## **Electronic Supplementary Information**

## **Carbon-TiO<sub>2</sub> Hybrid Dots in Different Configurations – Optical Properties, Redox Characteristics, and Mechanistic Implications**

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	$A_1$ (%)	$\tau_{F1}(ns)$	$A_2$ (%)	$ au_{F2}(ns)$	$<\tau_{\rm F}>$ (ns) <sup>a</sup>
C/TiO <sub>2</sub> -Dots	41	1.8	59	6.1	5.4
(71% TiO <sub>2</sub> )					
C/TiO <sub>2</sub> -Dots	31	2.5	69	7.7	7.0
(31% TiO <sub>2</sub> )					
C <sub>TiO2</sub> -Dots	5	2.3	95	8.7	8.6
PEG-CDots	36	2.2	64	7.5	6.7

**Table S1**. Results from the Deconvolution of Observed Fluorescence Decays with a Bi-Exponential Function.

 ${}^{a} < \tau_{\rm F} > = [A_1(\tau_{\rm F1})^2 + A_2(\tau_{\rm F2})^2] / (A_1\tau_{\rm F1} + A_2\tau_{\rm F2}).$ 



**Figure S1**. An enlarged version of Figure 5: A TEM image in the Z-contrast mode (lower left) and the EDS mapping results on titanium (upper left), oxygen (lower right), and carbon (upper right) for the C/TiO<sub>2</sub>-Dots with 71 wt% TiO<sub>2</sub>.