Electronic Supplementary Material (ESI) for Environmental Science: Nano.

Tin-anchored Ti_3C_2 quantum dots with high conductivity for efficient photocatalytic reduction

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Supporting Information

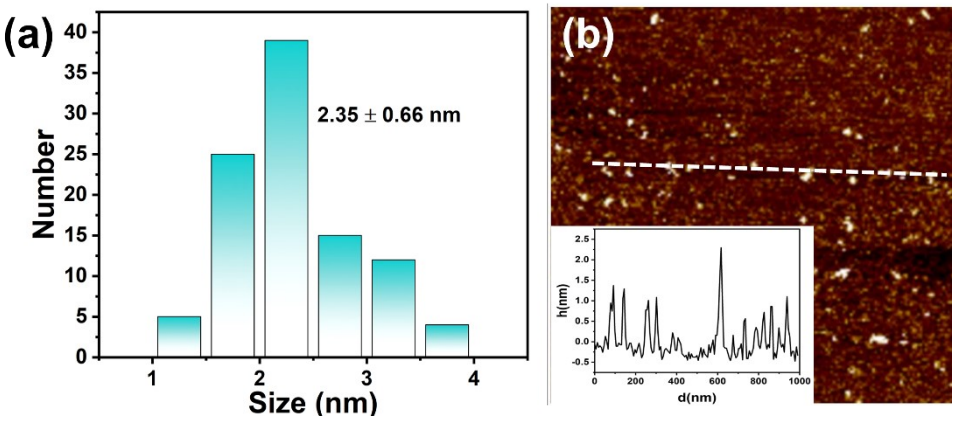

Fig. S1 (a) The particle size distribution histograms image of TQDs, (b) AFM image of TQDs and the corresponding height profiles along the white line.

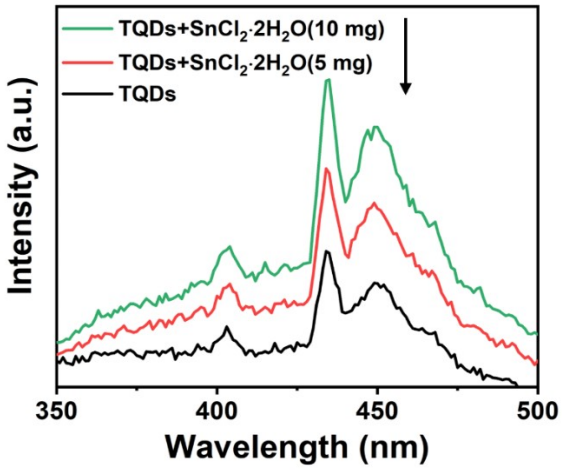

Fig. S2 Fluorescence spectra of TQDs with different content of Sn^{2+}.

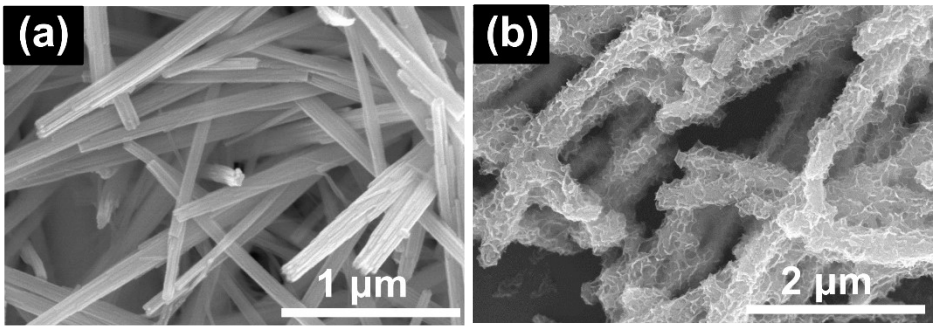

Fig. S3 SEM image of (a) WO_3 and (b) WO_3/TQDs/In_2S_3.

