

Supporting Information

# Zinc-coordinated Polydopamine Surface with Nanostructure and Superhydrophilicity for Anti- biofouling and Antibacteria

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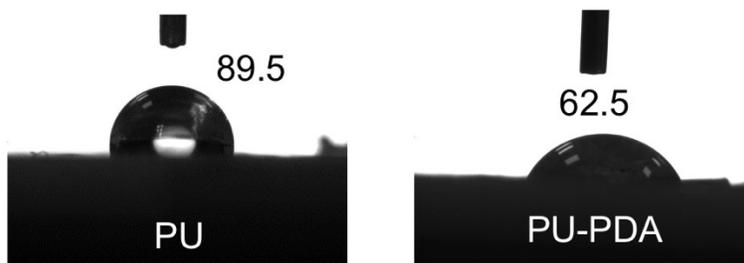
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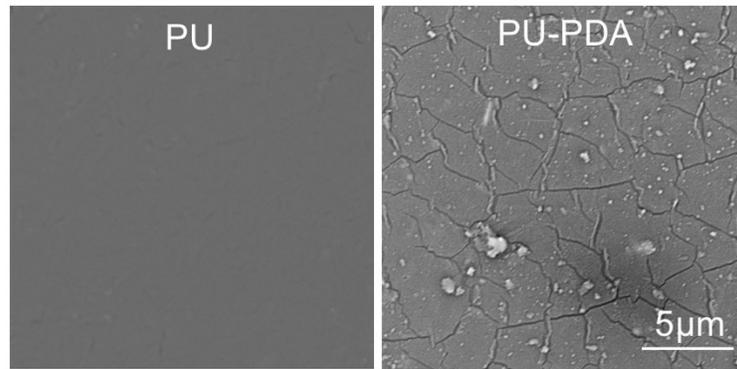
**Content**

**Supplementary Figures S1-S6**

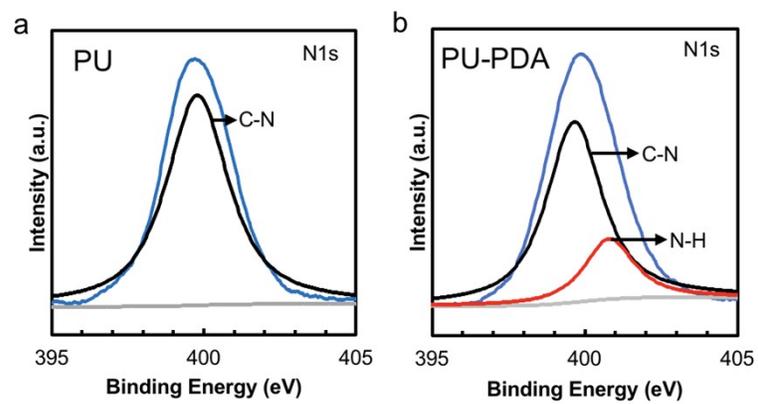
**Supplementary Figures S1-S6**



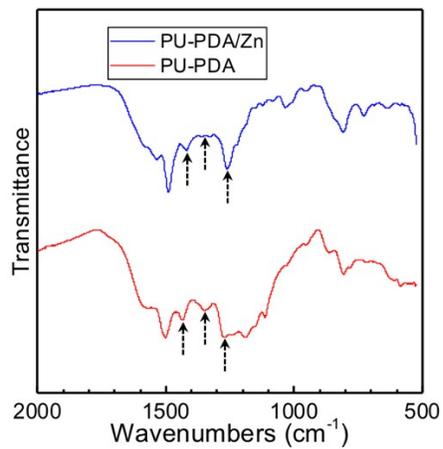
**Figure S1.** Water contact angle of PU and PU-PDA films



