

Electronic Supplementary Information (ESI)

Sulfur vacancies rich CdS based composite photocatalyst with g-C₃N₄ as matrix derived from Cd-S cluster assembled supramolecular network for H₂ production and VOCs removal

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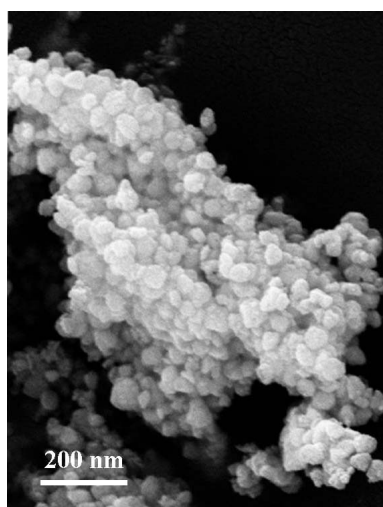


Fig. S1 SEM image of **NSN**.

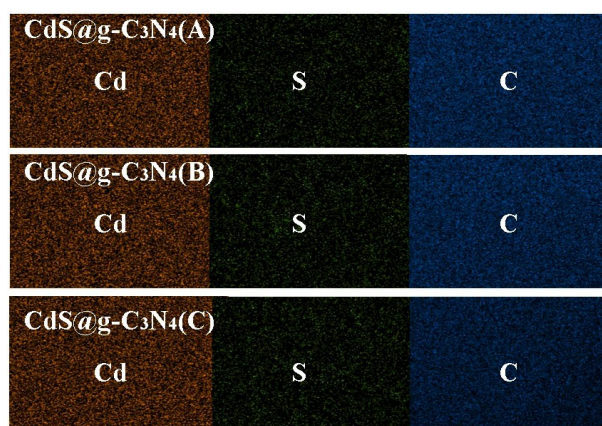


Fig. S2 Element mapping of (a) **CdS@g-C₃N₄(A)**; (b) **CdS@g-C₃N₄(B)** and (c) **CdS@g-C₃N₄(C)**.

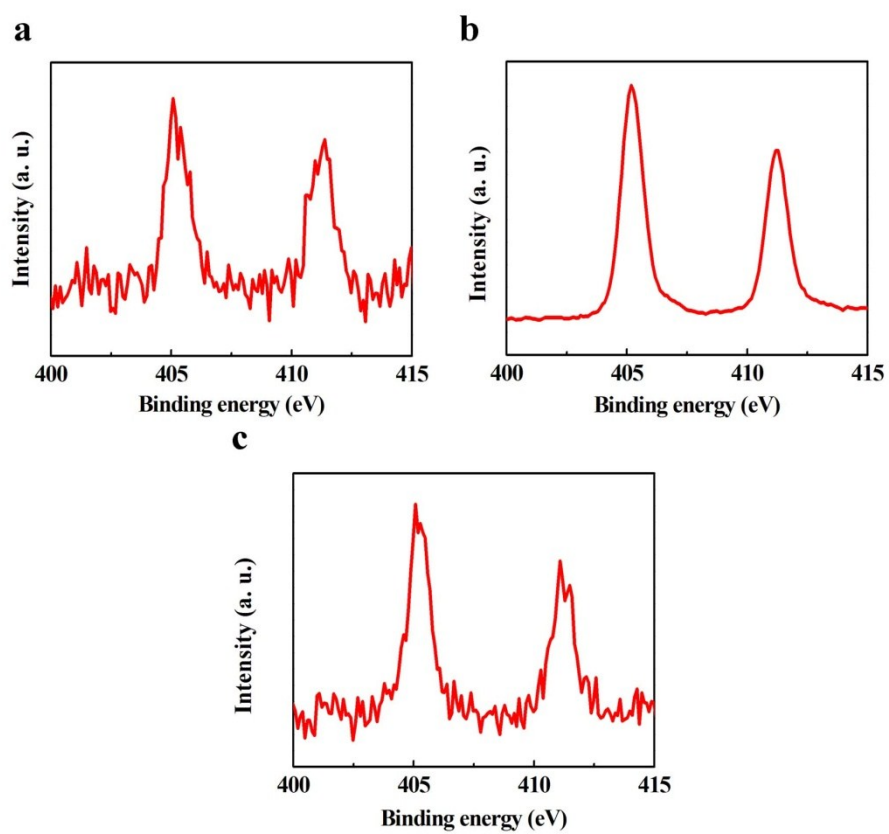


Fig. S3 High resolution Cd 3d of (a) **CdS@g-C₃N₄(A)**; (b) **CdS@g-C₃N₄(B)** and (c) **CdS@g-C₃N₄(C)**.

