

Supplementary data

A novel biogenic synthesis of Ag@biochar nanocomposite as antimicrobial agent and photocatalyst for methylene blue degradation

Abdelazeem S. Eltaweil^{1*}, Ahmed M. Abdelfatah², Mohamed Hosny^{2*}, and Manal Fawzy^{2,3}

¹ Department of Chemistry, Faculty of Science, Alexandria University, Alexandria, 21321, Egypt.

² Green Technology Group, Environmental Sciences Department, Faculty of Science, Alexandria University, 21511, Alexandria, Egypt.

³ National Egyptian Biotechnology Experts Network, National Egyptian Academy for Scientific Research and Technology.

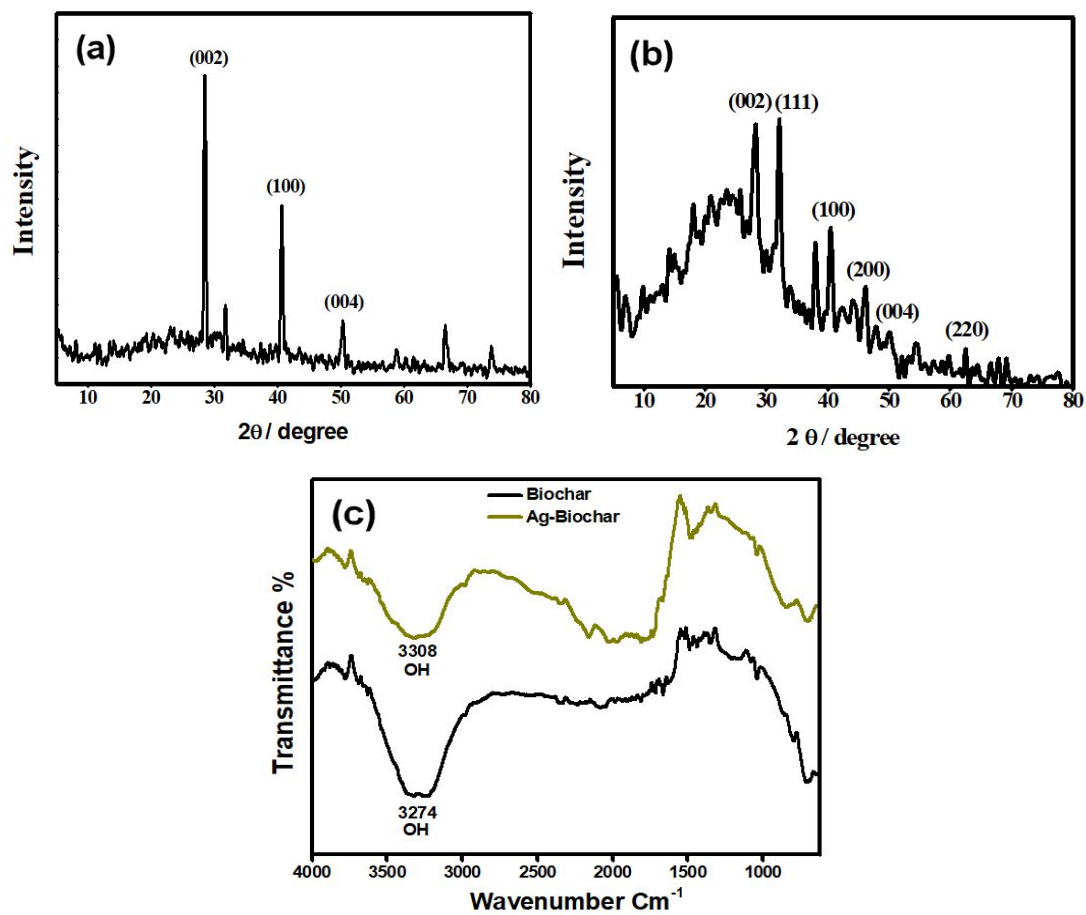


Figure S1. XRD diffraction pattern of biochar (a) and Ag@biochar (b) and FTIR spectroscopy of biochar and Ag@biochar (c).

