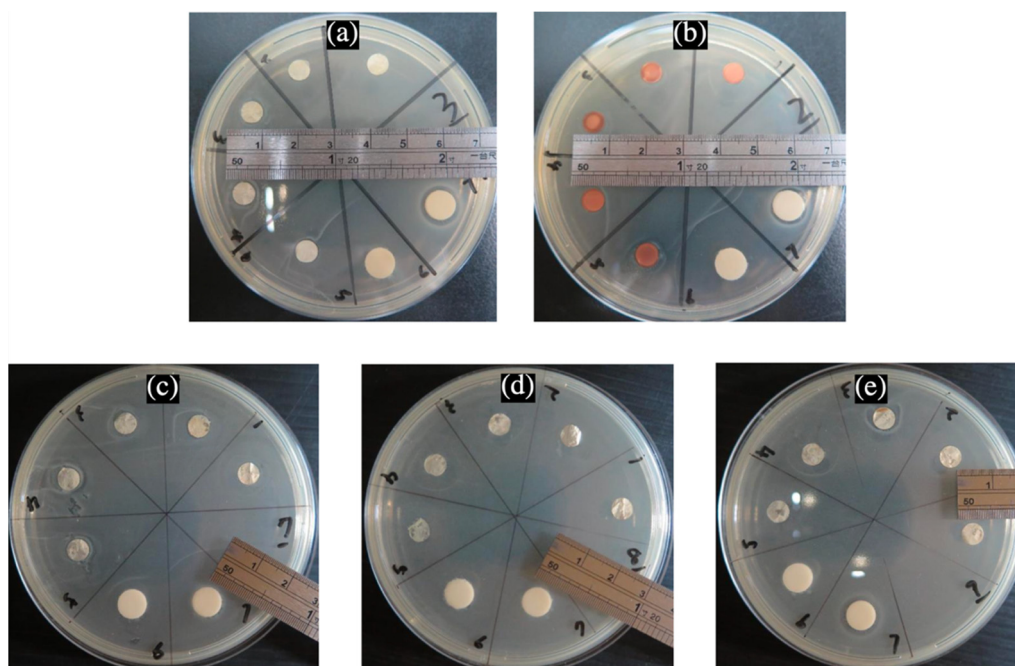
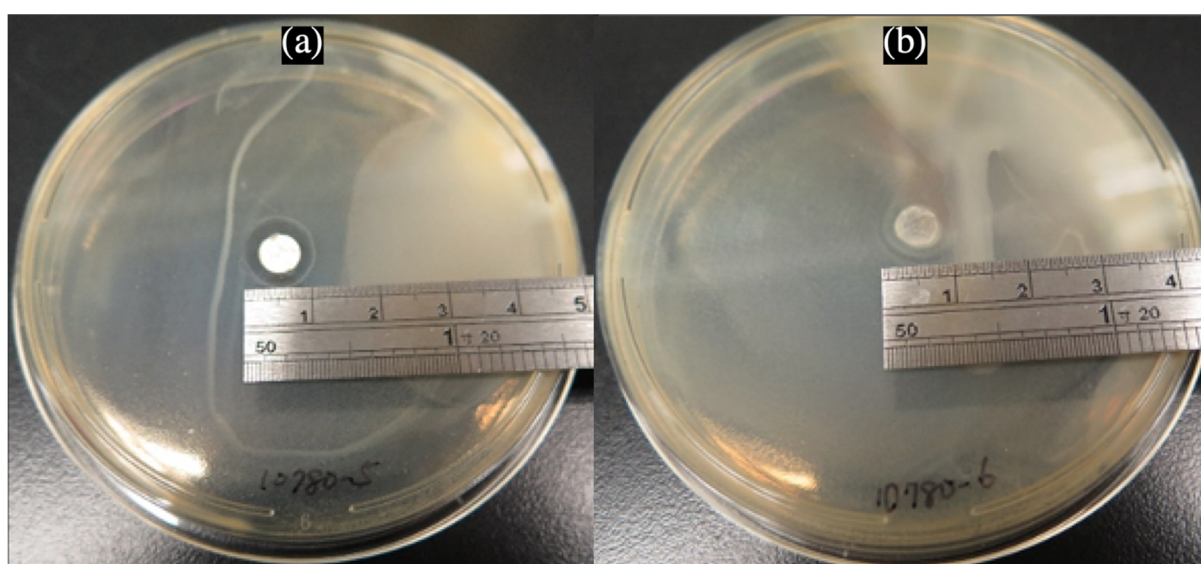


