

Supporting Information

Universal Antifogging and Antimicrobial Thin Coating Based on Dopamine-Containing Glycopolymers

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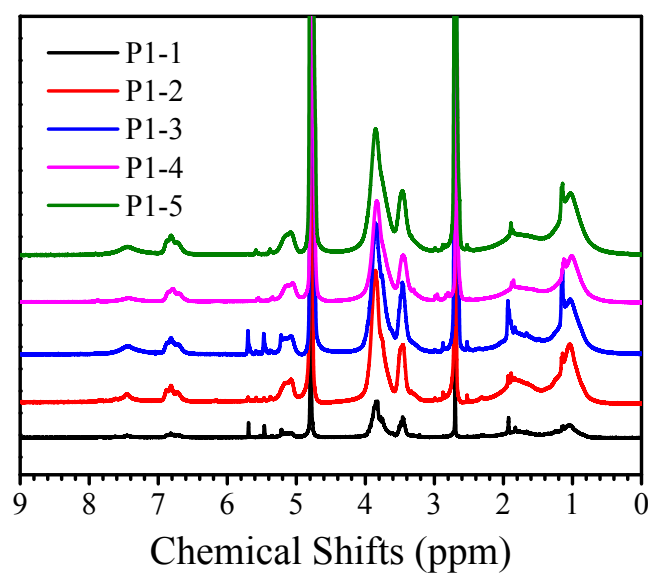


Figure S1. ¹H NMR spectra of P1s in D₂O.

¹ Current address

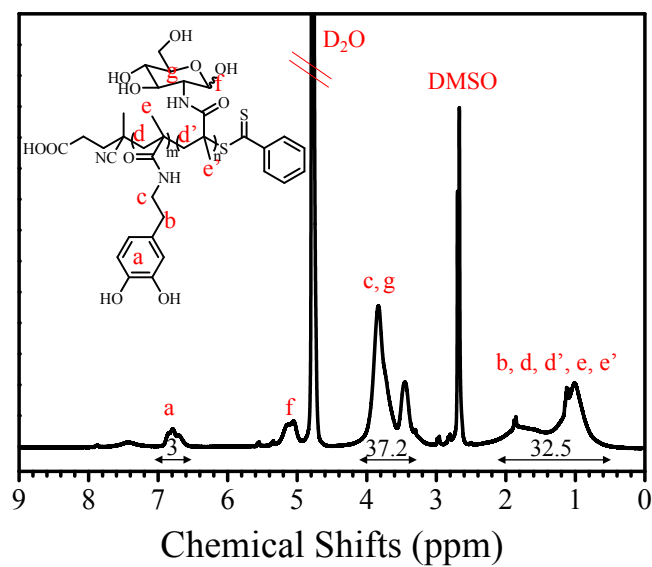


Figure S2. ^1H NMR spectrum and characteristic peak integrals of P1-4 in D_2O .

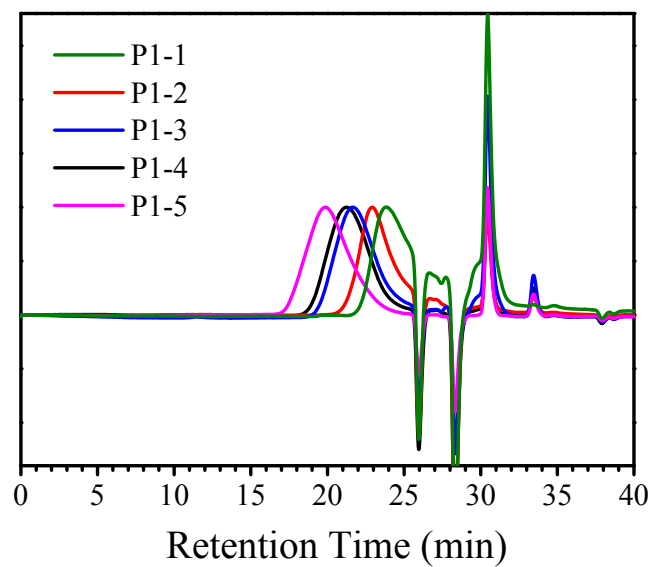


Figure S3. Size-exclusion chromatography (SEC) spectra of P1s.