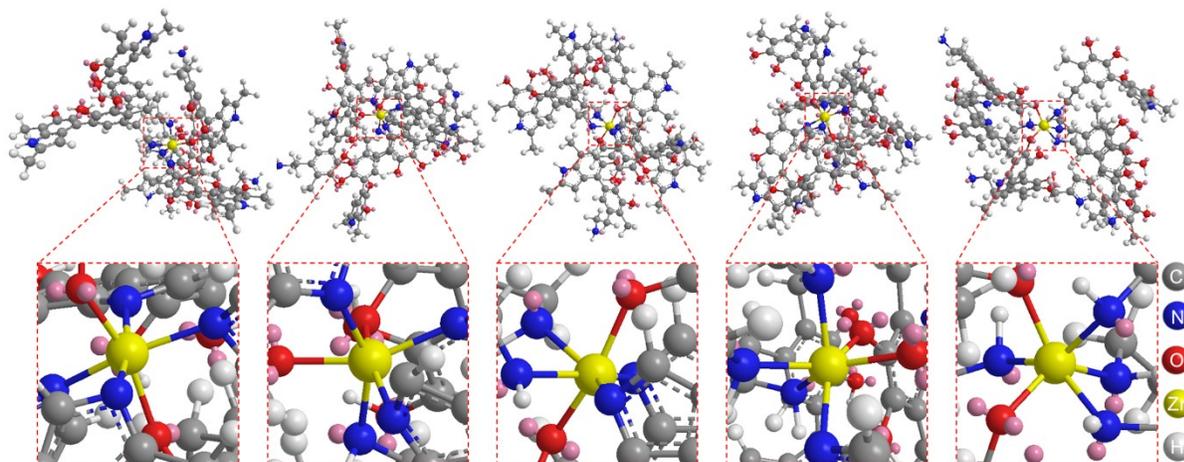
**Figure S2.** SEM images of PU and PU-PDA films



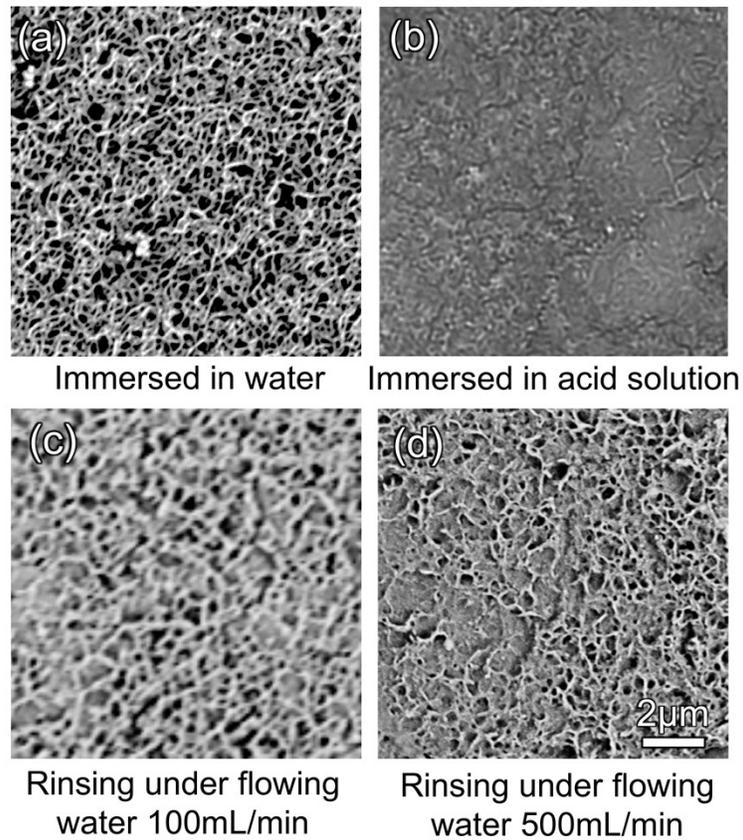
**Figure S3.** High-resolution XPS spectra of N1s of PU and PU-PDA films



