

Supplementary data

Preparation and characterization of Fe-ZnO cellulose based nanofiber mats with a self-sterilizing photocatalytic activity for enhanced antimicrobial applications using visible light

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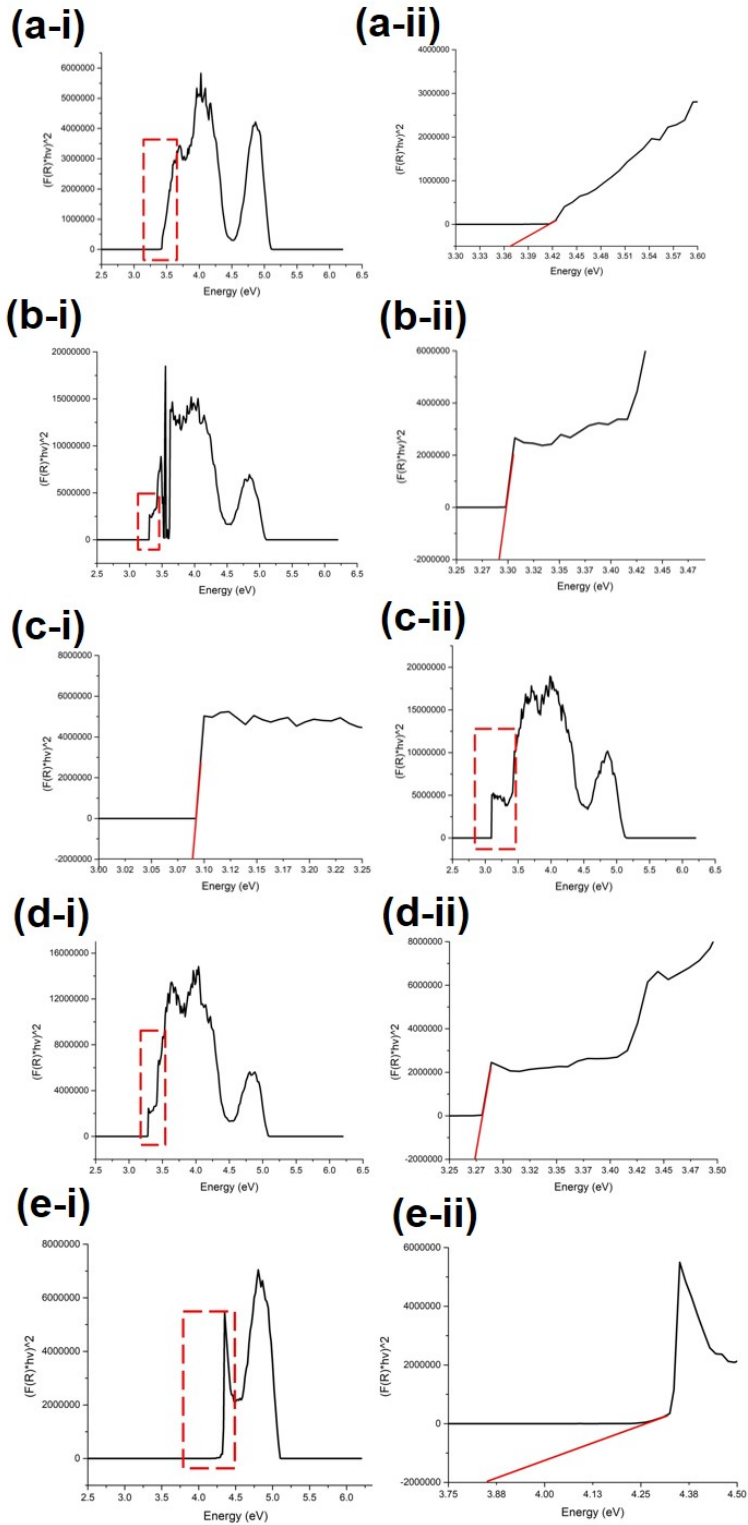


Figure S1: Tauc plots of (a-i) ZnO – long range, (a-ii) ZnO – short range, (b-i) Fe 3% - ZnO – long range, (b-ii) Fe 3% - ZnO – short range, (c-i) Fe 5% - ZnO – long range, (c-ii) Fe 5% - ZnO – short range, (d-i) Fe 7% - ZnO – long range, (d-ii) Fe 7% - ZnO – short range, (e-i) Fe 10% - ZnO – long range, (e-ii) Fe 10% - ZnO – short range .