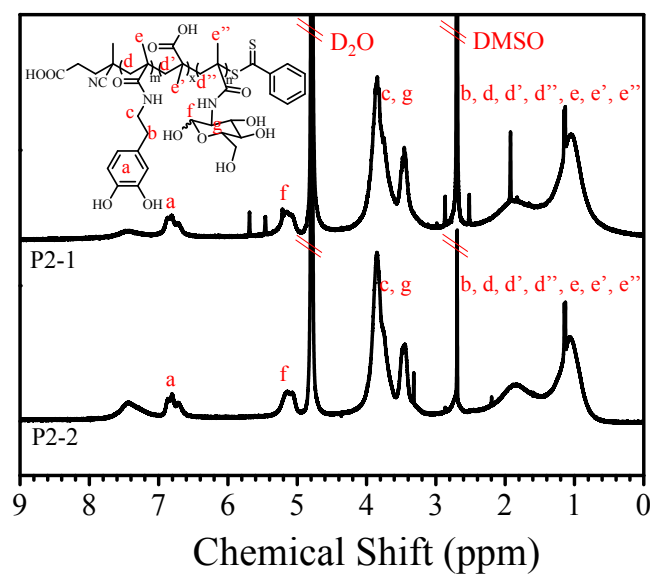


Figure S4. ^1H NMR spectra of P2s in D_2O .

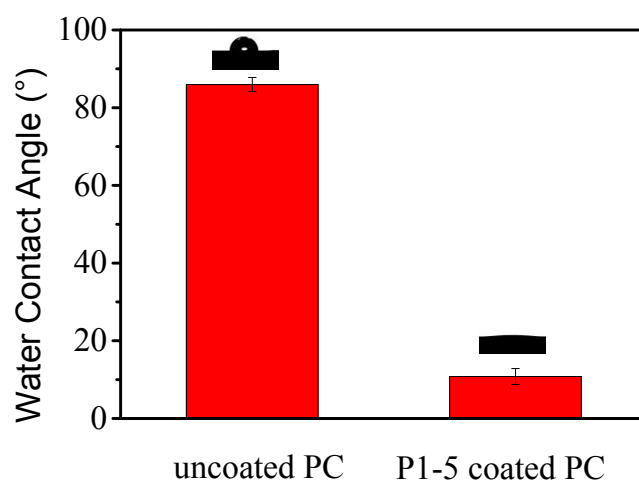


Figure S5. Water contact angle of uncoated PC and P1-5 coated PC.

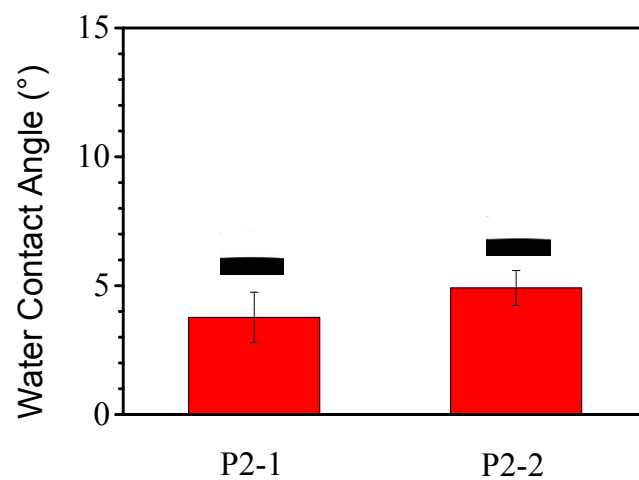


Figure S6. Water contact angle of P2s coated glass slides.

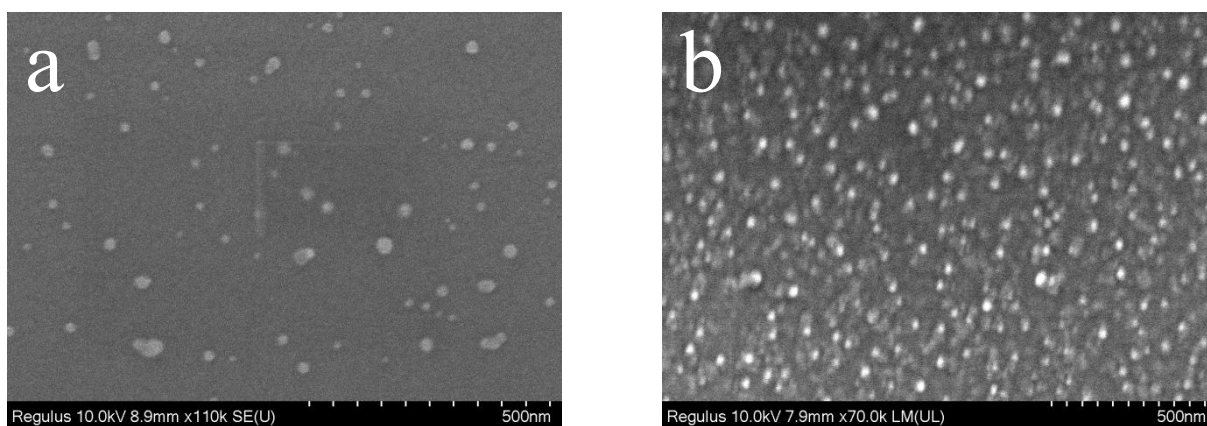


Figure S7. SEM images of (a) P2-1 and (b) P2-2 coated silicon wafers with in situ formed AgNPs.

