

Supporting Information

Facile and single-step route towards the ZnO@C core-shell nanoparticles as oxygen vacancy induced visible light active photocatalyst using the thermal decomposition of Zn(an)₂(NO₃)₂ complex

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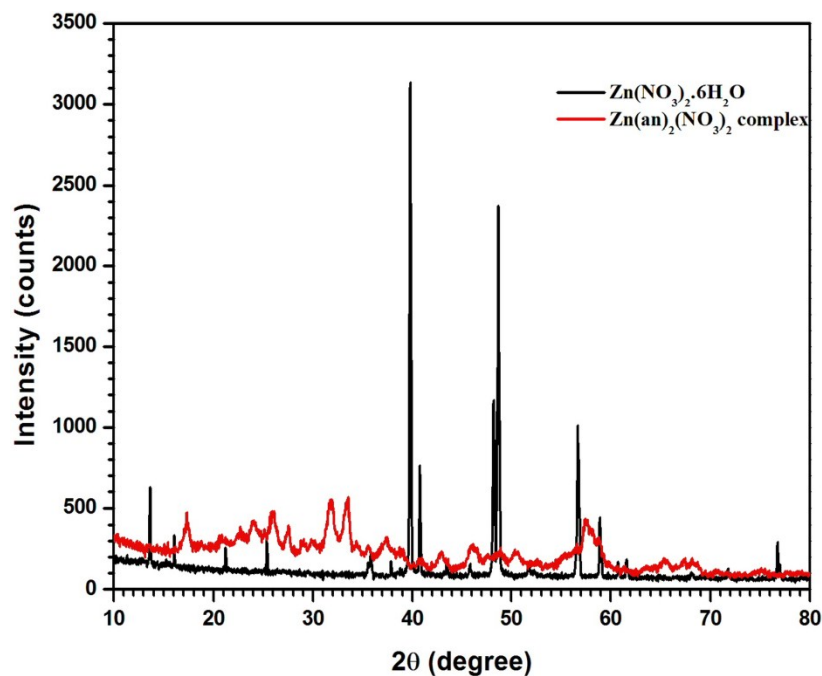


Fig. S1XRD pattern of zinc nitrate hexahydrate and zinc aniline nitrate complex

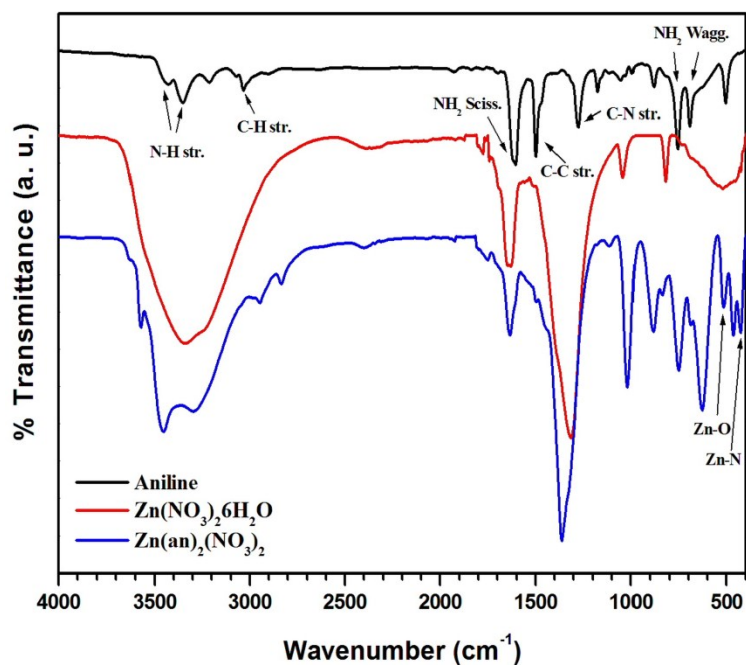


Fig. S2ATR-IR spectra of aniline, zinc nitrate hexahydrate and zinc aniline nitrate complex

