

Supporting Information

Heterostructured ZnCdS@ZIF-67 as photocatalyst for fluorescent dye degradation and selectively nonenzymatic sensing of dopamine

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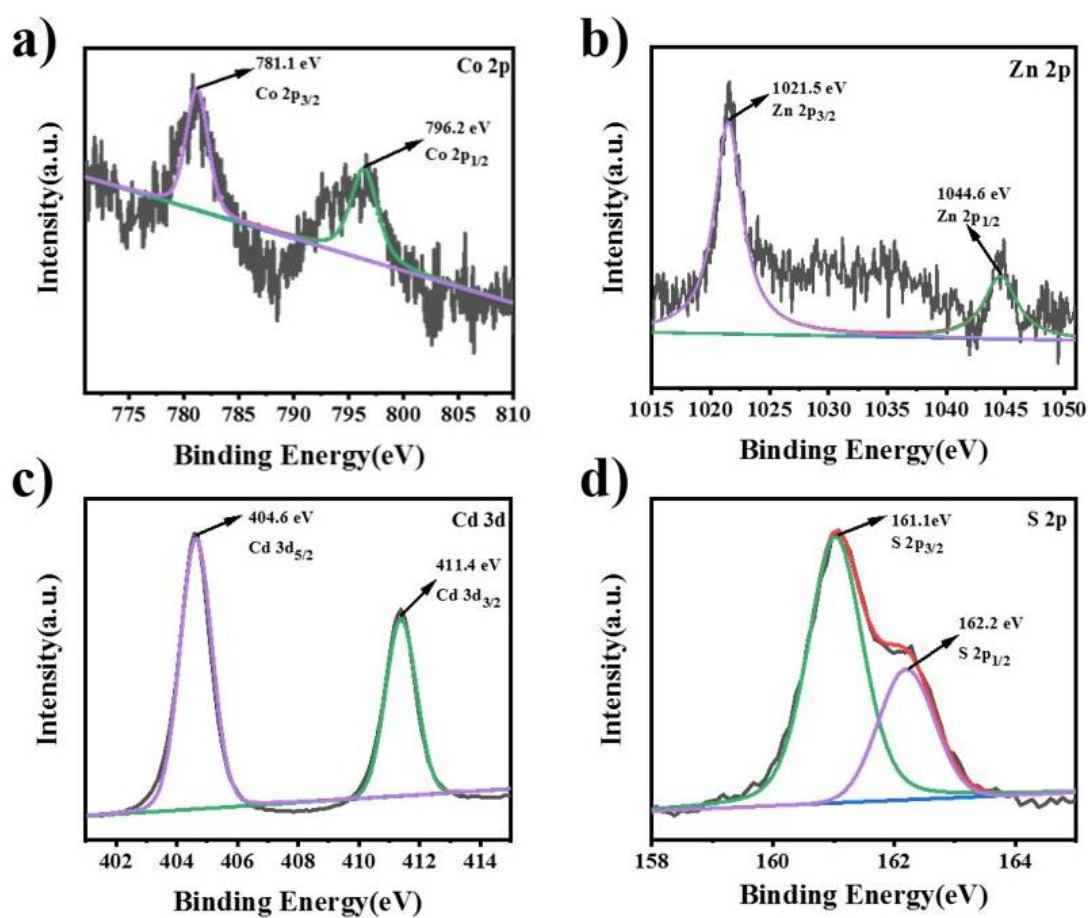


Figure S1. High-resolution XPS Co 2p (a)spectrum of $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ \text{ZIF-67}$; Zn 2p (b); Cd 3d (c); S 2p (d)spectrum of $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}$.

