

*Supporting Information for*

**Enhanced Antibacterial Activity of Carbon Dots: A Hybrid Approach with Levofloxacin, Curcumin, and Tea Polyphenols**

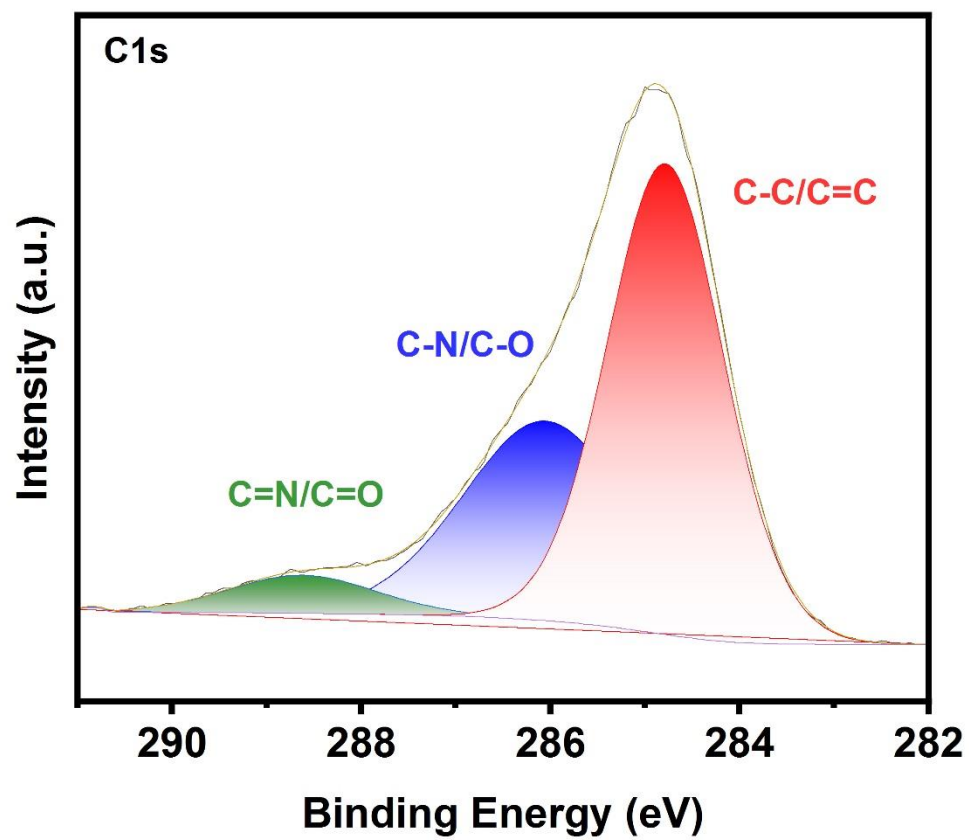
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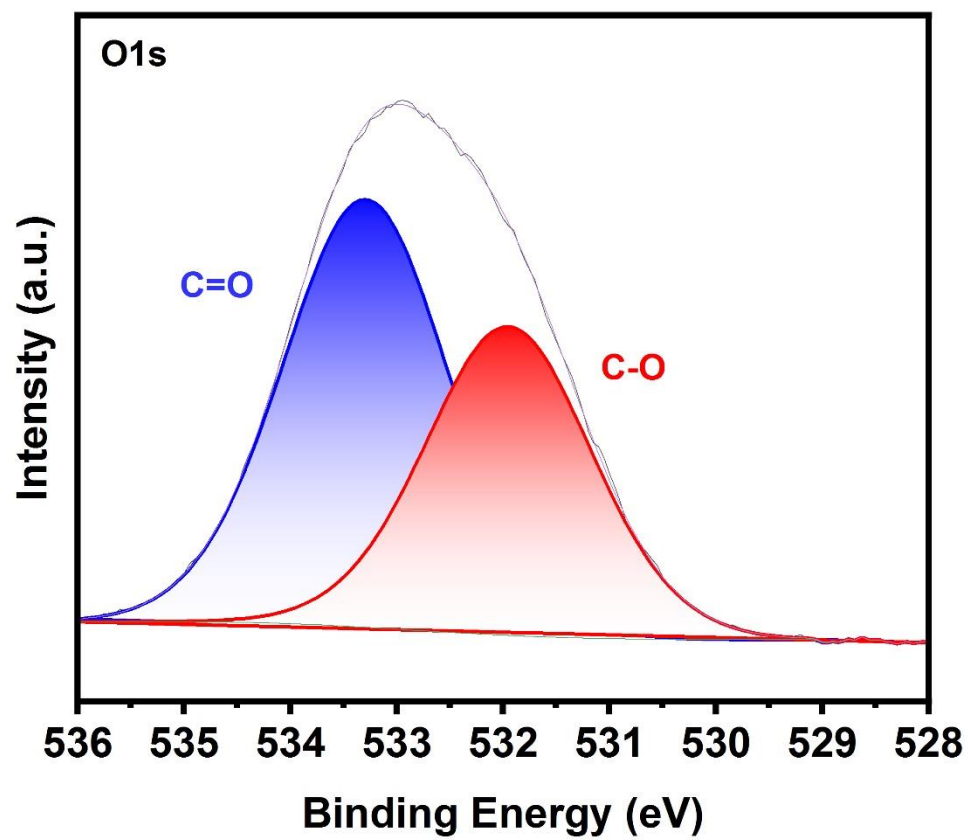
<sup>2</sup> School of Materials Science and Engineering, Anhui University, 111 Jiulong Road, Hefei 230601, China.