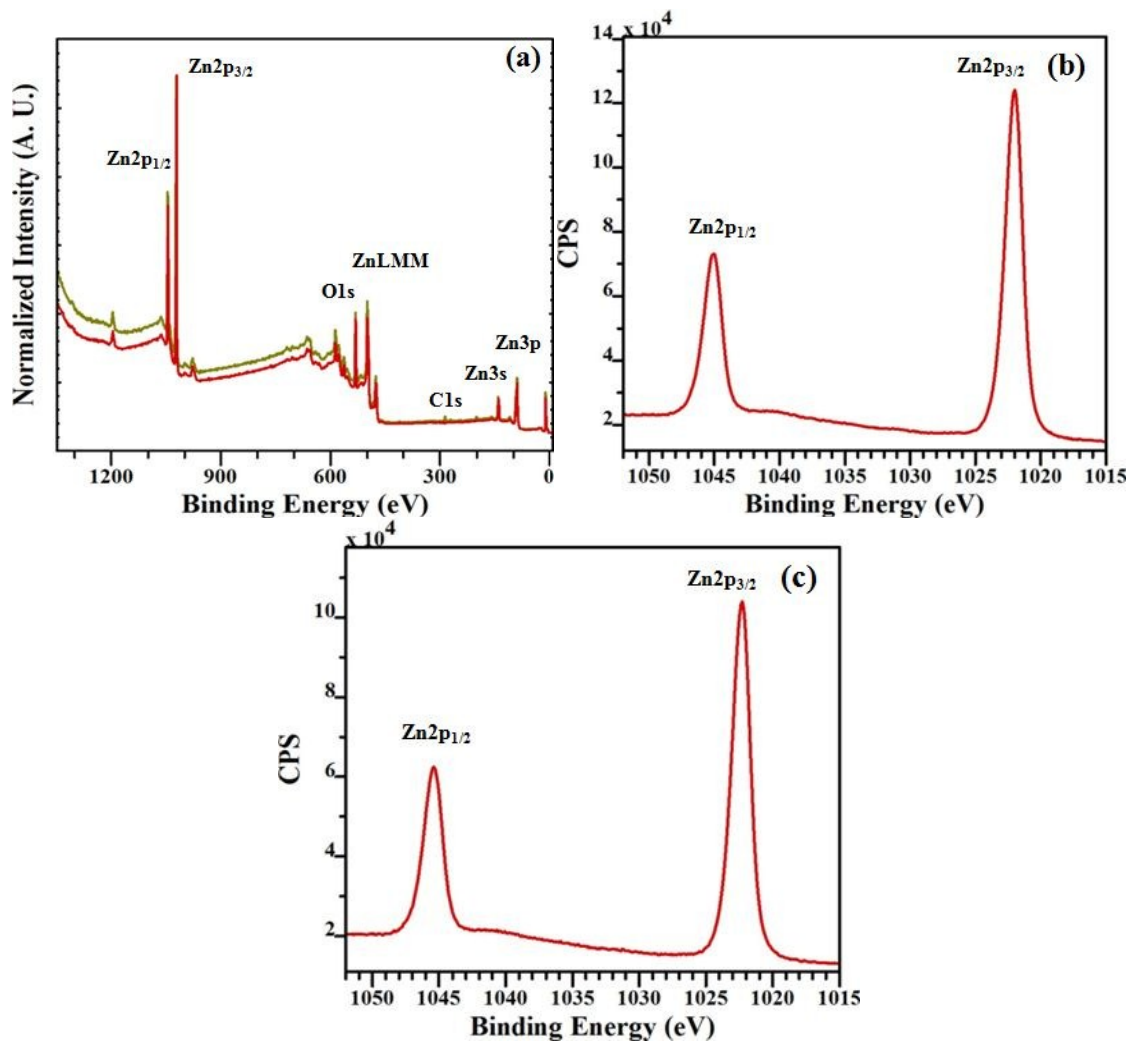


Fig. S3 (a) XPS survey spectra of ZnO and ZnO@C-2, (b) and (c) high resolution Zn 2p spectra of ZnO and ZnO@C-2, respectively.