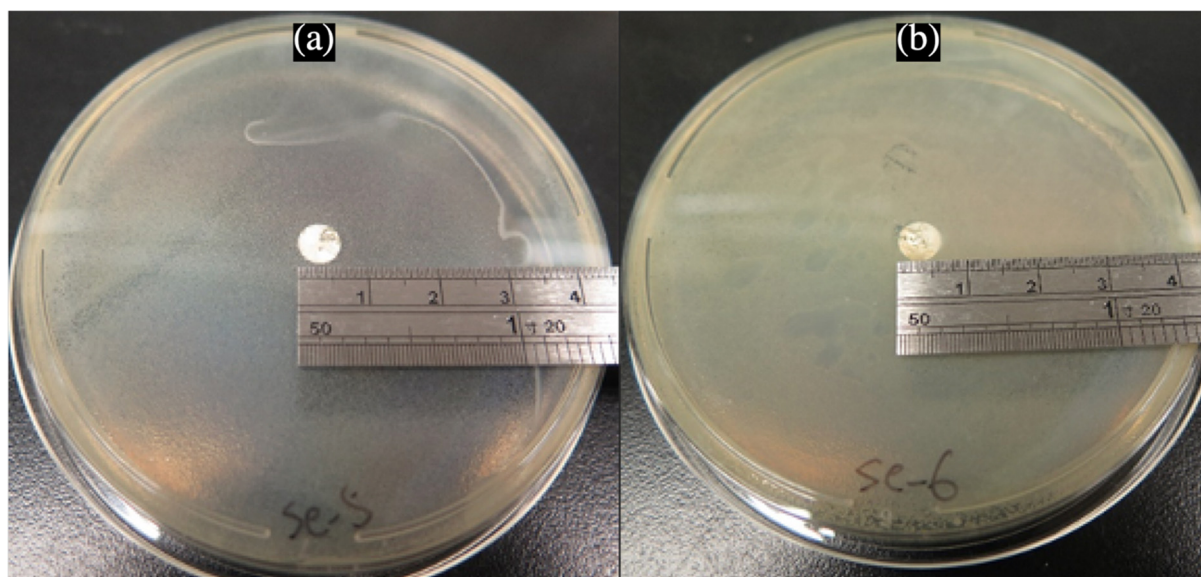
## Supplementary Information



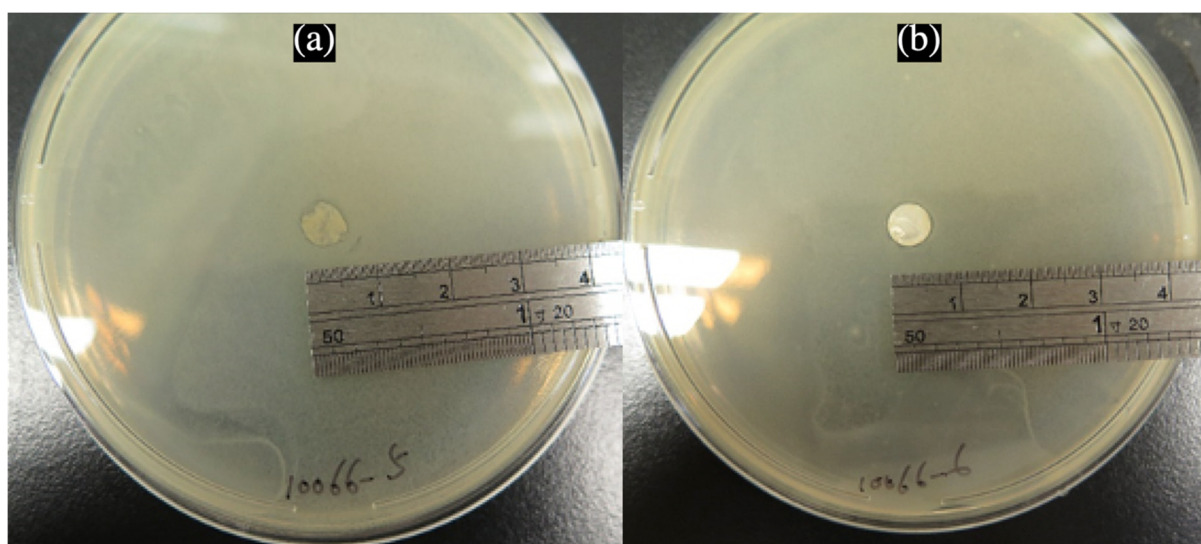
**Figure S1.** (a) Pure PAN Nanofiber Disk, (b) Bulk Cu Disk, (c) 5% PAN-CuNP Nanofiber Disk, (d) 10% PAN-CuNP Nanofiber Disk, and (e) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *E. coli*, with 5 trials each labelled as sections 1-5. Section 6 is a negative control disk while Section 7 is a positive control disk (ampicillin).



