Supplementary Materials

Impact of Quantum Dot Surface on Complex Formation with Chlorin e6 and Photodynamic Therapy

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Spectral properties of QDs
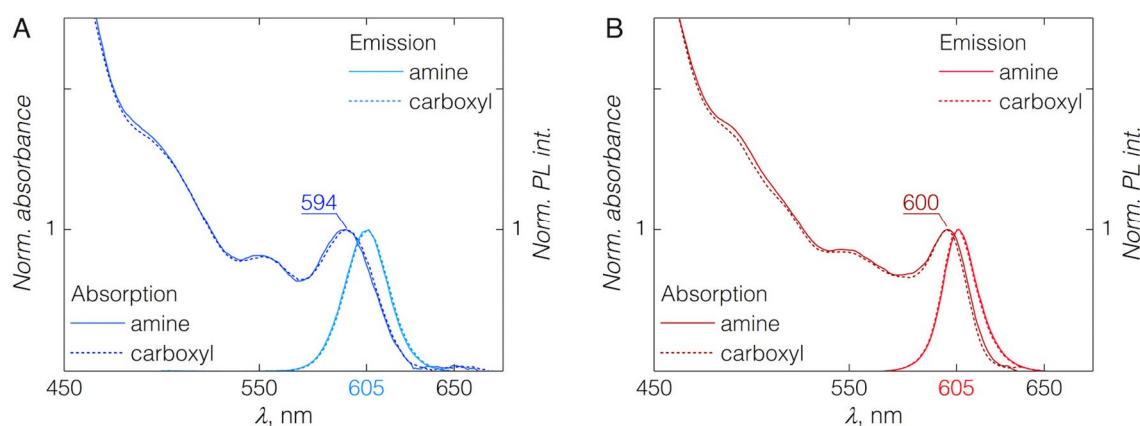
Figure S1. Normalized absorption and emission spectra of QDs functionalized with either phospholipids (*L*-QDs) (**A**) or amphiphilic polymer (*P*-QDs) (**B**) and bearing amine or carboxyl surface charge.

Fluorescence excitation of Ce$_6$
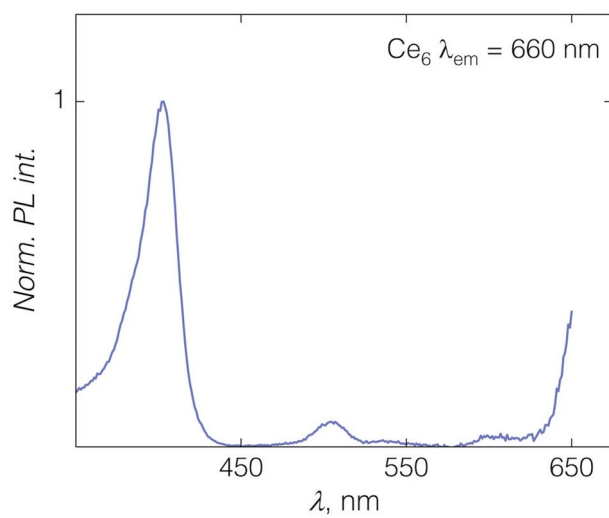
Figure S2. Normalized fluorescence excitation spectrum of Ce$_6$ in phosphate buffer (pH=7), measured at emission wavelength of 660 nm.

Complex equilibration dynamics
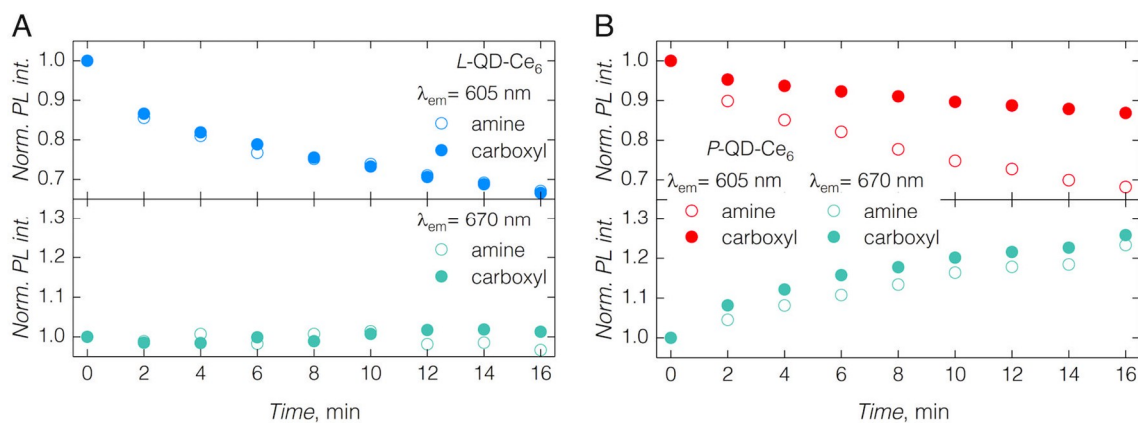
Figure S3. Temporal change of the QD and Ce$_6$ PL intensity in the QD-Ce$_6$ complex after its initial formation. (**A**) – Represents the normalized PL intensity changes in *L*-QD-Ce$_6$ complex composed out of amine/carboxyl bearing *L*-QDs; (**B**) – in case of amine/carboxyl bearing *P*-QDs.

