

SUPPLEMENTARY INFORMATION

Size-controlled electron transfer rates determine hydrogen generation efficiency in colloidal Pt-decorated CdS quantum dots

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Table S1: Fitting parameters

		IRF, ps	A1	τ_1 , ps	A2	τ_2 , ps	A3	τ_3 , ps	Deviation
CdS	2.8 nm	0.3	0.06 ± 0.01	2.4 ± 0.2	0.10 ± 0.01	131 ± 10	0.84 ± 0.1	14200 ± 1200	1.49E-4
	3.1 nm	0.3	0.13 ± 0.03	0.82 ± 0.1	0.22 ± 0.02	147 ± 50	0.78 ± 0.07	13500 ± 1500	1.92E-4
	3.7 nm	0.3	0.05 ± 0.01	1.3 ± 0.3	0.06 ± 0.03	142 ± 30	0.89 ± 0.2	11200 ± 2200	1.87E-4
	4.6 nm	0.3	0.17 ± 0.02	1.7 ± 0.2	0.18 ± 0.03	235 ± 20	0.75 ± 0.05	15200 ± 1200	2.07E-4
Pt/CdS	2.8 nm	0.3	0.86 ± 0.05	0.22 ± 0.03	0.09 ± 0.01	7.89 ± 1.8	0.05 ± 0.01	658 ± 80	1.67E-4
	3.1 nm	0.3	0.60 ± 0.04	0.85 ± 0.05	0.19 ± 0.02	71.2 ± 10	0.21 ± 0.03	1070 ± 200	2.02E-4
	3.7 nm	0.3	0.45 ± 0.1	1.03 ± 0.3	0.26 ± 0.05	103 ± 30	0.29 ± 0.1	3570 ± 1300	2.12E-4
	4.6 nm	0.3	0.21 ± 0.03	1.84 ± 0.3	0.28 ± 0.02	200 ± 20	0.51 ± 0.05	8620 ± 2100	1.69E-4
Pt/CdS + MV	2.8 nm	0.3	0.64 ± 0.06	0.11 ± 0.03	0.25 ± 0.03	0.58 ± 0.05	0.11 ± 0.01	5.17 ± 0.6	2.12E-4
	3.1 nm	0.3	0.52 ± 0.1	0.76 ± 0.2	0.19 ± 0.02	5.71 ± 1.2	0.29 ± 0.06	32.5 ± 5.6	2.09E-4
	3.7 nm	0.3	0.51 ± 0.04	1.04 ± 0.1	0.39 ± 0.05	14.8 ± 4.5	0.10 ± 0.02	114 ± 15	1.86E-4
	4.6 nm	0.3	0.42 ± 0.07	1.45 ± 0.1	0.40 ± 0.04	19.6 ± 2.8	0.18 ± 0.02	159 ± 20	1.49E-4