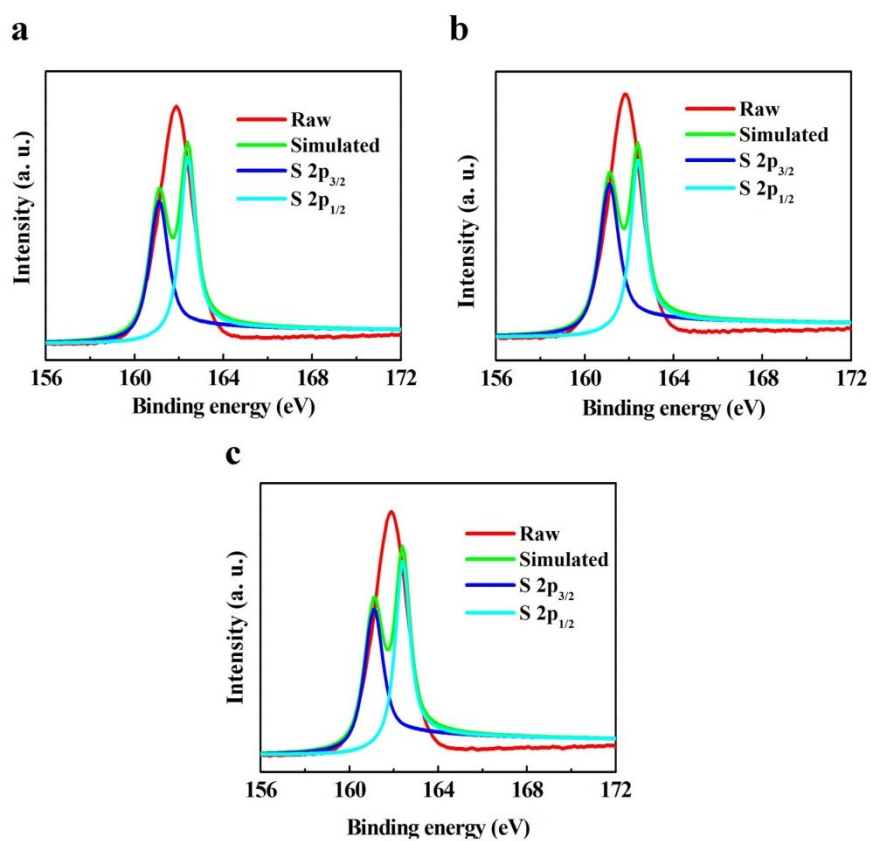


Fig. S4 High resolution S 2p of (a) **CdS@g-C₃N₄(A)**; (b) **CdS@g-C₃N₄(B)** and (c) **CdS@g-C₃N₄(C)**.

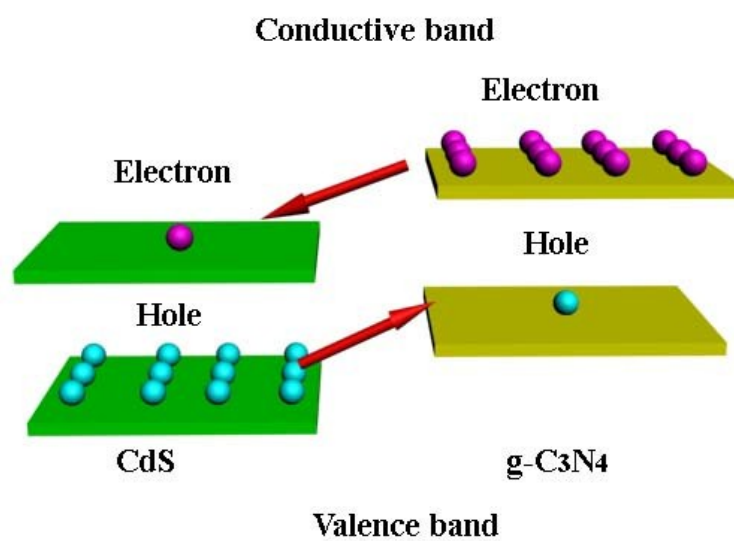


Fig. S5 The mechanism of photocatalytic H₂ production.

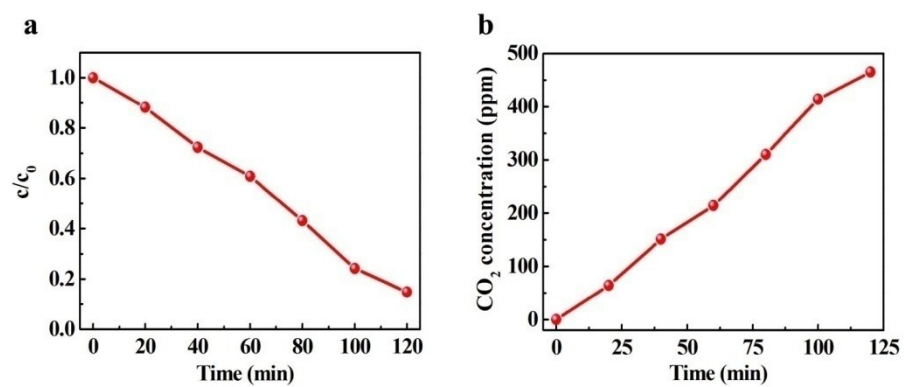


Fig. S6 (a) Time courses of photocatalytic benzene degradation; (b) the rate of CO₂ production.

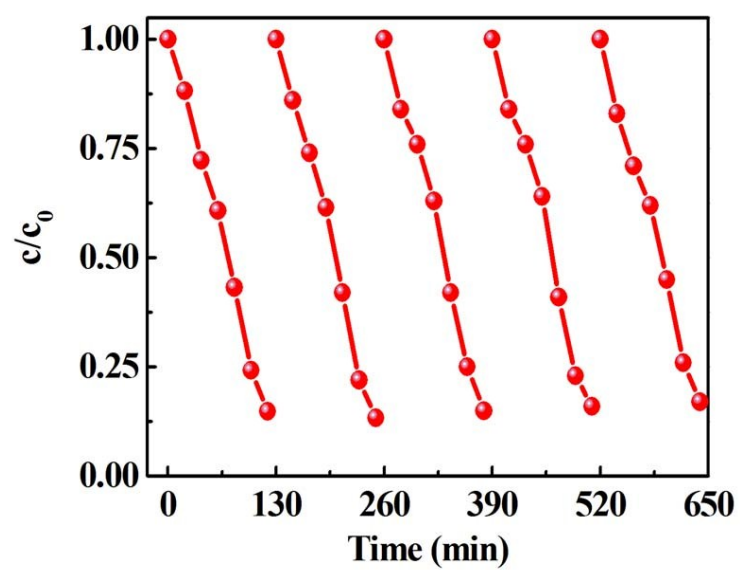


Fig. S7 Repeated time courses of benzene degradation.