ELECTRONIC SUPPLEMENTARY INFORMATION



Different natures of Surface Electronic Transitions of Carbon nanodots

Figure S1: IR spectra of carbon-based nanodots with different core and superficial functional groups.



Figure S2: Tunable photoluminescence observed in c-CNDs at different excitation wavelengths. Similar results are obtained for p-CQDs (not shown).



Figure S3: Excitation spectrum of the UV emission at 350 nm (blue dots) observed in c-CNDs and a fit as a guide to the eyes, as compared to their absorption spectrum.



Figure S4: Sensing behavior of different subtypes of CDs towards a variety of metal ions (Hg^{2+} , Pb^{2+} , Co^{2+} , Mg^{2+} , Fe^{3+} , Cu^{2+}). The degree of quenching (I_0/I) is reported on the vertical axis as a function of the type of dots and metal ion.