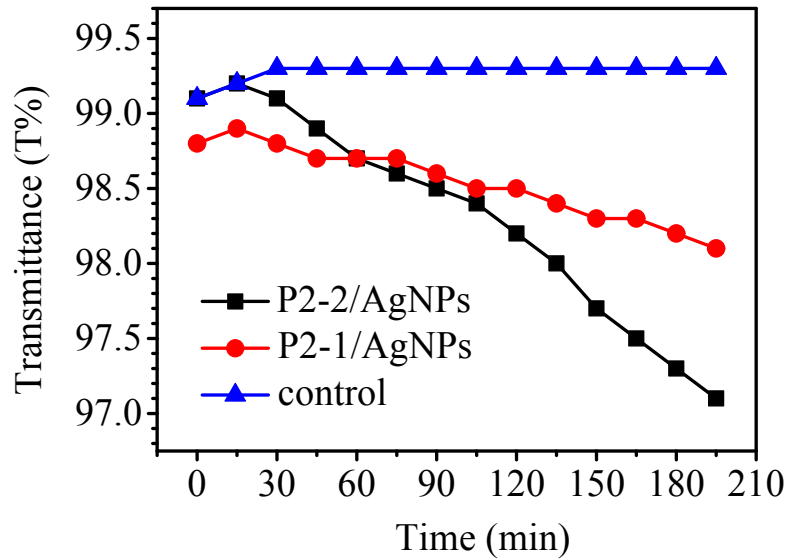


Figure S8. The transmittances of *E. coli* suspension (OD = 0.03 at 620 nm) in sterile PBS with/without P2s/AgNPs coated silicon wafers at 620 nm monitored by an UV-vis spectrometer within about 3 h, in which the coated silicon wafers were cut into 0.5 cm × 0.5 cm pieces. The test interval is 15 minutes.

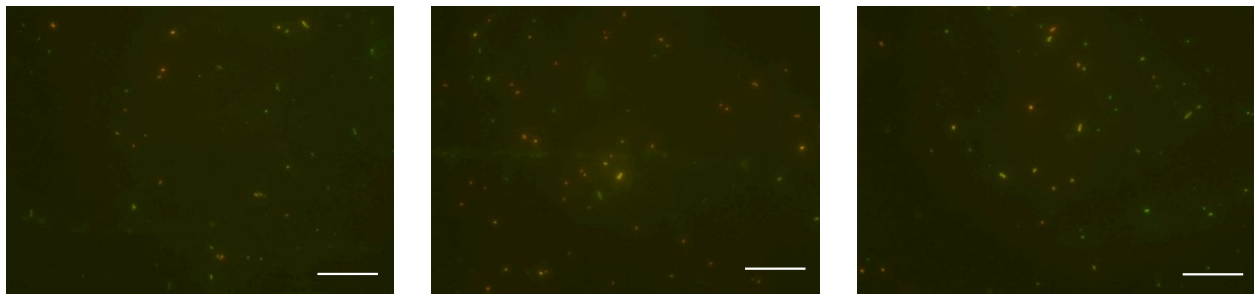


Figure S9. Typical fluorescent images of *E. coli* adhered on P2-2/AgNPs coated silicon wafers, which were observed by a fluorescence microscope (IX71, Olympus, Japan) with a 40× objective. The bacterial concentration was 1×10^7 colony forming units per mL.

The green fluorescents represent living bacteria while red fluorescents represent dead bacteria. The scale bar is 20 μm .

