

## Supplementary File

### Facile Fabrication of plasmonic Ag/ZIF-8: an efficient catalyst for investigation of antibacterial, haemolytic and photocatalytic degradation of antibiotics

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#### 1. Zeta Potential Study:

Zeta potential (ZP) measurements were used to verify the stability of particle suspensions of the photocatalysts, as well as their surface charge. To verify the influence of CIP adsorption on the catalysts Table SII shows the respective zeta potential (ZP) results, while Figure SI1 shows the zetapotential curves of the synthesised pristine and doped samples. From the zeta potential value, it is clear that all the samples have positive surface charge and from the pH study it was noted that adsorption of CIP is best in zwitterionic state. Now it is confirmed from the zeta potential value that there is a better electrostatic force of attraction between the substrate and the composite and thereby there is better photocatalytic activity.

**Table SII:** Showing zetapotential charge values of the samples.

Sl. No.	Samples	Zeta Potential (mV)
1.	ZIF-8	2.64
2.	AZ1	0.549
3.	AZ2.5	0.608
4.	AZ5	0.462

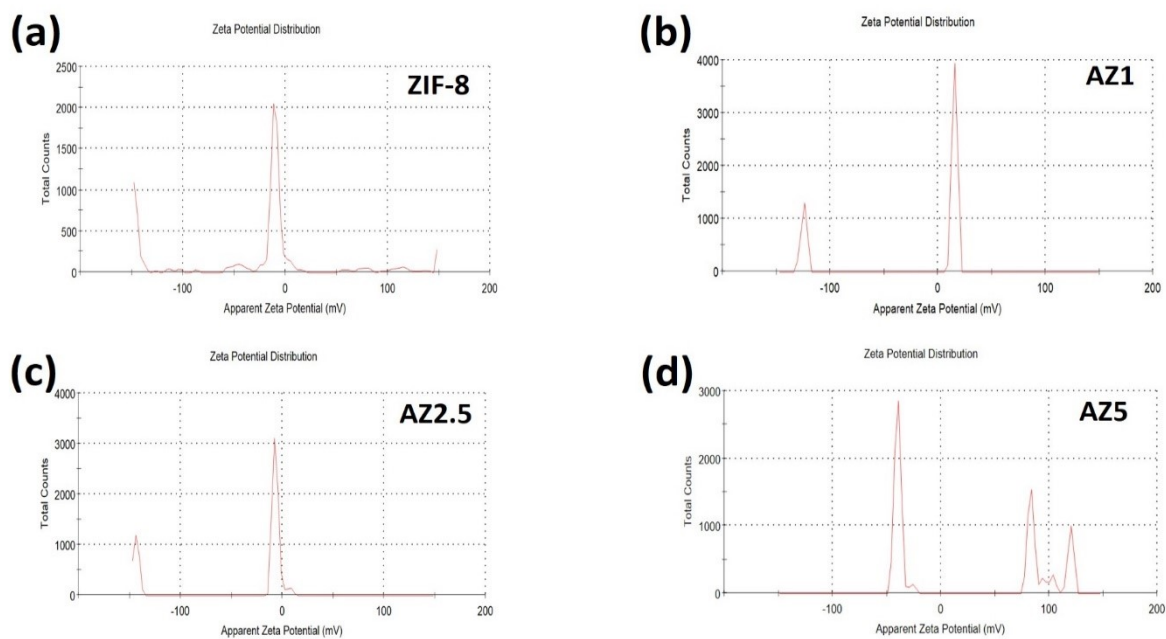


Figure SI1 (a-d): Zetapotential graph of the catalysts.

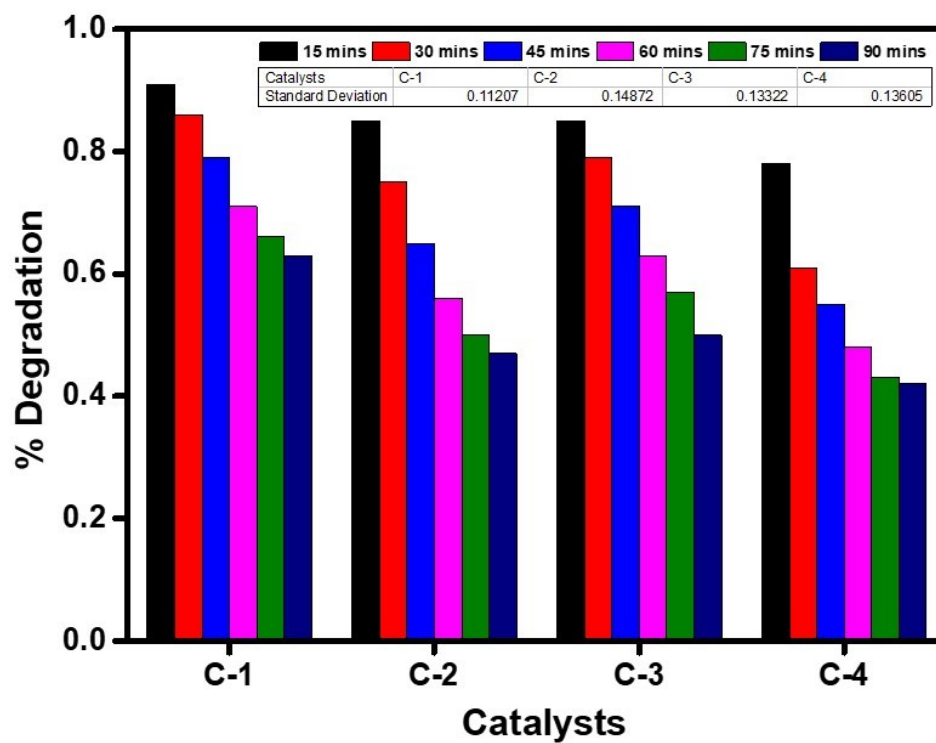


Figure SI2: Error bar graph of photocatalytic experiment with 4 catalysts.