

Supporting Information

Photocatalytic Degradation of Methyl Blue Dye with H₂O₂ Sensing

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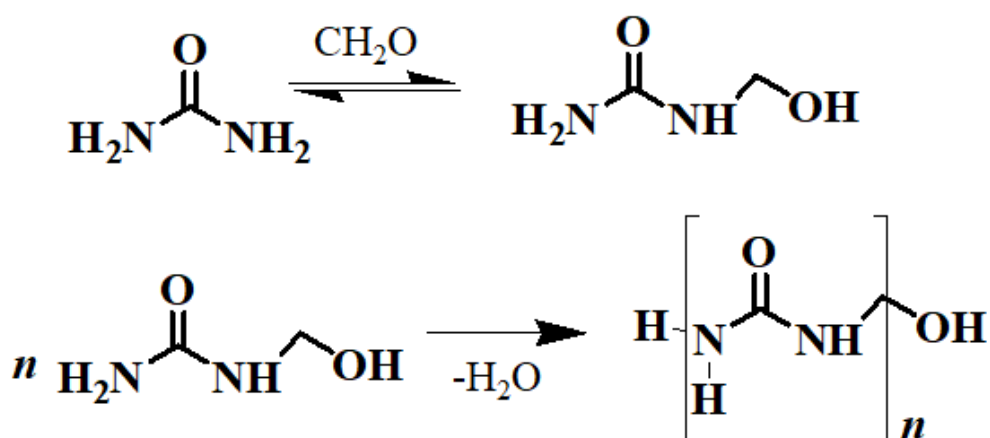


Fig. S1: Diagrammatic presentation of CP.

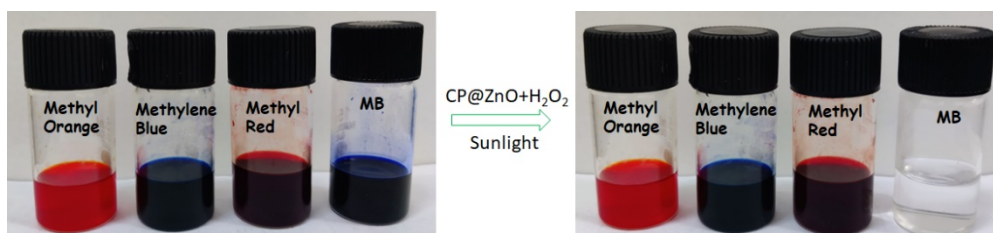


Fig. S2: Digital images of various dyes before and after ZnO@CP/H₂O₂/sunlight treatment

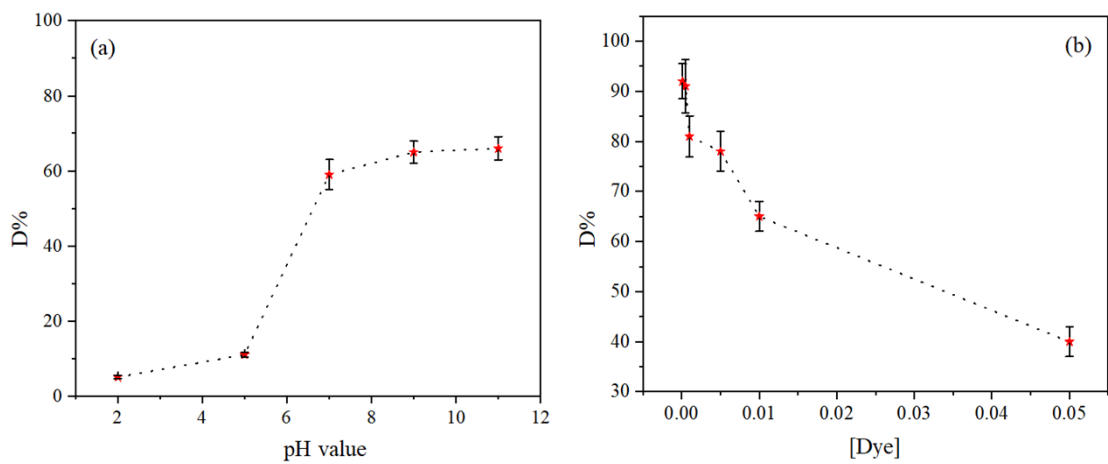


Fig. S3: D% with the variation of (a) pH and (b) initial dye concentration; ZnO@CP 0.5 g/dm³.