**Figure S2.** (a) 10% PAN-CuNP Nanofiber Disk and (b) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *S. aureus* (10780)

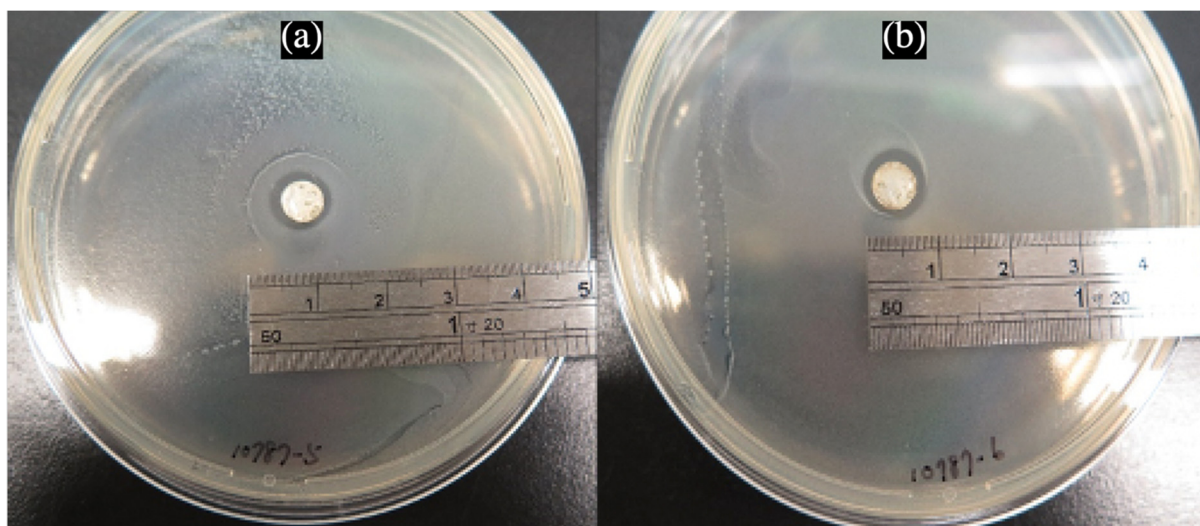


**Figure S3.** (a) 10% PAN-CuNP Nanofiber Disk and (b) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *S. epidermidis*

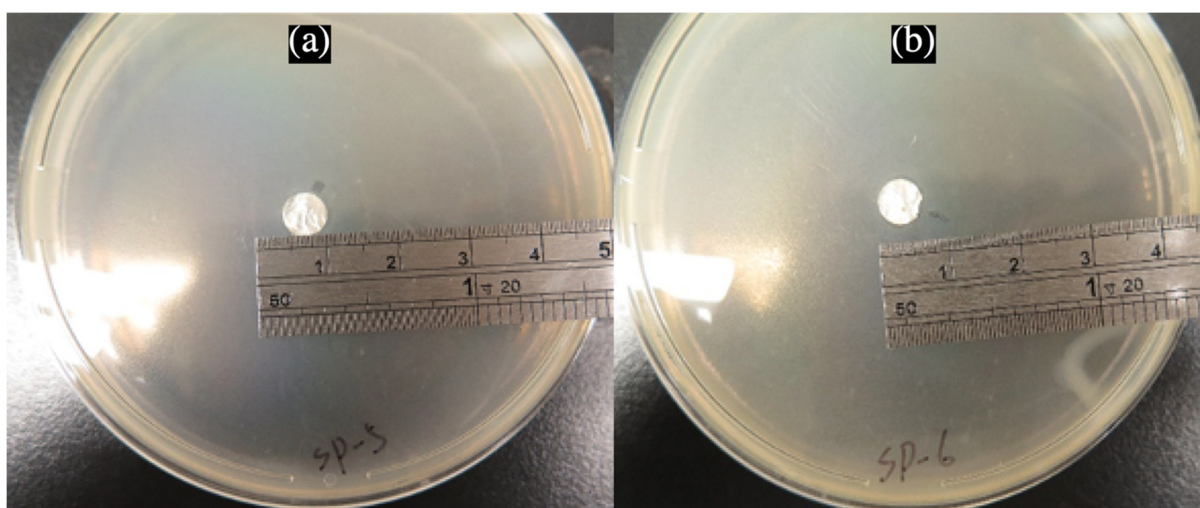


**Figure S4.** (a) 10% PAN-CuNP Nanofiber Disk and (b) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *E. faecalis* (10066)