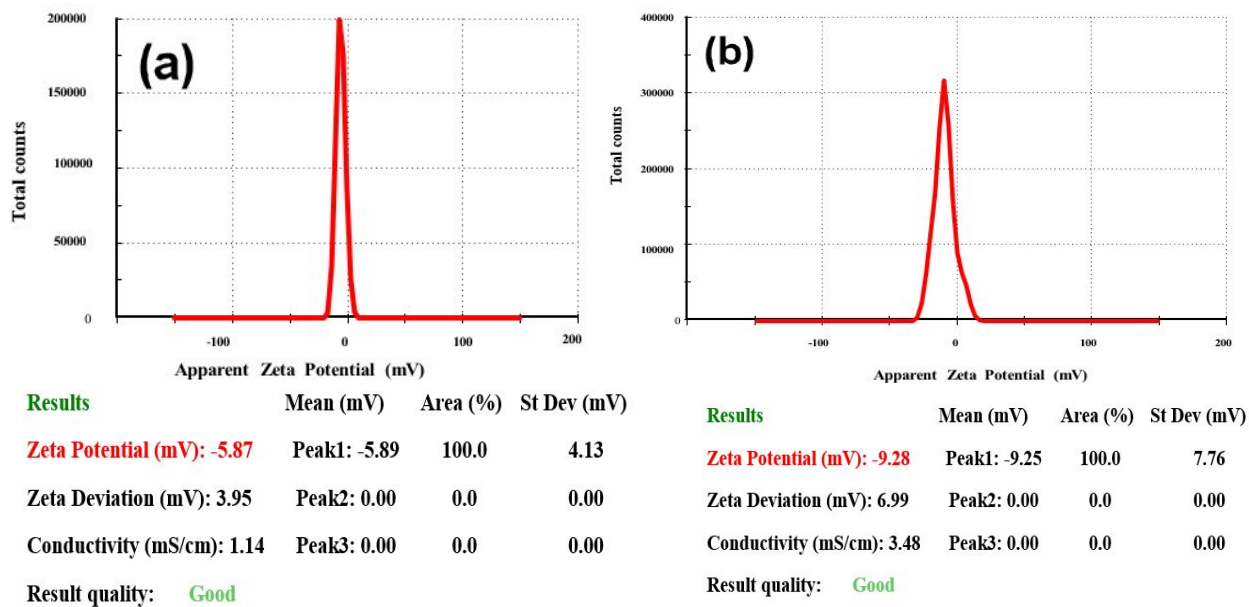


Figure S2. Zeta potential of (a) Ag@biochar and (b) biochar.

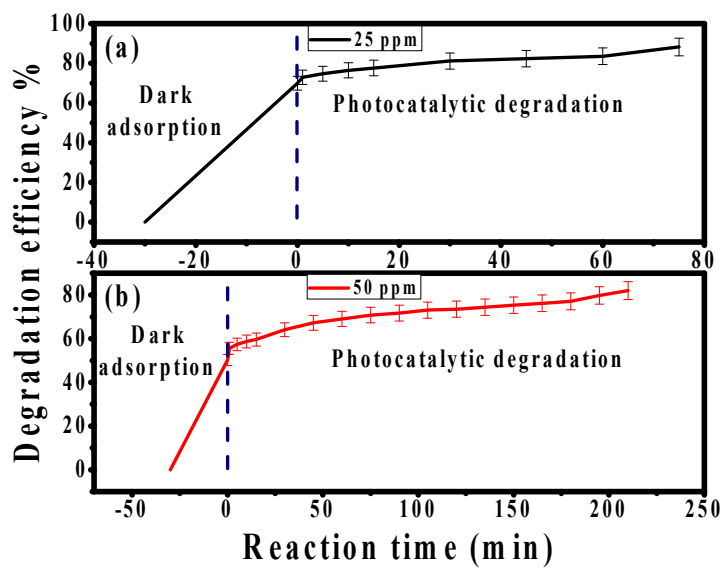


Figure S3. Time effect on the degradation of MB at concentration 25 ppm (a) and 50 ppm (b) in the presence of Ag@biochar.

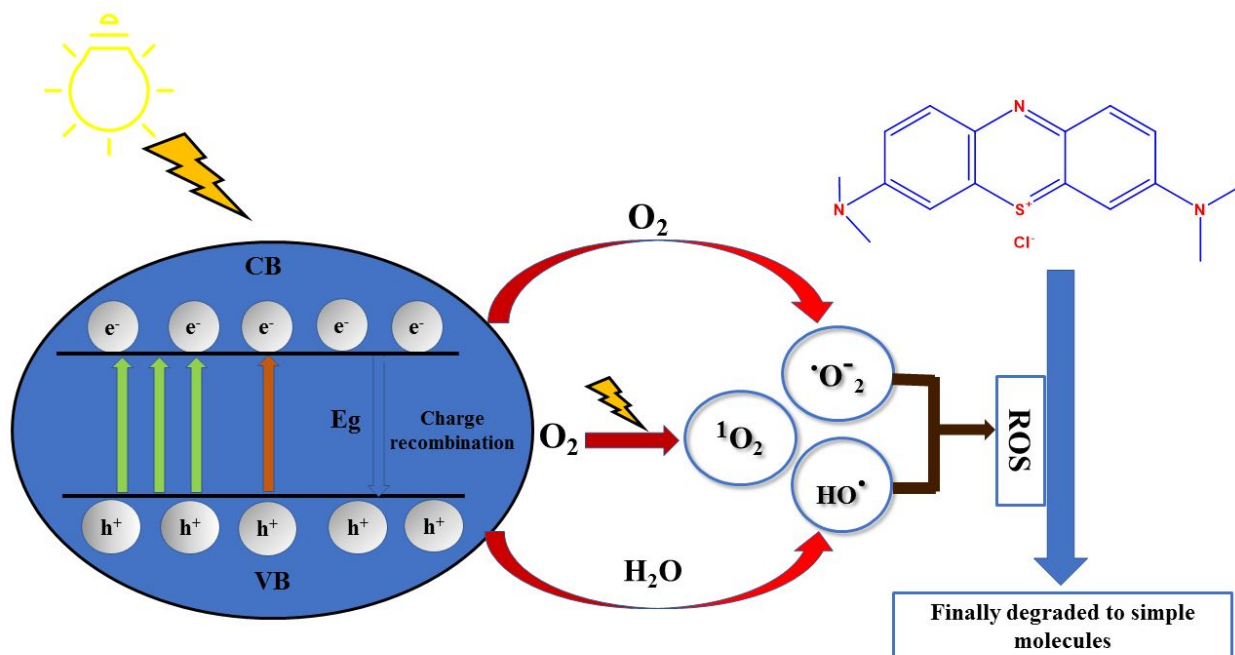


Figure S4. Possible mechanism of MB photodegradation using Ag@biochar.