**Electronic Supplementary information**

**UV-light-driven photocatalytic degradation and antimicrobial properties of efficient ternary semiconductor CdxAg1-xS nanocomposites**

Dasari Ayodhya\* and Guttena Veerabhadram

Department of Chemistry, Osmania University, Hyderabad-500007, Telangana state, India

\*Corresponding author e-mail: [ayodhyadasari@gmail.com](mailto:ayodhyadasari@gmail.com)

Mobile: 91-9010877323

**Author’s information**

1. Dr. Dasari Ayodhya

Department of Chemistry, Osmania University, Hyderabad-500007, Telangana state, India

E-mail: [ayodhyadasari@gmail.com](mailto:ayodhyadasari@gmail.com)

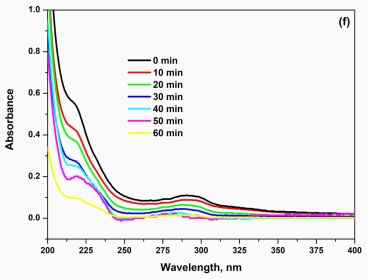
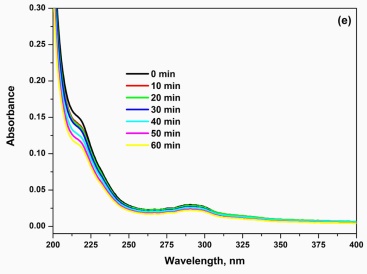
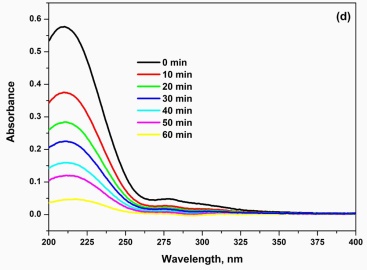
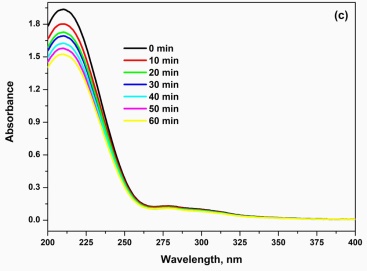
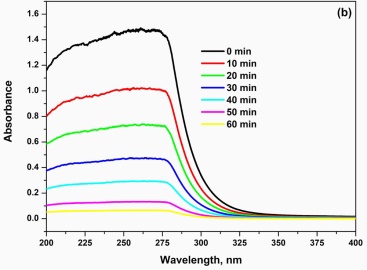
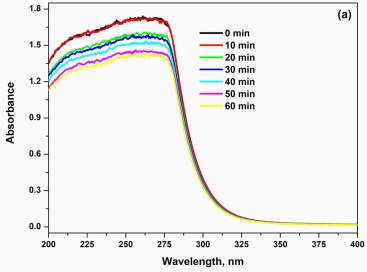
Mobile: +91-9010877323

2. Dr. Guttena Veerabhadram

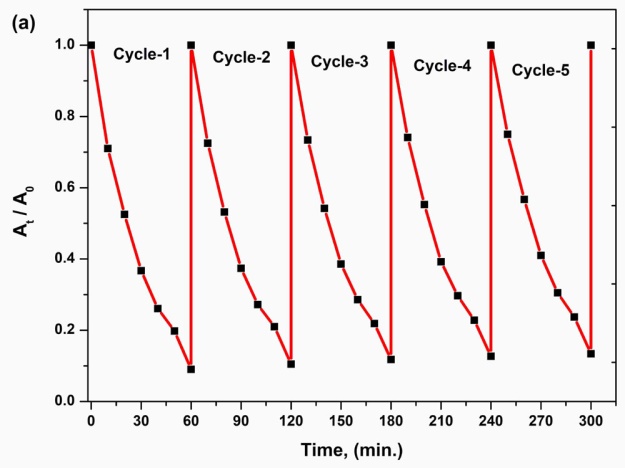
Department of Chemistry, Osmania University, Hyderabad-500007, Telangana state, India

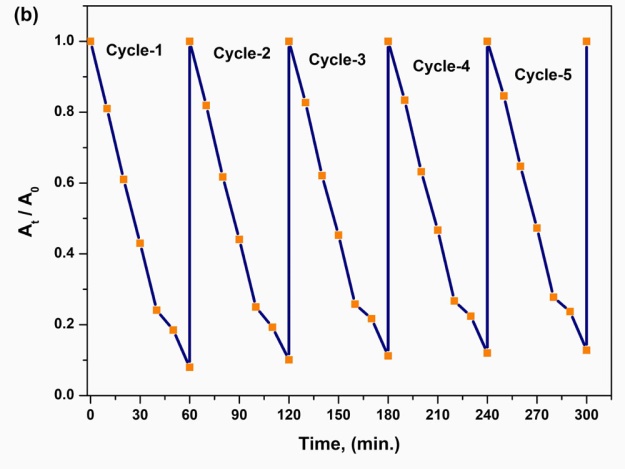
E-mail: [gvbhadram@osmania.ac.in](mailto:gvbhadram@osmania.ac.in)

Mobile: +91-9885179305

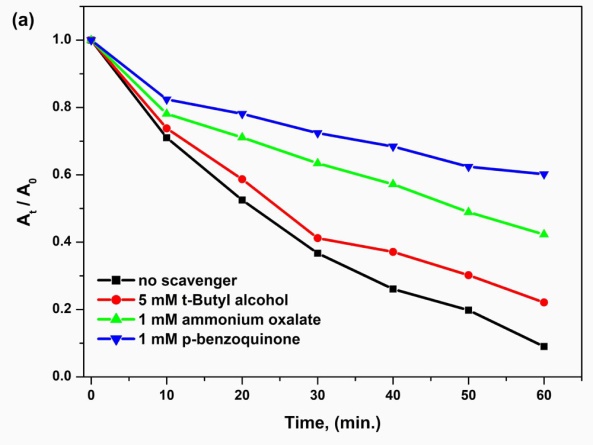
****

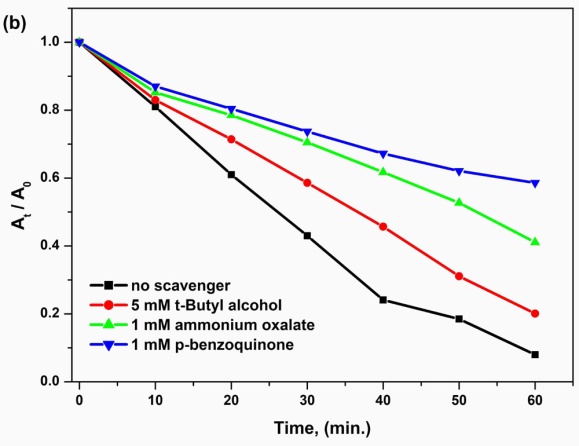
**Figure S1.** The UV-vis absorption spectra of the photocatalytic degradation of (a-b) MLT, (c-d) MCP and (e-f) CPS in the absence and presence of Cd0.5Ag0.5S composites under 1 h UV light irradiation, respectively





**Figure S2.** Five cycling runs on the photocatalytic degradation of (a) MCP and (b) CPS using Cd0.5Ag0.5S nanocomposite under 1 h UV light irradiation

****

****

**Figure S3.** Effects of the addition of different scavengers on the photocatalytic degradation of (a) MCP and (b) CPS using Cd0.5Ag0.5S nanocomposite under 1 h UV light irradiation