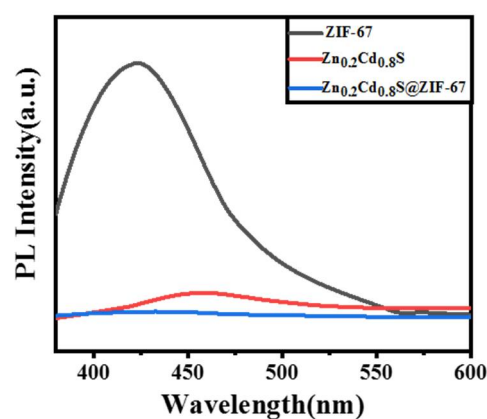


Figure S2. Steady-state fluorescence spectra of $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}$, ZIF-67 and $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ \text{ZIF-67}$.

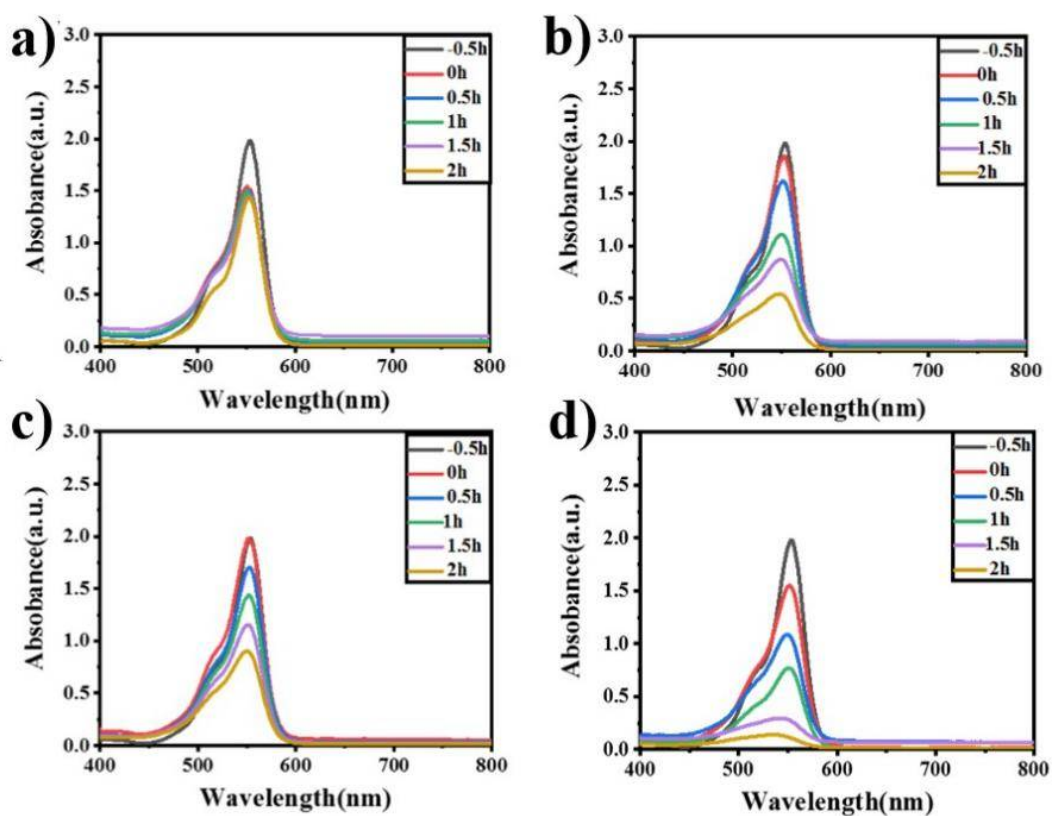


Figure S3. UV-Vis spectrogram of RhB degradation by (a) $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}$, (b) ZIF-67, (c) $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ZIF-67$ and (d) $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ZIF-67(50 \text{ mg})$.

