



## Supplementary Information

# Silver Nanoparticles from Oregano Leaves' Extracts as Antimicrobial Components for Non-Infected Hydrogel Contact Lenses

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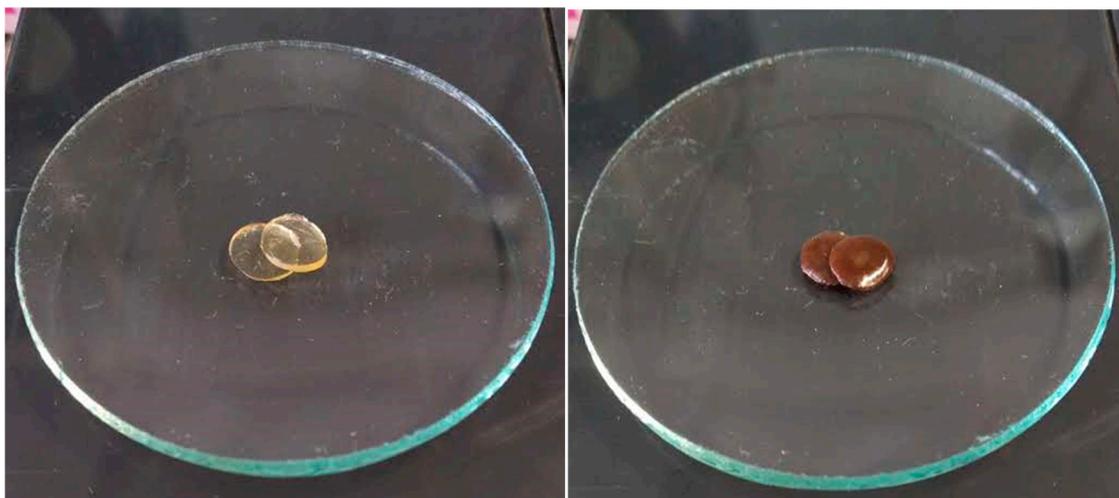
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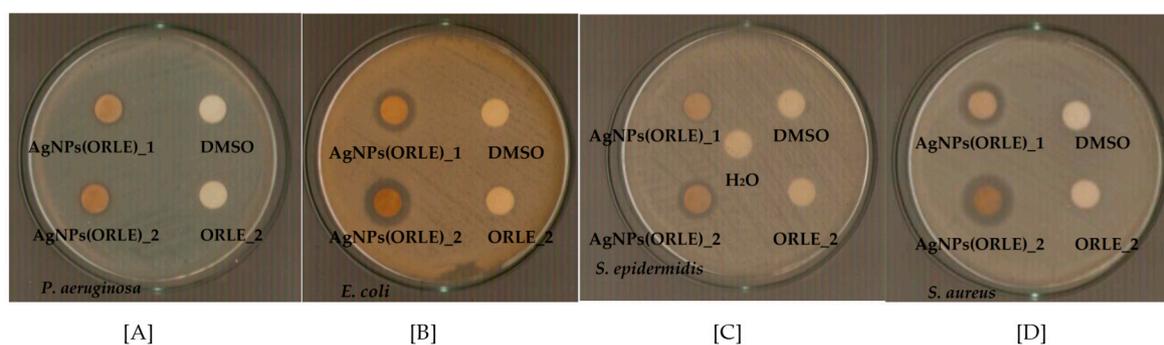
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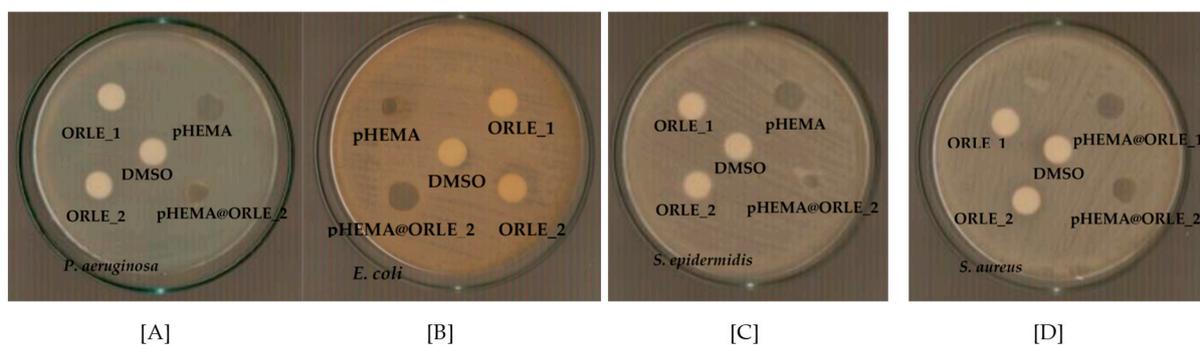
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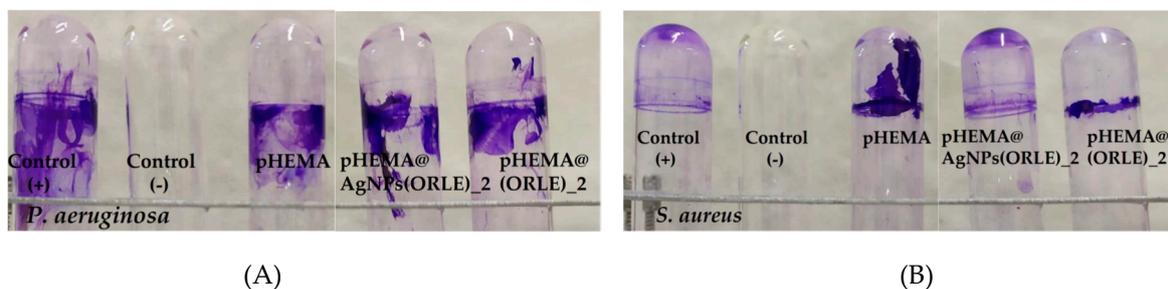
**Figure S1.** Dry discs of hydrogels pHEMA@ORLE\_2 (left) and pHEMA@AgNPs(ORLE)\_2 (right).



