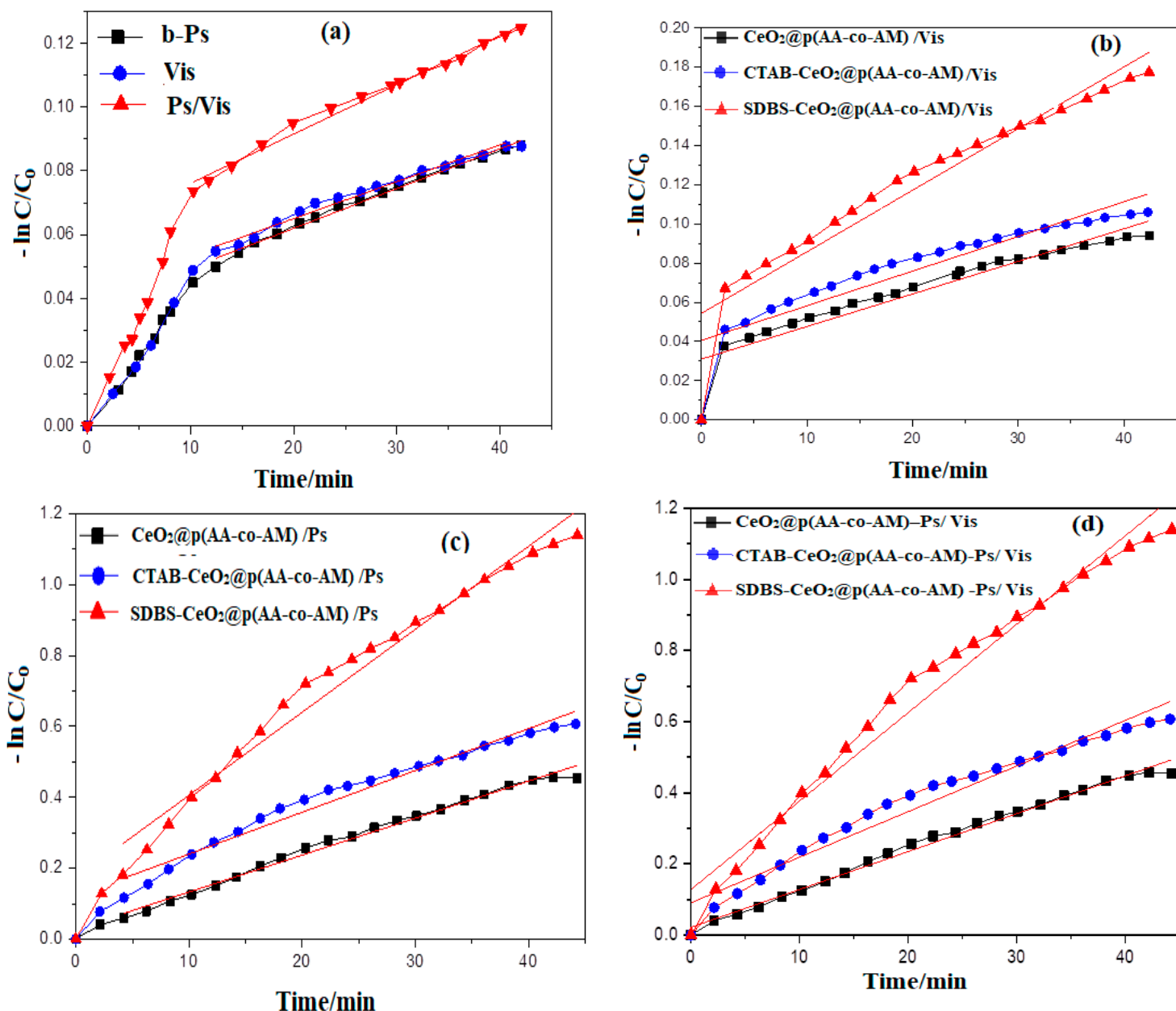
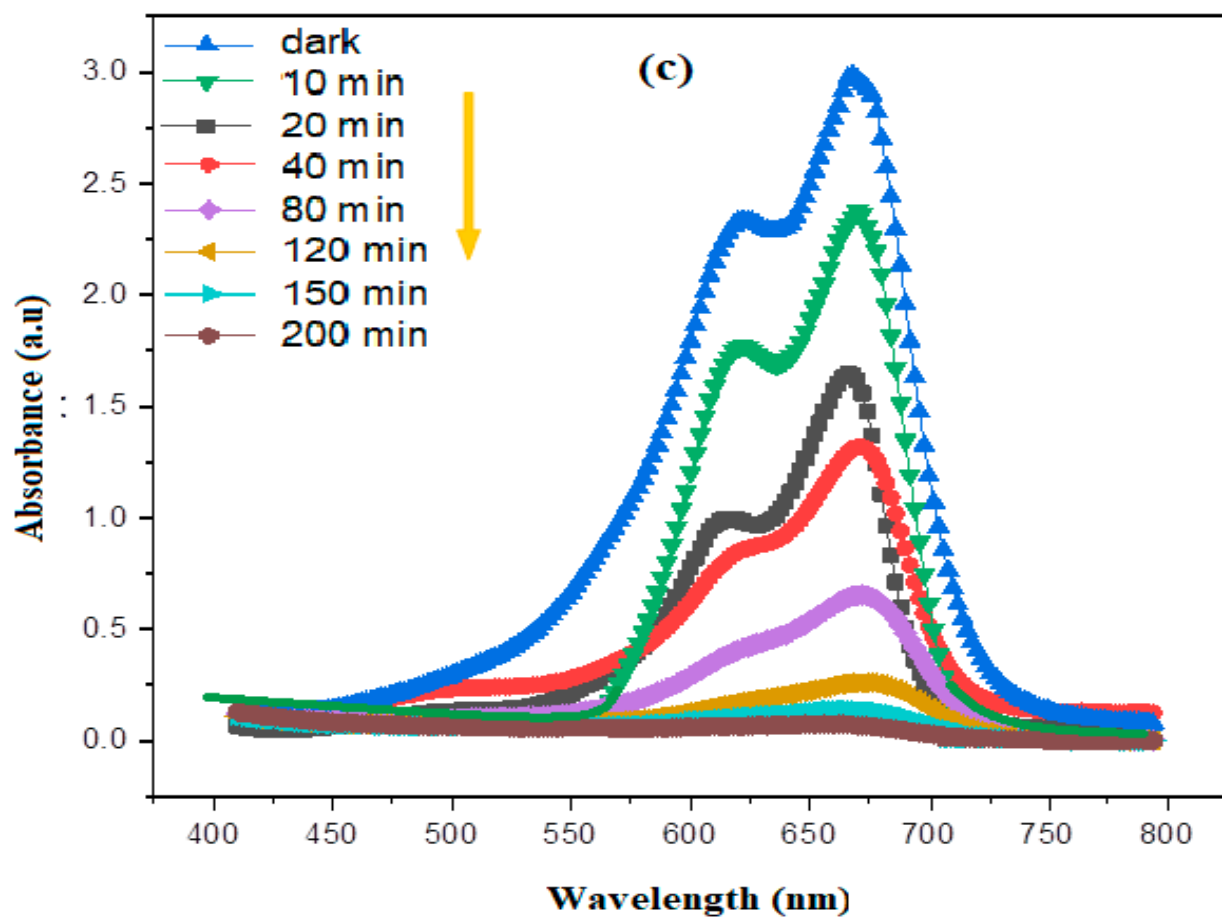


**Figure S1.** MB degradation efficiency (%) of all understudied systems.



**Figure S2:** Pseudo-first order kinetic plots for degradation of MB using: (a) persulphate under dark conditions (b-PS), visible-light irradiation (Vis), and PS/Vis combined system, (b)  $\text{CeO}_2@\text{p}(\text{AA-co-AM})$ , CTAB- $\text{CeO}_2@\text{p}(\text{AA-co-AM})$ , and SDBS- $\text{CeO}_2@\text{p}(\text{AA-co-AM})$  visible-light-driven photocatalysts nanocomposites, (c) the nanocomposites under study in presence of PS ions, and (d)  $\text{CeO}_2@\text{p}(\text{AA-co-AM})\text{-PS/Vis}$ , CTAB- $\text{CeO}_2@\text{p}(\text{AA-co-AM})\text{-PS/Vis}$ , and SDBS- $\text{CeO}_2@\text{p}(\text{AA-co-AM})\text{-PS/Vis}$  advanced oxidation photocatalytic systems.



**Figure S3:** UV-vis patterns of the undecomposed MB dye during its obliteration from wastewater using SDBS-CeO<sub>2</sub>@p(AA-co-AM)/PS/vis advanced oxidation photocatalytic system.