<sup>3</sup> Department of Chemistry, Islamia College University, Peshawar 25120, Pakistan

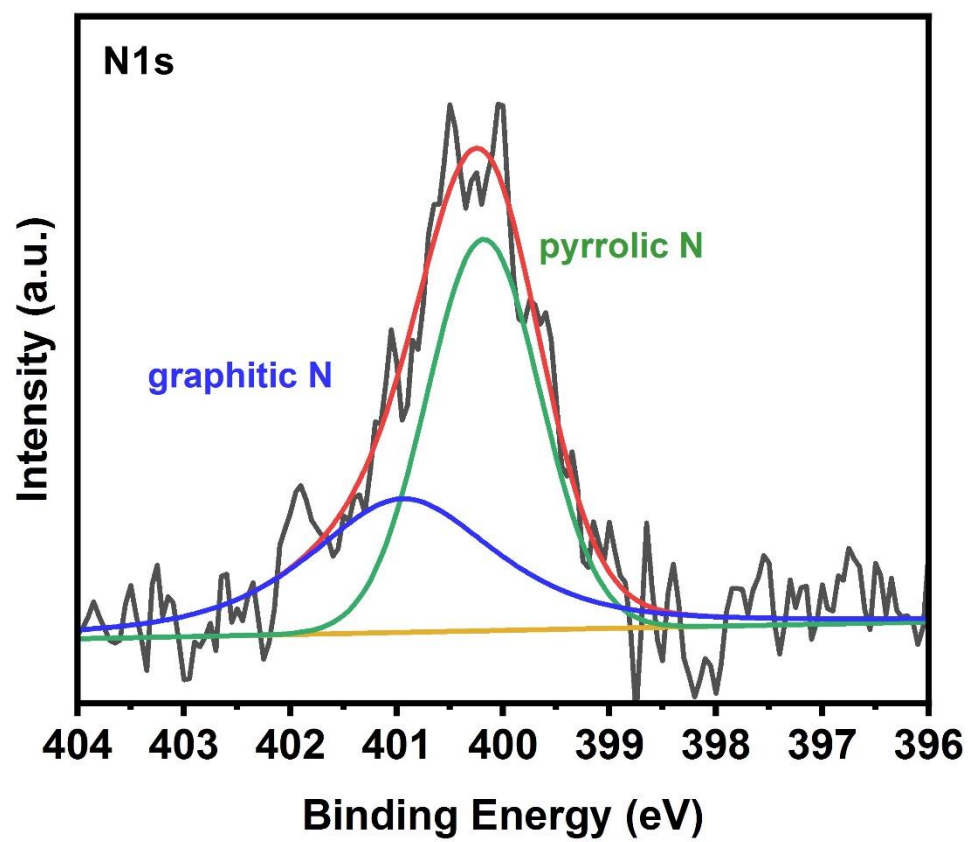
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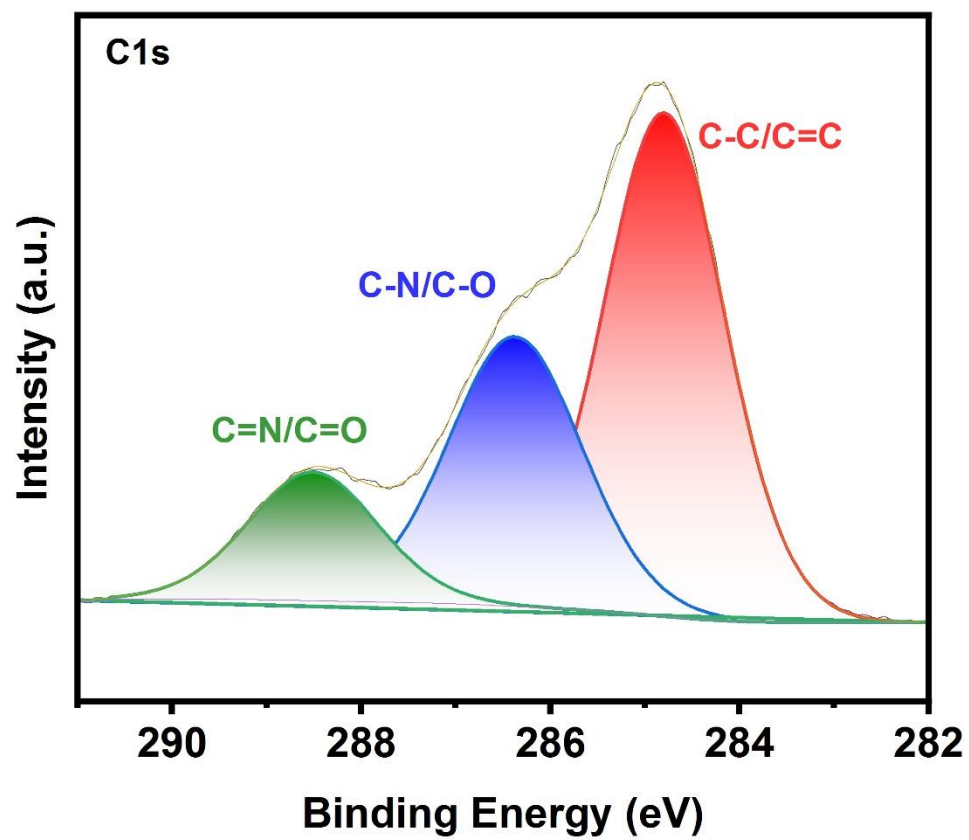
**Figure S1.** XPS C1s spectrum of Cur-TP@CDs.