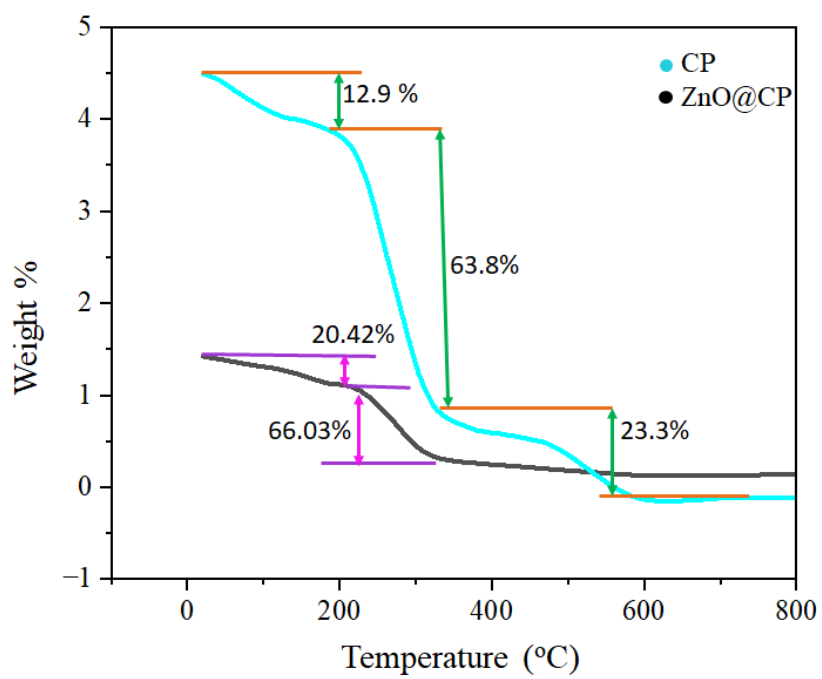


Fig. S4: TGA spectra of CP & ZnO@CP in air.

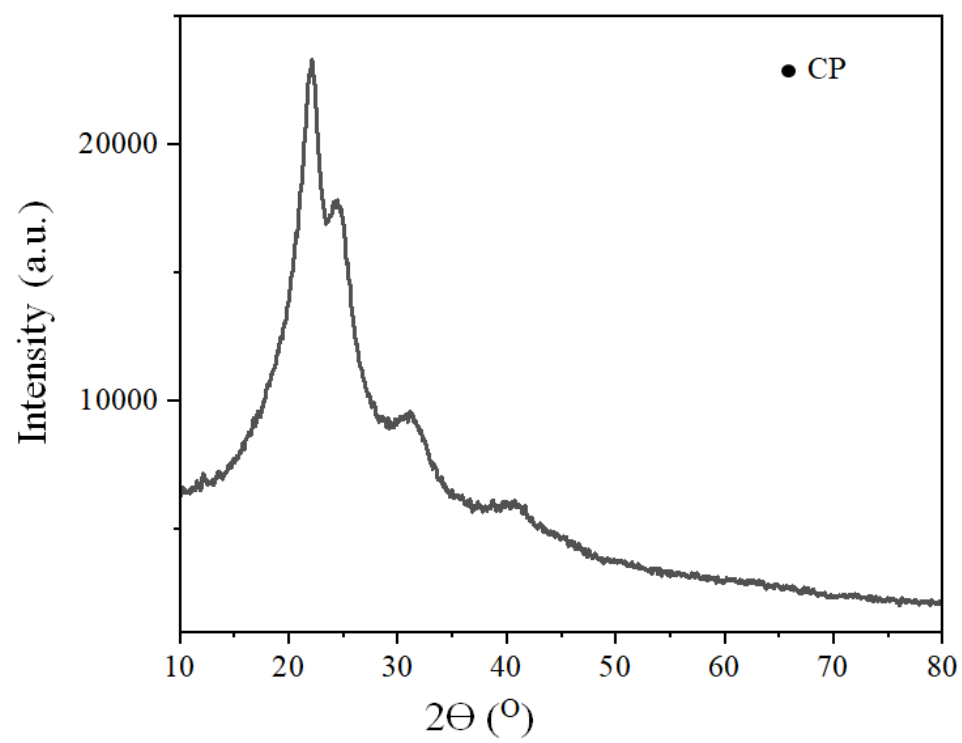


Fig. S5: XRD plot of CP.