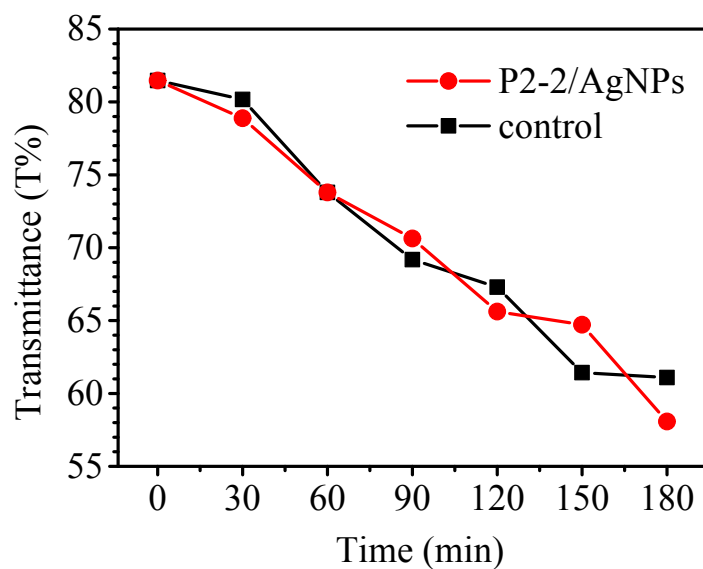


Figure S10. The transmittances of *E. coli* suspension (OD = 0.03 at 620 nm) in LB medium with/without P2-2/AgNPs coated silicon wafer at 620 nm monitored by a microplate reader (Varioskan Flash, Thermo Scientific, USA) within 3 h. The test interval is 30 minutes. The 24-well plate used for test is from Nunc, Thermo Scientific, USA.

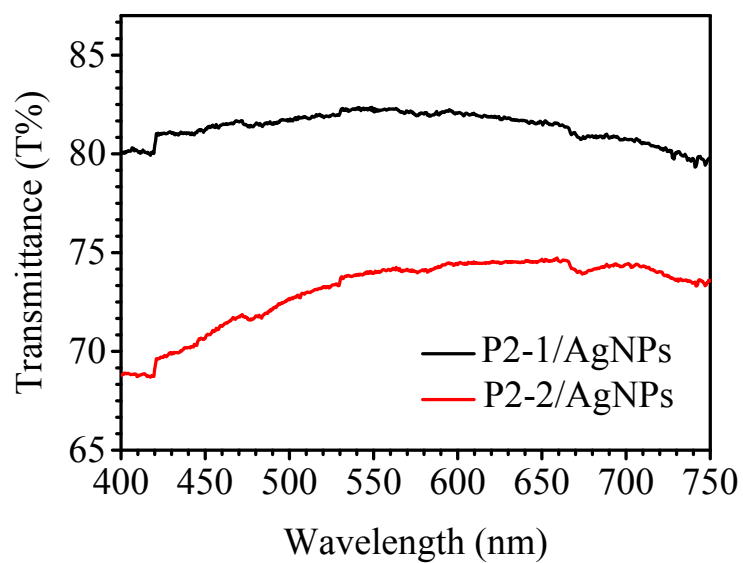


Figure S11. UV-vis transmittances of P2s/AgNPs coated glass slides over a wavelength range of 400-750 nm.

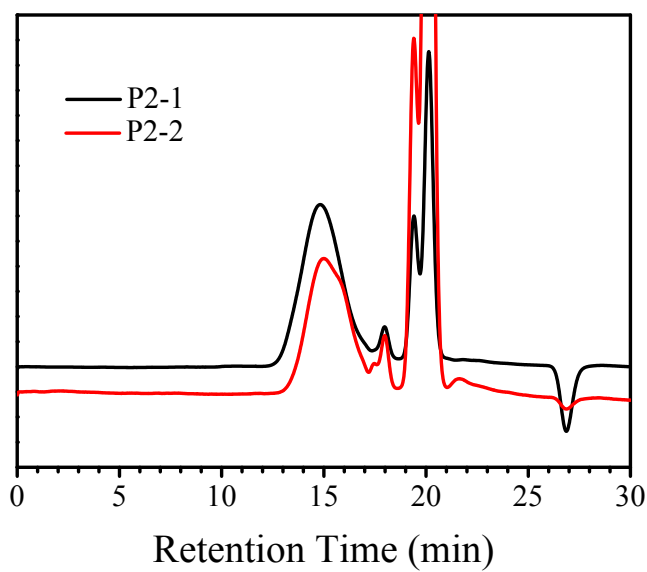


Figure S12. SEC spectra of P2s.

