



Supplementary Information

## One-pot Decoration of Cupric Oxide on Activated Carbon Fibers Mediated by Polydopamine for the Inhibition of Bacteria Growth

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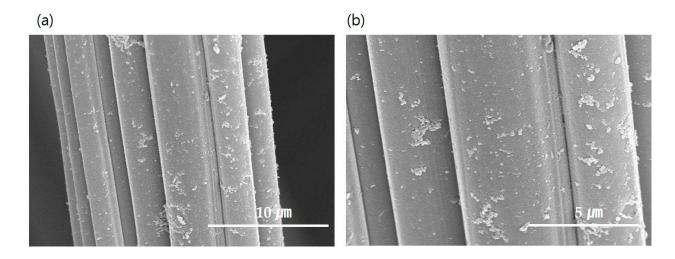


Figure S1. SEM images of ACF@PD at (a) low and (b) high magnification.

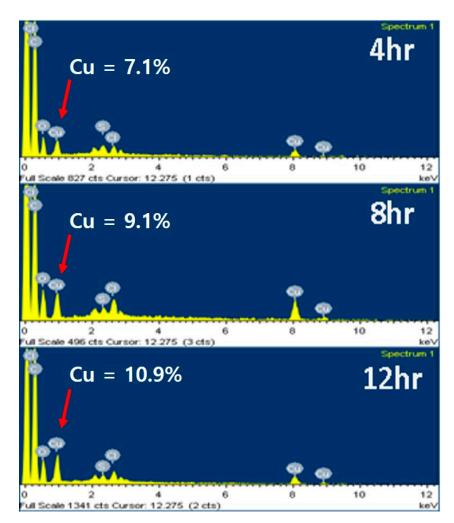
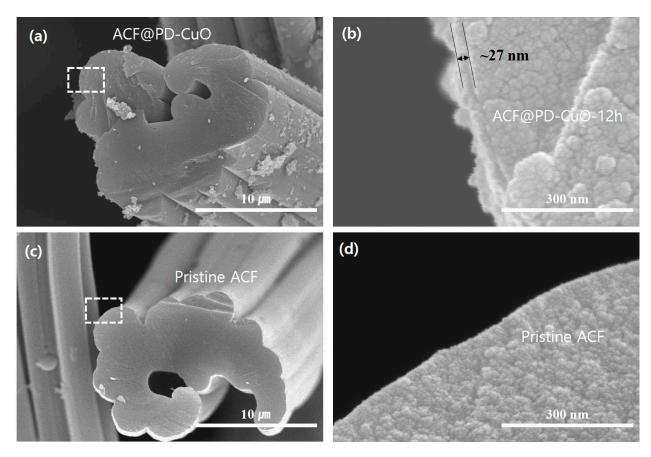
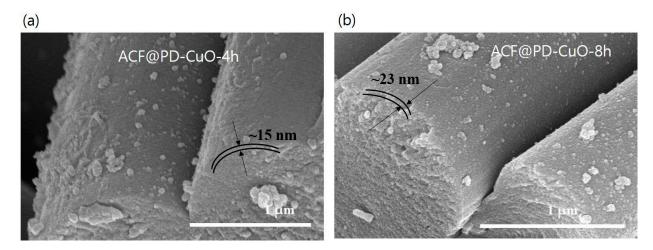


Figure S2. Cu content of ACF@PD-CuO with different coating time obtained from EDS analysis.

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**Figure S3.** SEM images of ACF@PD-CuO-12h with (a) low- and (b) high-magnification and pristine ACF with (c) low- and (d) high-magnification to measure the precise coating thickness of PD-CuO.



**Figure S4.** SEM images of **(a)** ACF@PD-CuO-4h and **(b)** ACF@PD-CuO-8h for measuring the coating thickness of PD-CuO.

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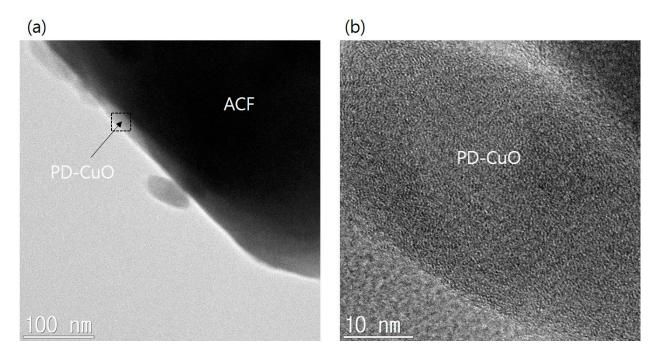
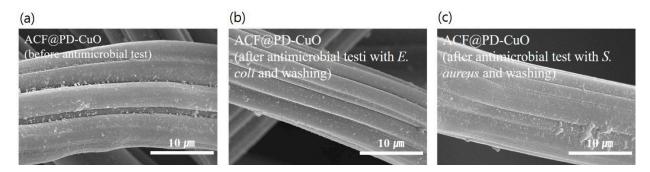


Figure S5. TEM images of ACF@PD-CuO-12h at (a) low and (b) high magnification.



**Figure S6.** *Ex-situ* SEM images for ACF@PD-CuO (**a**) before the and after the antimicrobial test and washing: (**b**) *E-coli* and (**c**) *S-aureus*.