

Supporting Information

Synergistic effect of plasmon induced Ag@Ag₃VO₄/ZnCr LDH ternary heterostructure towards visible light responsive O₂ evolution and phenol oxidation reaction

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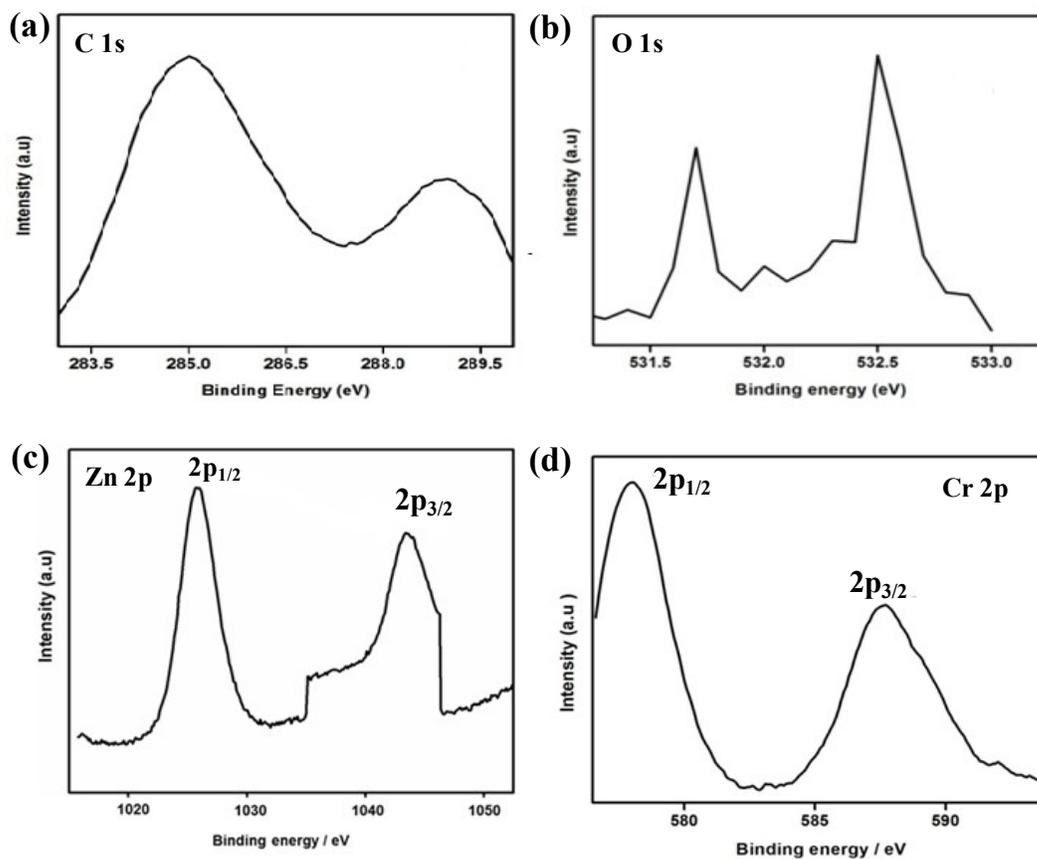


Fig. S1 XPS spectra of (a) C 1s, (b) O 1s, (c) Zn 2p and (d) Cr 2p.

