

**Constructing novel Ag nanoparticles anchored on MnO₂ nanowires as an
efficient visible light driven photocatalyst**

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Supporting Figures

Figure S1. FT-IR spectra of the as-prepared (a) pure MnO_2 and Ag@MnO_2 nanocomposites with different Ag content: (b) 1%, (c) 5%, (d) 10% and (e) 15%

Figure S2. EDX elemental mapping analysis of Ag@MnO_2 (5%) nanocomposite, red (Ag), green (Mn) and blue (O).

Figure S3. Absorption spectra of VB dye solution under visible light in the presence of different catalyst, (a) blank test, (b) MnO_2 , (c) Ag@MnO_2 (1%), (d) Ag@MnO_2 (15%), (e) Ag@MnO_2 (10%).

Figure S4. Photodegradation of dye solutions under different doses of Ag@MnO_2 (5%) (a) VB and (b) Amaranth.

Figure S5. Photodegradation by Ag@MnO_2 (5%) at different pH of (a) VB and (b) Amaranth dye solutions.

Figure S6. Effects of initial dye concentration on photocatalytic degradation of (a) VB and (b) Amaranth.

Figure S7. (a) Recycling experiments for photodegradation of VB by Ag@MnO_2 (5%) nanocomposite and (b) XRD pattern of Ag@MnO_2 (5%) nanocomposite before and after photocatalytic process.

Figure S1.

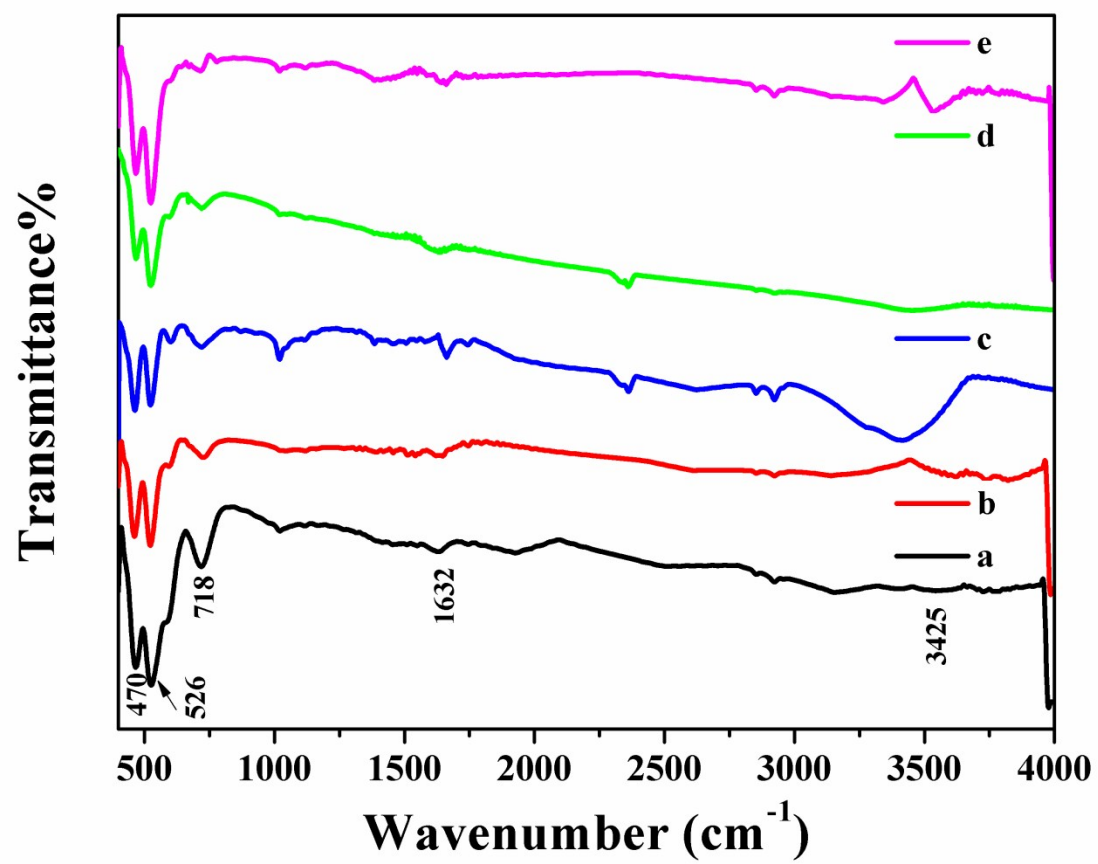


Figure S2.

