

Supplementary Materials

Ultra-Strong Multilayer Structural Bacterial Cellulose Film by Biosynthesis for High-Performance Electromagnetic Interference Shielding

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Guoqiang Chen and Yibing Zhang contributed equally to this work.

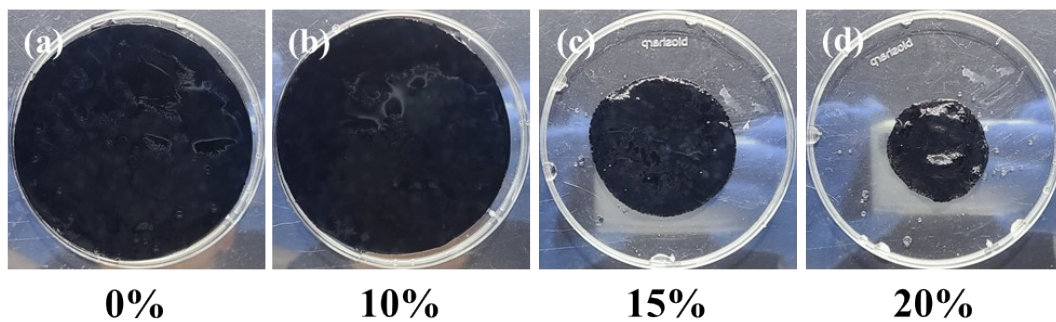


Fig. S1. Treatment of BC/AgNW composite film with NaOH solutions of different concentrations (a) BC/AgNW-0. (b) BC/AgNW-10. (c) BC/AgNW-15. (d) BC/AgNW-20.

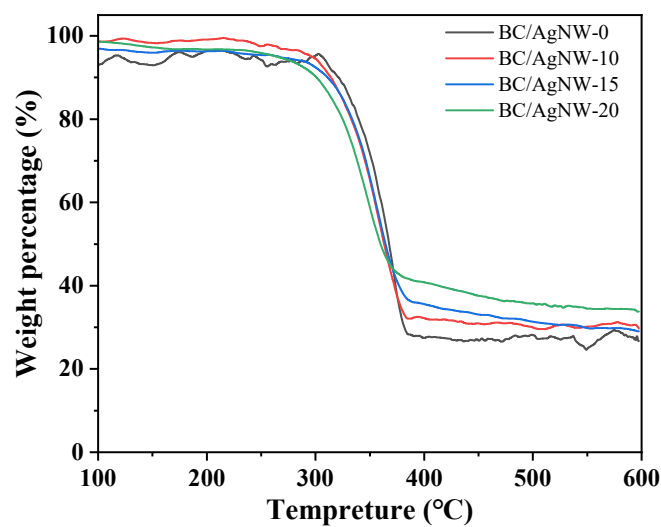


Fig. S2. Thermogravimetric analysis of the BC/AgNW composite films

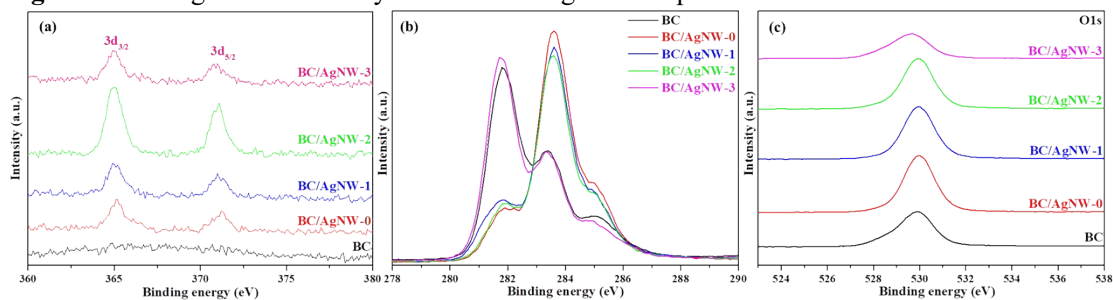


Fig. S3. (a) XPS spectrum of the Ag 3d region of BC and BC/AgNW composite films. (b) High-resolution C1s spectra for BC and BC/AgNW composite films. (c) High-resolution O1s spectra for BC and BC/AgNW composite films.

