The Impact of Electrostatic Interactions on Ultrafast Charge Transfer at Ag₂₉ Nanocluster- and CdTe Quantum Dot-Fullerene Interfaces

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Fig. S1 Temperature dependent fluorescence experiment of Ag_{29} NCs upon successive addition of positively charged fullerene (CF) after excitation at 450 nm, at 20°C and 50°C, respectively. Concentrations of the fullerene derivatives are indicated in the figure.



Fig. S2 Femtosecond Transient Absorption spectra of CdTe QDs and Ag_{29} NCs in the IR region (A) CdTe QDs in presence of 27.32 μ M CF, and (B) Ag_{29} NCs in presence of 18.4 μ M CF. Data recorded up to 4.72 ns after excitation at 610 nm.



Fig. S3 Nanosecond TA spectra of CdTe QDs (A) in the absence of fullerene derivatives, (B) in the presence of 27.32 µM positively charged fullerene CF. Data recorded up to 285 ns after 475 nm excitation. And (C) the kinetic traces of CdTe QDs in the absence and presence of positively charged fullerene. The solid lines are the best kinetics fit of the data.



Fig. S4 Time correlated single photon counting decay of CdTe (QDs) and CdTe (QDs) in presence of CF collected after excitation at 475 nm.