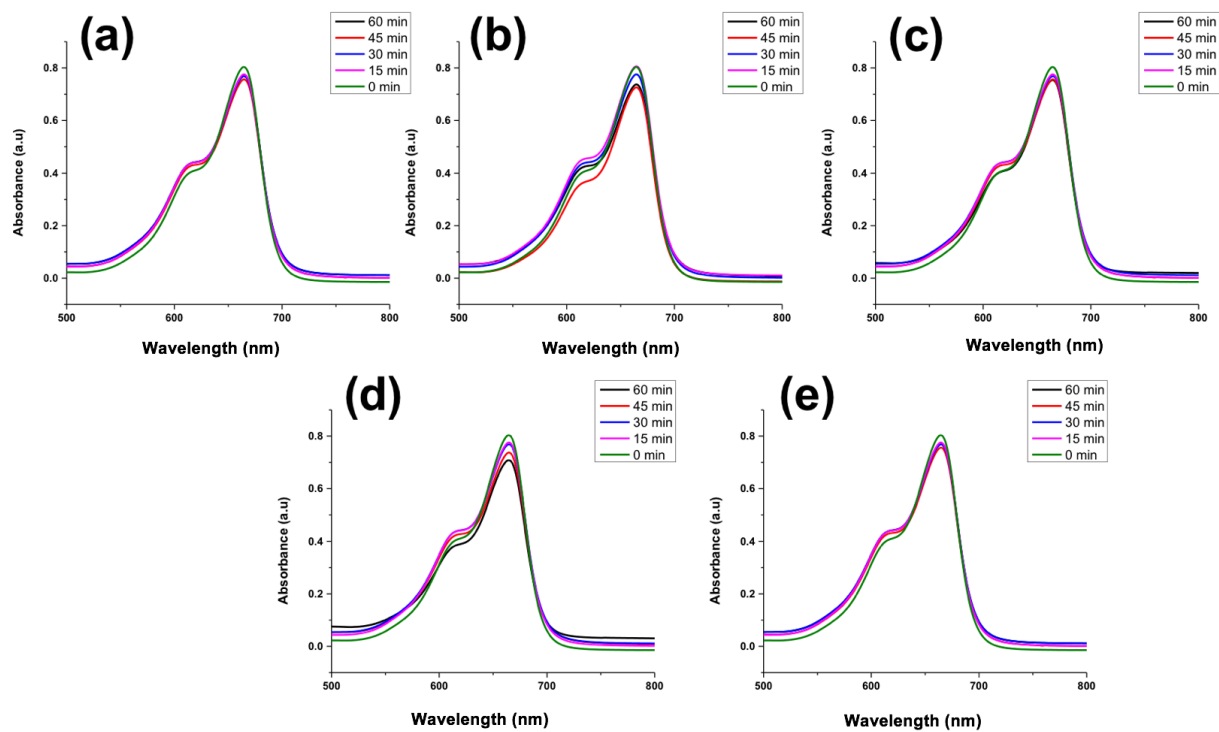


Figure S2: UV-Vis absorbance spectra for the degradation of MB dye under dark; (a) ZnO, (b) Fe 3% - ZnO, (c) Fe 5% - ZnO, (d) Fe 7% - ZnO, (e) Fe 10% - ZnO.