**Figure S2.** XPS O1s spectrum of Cur-TP@CDs.



**Figure S3.** XPS N1s spectrum of Cur-TP@CDs.



**Figure S4.** XPS C1s spectrum of Lf-TP@CDs.

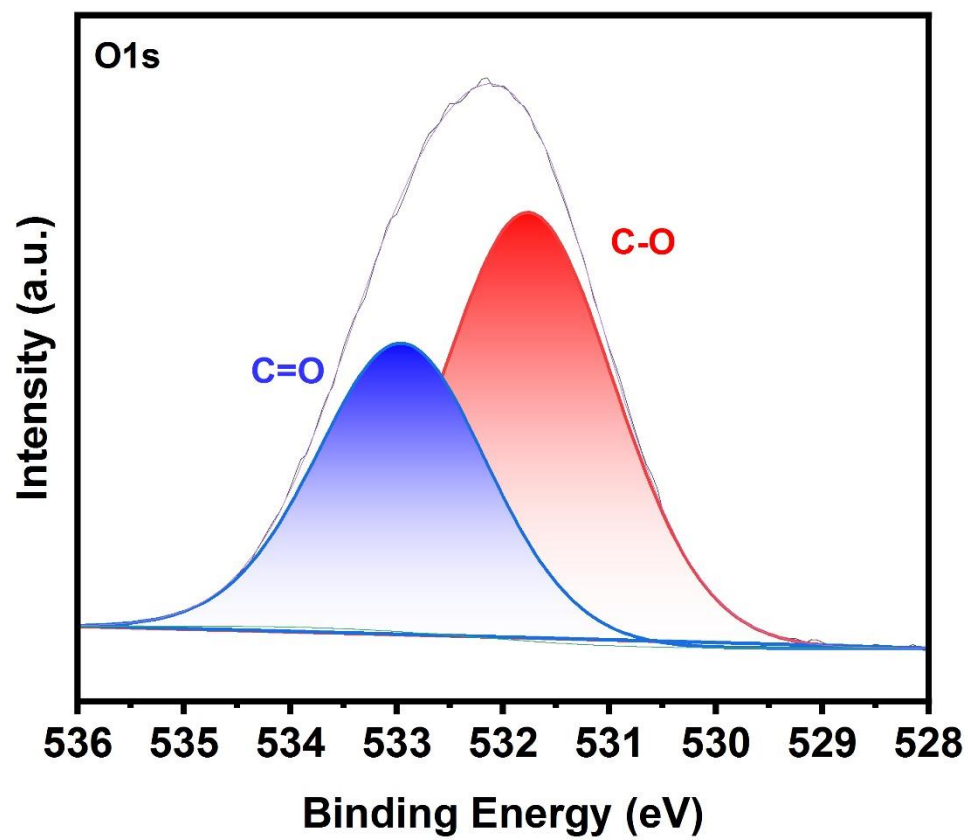


Figure S5. XPS O1s spectrum of Lf-TP@CDs.

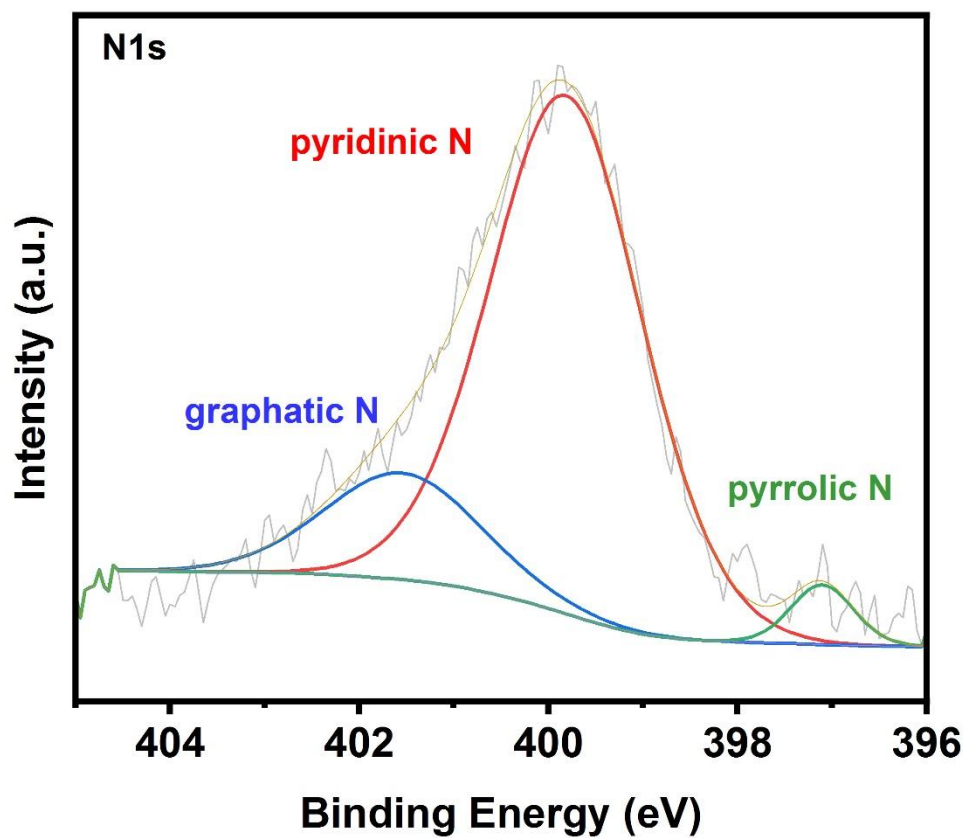


Figure S6. XPS N1s spectrum of Lf-TP@CDs.