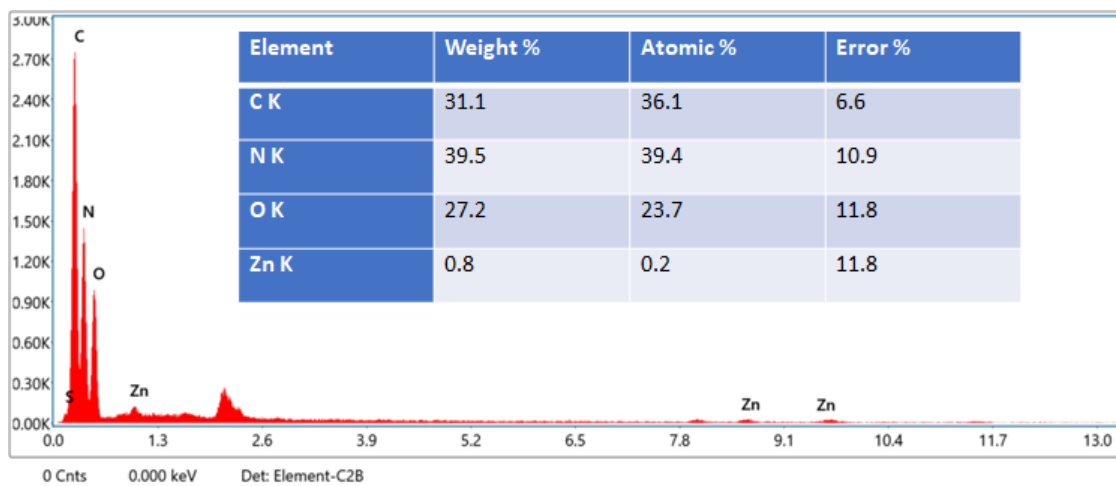


Fig. S6: EDS spectra of ZnO@CP for the elemental analysis.

