

Supplementary MATLAB .figuers



Fig. S1 Evolution of *Aspergillus Niger* hyphae grown on water hyacinth stem. Photographs of fermentation for 0 days (a), 4 days (b), 8 days (c), 12 days (d), 16 days (e), respectively.

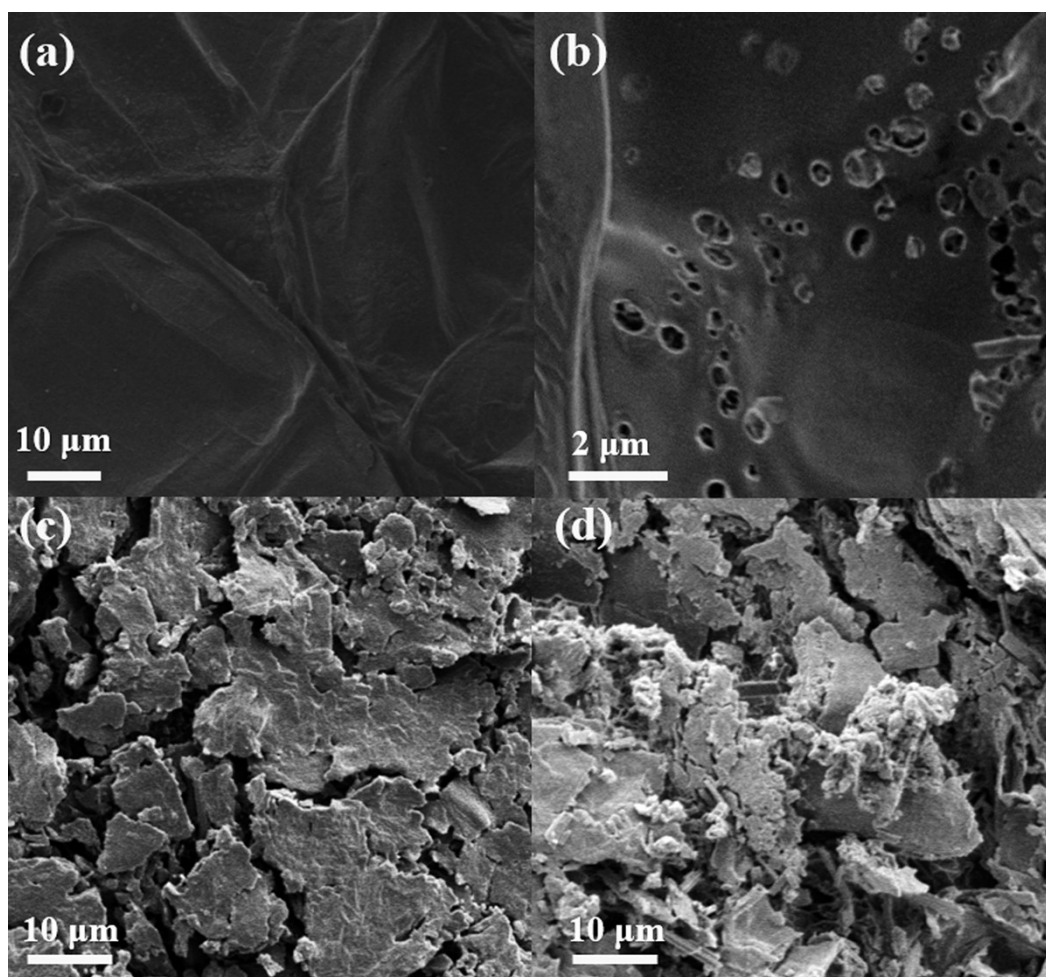


Fig. S2 SEM images of the non-inoculated PC/Fe₃O₄/Ag (a) and the inoculated PC/Fe₃O₄/Ag (b, c, d).