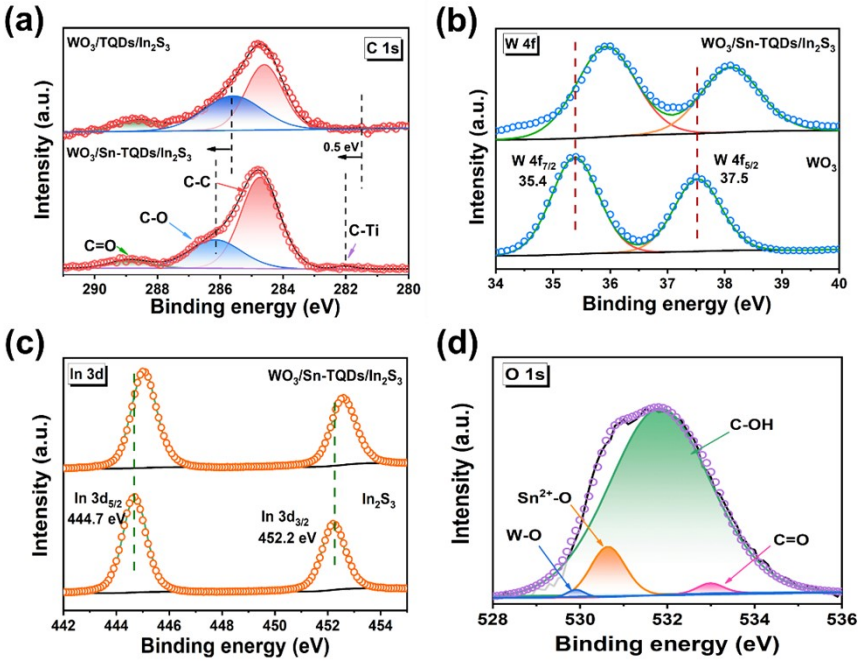

Fig. S4 High-resolution XPS spectra of (a) C1s, (b) W 4f, (c) In 3d, (d) O 1s of WO_3/Sn-TQDs/In_2S_3.

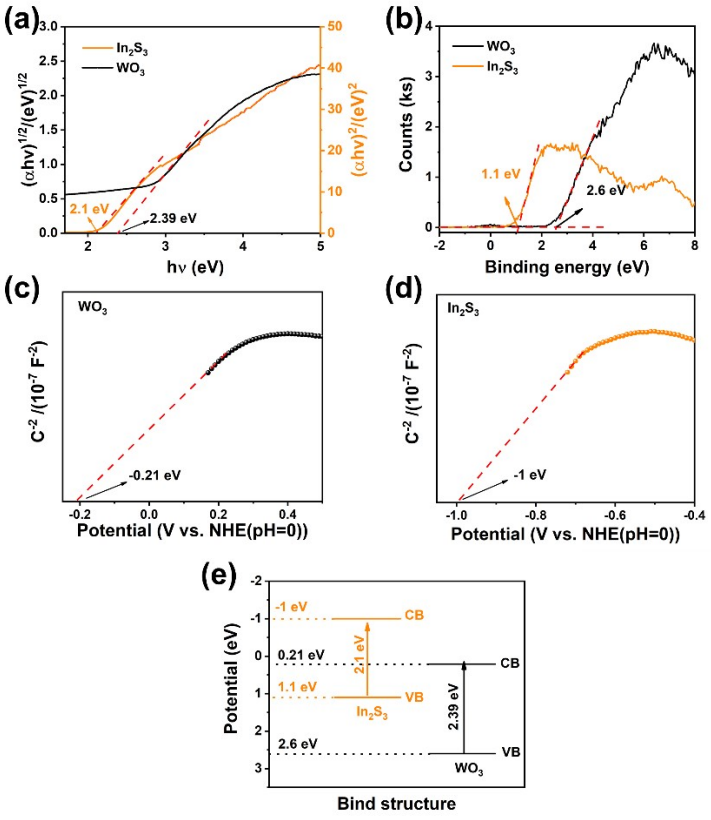

Fig. S5 (a) Plots of $(\alpha h\nu)^{1/2}$ versus ($h\nu$) and $(\alpha h\nu)^2$ versus ($h\nu$) used to estimate the optical band gaps, (b) the valence band spectra, (c, d) the Mott-schottky curves and (e) bind structure of WO_3 and In_2S_3.