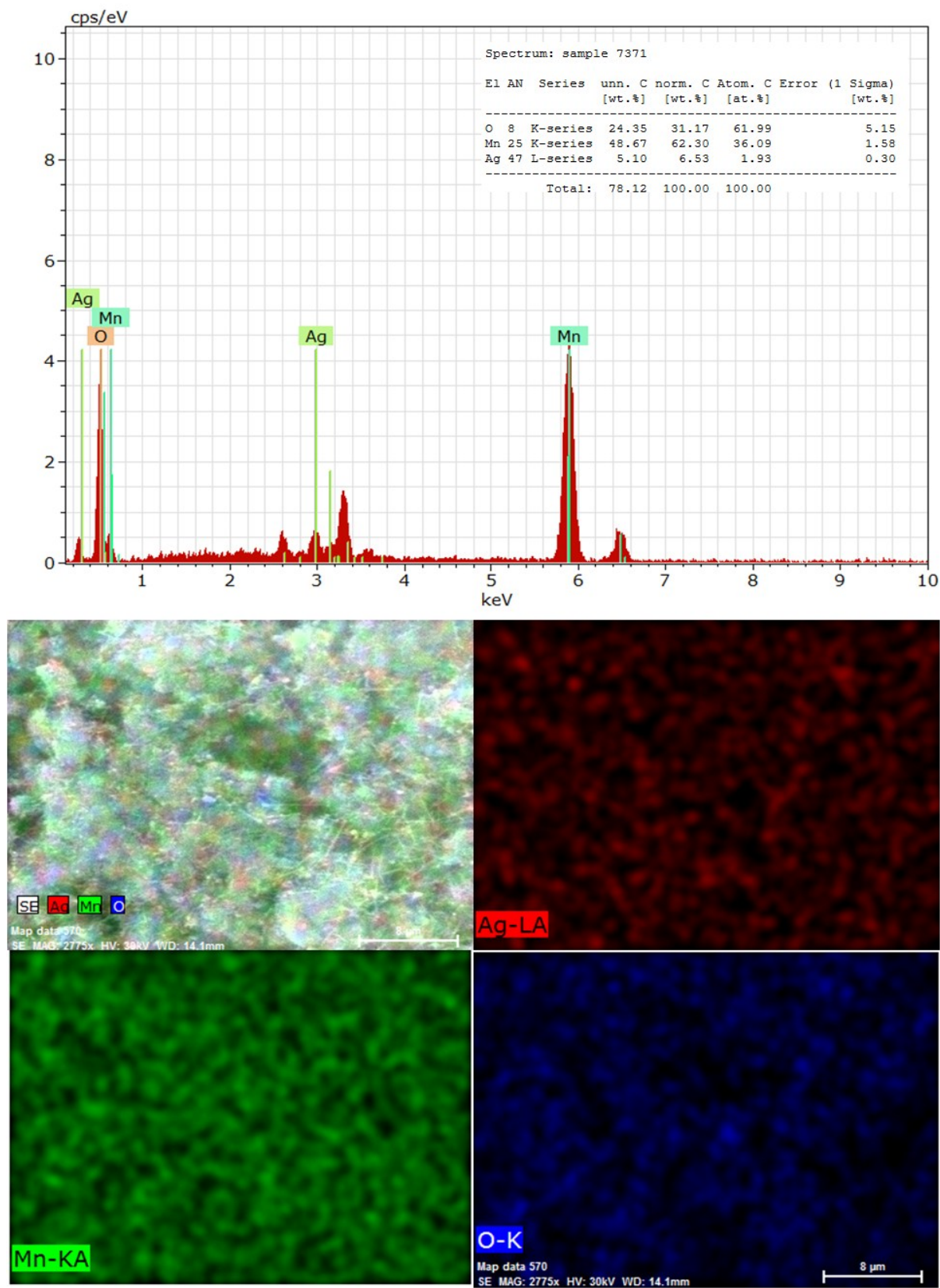


Figure S3.

