

Supplementary Information

Robust Bi-anchoring Carbon Dots/BiOCl Sheets Heterojunction

Photocatalysts toward Superior Photocatalytic Activity

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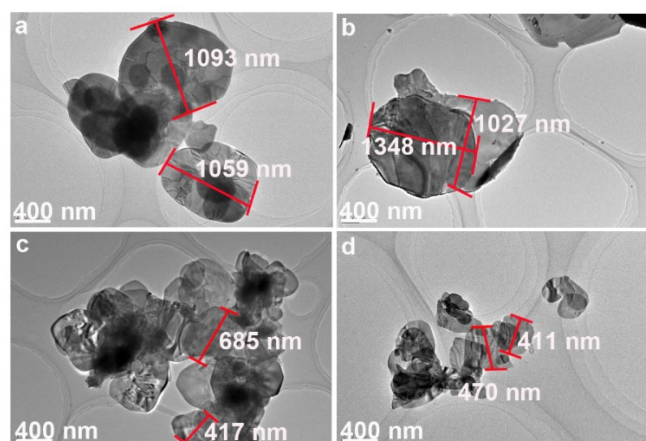


Fig. S1. TEM images of (a) S01, (b) S03, (c) S10 and (d) S12.

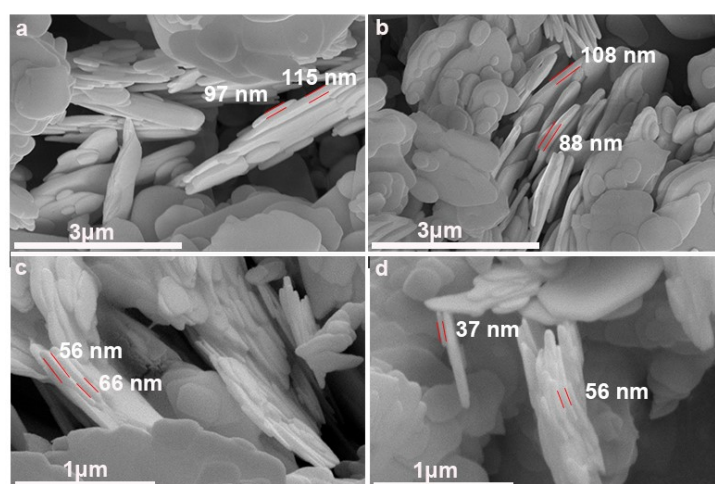


Fig. S2. SEM images of (a) S01, (b) S03, (c) S10 and (d) S12.

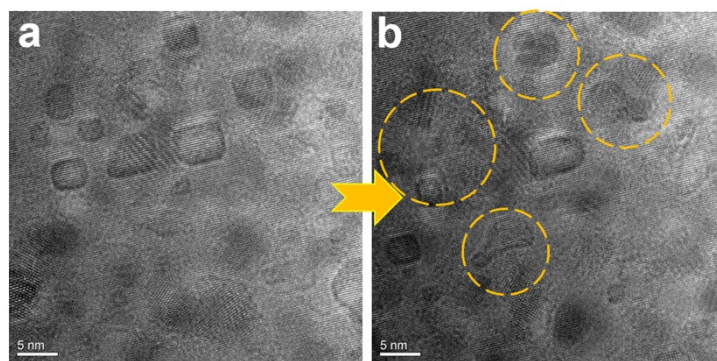


Fig. S3. HRTEM images of S12 after (a) 30-second and (b) 2-minute high energy electron beam irradiation. Obviously, Bi-CDs gradually accumulate and eventually form large-size aggregations under high-energy electron irradiation over 2 minutes.

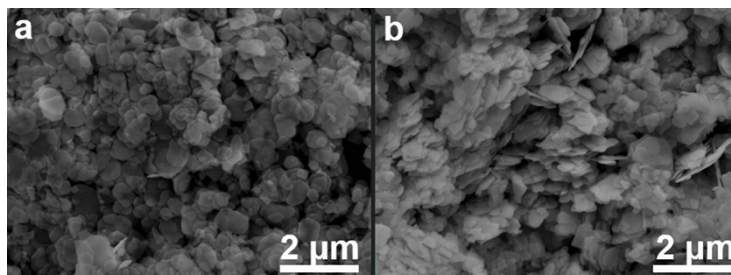


Fig. S4. SEM images of (a) S11 and (b) S13.