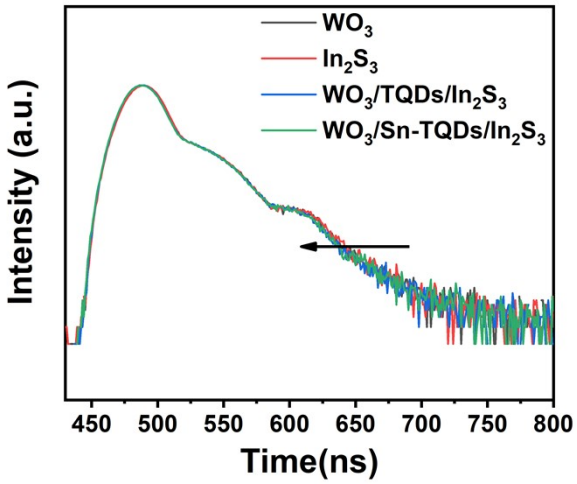

Fig. S6 Transient fluorescence decay curve of WO_3, In_2S_3, WO_3/TQDs/In_2S_3 and WO_3/Sn-TQDs/In_2S_3.

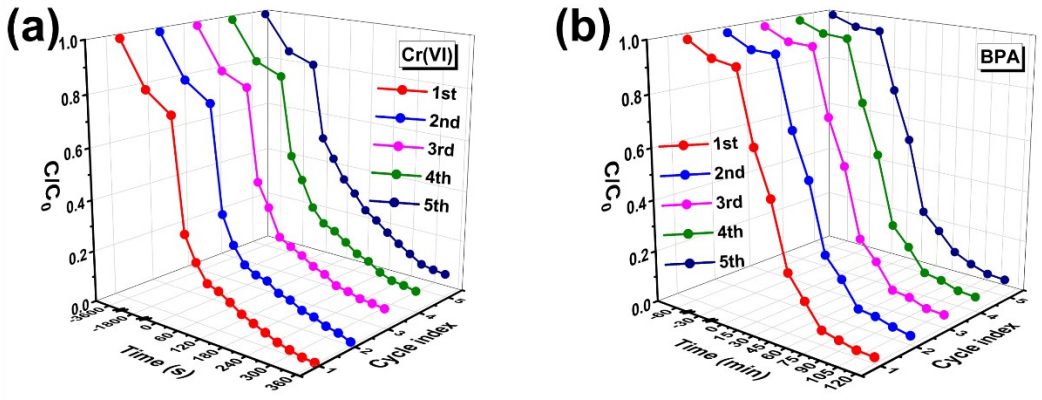

Fig. S7 Recycling performance of WO_3/Sn-TQDs/In_2S_3 towards (a) Cr (VI) removal and (b) BPA degradation.

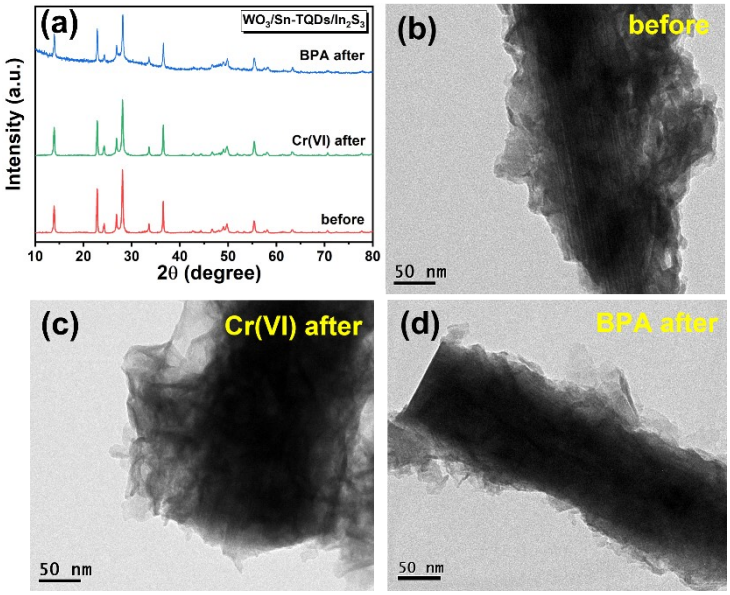

Fig. S8 (a) XRD and (b-d) TEM of WO_3/Sn-TQDs/In_2S_3 before and after cycling reaction