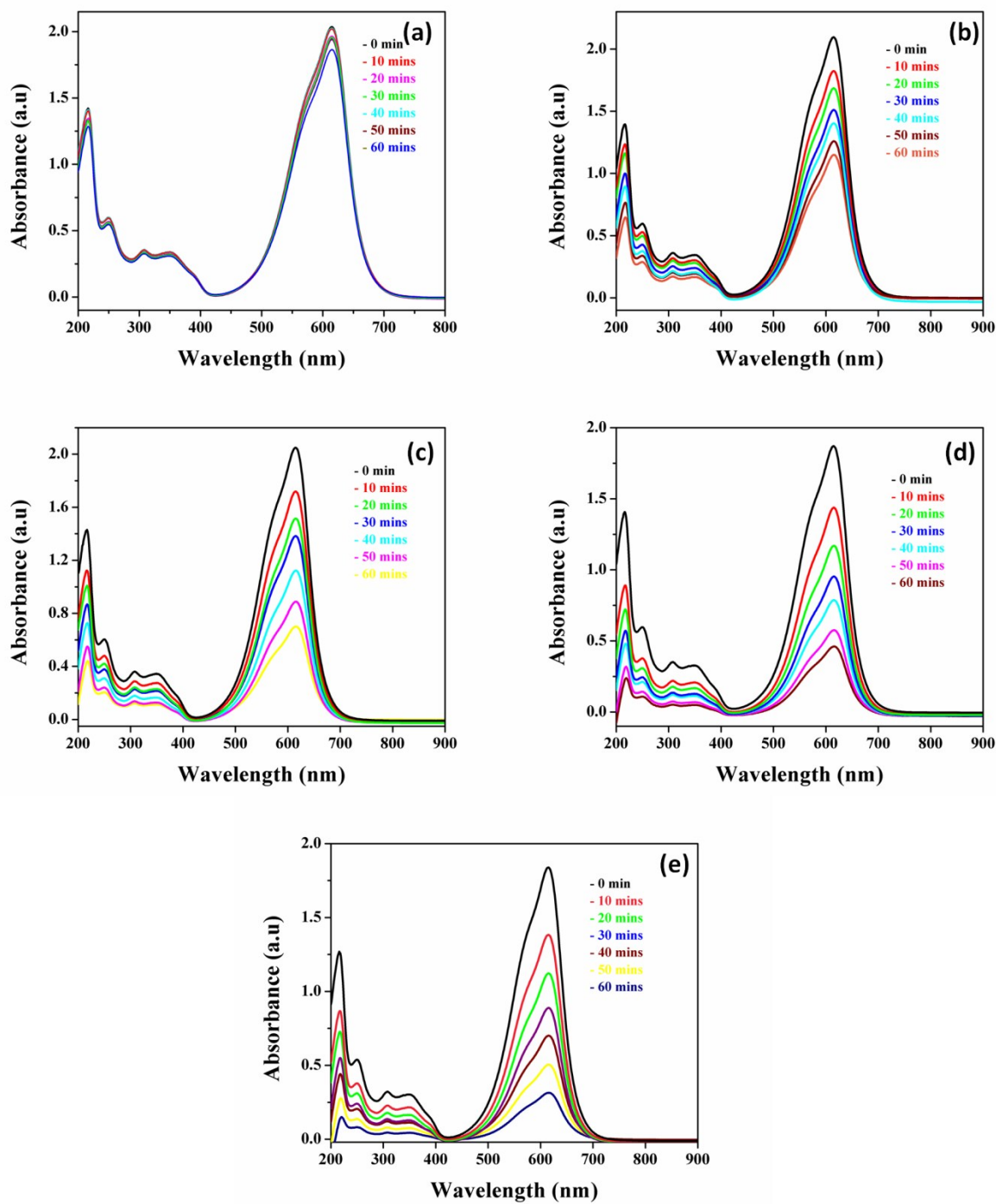


Figure S4.