Table S1: Adsorption study of phenol by varing different pH

pH	Phenol Adsorption
4	19%
5	20.54%
6	23%
7	25%
8	22.8%
9	22.5%
11	21.19%

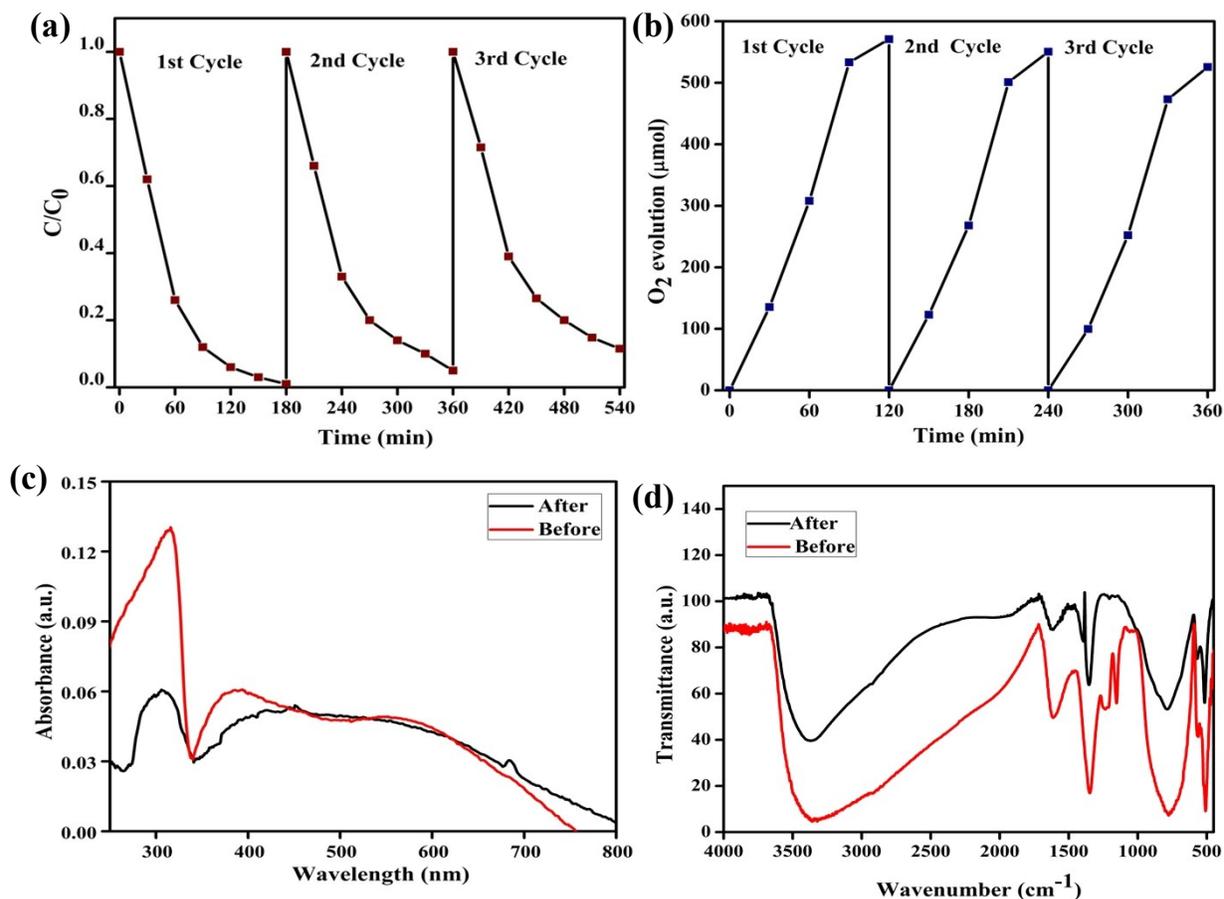


Fig. S2 Reusability study of (a) oxidation of phenol, (b) volume of O_2 evolution in three consecutive cycles of run in every 3 h and 2 h respectively for 40ALDH catalyst, (c) UV-vis DRS plots and (d) FTIR spectra of 40ALDH nanohybrid with after and before the phenol oxidation.

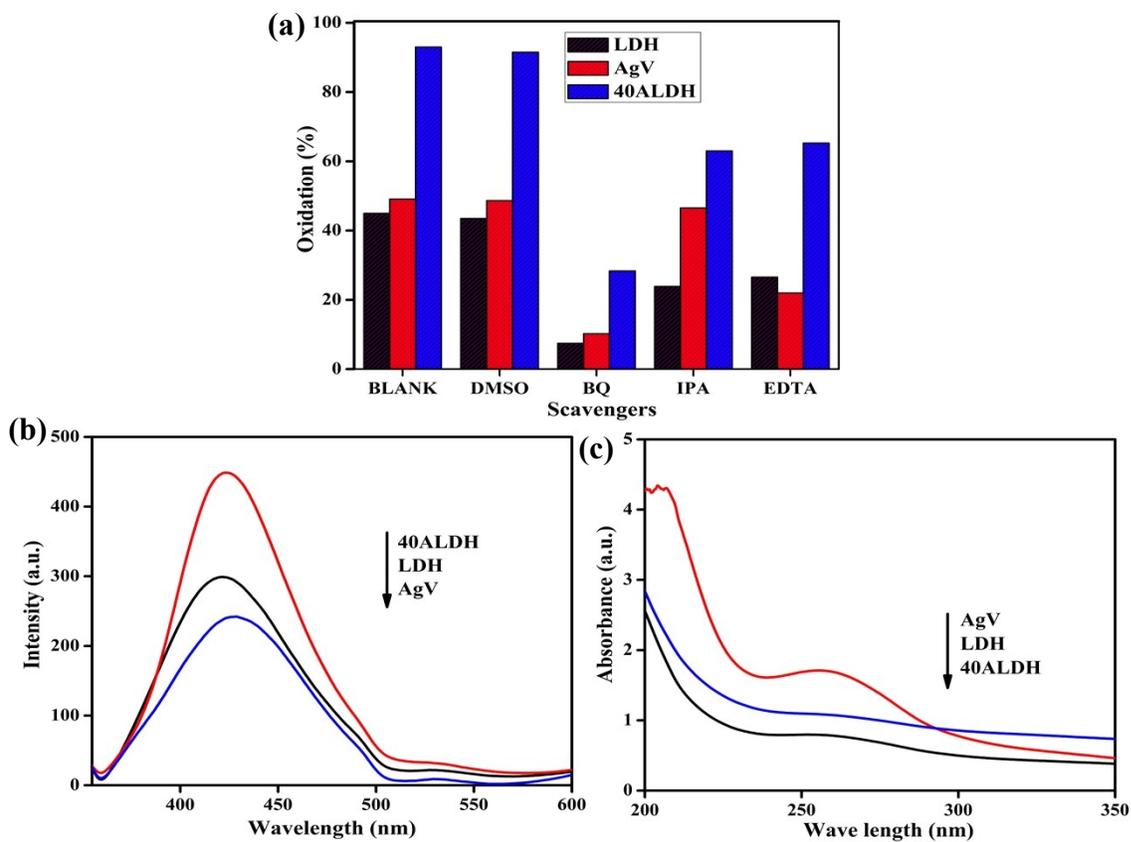


Fig. S3 (a) Active species trapping experiments over LDH, AgV and 40ALDH, (b) TAOH fluorescence intensities and (c) NBT transformation efficiencies of LDH, AgV and 40ALDH photocatalysts.