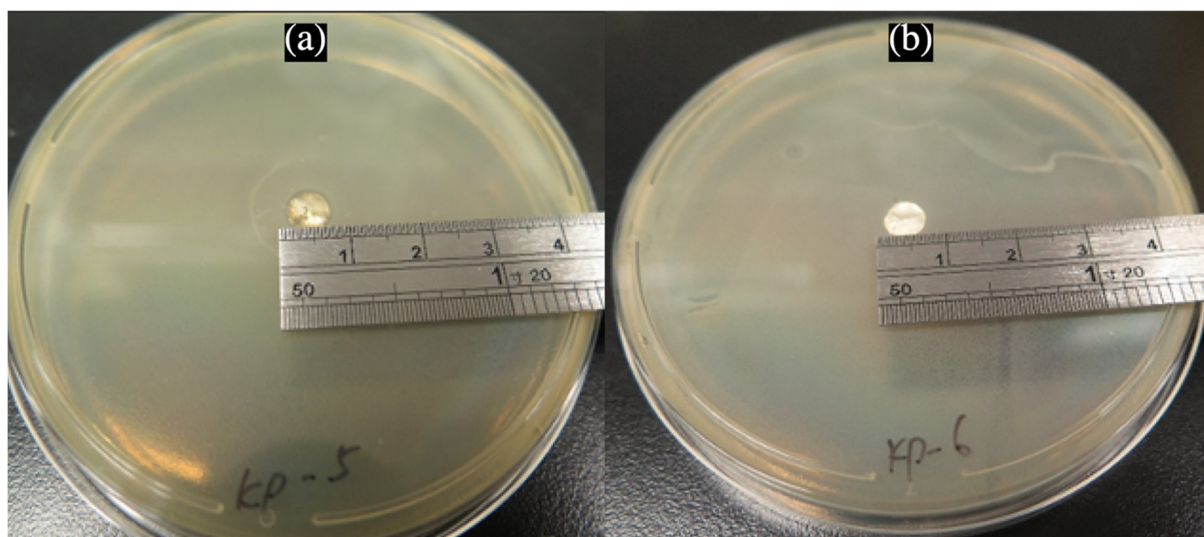




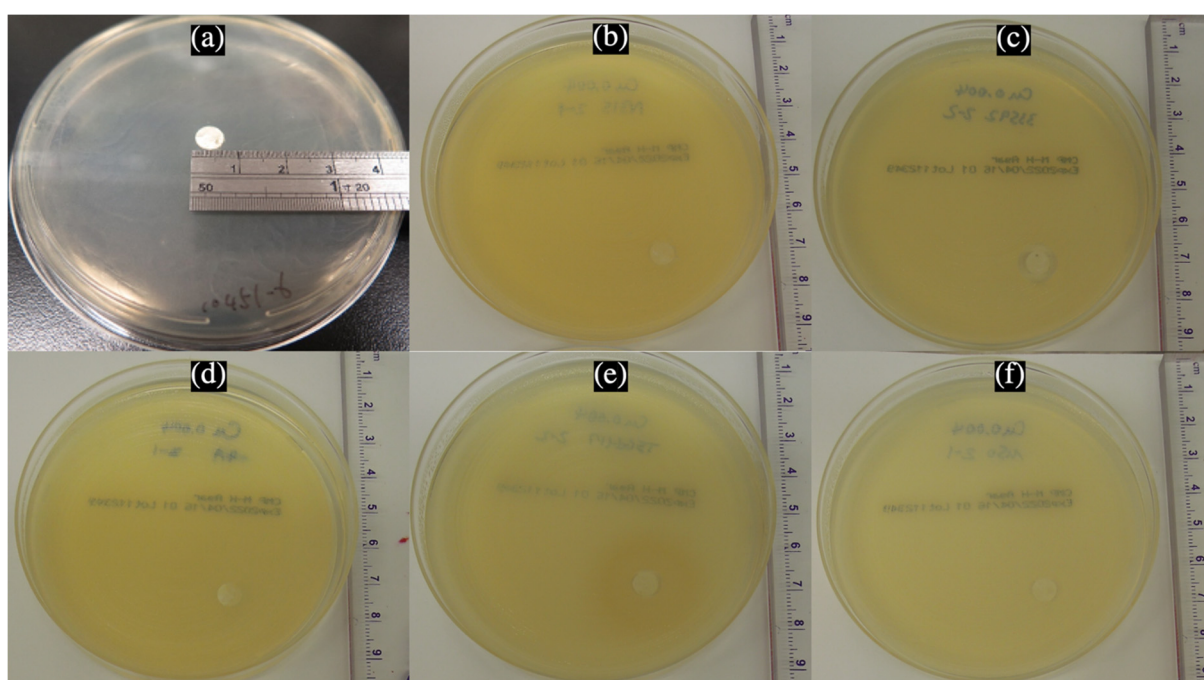
**Figure S5.** (a) 10% PAN-CuNP Nanofiber Disk and (b) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *S. agalactiae* (10787)



