

Supplementary Information

Electrostatic Interaction Assistant Synthesis of CdS/BCN Heterostructure with Enhanced Photocatalytic Effect

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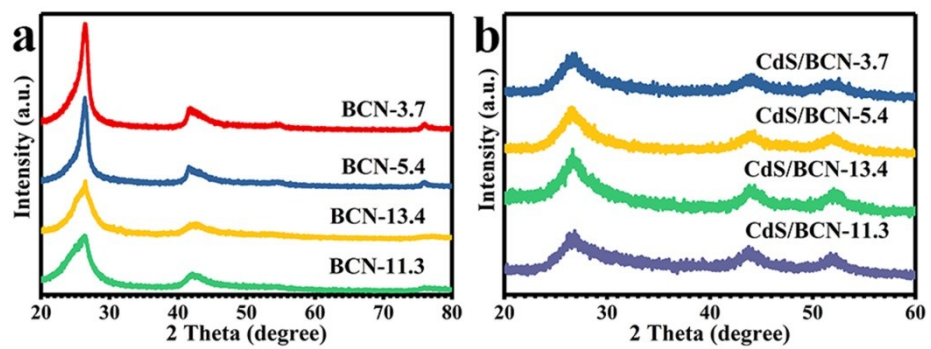


Fig. S1 XRD patterns of BCN-X (a) and 0.5% CdS/BCN-X (b).

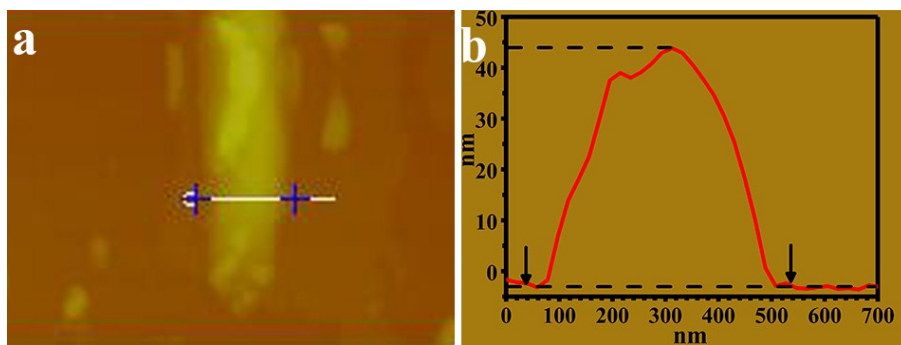


Fig. S2 (a) AFM image of BCN-13.4 nanosheet. (b) The height profile of (a).

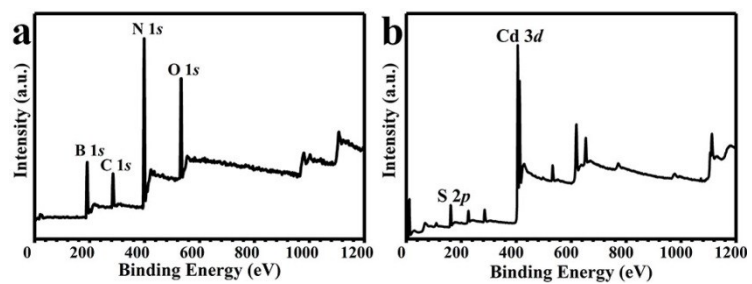


Fig. S3 (a) XPS survey spectrum of BCN-13.4. (b) XPS survey spectrum of CdS.

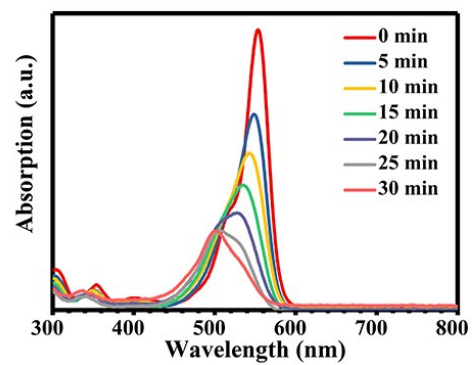


Fig. S4 UV-vis absorption spectra the RhB solution (10 mg L⁻¹, 40 mL) in the presence of 0.5% CdS/BCN-13.4 at different time intervals.

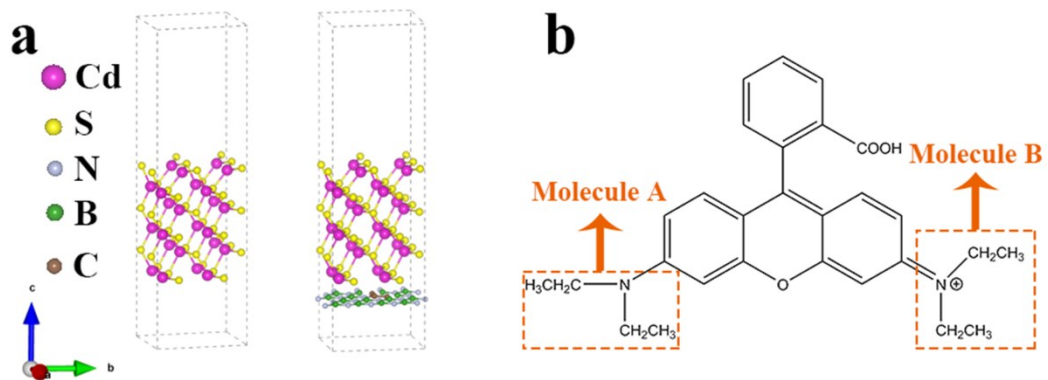


Fig. S5 (a) Slab models of CdS and CdS/BCN. (b) Schematic diagram of RhB molecular structure.

Table S1. Elemental analysis results from XPS for BCN samples.

Sample	Boron (atom %)	Carbon (atom %)	Nitrogen (atom %)	Oxygen (atom %)
BCN-3.7	43.4	3.7	46.9	6
BCN-5.4	42.1	5.4	45.1	7.4
BCN-13.4	37.2	13.4	35.3	14.1
BCN-11.3	38.7	11.3	40.1	9.9