Electronic Supplementary Information for the manuscript

CdS-decorated UiO-66(NH₂) nanocomposites fabricated by a facile photodeposition process: an efficient and stable visible-light-driven photocatalyst for selective oxidation of alcohols

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Fig. S1 Photocatalytic selective oxidation of benzyl alcohol over the sample CdS-U6 (8 mg) with different illumination time ($\lambda \geq 420$ nm).

Fig. S2 Photocatalytic selective oxidation of benzyl alcohol over the sample CdS-U6 with different catalyst amount under visible light irradiation for 4h ($\lambda \geq 420$ nm).
**Fig. S3** Mott-Schottky plot of UiO-66(NH$_2$) in 0.2 M Na$_2$SO$_4$ aqueous solution (pH = 6.8).

**Fig. S4** XPS patterns of CdS-U6 before and after the photocatalytic reaction.
**Fig. S5** Reusability of commercial CdS for the photocatalytic selective oxidation of benzyl alcohol.

**Fig. S6** ESR spectrum of the radical adduct trapped by DMPO (DMPO-OH) in BTF over CdS-U6.