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Supplementary Materials

A Systematic Comparative Study of the Toxicity of Semiconductor and Graphitic Carbon-Based Quantum Dots Using In Vitro Cell Models

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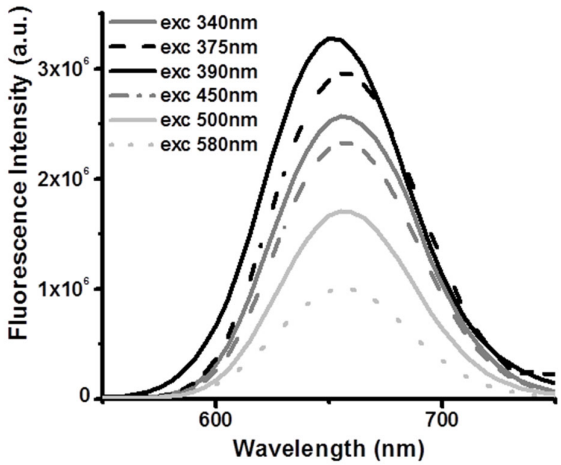

Figure S1. Emission spectra of SQDs at different excitation wavelengths. [SQDs] = 200 mg·L^{-1}; slit widths set at 3 nm

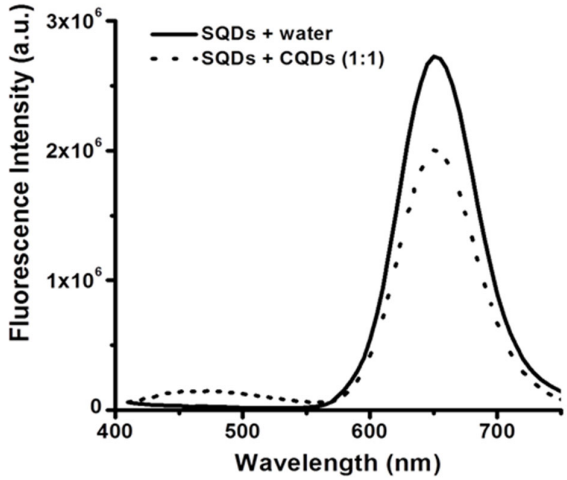

Figure S2. Fluorescence quenching of SQDs in presence of CQDs in a 1:1 ratio upon excitation at 390 nm. [Nanodots] = 200 mg·L^{-1}; slit widths at 3 nm.

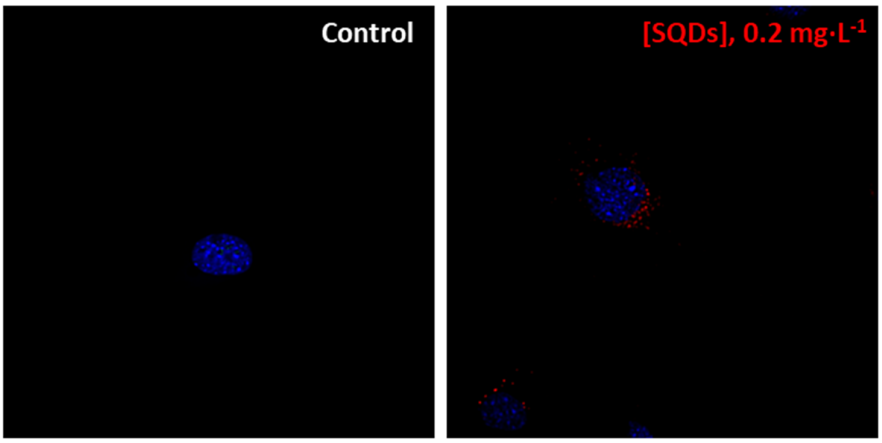

Figure S3. Confocal microscopy images obtained from 3T3-L1 cells cultured exposed to 0.2 mg·L^{-1} SQDs in the absence of serum for 24 h. Control cells were cultured in medium (DMEM) alone. Nuclei (blue) were stained with DAPI.