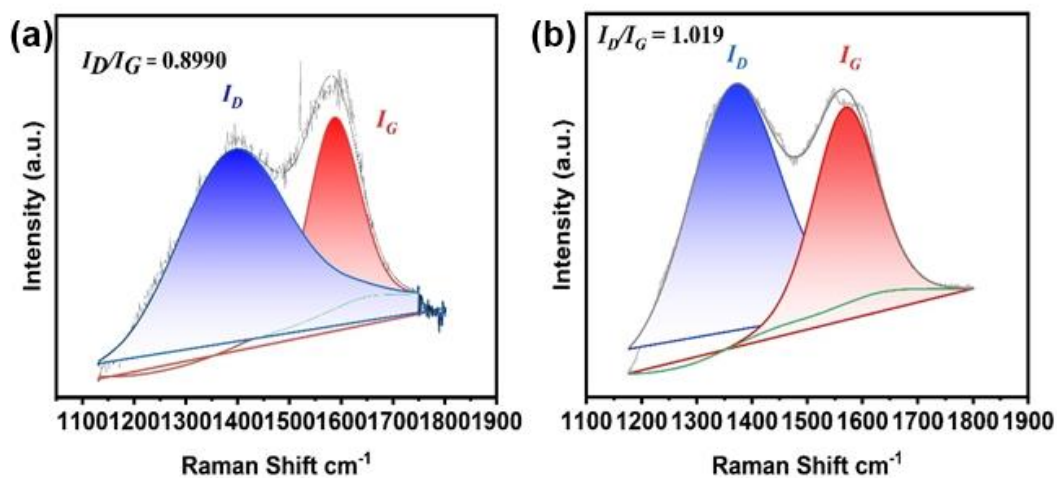
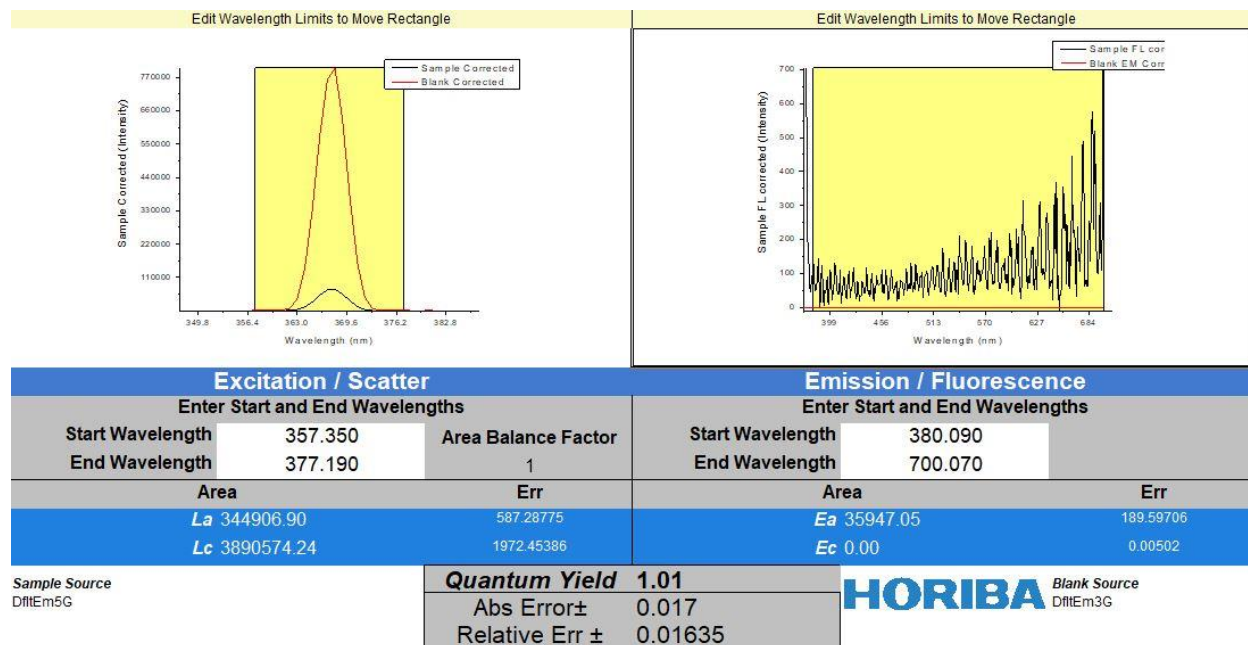
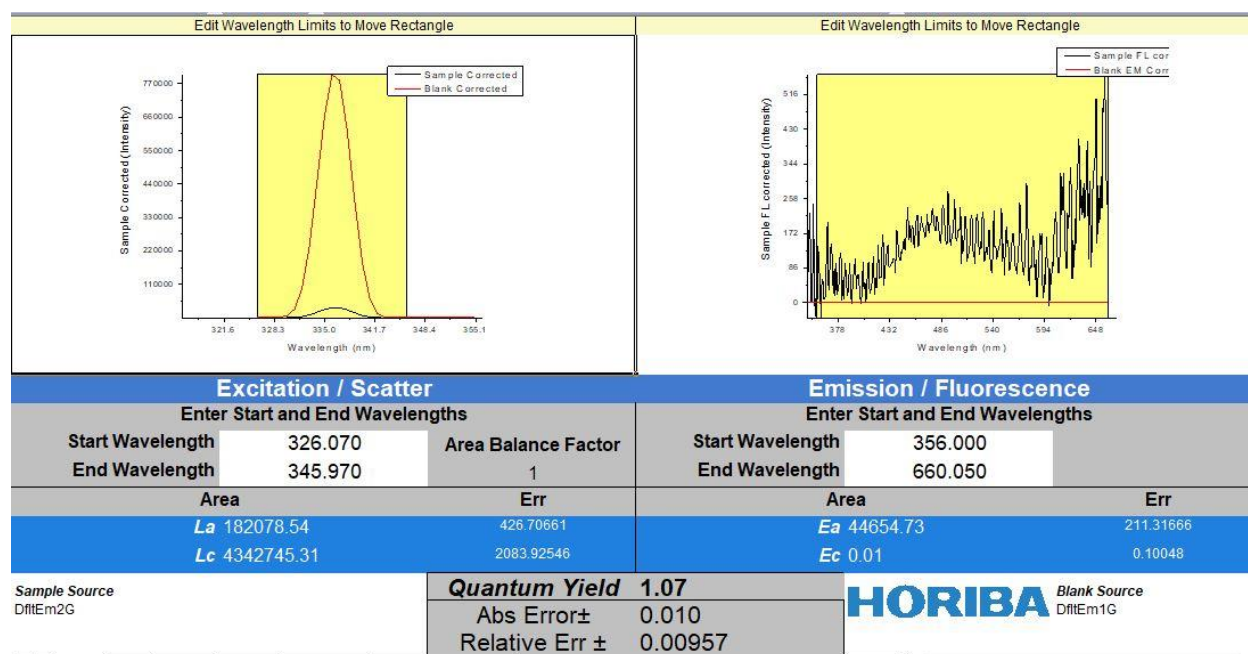


Figure S7. (a) Raman spectra of Cur-TP@CDs (b) Raman spectra of Lf-TP@CDs.