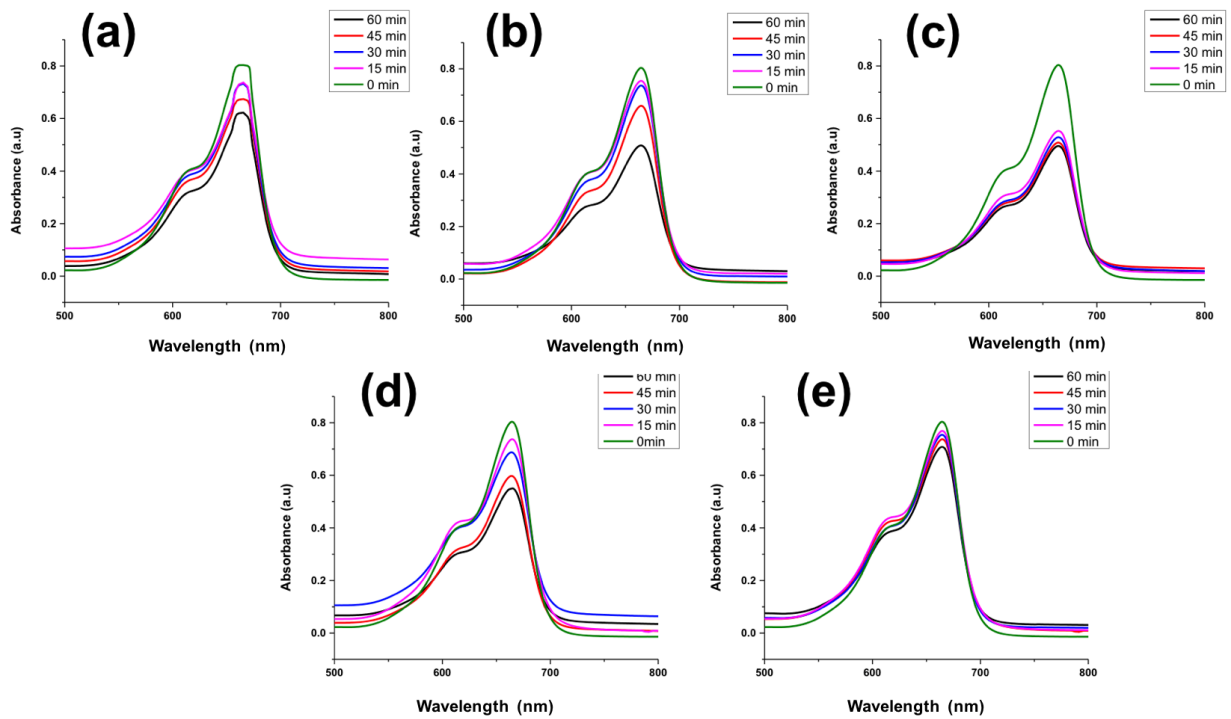


Figure S3: UV-Vis absorbance spectra for the degradation of MB dye under visible light lamp; (a) ZnO, (b) Fe 3% - ZnO, (c) Fe 5% - ZnO, (d) Fe 7% - ZnO, (e) Fe 10% - ZnO.