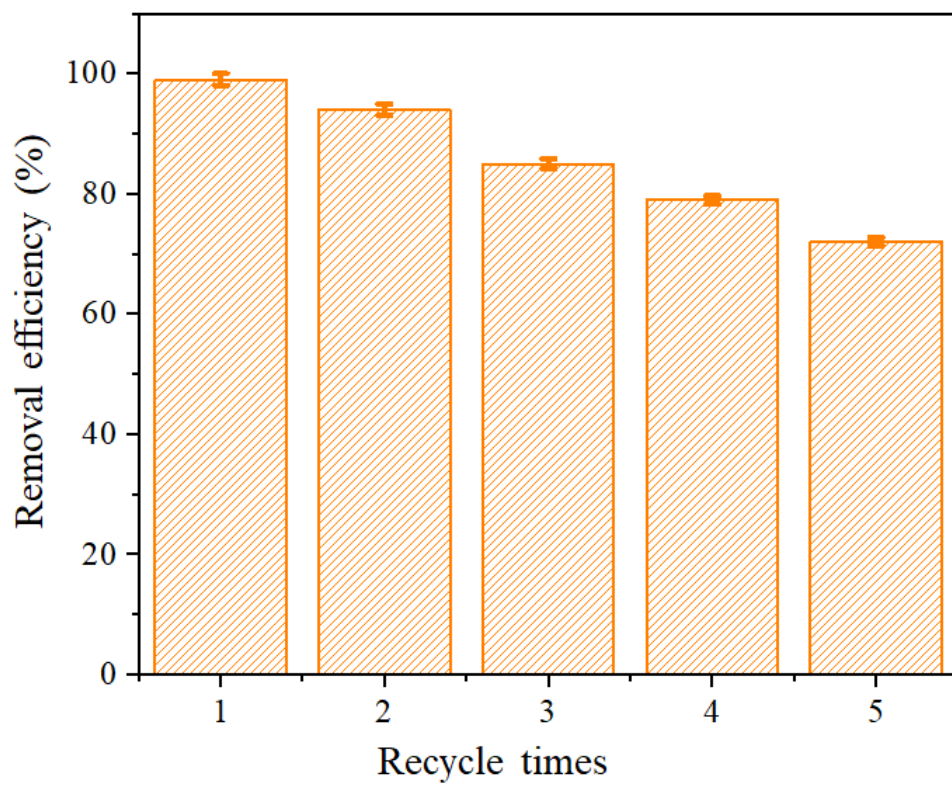


Fig. S7: Recyclability experiment for ZnO@CP.

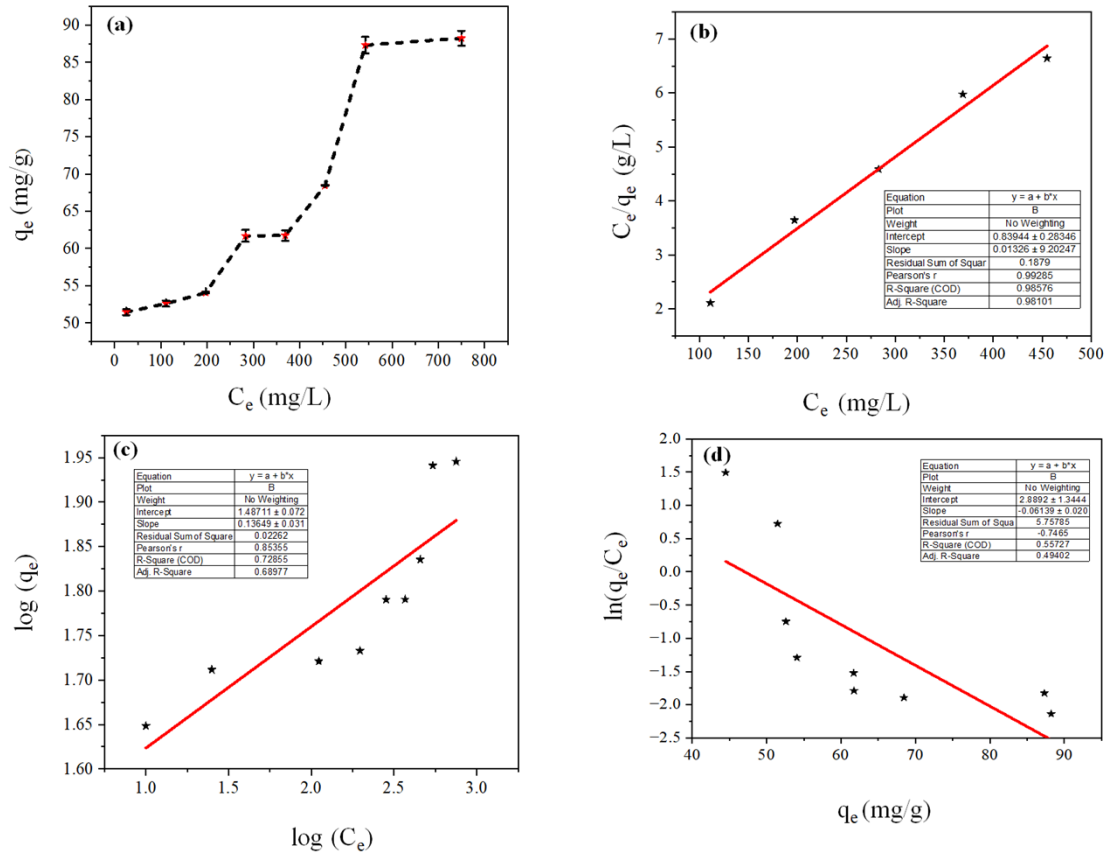


Fig. S8: (a) q_e vs. C_e , (b) Langmuir isotherm, (c) Frudlich isotherm and (d) Elovich isotherm for MB adsorption on ZnO@CP.