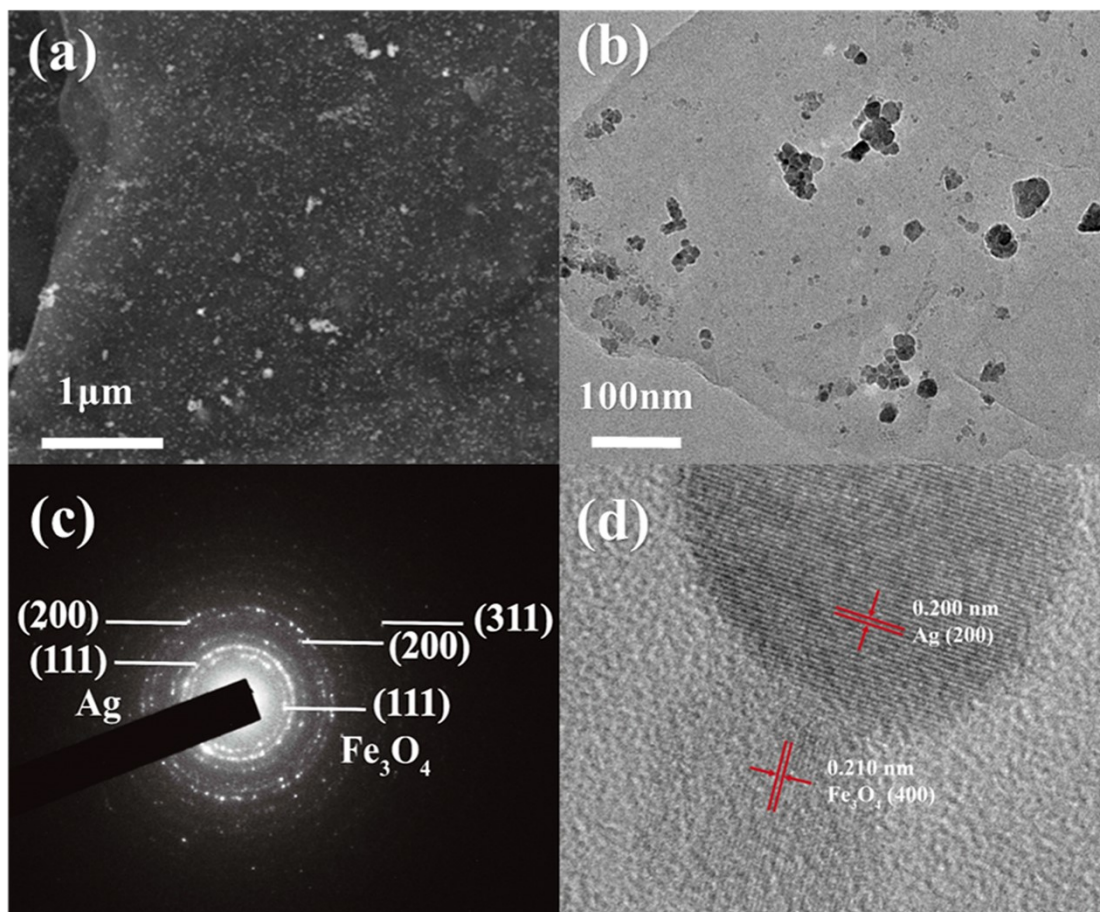


Fig. S3 (a) The FESEM image and (b, c, d) TEM image of RGO/Fe₃O₄/Ag (1 : 7 : 7).

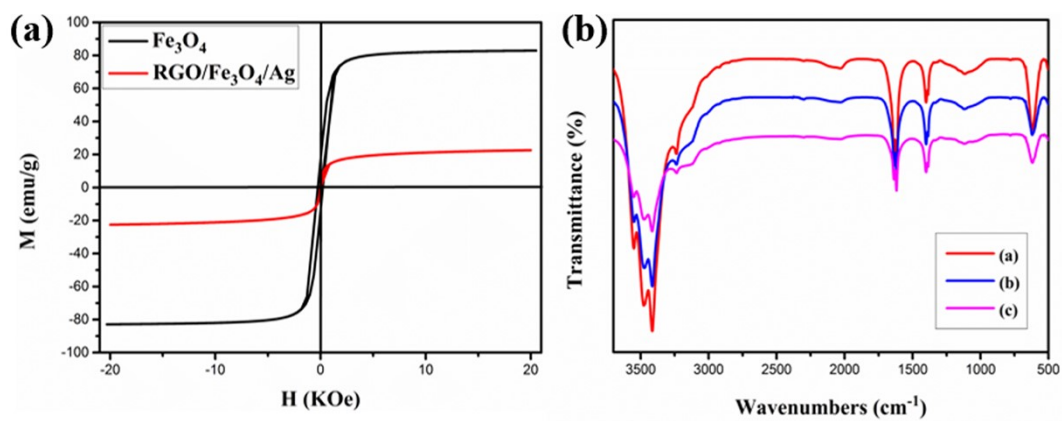


Fig. S4 (a) Plots of magnetization versus magnetic field at room temperature. (b) FT-IR of (a) RGO/Fe₃O₄/Ag (1:10:10) (b) RGO/Fe₃O₄/Ag (1:7:7) (c) RGO/Fe₃O₄/Ag (1:5:5).