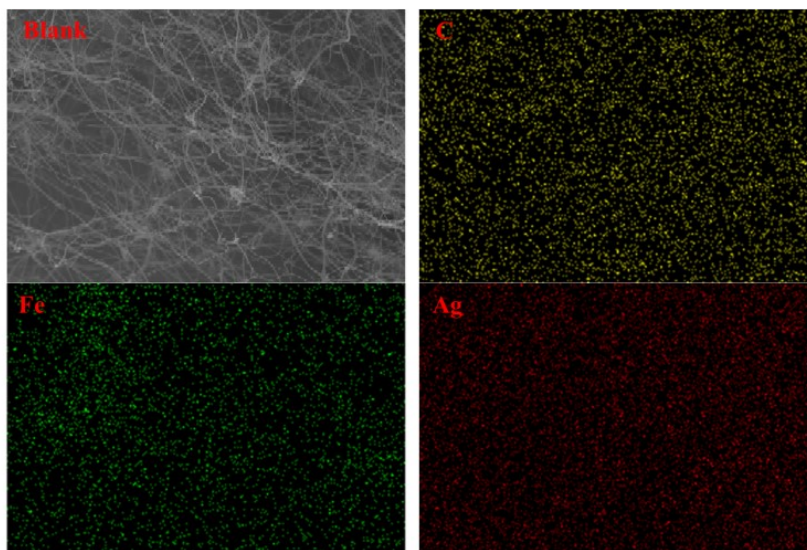


Fig. S4. Uniformly dispersed CNT and Fe₃O₄ nanoparticles entangled with BC nanofibers.

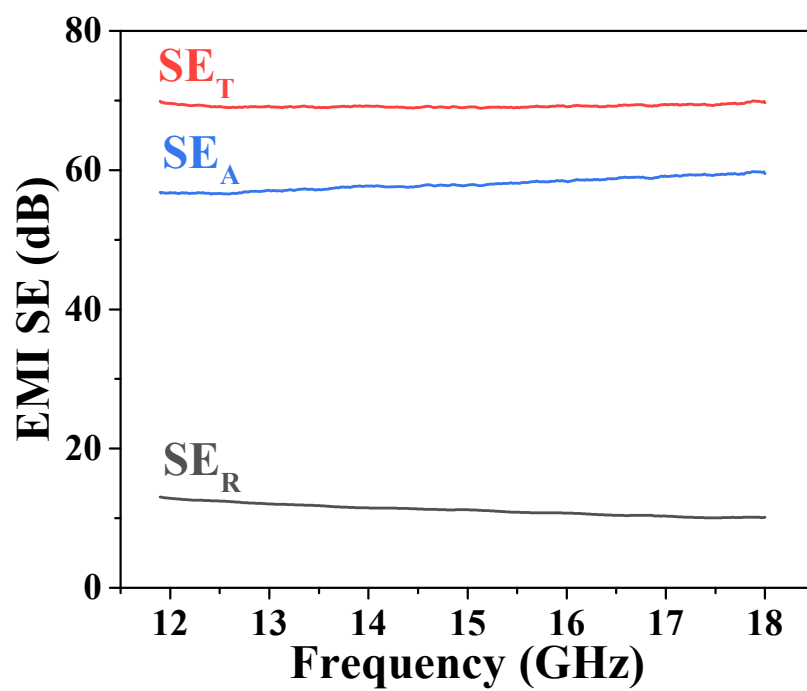


Fig. S5. The SE_T, SE_A, and SE_R of BC/AgNWs composite film with the CNT/Fe₃O₄ content (49.3%) at 12.4-18.0 GHz

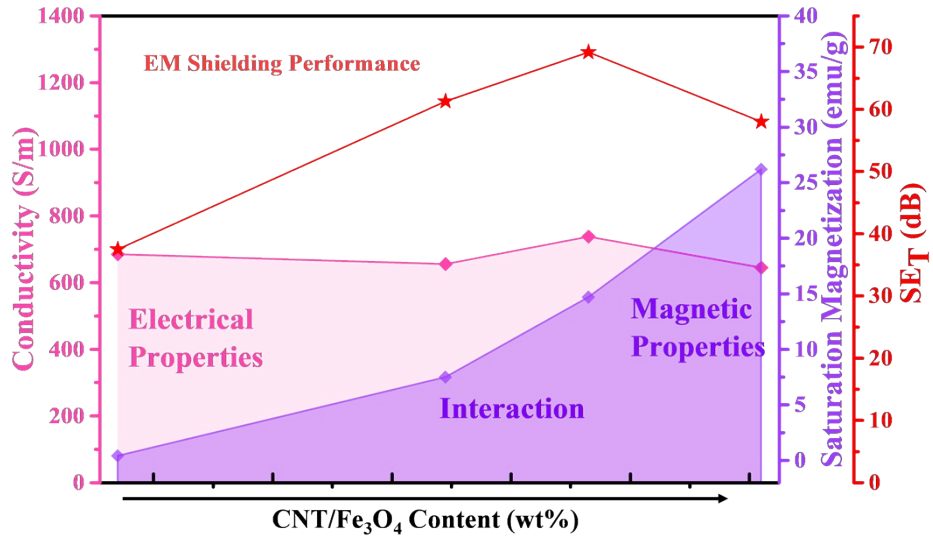


Fig. S6. The correlation law among electricity, magnetism and electromagnetic shielding performance.