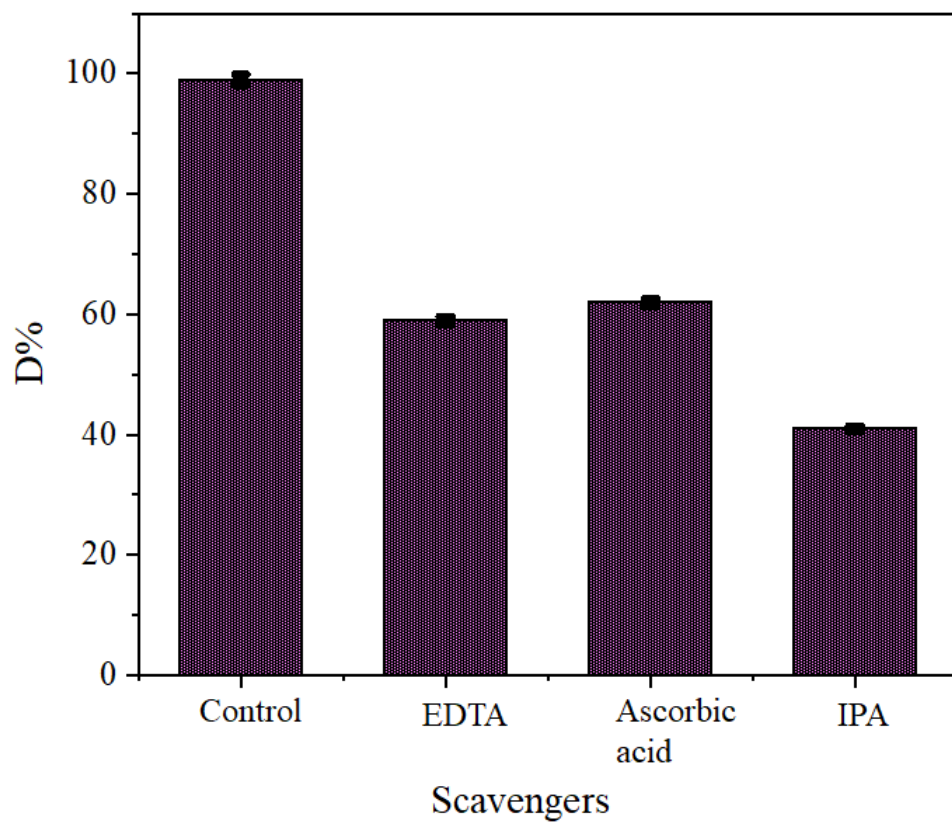


Fig. S9: Effect of different scavengers on D% of MB dye.