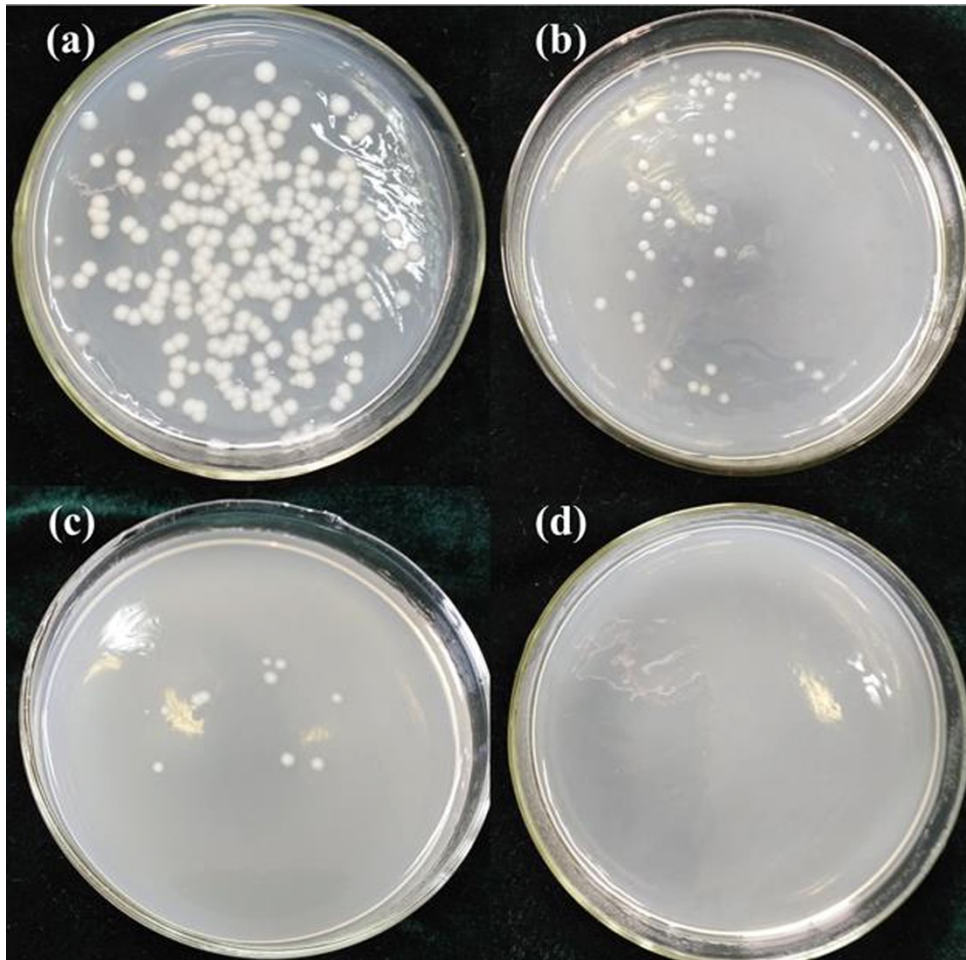


Fig. S5 The blank control group (a), 0.7 mg/mL Ag (b), 0.6 mg/mL RGO/Fe₃O₄/Ag (c), 0.7 mg/ml RGO/Fe₃O₄/ Ag (d) against *B. thuringiensis*.

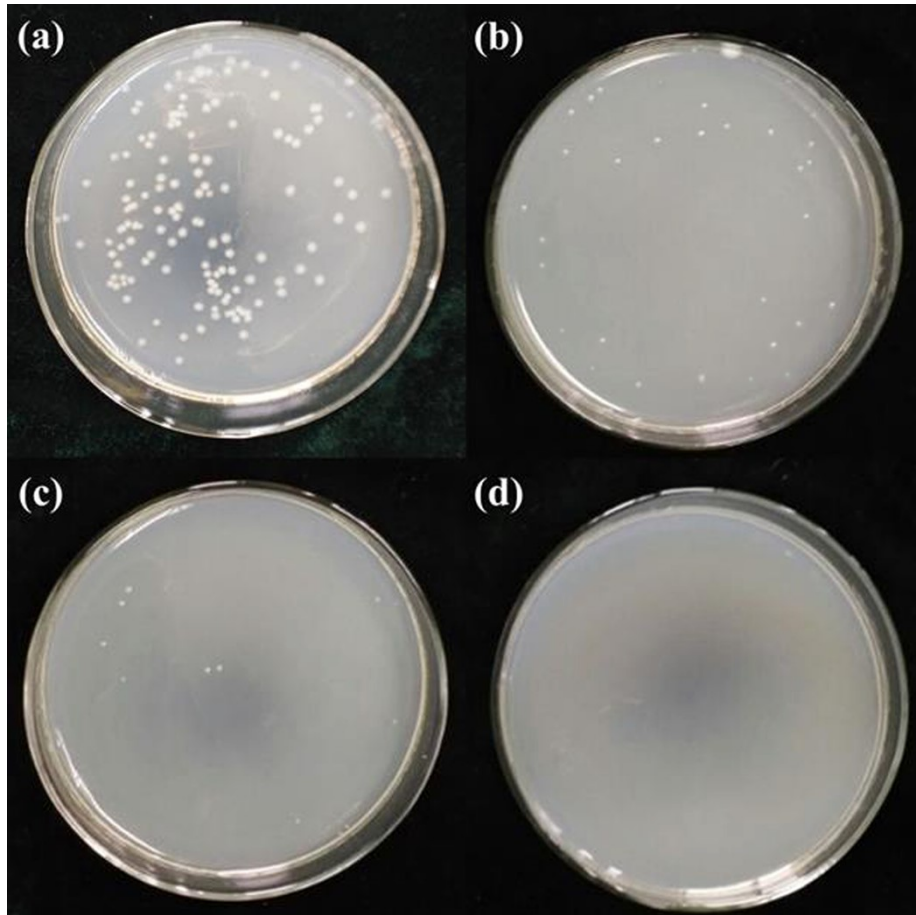


Fig. S6 The blank control group (a), 0.7 mg/mL Ag (b), 0.3 mg/mL RGO/Fe₃O₄/Ag (c), 0.4 mg/mL RGO/Fe₃O₄/Ag (d) against *E. coli*.