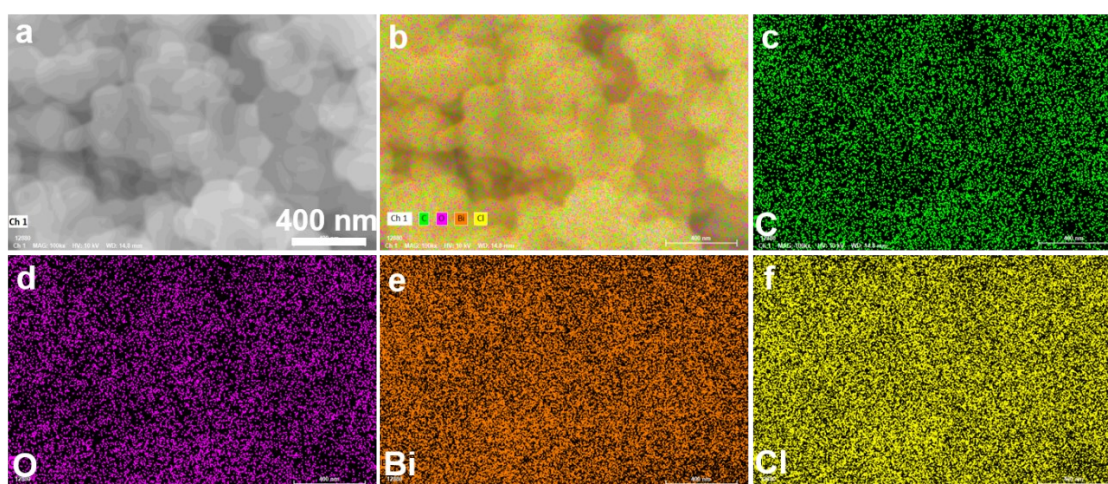


Fig. S5. (a) Mapping area of S12, (b) whole EDS mapping, and elemental EDS mapping of (c) Bi, (d) C, (e) Cl and (f) O in the corresponding area.

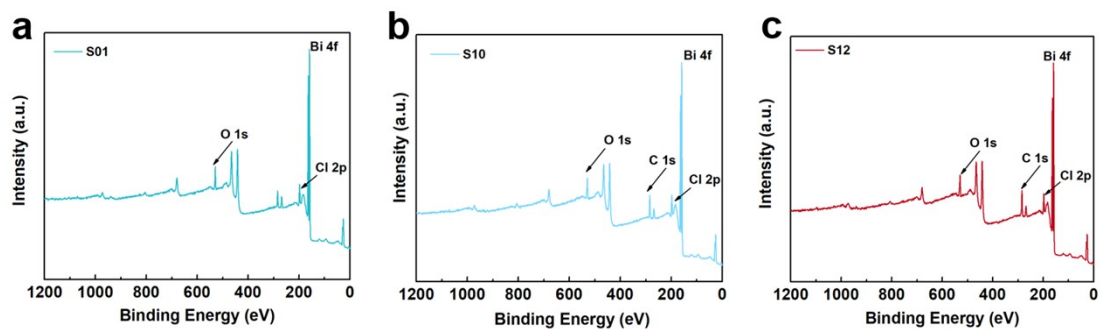


Fig. S6. XPS full spectra of (a) S01, (b) S10 and (c) S12 samples.

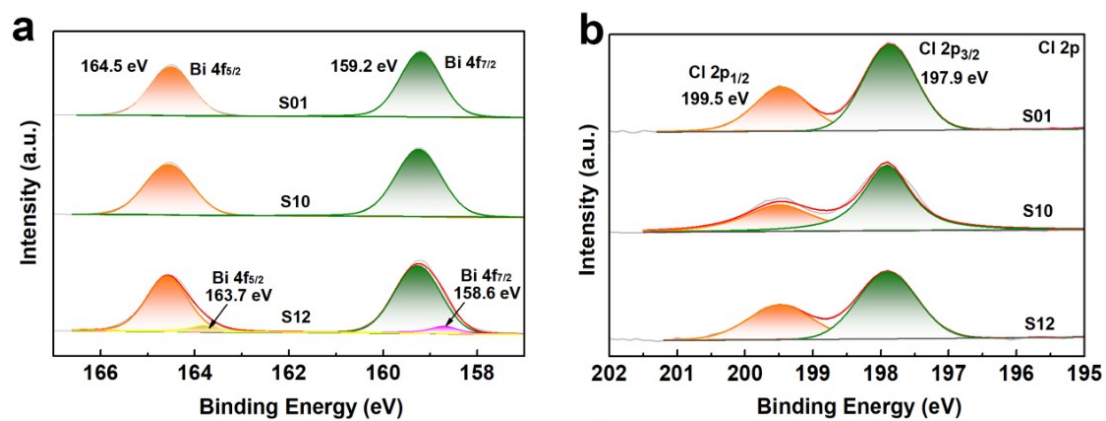


Fig. S7. XPS spectra of (a) Bi 4f, (b) Cl 2p of S01, S10 and S12.