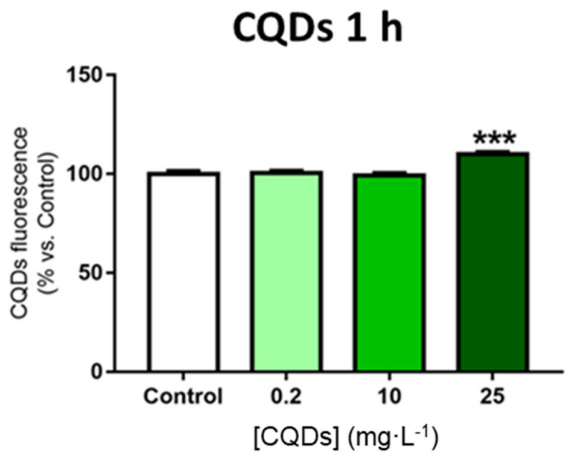

Figure S4. Fluorescence emission in 3T3-L1 cell cultures exposed for 1 h to increasing concentration of CQDs in the absence of serum. Control cells were cultured in medium (DMEM) alone. Measurements were carried out at fluorescence excitation wavelength of 365 nm and emission wavelength of 450 nm. Data (mean ± SEM of at least three independent experiments with three replicate wells per treatment) were analyzed by one-way ANOVA multiple comparison test followed by Fisher's LSD test. Significant differences are indicated as *** $p < 0.001$ vs. control.

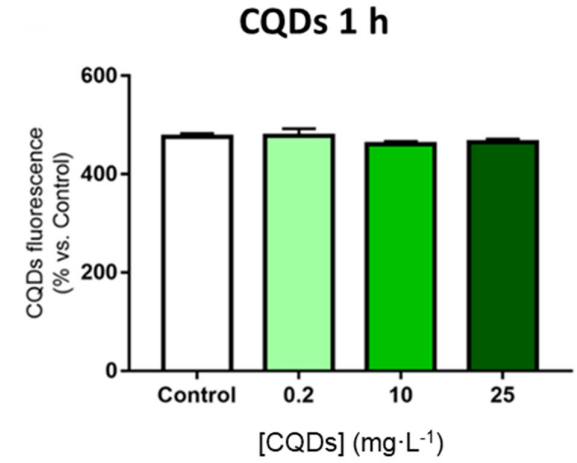

Figure S5. Fluorescence emission in 3T3-L1 cell cultures exposed for 1 h to increasing concentration of CQDs in the absence of serum. Control cells were cultured in medium (DMEM) alone. Measurements were carried out at fluorescence excitation wavelength of 365 nm and emission wavelength of 450 nm. Data (mean ± SEM of at least three independent experiments with three replicate wells per treatment) were analyzed by one-way ANOVA multiple comparison test followed by Fisher's LSD test.

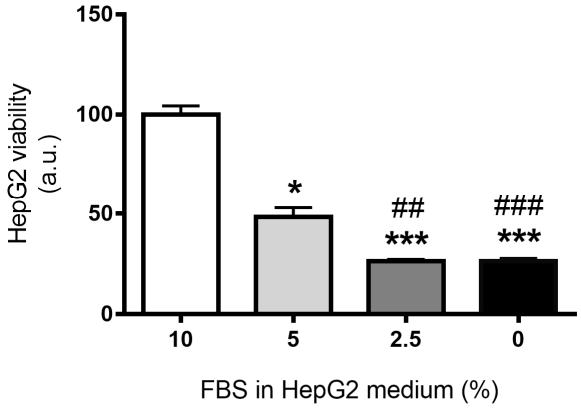

Figure S6. Cell viability data in HepG2 cells cultured in the presence of decreasing concentrations of FBS (10-0 %) for 24 h. Cell viability was measured by the MTT assay.

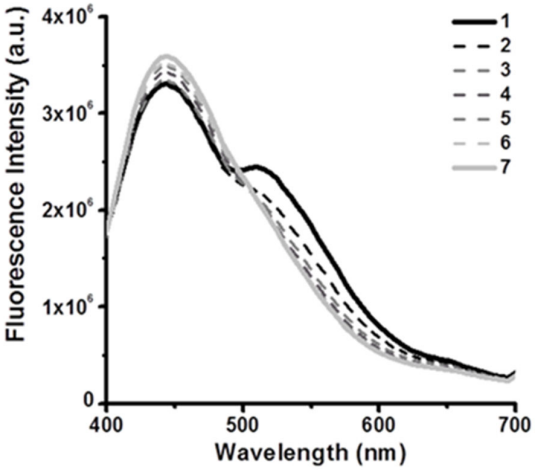

Figure S7. Study of the fluorescence intensity of CQDs exposed to DMEM + 10% FBS. Lines represent fluorescence measurements at different time points. [CQDs]= 50 mg·L^{-1}; slit widths at 6 nm.

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