

## Nanotube Brushes: Polystyrene grafted covalently on CN<sub>x</sub> Nanotubes by nitroxide-mediated radical polymerization

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Table A. Relative elemental compositions measured by high energy loss EELS of i) MWNT, ii) CN<sub>x</sub>, iii) CN<sub>x</sub> functionalized by radicals (CN<sub>x</sub>-BPO/TEMPO) and iv) polystyrene-grafted carbon nanotubes (PS-CN<sub>x</sub>).

Sample <sup>o</sup>	N/C	+ -	O/C	+ -
MWNT*	0.006	0.0016	0.002	0.0016
CN <sub>x</sub>	0.016	0.0060	0.025	0.0135
CN <sub>x</sub> -BPO/NO <sub>x</sub>	0.020	0.0023	0.027	0.0023
PS-CN <sub>x</sub>	0.026	0.0060	0.011	0.0047

<sup>o</sup> All the samples were prepared by dispersion in ethanol or xylene using ultrasonication.

\* Multiwall carbon nanotubes without N-doping.

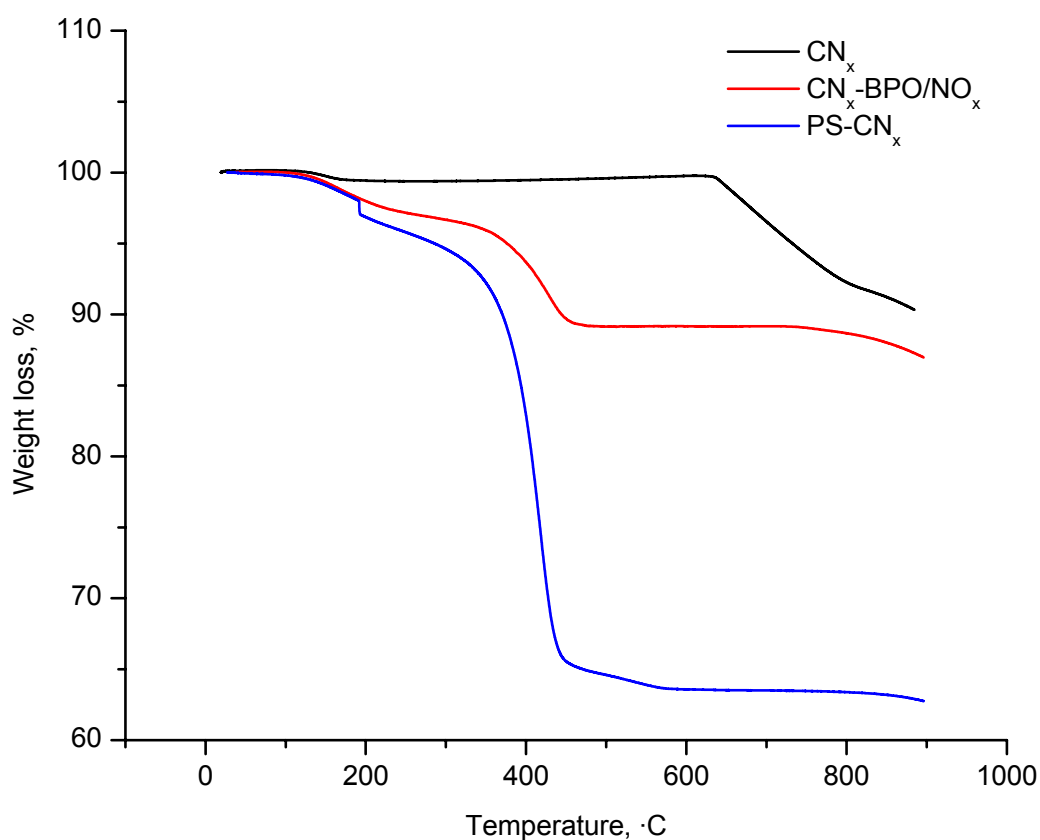


Fig. Comparative thermograms of (a) CN<sub>x</sub>, (b) CN<sub>x</sub>-BPO/NO<sub>x</sub> (PR CGX 505) and (c) PS-CN<sub>x</sub>.

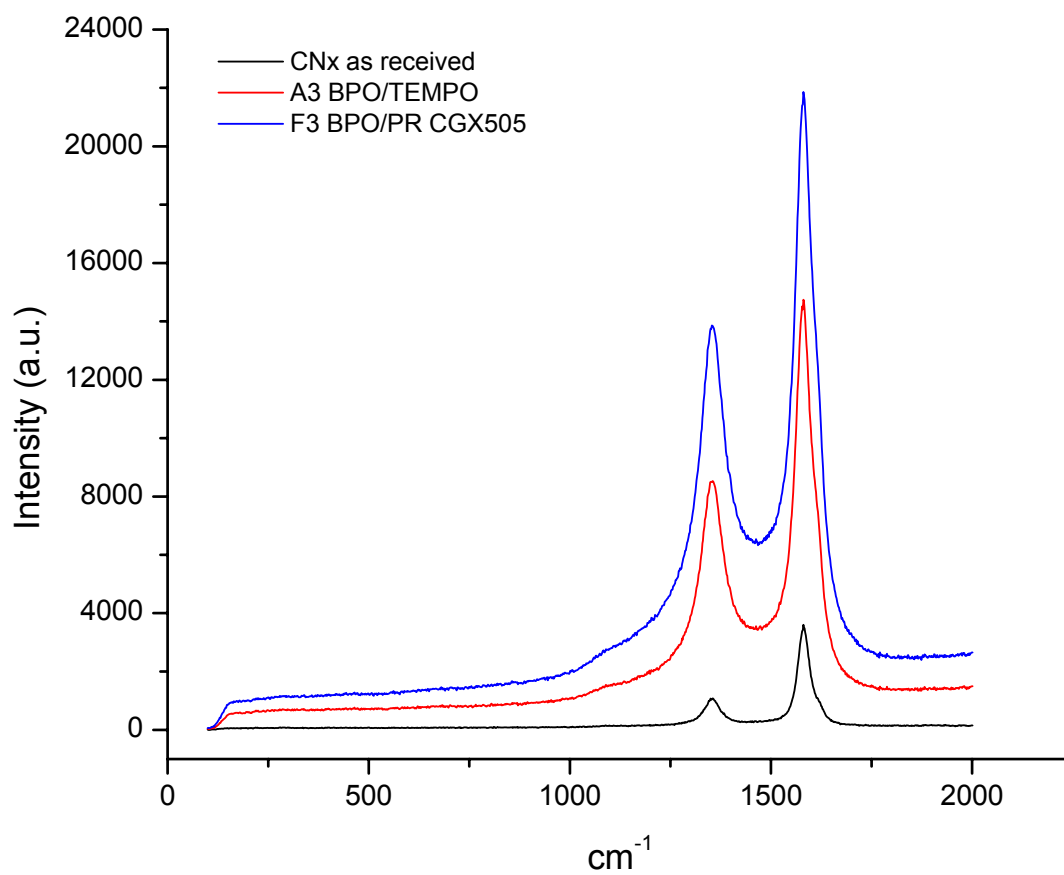


Fig. Comparative Raman spectra of radical functionalized CN<sub>x</sub> using BPO and several nitroxides: (a) CN<sub>x</sub> as received, (b) CN<sub>x</sub>-BPO/TEMPO and (c) CN<sub>x</sub>-BPO/PR CGX505.