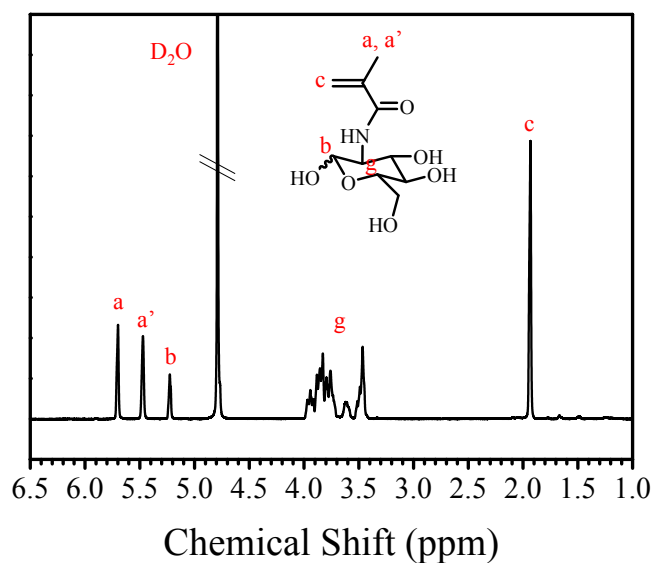


Figure S13. ^1H NMR spectrum of MAG in D_2O .

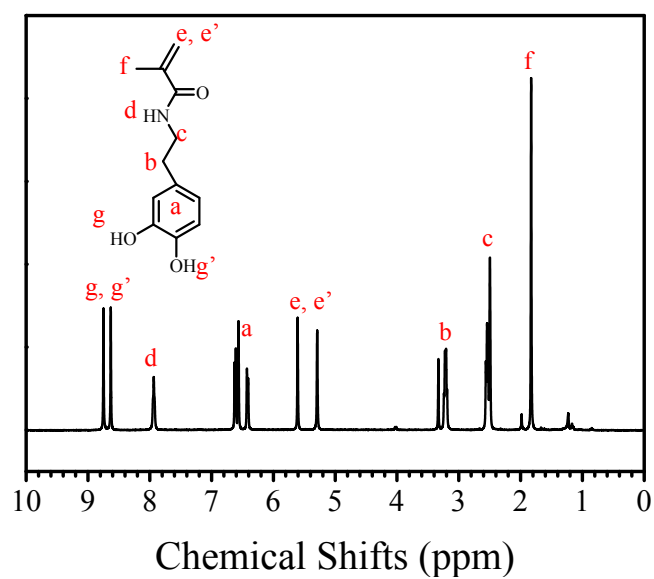


Figure S14. ^1H NMR spectrum of DMA in $\text{DMSO}-d_6$.

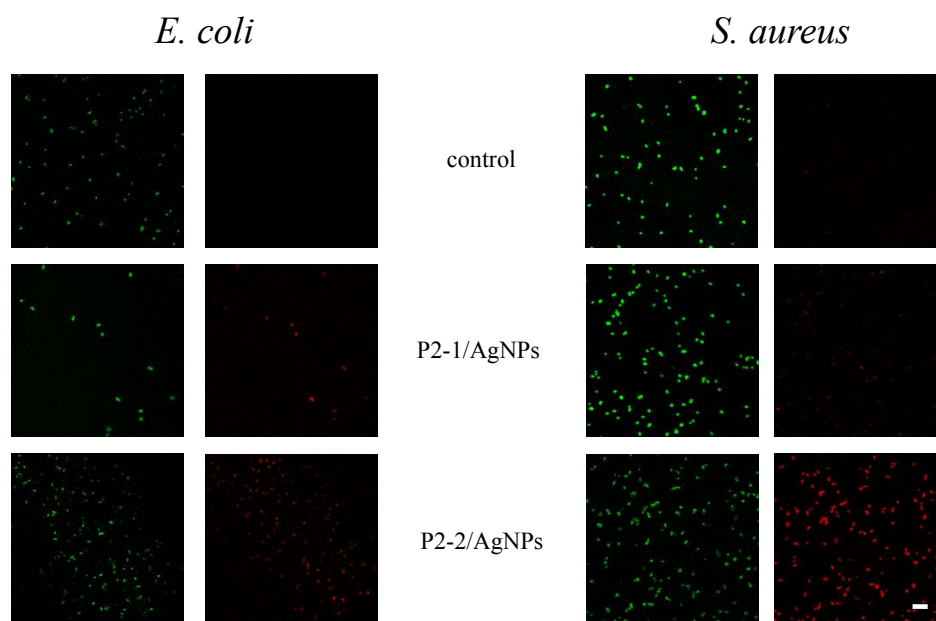


Figure S15. Additional CLSM images of *E. coli* and *S. aureus* adhered on uncoated glass slides and P2-1/AgNPs, P2-2/AgNPs coated glass slides. The bacterial concentration of *E. coli* and *S. aureus* were 1×10^7 colony forming units per mL. Green fluorescents represent living and dead cells while red fluorescents represent dead cells of the same image. The scale bar is 10 μm .