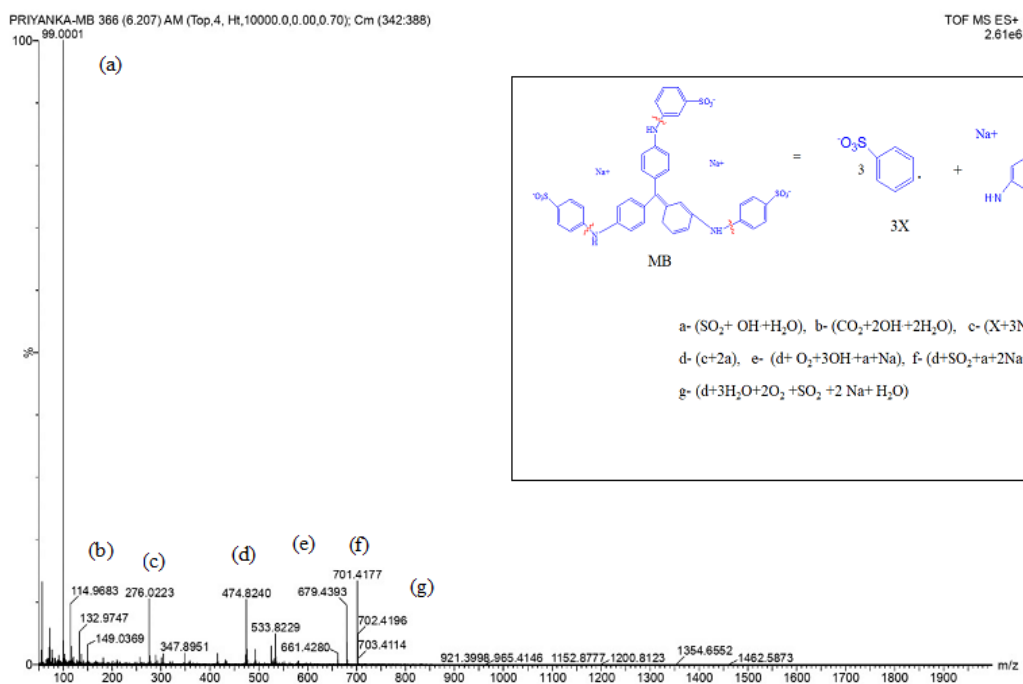


Figure S10: LCMS of MB after treating with ZnO@CP/H₂O₂/sunlight.

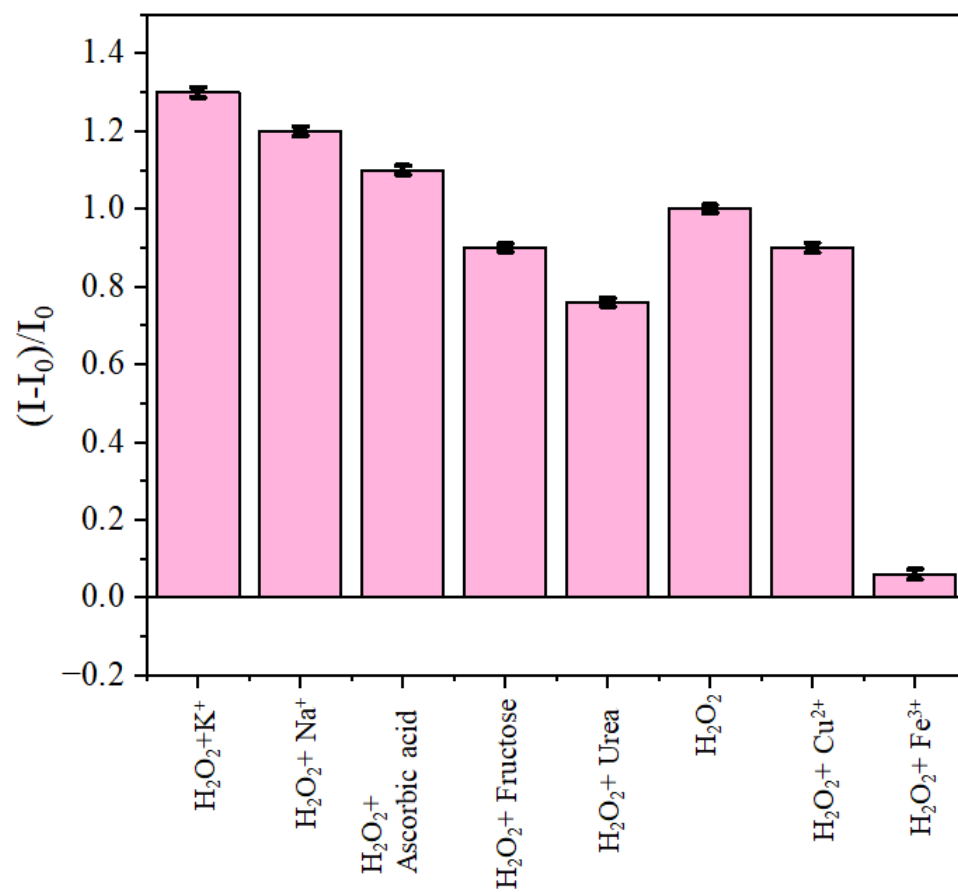


Figure S11: Change of fluorescence of H₂O₂ induced photo degraded MB with interfering molecules.