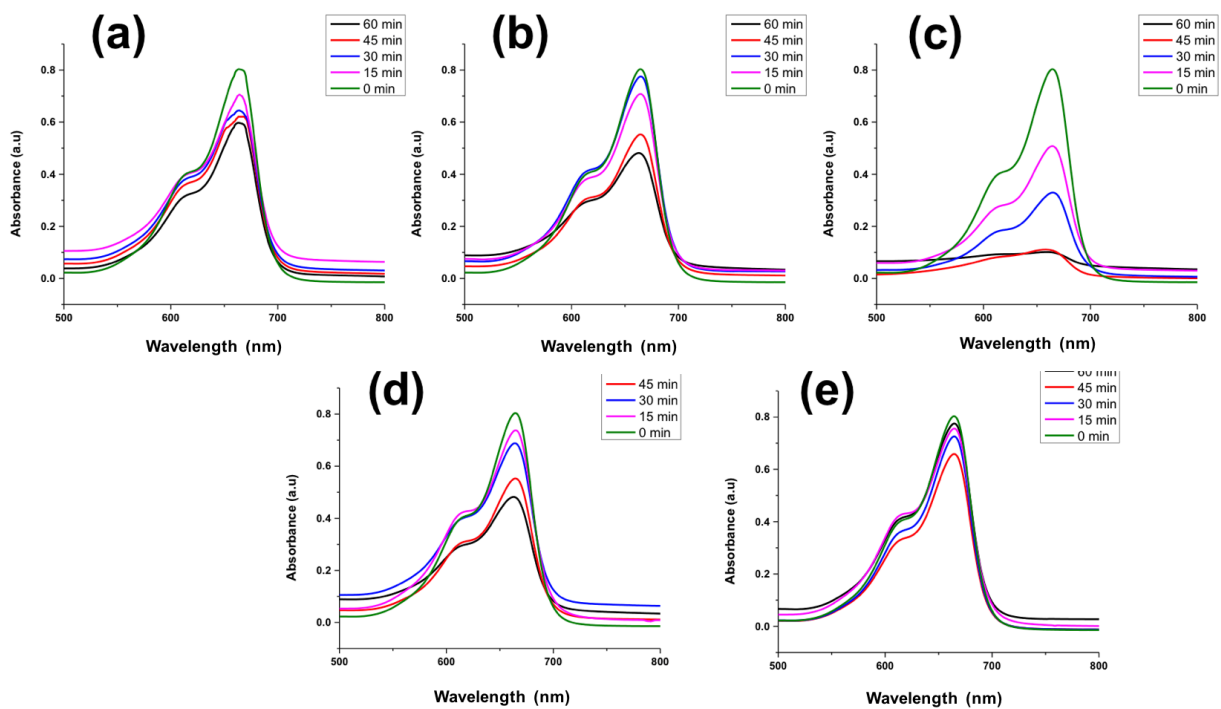


Figure S4: UV-Vis absorbance spectra for the degradation of MB dye under sunlight; (a) ZnO, (b) Fe 3% - ZnO, (c) Fe 5% - ZnO, (d) Fe 7% - ZnO, (e) Fe 10% - ZnO.

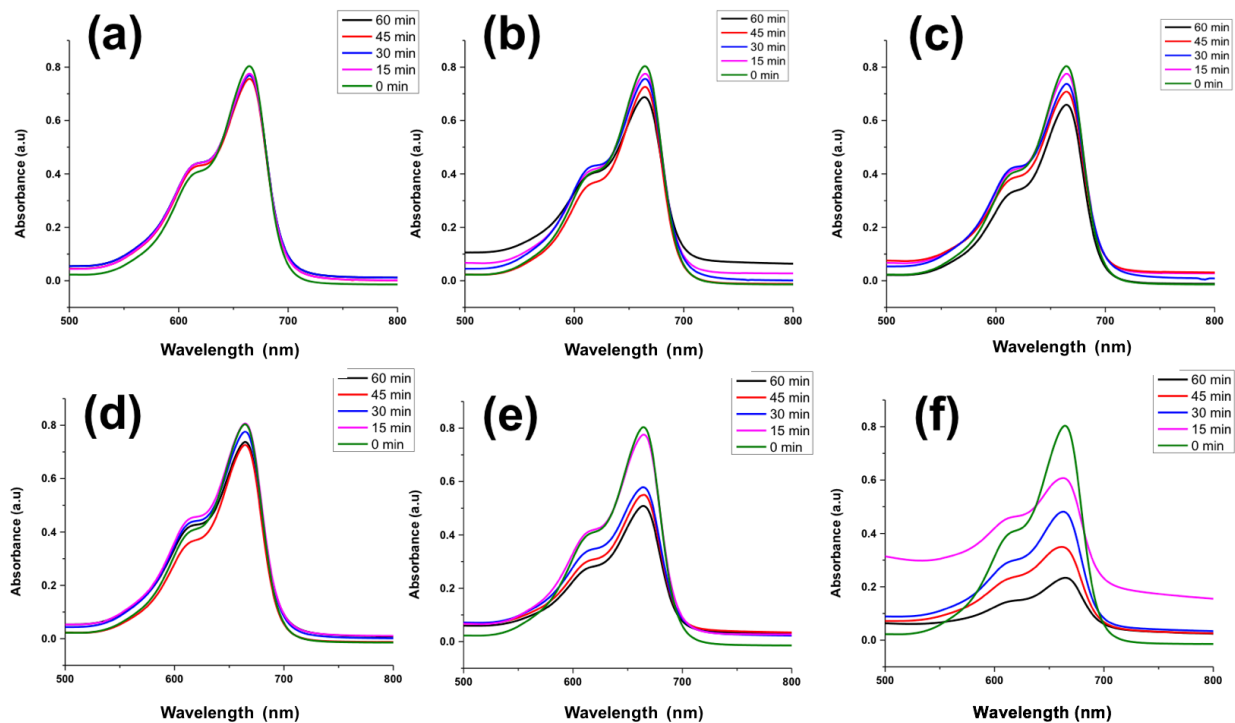


Figure S5: UV-Vis absorbance spectra for the degradation of MB dye for ZnO/CA fiber mat; (a) under dark, (b) under lamp, (c) under sunlight; UV-Vis absorbance spectra for the degradation of MB dye for Fe 5% ZnO/CA fiber mat; (d) under dark, (e) under lamp, (f) under sunlight.