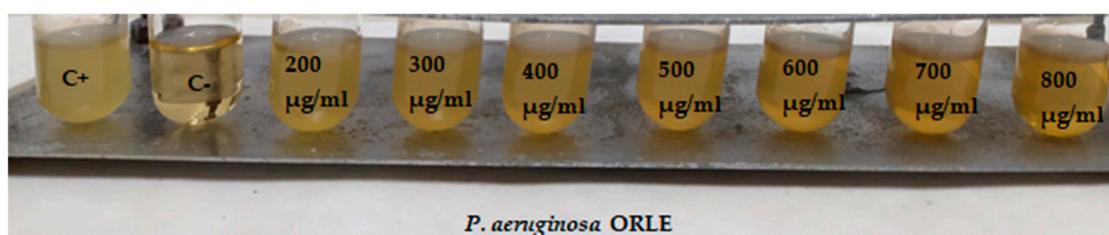
**Figure S2.** Bacterial growth inhibition zones developed in *P. aeruginosa* (A), *E. coli* (B), *S. epidermidis* (C), and *S. aureus* (D) by ORLE and AgNPs(ORLE) with doses of 1 or 2 mg/mL upon their incubation for 20 h.



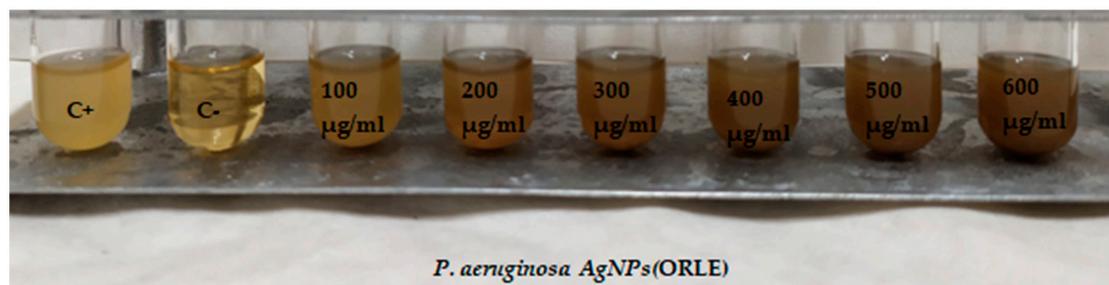
**Figure S3.** Bacterial growth inhibition zones developed in *P. aeruginosa* (A), *E. coli* (B), *S. epidermidis* (C), and *S. aureus* (D) by ORLE and pHEMA@ORLE with doses of 1 or 2 mg/mL upon their incubation for 20 h.



