

Ultrafast and High Efficiency Photodegradation of Dyes under Visible Light by Au Nanoclusters Promoted $\text{Zn}_{0.5}\text{Cd}_{0.5}\text{S}$ Nanorods

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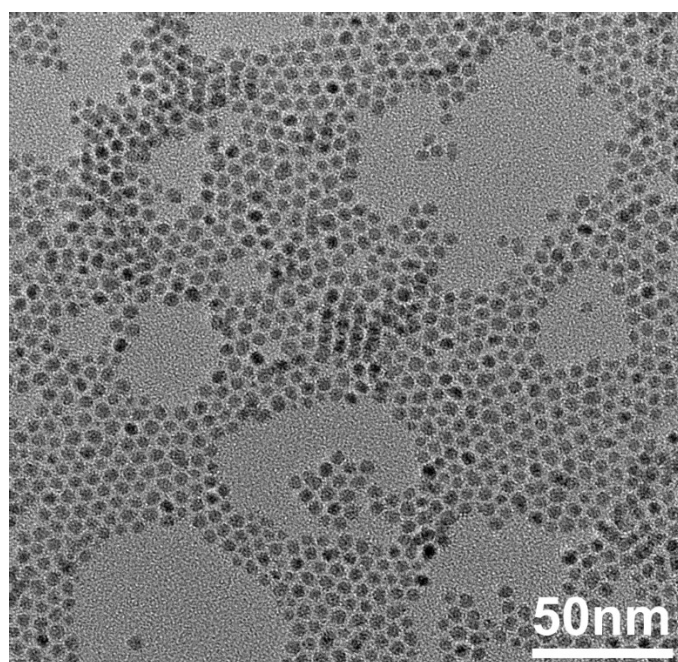


Figure S1 TEM image of Au nanoparticles with average diameter of 5 nm.

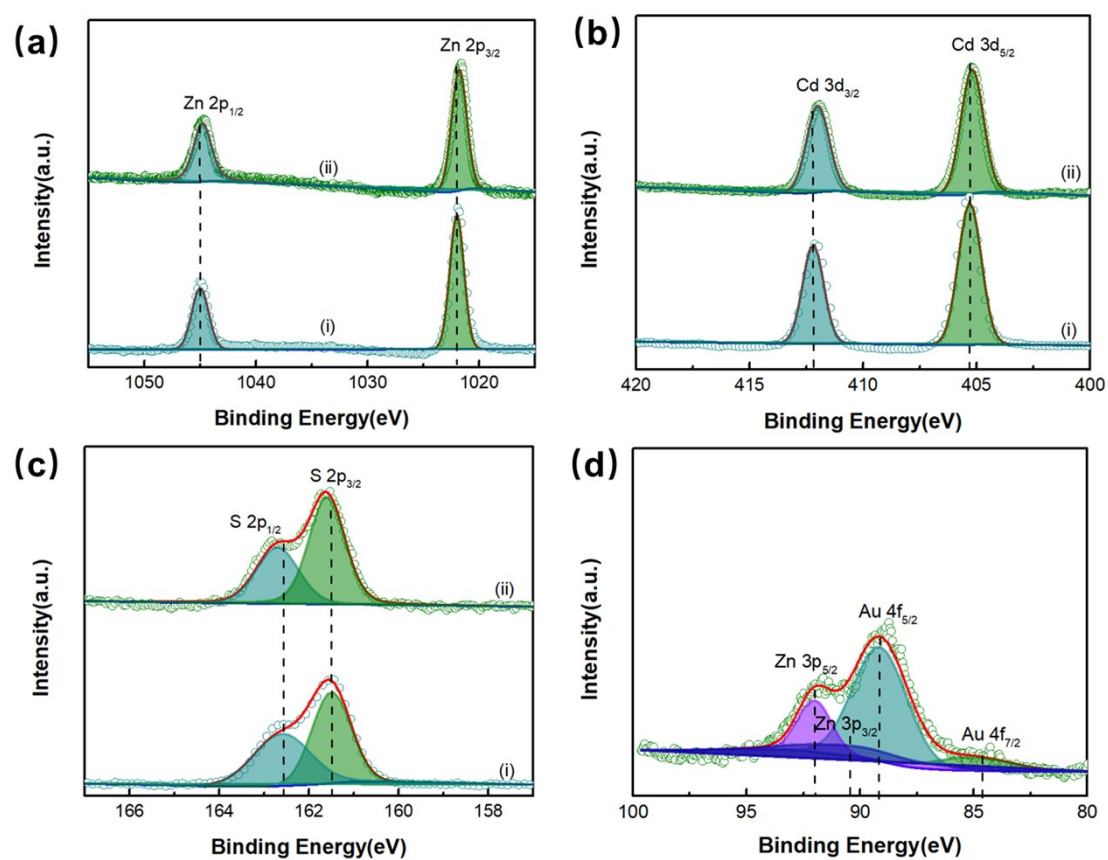


Figure S2 High-resolution XPS spectra of (a) Au 4f of Au/ZCS-2, (b) Zn 2p, (c) Cd 3d and (d) S 2p of ZCS (i) and Au/ZCS-2 (ii).

Table S1. Exponential fitting results for time resolved PL decay curves over ZCS and Au/ZCS-0.5 NRs.

Sample	τ_1 (ns)	A_1 (%)	τ_2 (ns)	A_2 (%)	τ_3 (ns)	A_3 (%)	Lifetime (ns)
ZCS	2.73	22.78	14.75	77.21	-	-	12.01
Au/ZCS-0.5	3.07	4.88	16.51	38.51	78.77	56.61	51.09