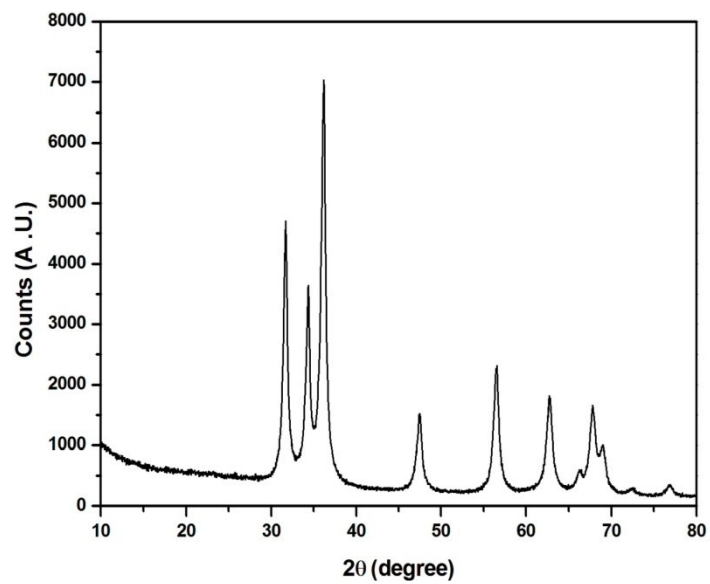


Fig. S4 XRD pattern of ZnO@C composite obtained from thermal degradation of zinc aniline nitrate complex at 200 °C.

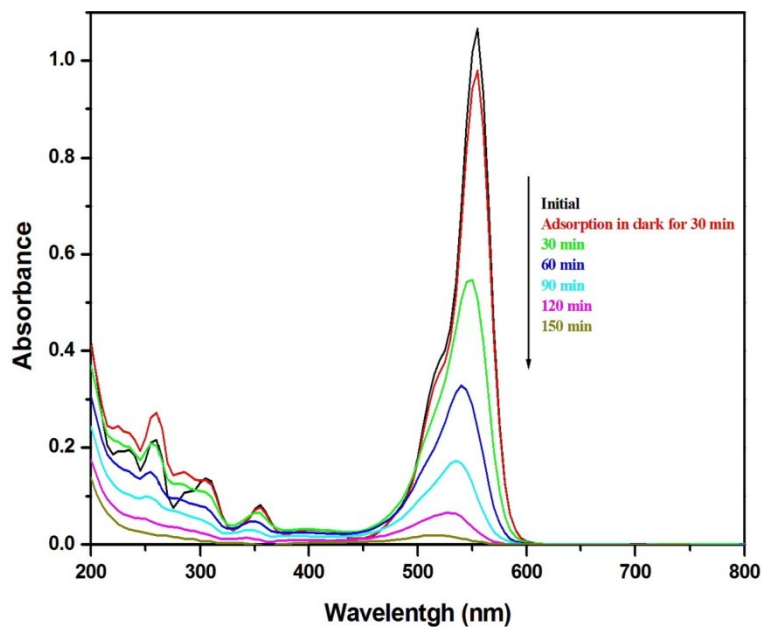


Fig. S5 Uv-visible absorption spectra of rhodamine B (5 ppm) after photodegradation at different time intervals using ZnO@C-2 catalyst (500 mg/g) under visible light.

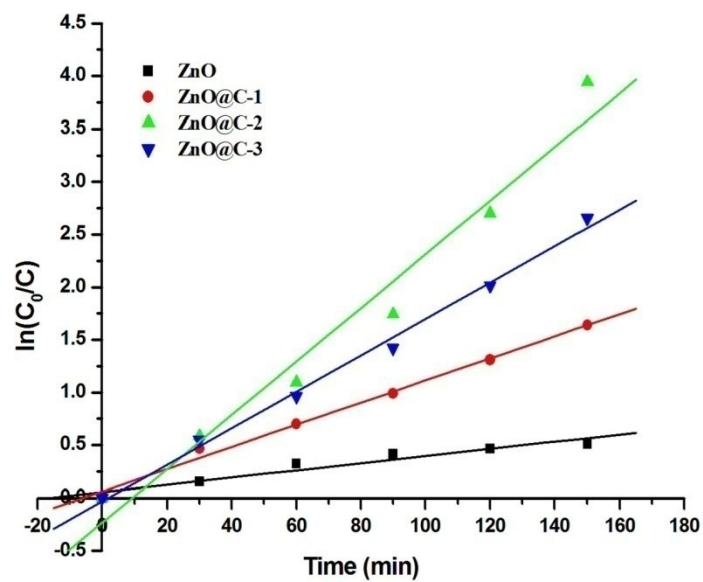


Fig. S6 Pseudo-first order kinetics plots of RhB degradation using ZnO and ZnO@C based photocatalysts under visible light.