**Figure S4.** Removal of preformed biofilm of *P. aeruginosa* (A) and *S. aureus* (B) caused pHEMA, pHEMA@ORLE\_2, and pHEMA@AgNPs(ORLE)\_2 discs.

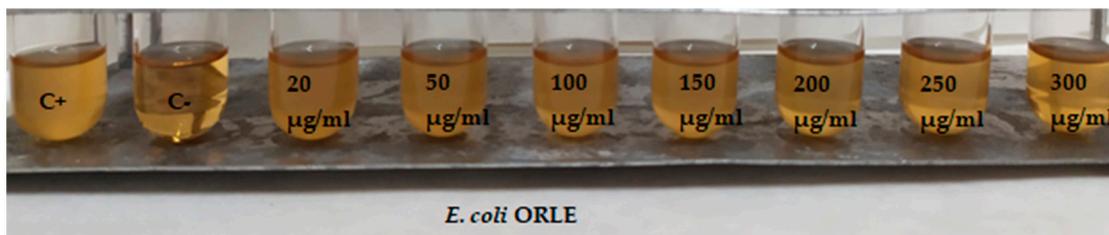


(A)

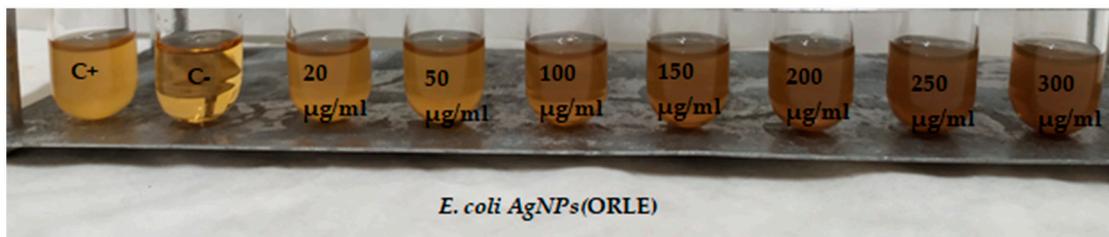


(B)

**Figure S5.** Minimum inhibitory concentration of ORLE (A) and AgNPs(ORLE) (B) against *P. aeruginosa*.

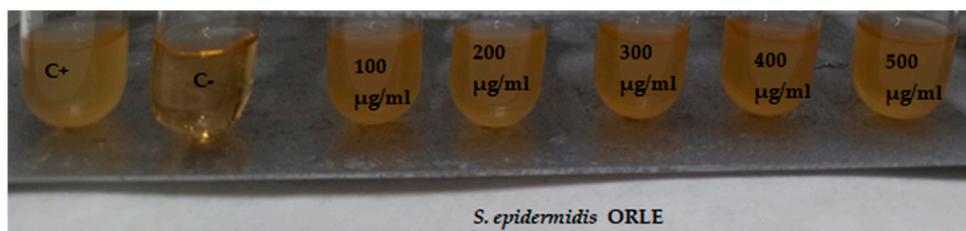


(A)

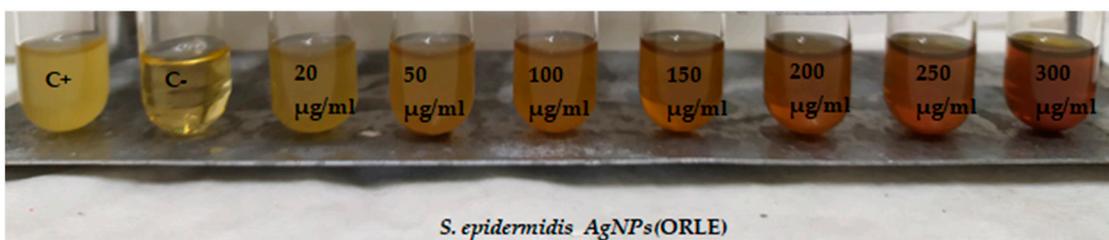


(B)

Figure S6. Minimum inhibitory concentration of ORLE (A) and AgNPs(ORLE) (B) against *E. coli*.