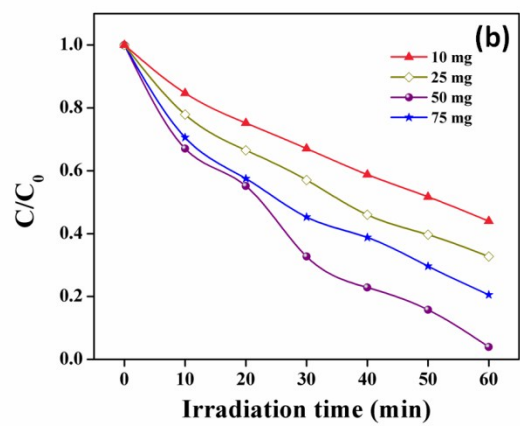
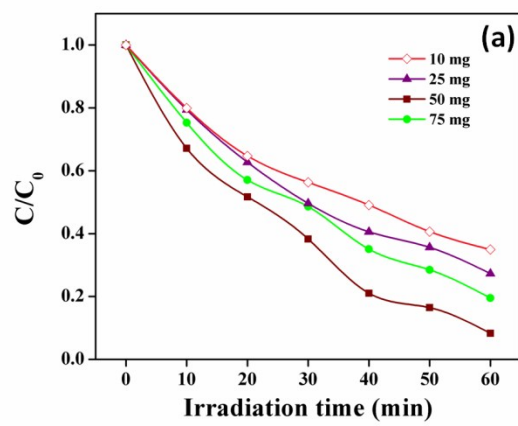


Figure S5.

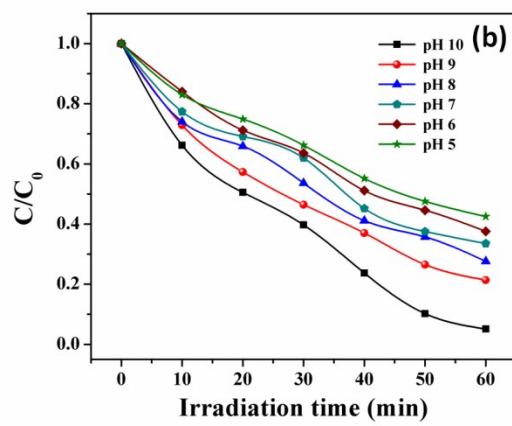
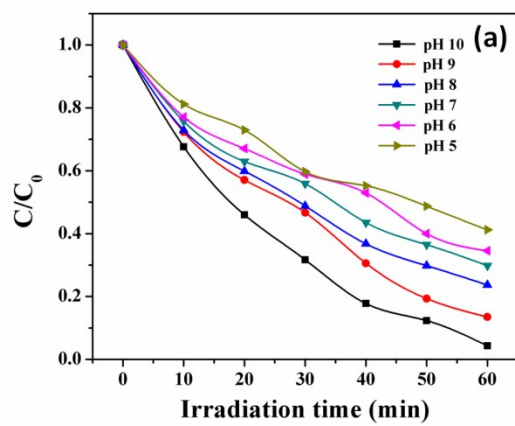


Figure S6.

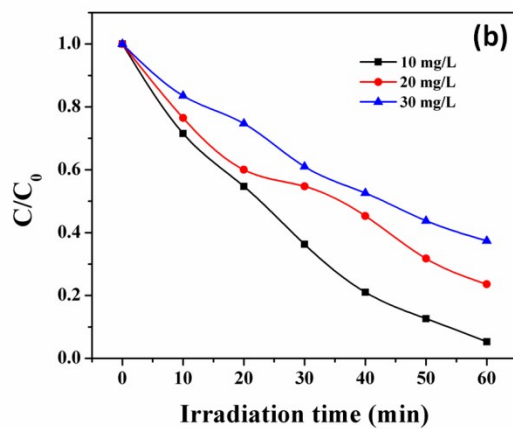
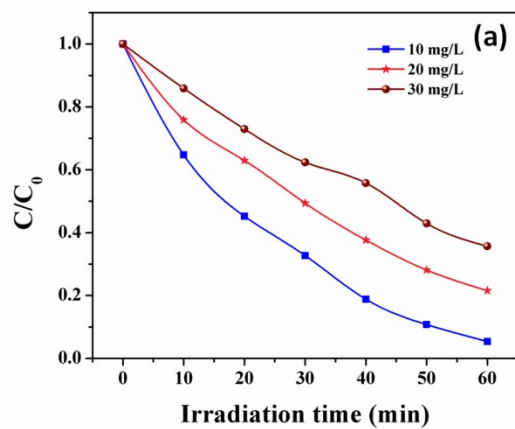


Figure S7.