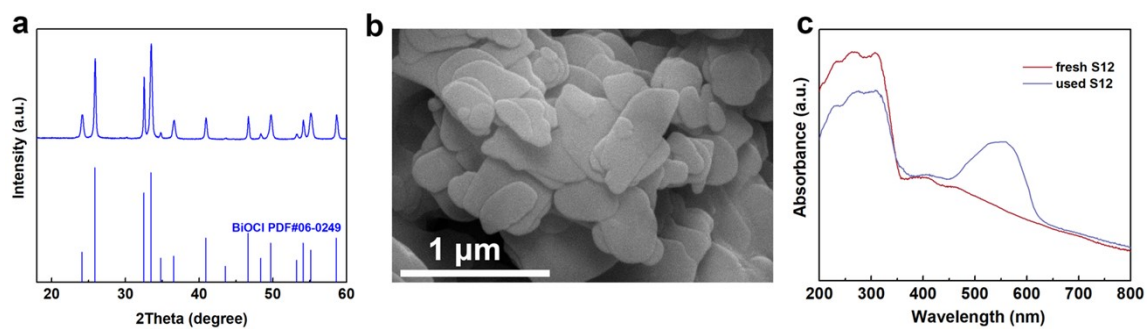


Fig.S8. (a) XRD pattern (b) SEM image of used S12 for 5 cycles photocatalysis. (c) DRS curves of fresh S12 and used S12 for 5 cycles photocatalysis.

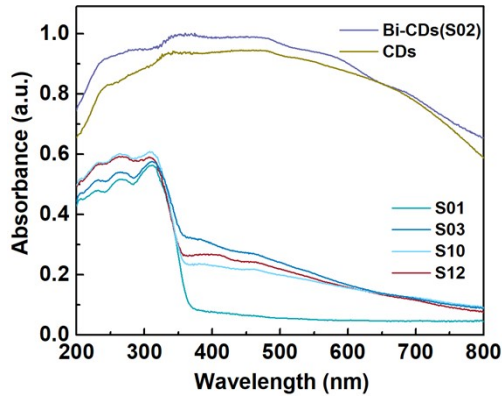


Fig. S9. UV-vis DRS spectra of CDs, S01-S03, S10 and S12.

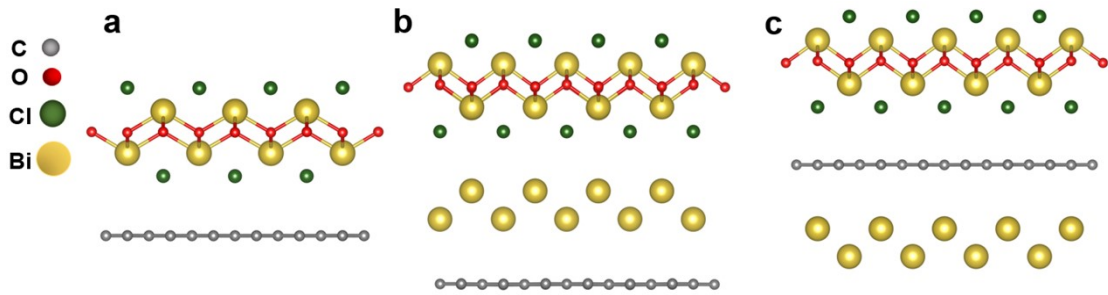


Fig. S10. Optimized crystal structures of (a) CDs/BiOCl, (b) BiOCl/Bi/CDs and (c) BiOCl/CDs/Bi.

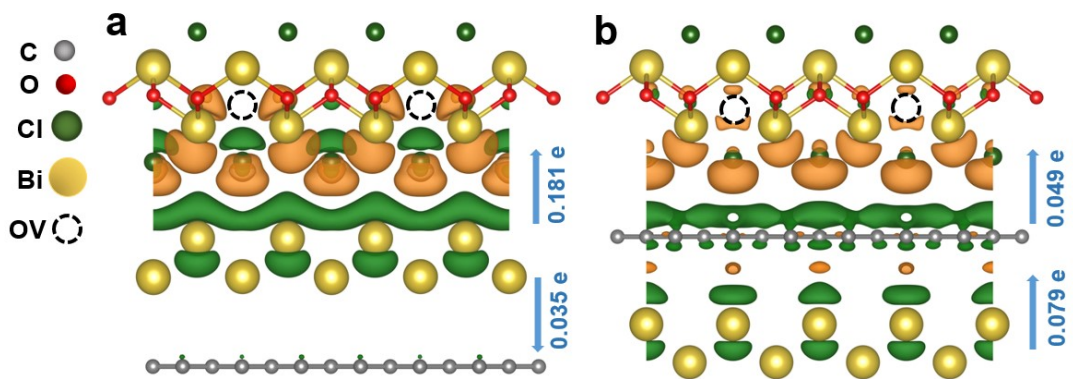


Fig. S11. Charge density difference between BiOCl, Bi and CDs in (a) Configuration A with OVs and (b) Configuration B with OVs.