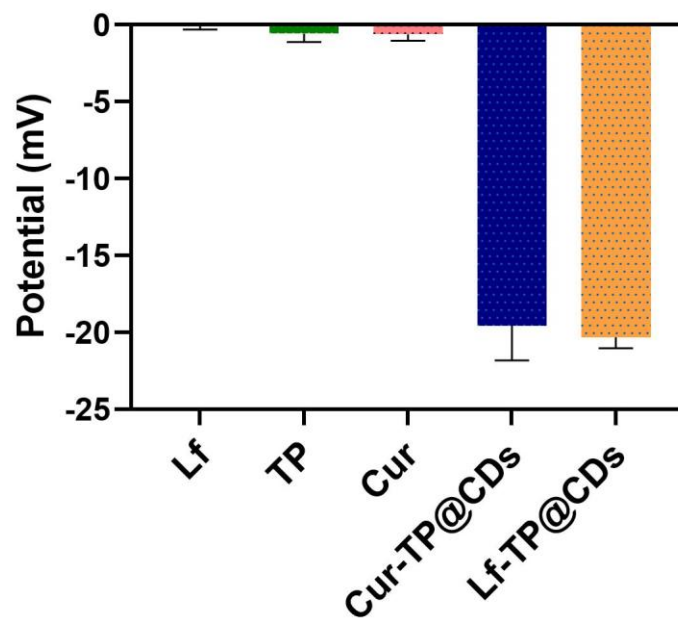


**Figure S8.** Absolute quantum yield of Cur-TP@CDs.

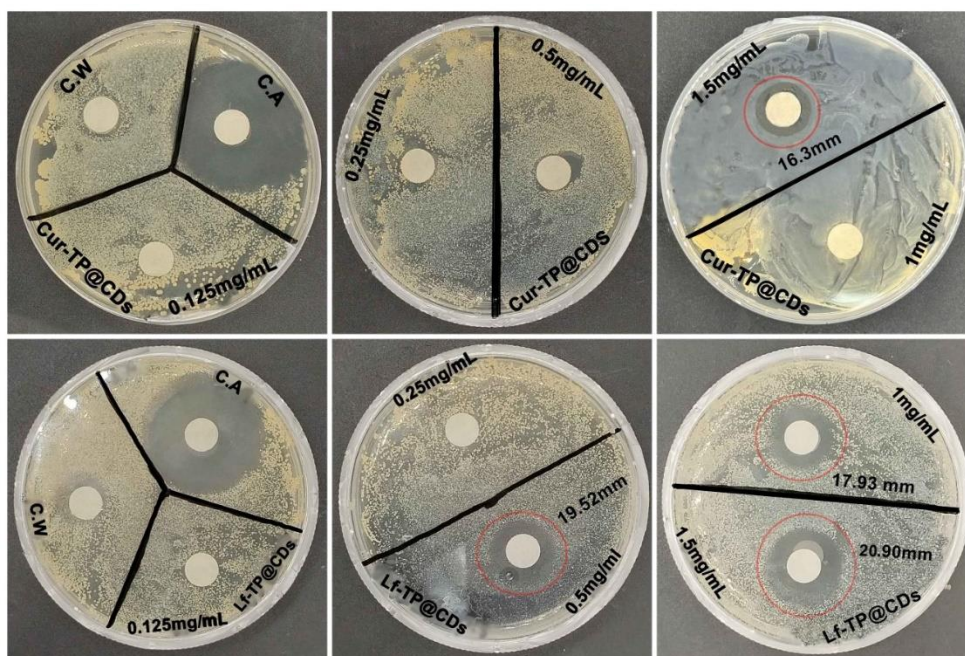


**Figure S9.** Absolute quantum yield of Lf-TP@CDs.

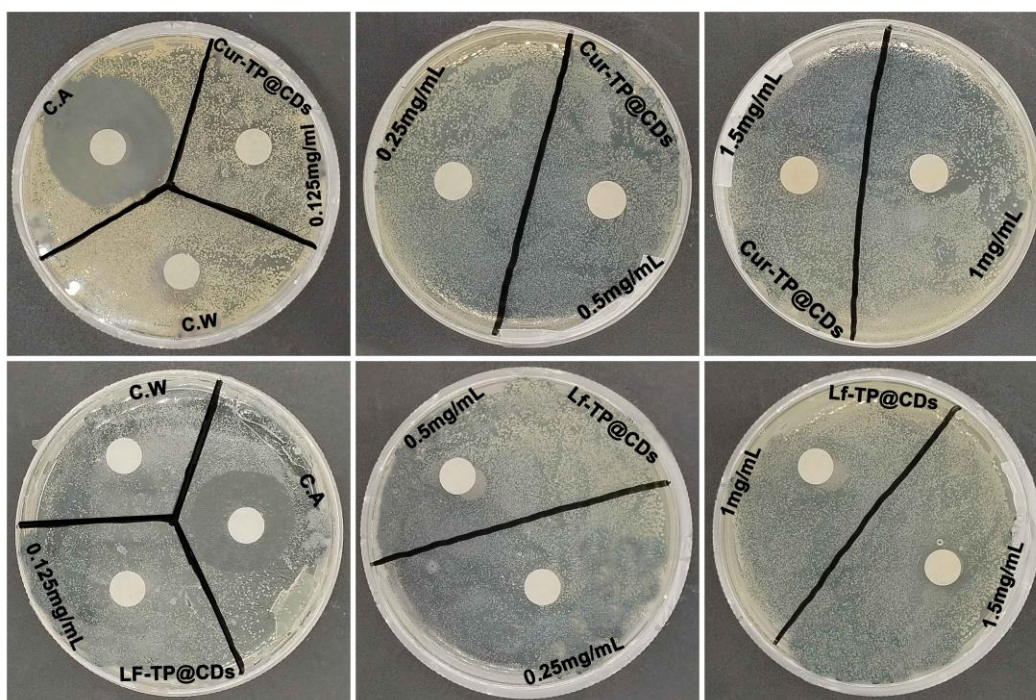