Influence of *n* and *κ²* on *R₀* and *r*
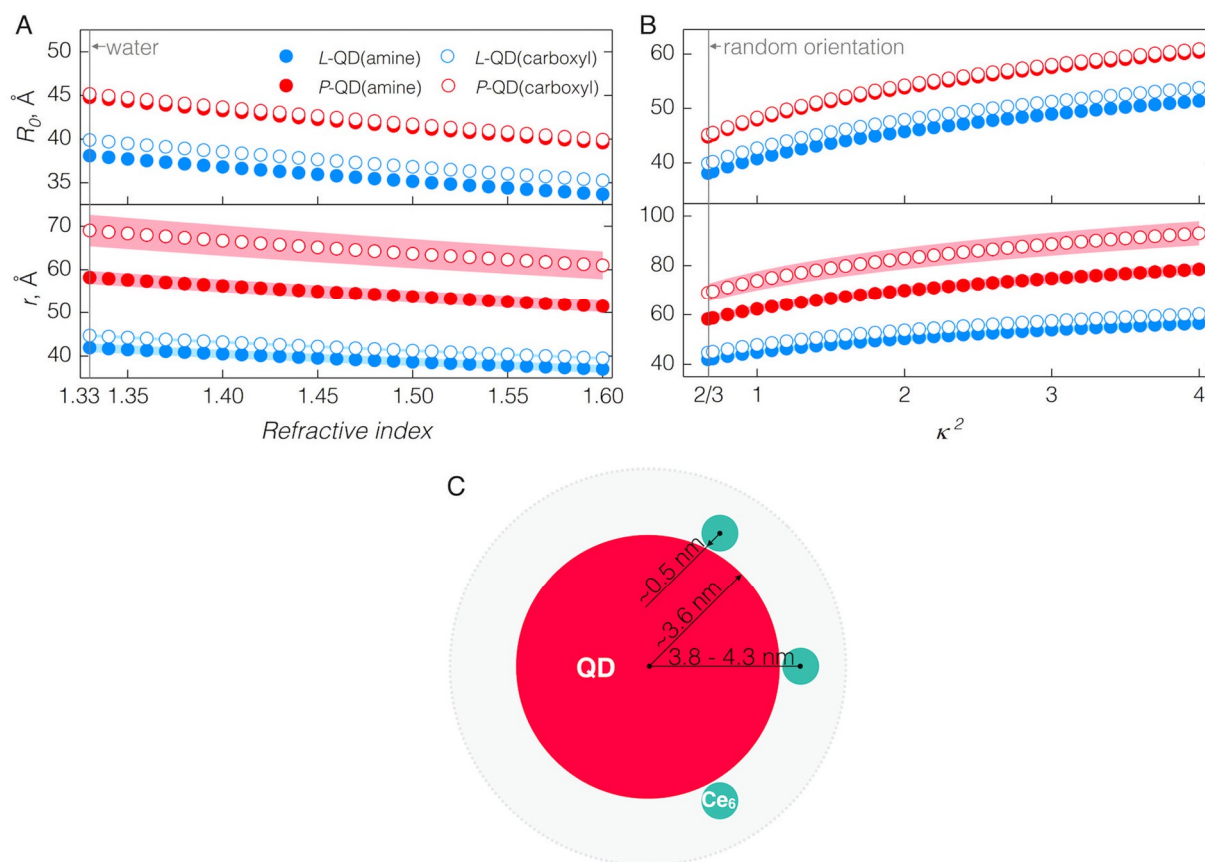
Figure S4. Change of the Förster distance R_0 (top) and the center-to-center distance between QDs and Ce₆ *r* (bottom) as a function of the refractive index of the medium (**A**; when $\kappa^2 = 2/3$) or orientation factor κ^2 (**B**; when $n = 1.33$). Center-to-center distances between the different QDs and Ce₆ were averaged taking values for different amounts (*m*) of Ce₆. Errors of *r* are represented by the shaded areas. (**C**) – schematic representation of the Ce₆ in the amphiphilic coating of QDs and the possible center-to-center separation between the two.