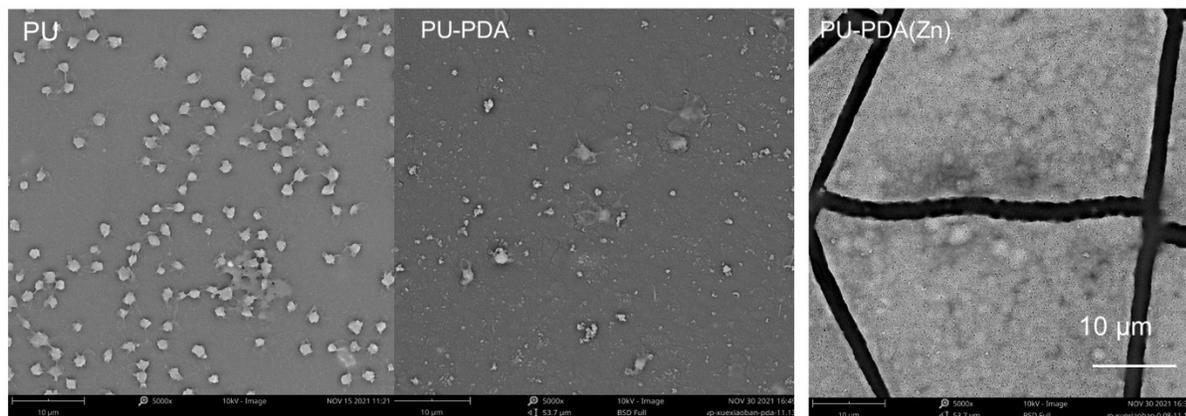
**Figure S4.** FT-IR Spectrum of PU-PDA and PU-PDA/Zn films



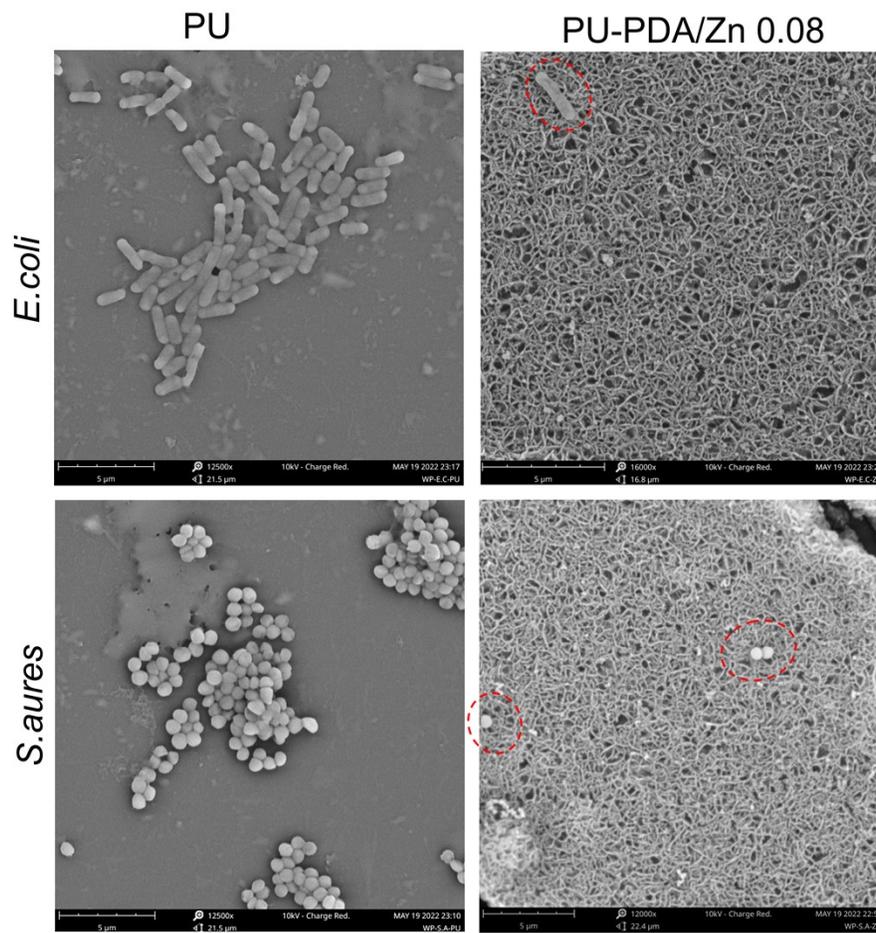
**Figure S5.** Several possible structures of  $\text{Zn}^{2+}$  bonding with polydopamine via Zn-N and Zn-O bonds.



**Figure S6.** SEM images of PU-PDA/Zn-0.08 to show the stability. The rinsing experiments are taken place by fixing the PU-PDA/Zn-0.08 film in a tube with diameter of 8mm.



**Figure S7.** SEM images of the platelets adhered on PU (a), PU-PDA (b), PU-PDA/Zn-0.08



**Figure S8.** SEM images to show the antibacterial attachment on PU and PU-PDA/Zn-0.08