**Figure S10.** Zeta potential measurements of Lf, TP, Cur, Cur-TP@CDs and Lf-TP@CDs.

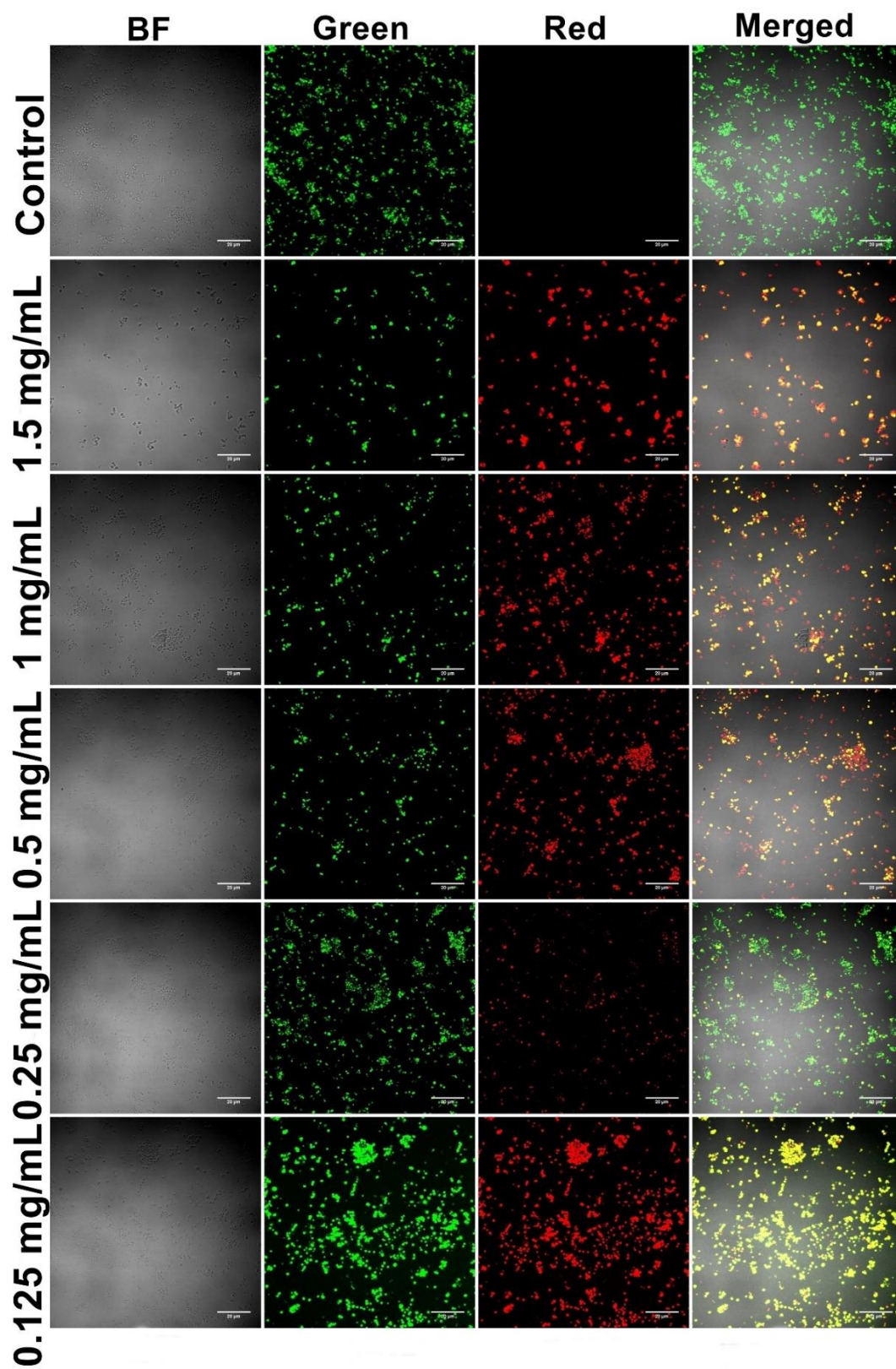


**Figure S11.** Antibacterial activity of Cur-TP@CDs and Lf-TP@CDs against *S. aureus*.

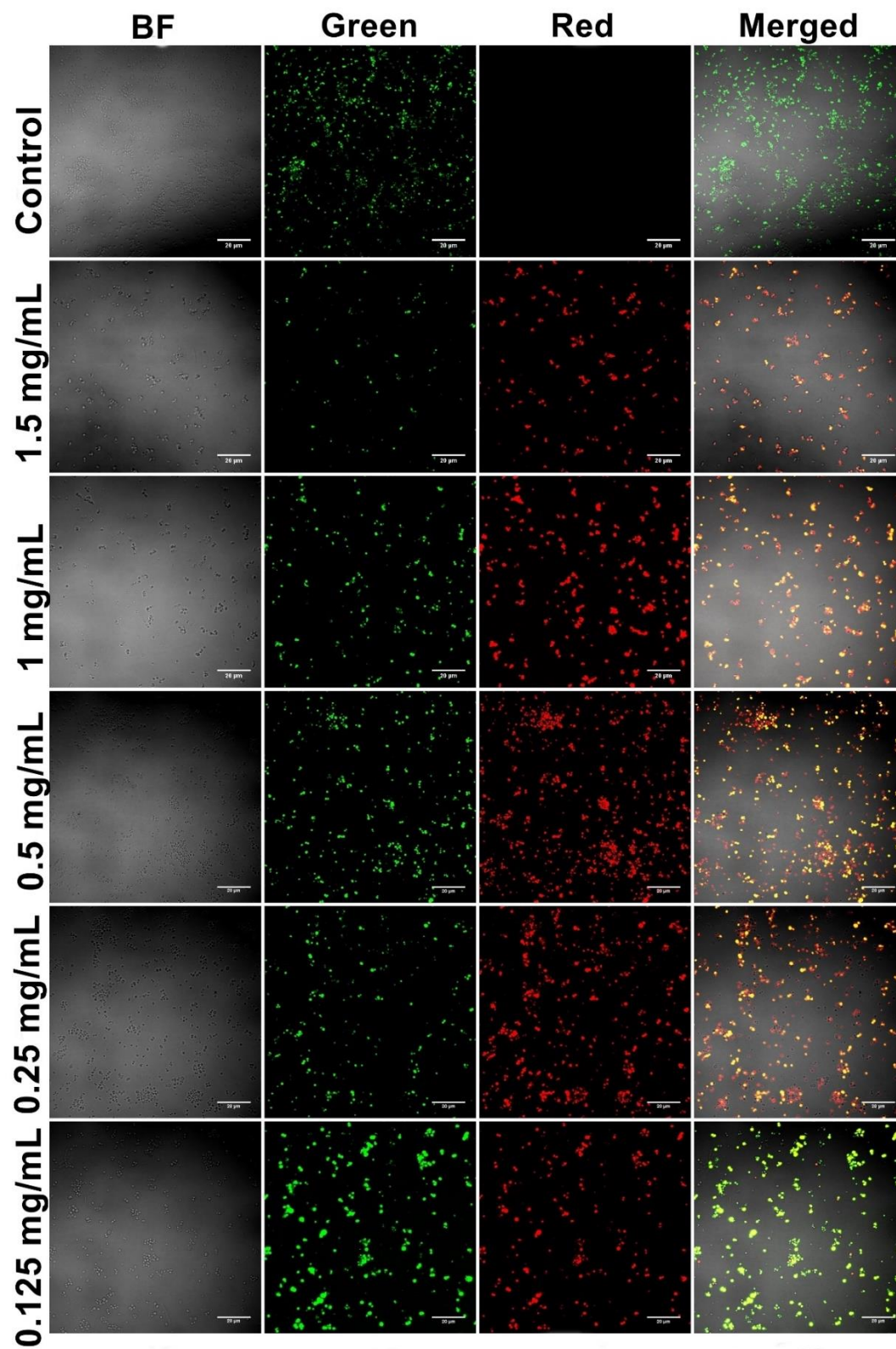