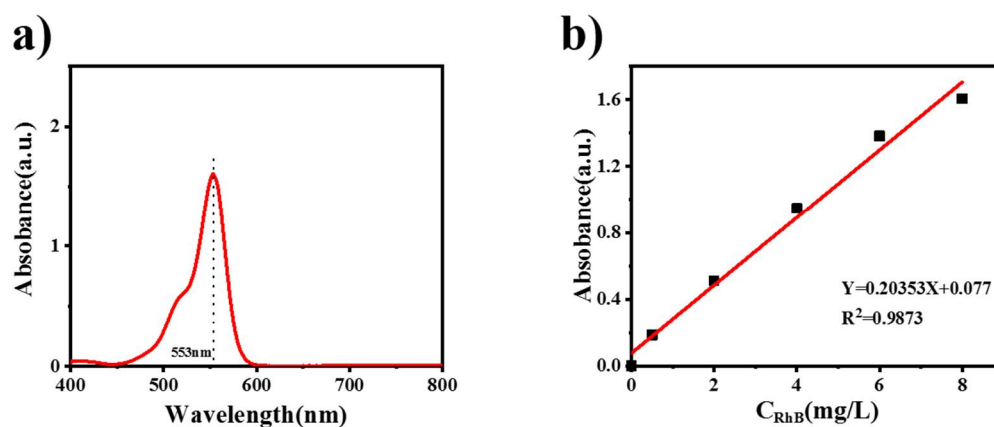


Figure S4. (a) The absorbance of RhB; (b) The pseudo-first-order kinetics of RhB used for $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ZIF-67$.

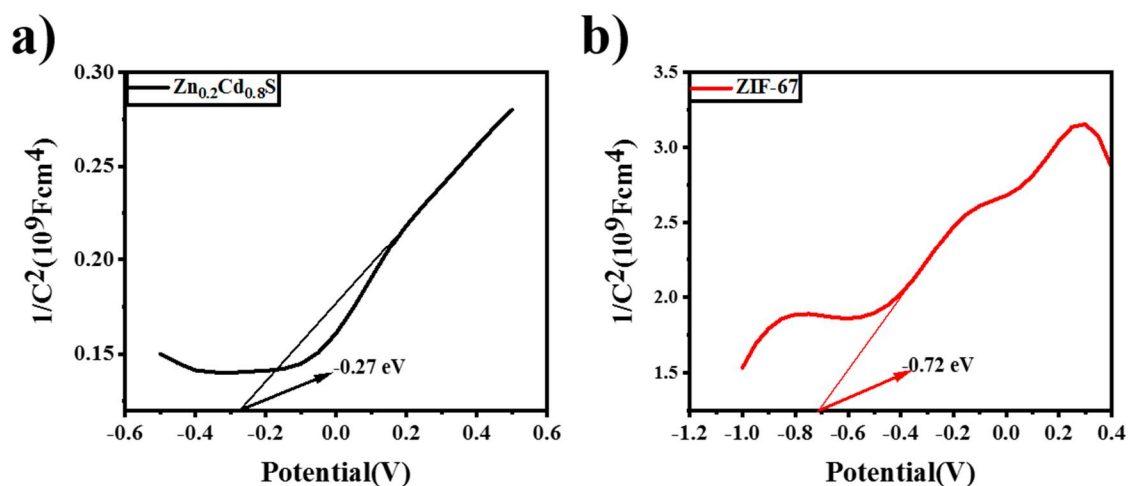


Figure S5. Mott-schottky plots of (a) $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}$ and (b) ZIF-67.

Table S1. XRD peaks analysis for $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}$ and $\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ \text{ZIF-67}$.

Sample	Peak/ $^\circ$	hkl	crystalline size (Å)	% crystallinity
$\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}$	24.915	100	3.5708	69.8
	28.124	101	3.1703	100
	51.659	200	1.7679	95.2
$\text{Zn}_{0.2}\text{Cd}_{0.8}\text{S}@ \text{ZIF-67}$	24.847	100	3.5804	78.7
	26.595	002	3.3489	70.6
	28.258	101	3.1555	96.4
	43.669	110	2.0711	93.5
	48.140	103	1.8886	5.8
	51.905	200	1.7601	7.2