**Figure S6.** (a) 10% PAN-CuNP Nanofiber Disk and (b) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *S. pneumoniae*

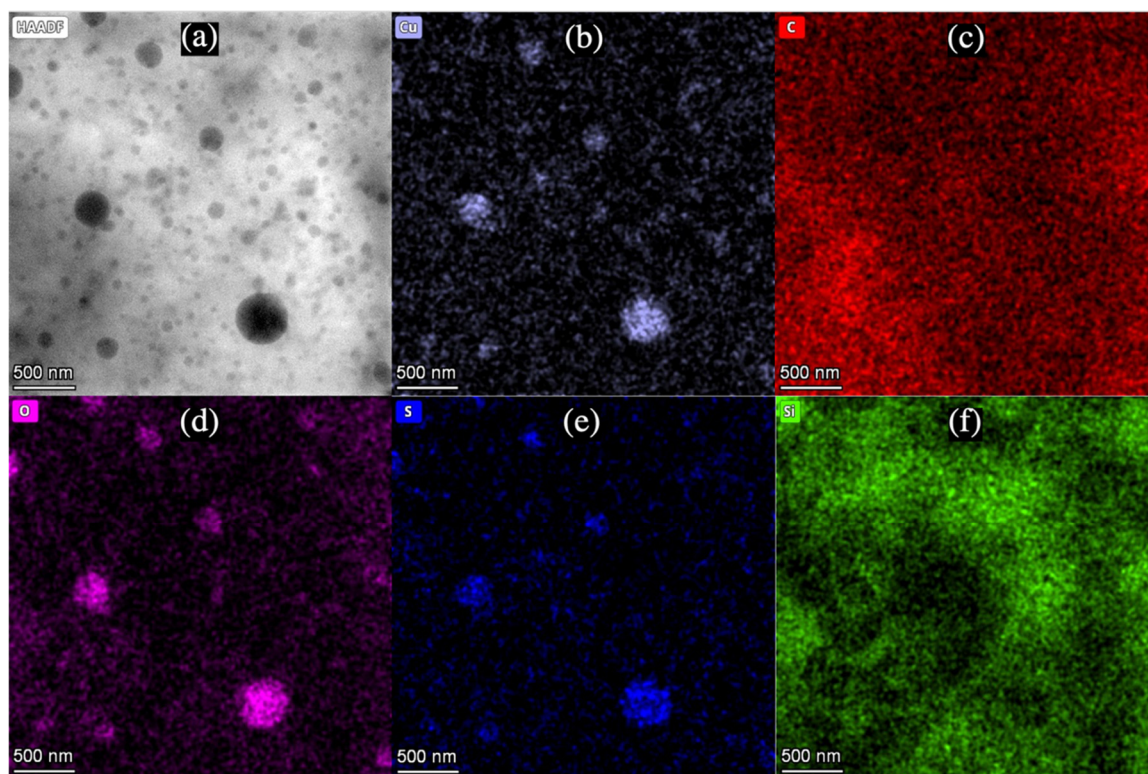


**Figure S7.** (a) 10% PAN-CuNP Nanofiber Disk and (b) 15% PAN-CuNP Nanofiber Disk ZOI Tests on *K. pneumoniae*

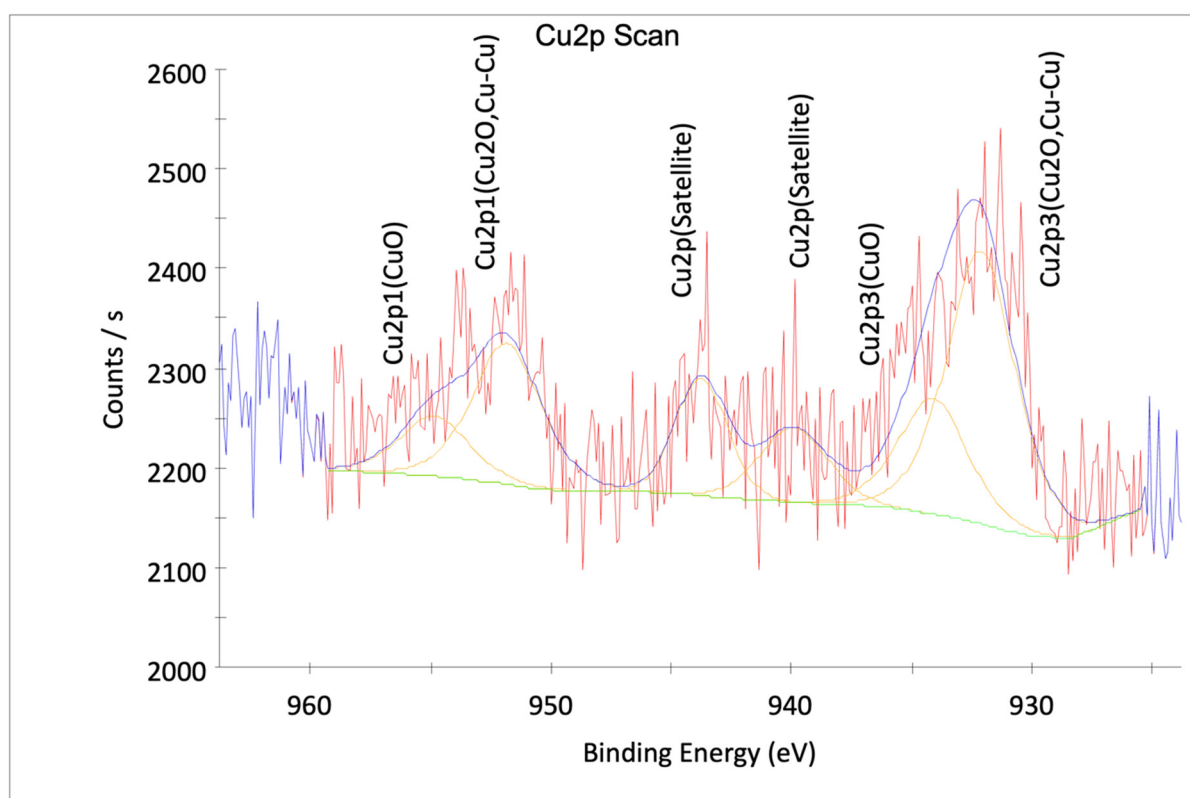


**Figure S8.** 15% PAN-CuNP Nanofiber Disk ZOI Tests on (a) MRSA (10451), (b) MRSA SCCmecII (N315), (c) MRSA SCCmecIII (33592), (d) MRSA SCCmecIV (IVa), (e) MRSA SCCmecV<sub>T</sub> (TSGH17), and (f) VISA ( $\mu 50$ )





**Figure S9.** (a) HAADF-TEM Image of PAN/DMF/CuNP Colloidal Solution. (b) Copper, (c) Carbon, (d) Oxygen, (e) Sulfur, and (f) Silicon Elemental Distribution in TEM Image of PAN/DMF/CuNP Colloidal Solution



**Figure S10.** Cu2p XPS Core-Level Spectra of 15% PAN-CuNP Nanofiber Sample

**Table S1.** Cu2p XPS Atomic Weight Quantification of 15% PAN-CuNP Nanofiber Sample

XPS Detection Name	Atomic Weight Concentration (%)
Cu2p3 (Cu <sub>2</sub> O, Cu-Cu)	70.1
Cu2p3 (CuO)	29.9

**Figure S11.** Homogenized 15% PAN/DMF/CuNP Solution with Dark Green Hue