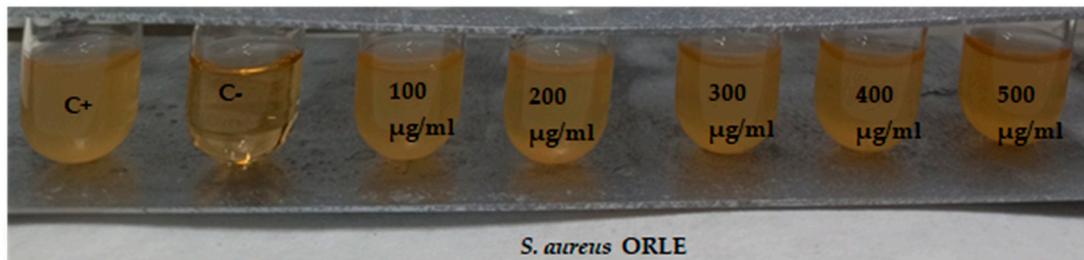


(A)

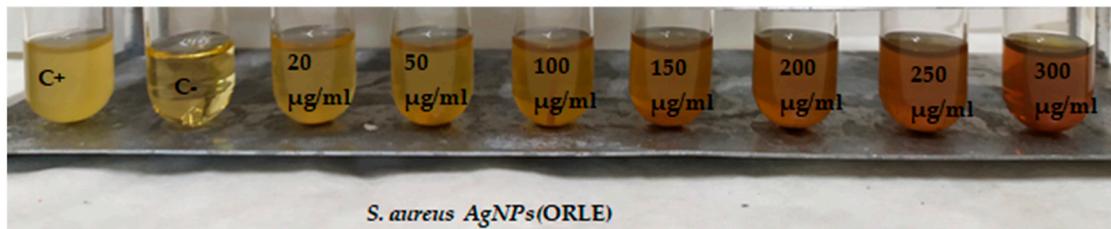


(B)

Figure S7. Minimum inhibitory concentration of ORLE (A) and AgNPs(ORLE) (B) against *S. epidermidis*.

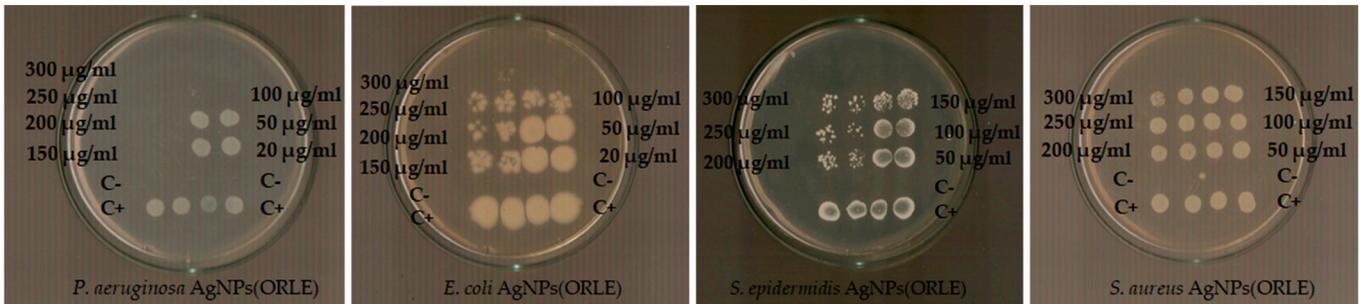


(A)

