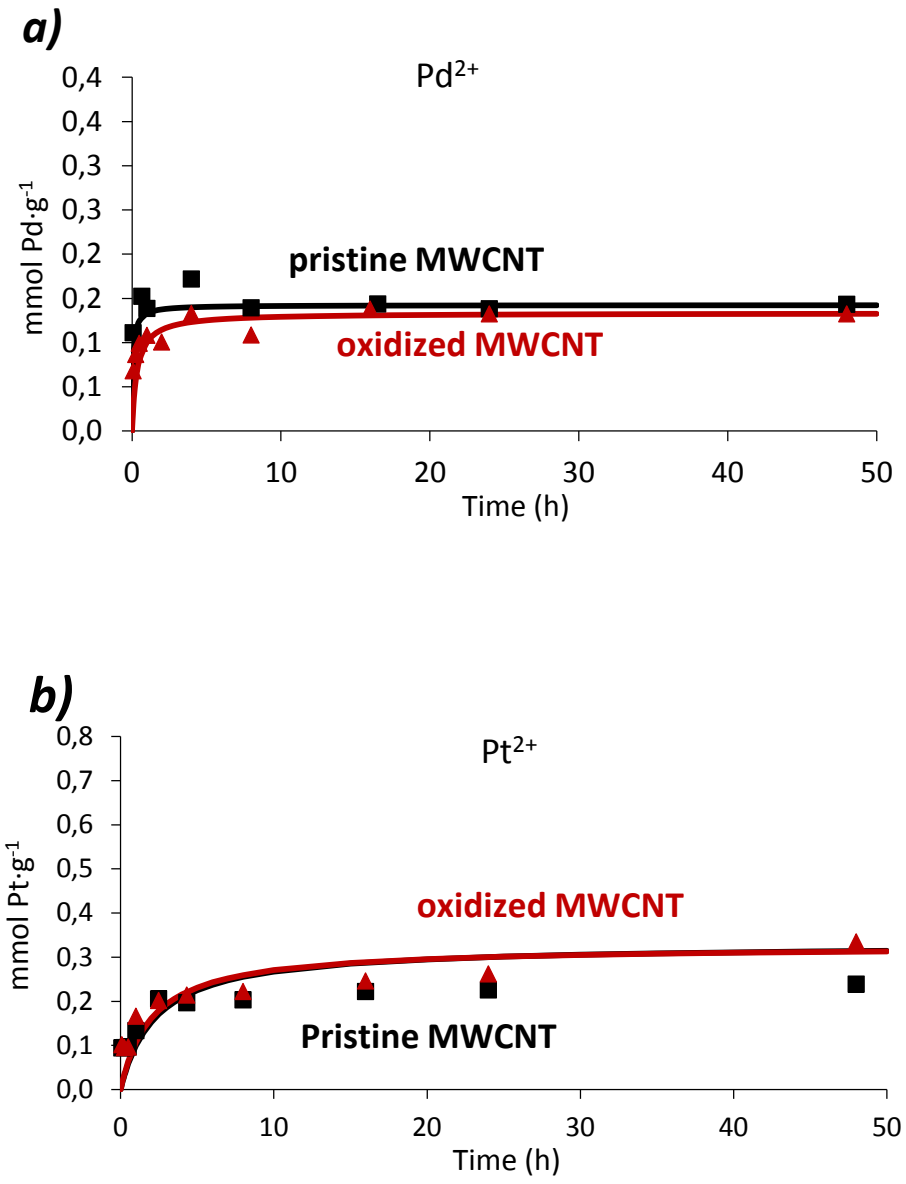


Figure S5. XPS high resolution spectra of sample MWCNT/22.9 after the capture of Pd^{2+} (left) and Pt^{2+} (right). The deconvolution of the 3d peak of Pd^{2+} and 4f peak of Pt^{2+} shows the vast majority of both metals are as M^{2+}.



S6. Amount of chloride content versus the Pt^{2+} content for hybrids MWCNT/HBPEI .



S7. Retention of metal ions by Pristine MWCNT and oxidized MWCNTs .