**Figure S12.** Antibacterial activity of Cur-TP@CDs and Lf-TP@CDs against *E.Coli*.



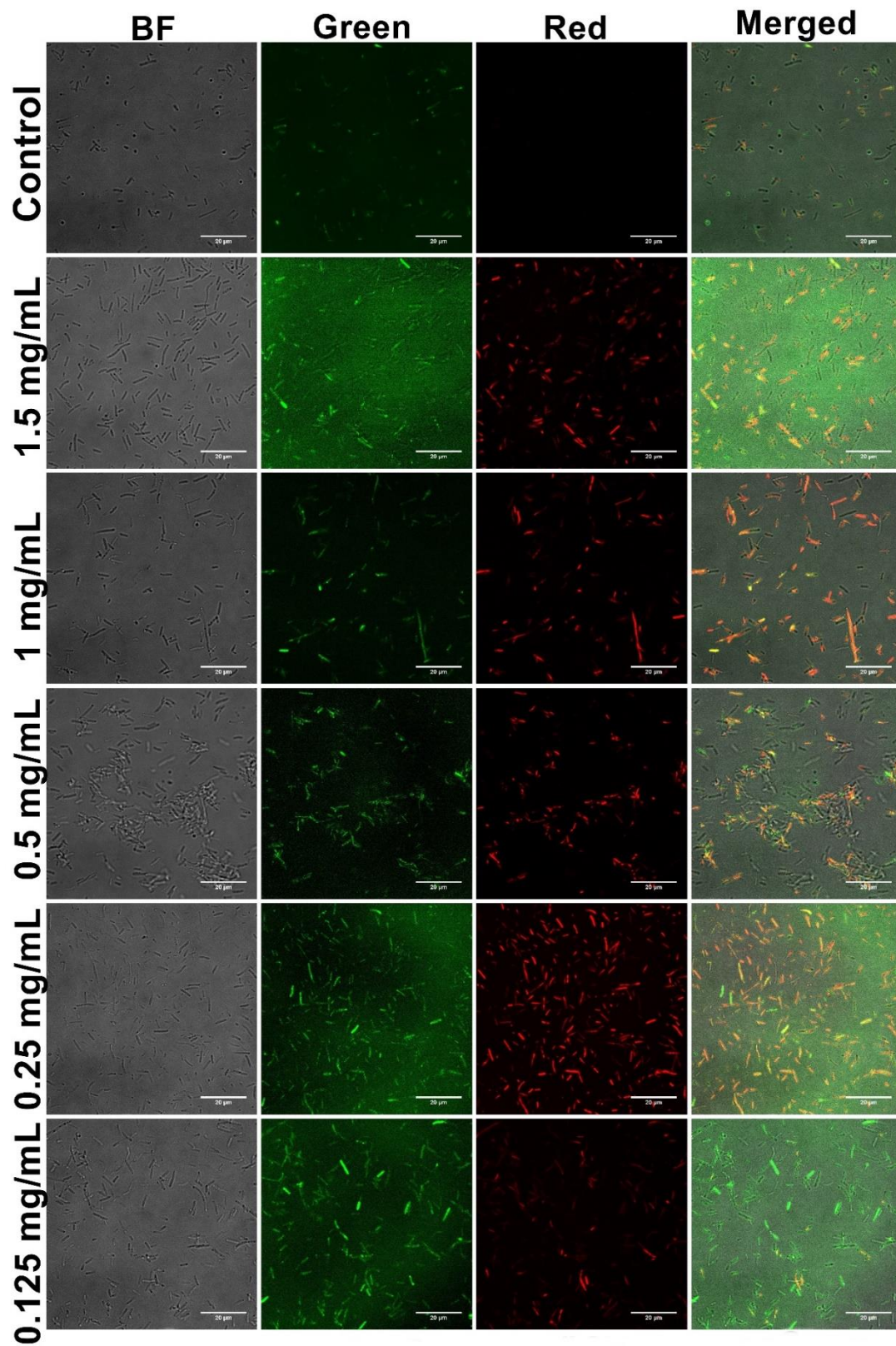


**Figure S13.** Live/Dead Bacterial Viability Assay of Cur-TP@CDs against *S. aureus*.

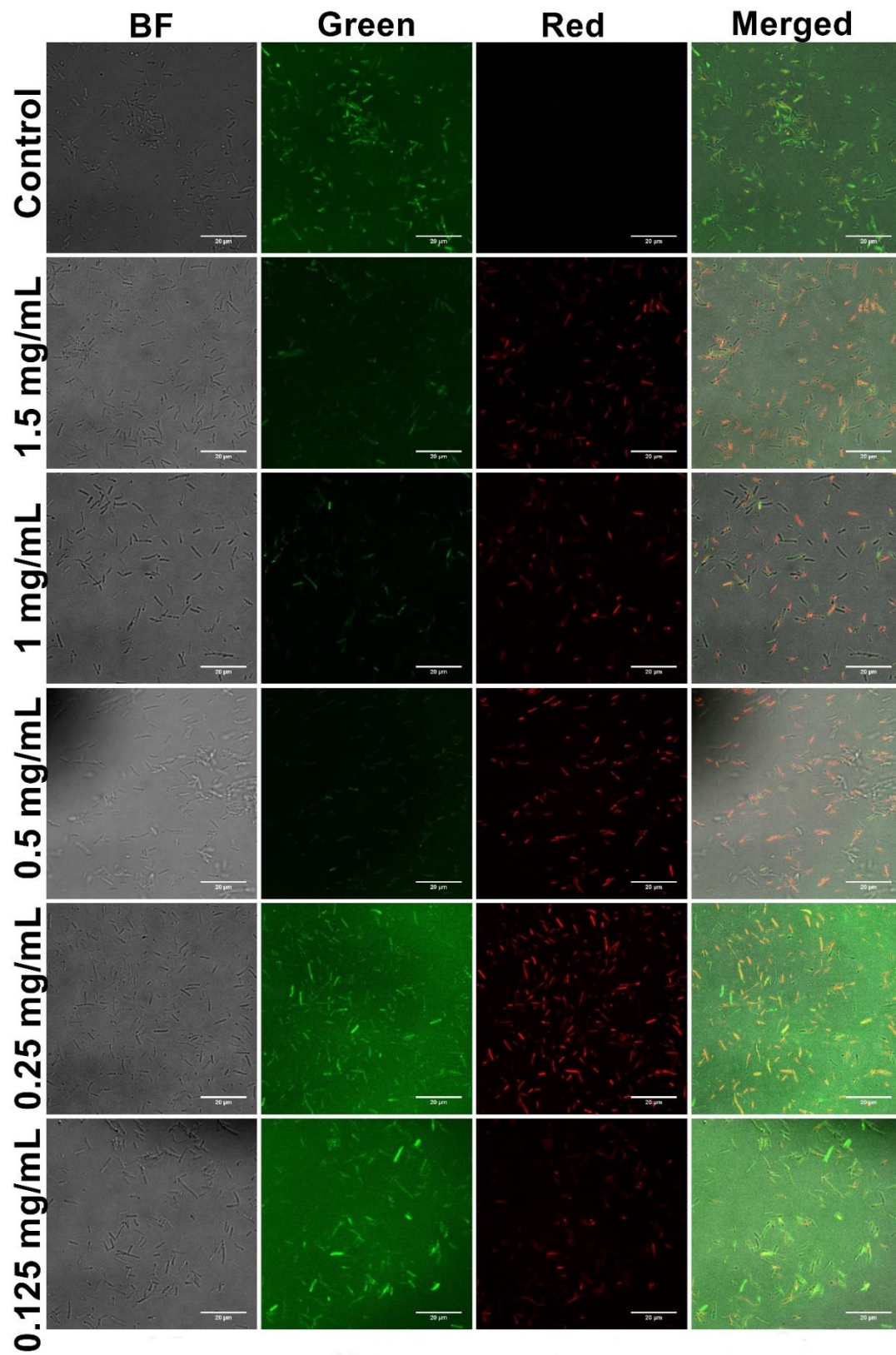


**Figure S14.** Live/Dead Bacterial Viability Assay of Lf-TP@CDs against *S. aureus*.





**Figure S15.** Live/Dead Bacterial Viability Assay of Cur-TP@CDs against *E.coli*.



**Figure S16.** Live/Dead Bacterial Viability Assay of Lf-TP@CDs against *E.coli*.