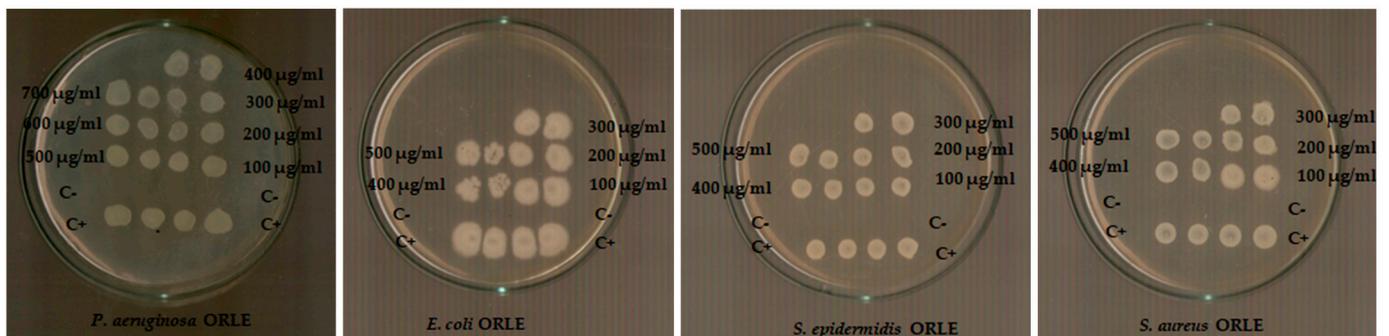


(B)

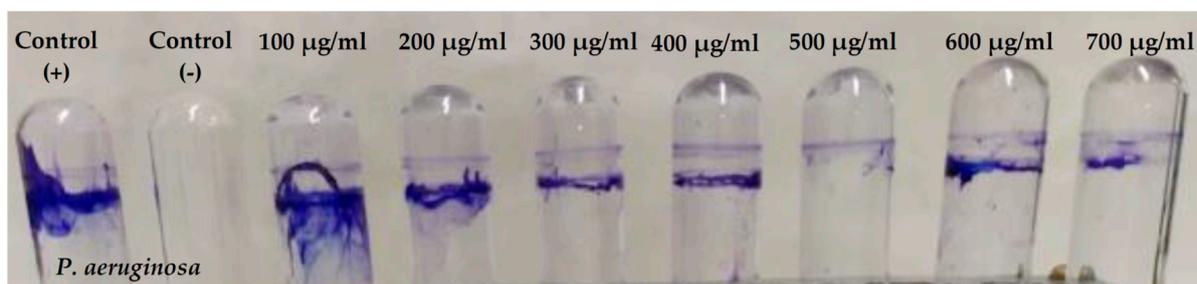
**Figure S8.** Minimum inhibitory concentration of ORLE (A) and AgNPs(ORLE) (B) against *S. aureus*.



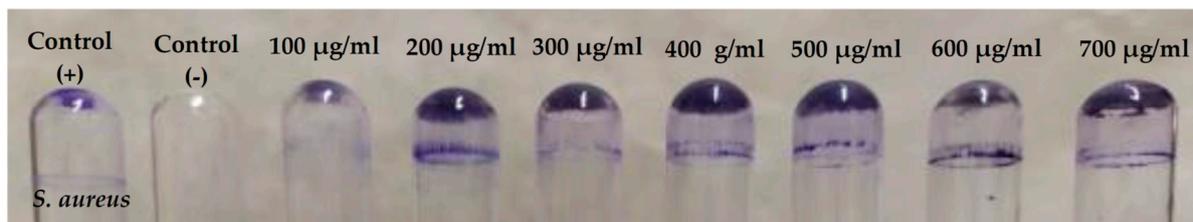
**Figure S9.** Minimum bactericidal concentration of AgNPs(ORLE) against *P. aeruginosa* (A), *E. coli* (B), *S. epidermidis* (C), and *S. aureus* (D).



**Figure S10.** Minimum bactericidal concentration of OLRE against *P. aeruginosa* (A), *E. coli* (B), *S. epidermidis* (C), and *S. aureus* (D).



(A)



(B)

**Figure S11.** The biofilm growth of *P. aeruginosa* (A) and *S. aureus* (B), under increasing concentrations of AgNPs(ORLE) stained by crystal violet.