

Antibody-enabled antimicrobial nanocapsules for selective elimination of *Staphylococcus aureus*

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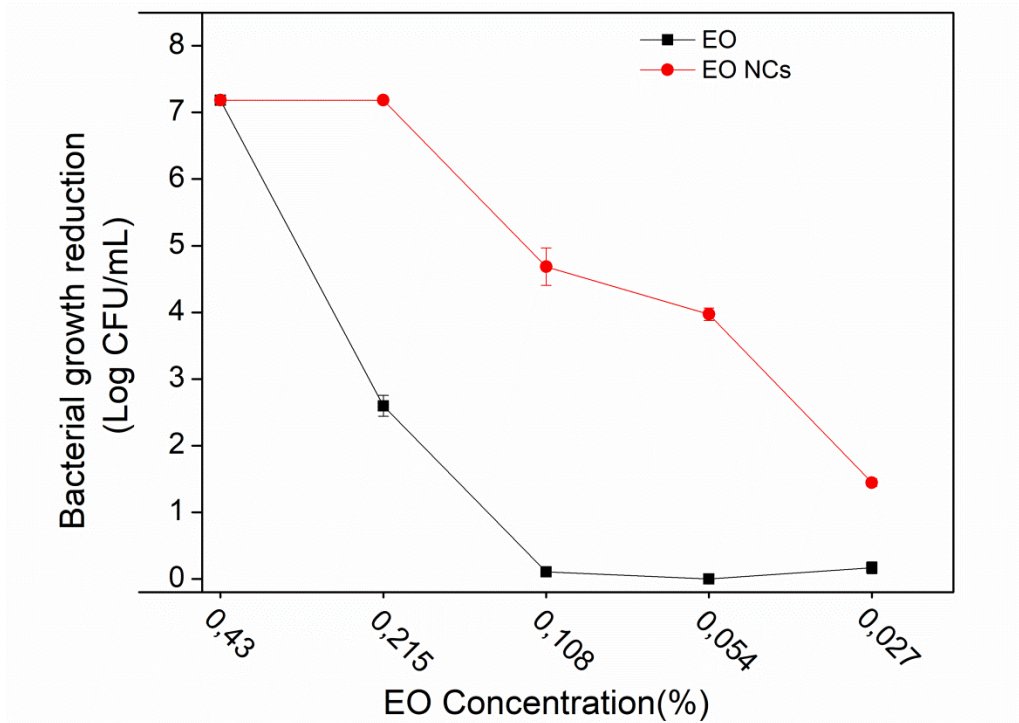


Figure S1. *S. aureus* growth reduction after 24 h incubation with free (black lines) and encapsulated EO (red lines) at different concentrations. The EO encapsulation led to enhanced antibacterial efficacy against *S. aureus* at lower amounts, when compared to the same amount of pristine oil.

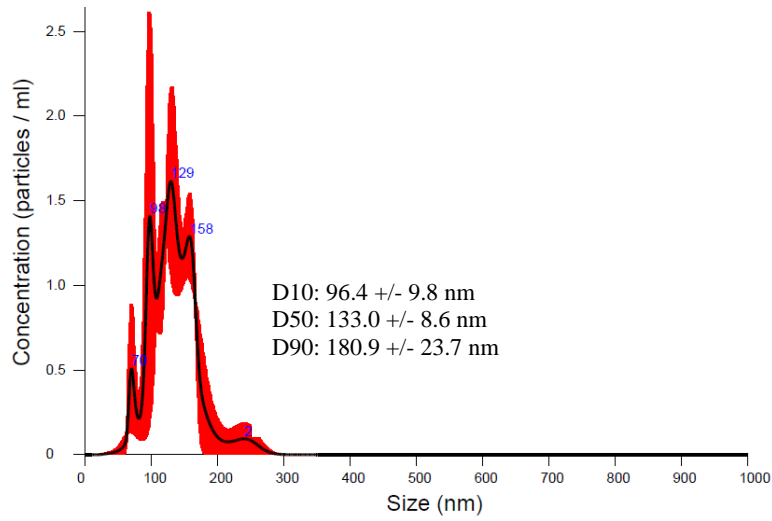


Figure S2. Nanoparticle tracking analysis of Ab@EO NCs.

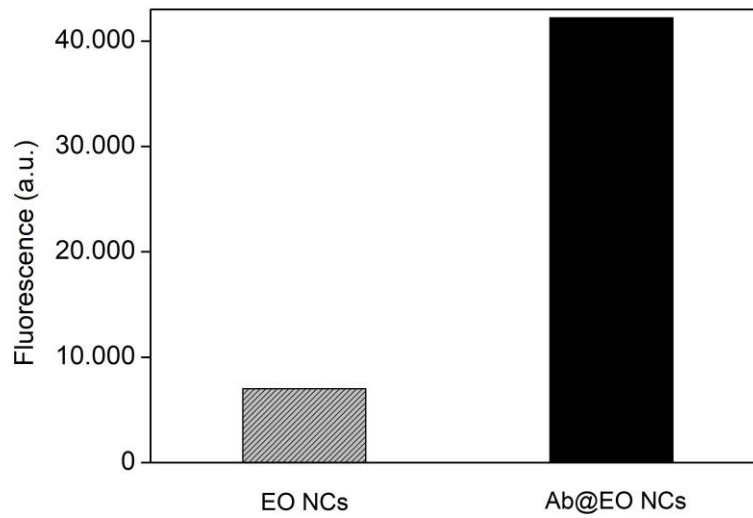


Figure S3. Fluorescent intensity measurement at $\lambda_{exc}/\lambda_{em} = 490/525$ nm upon FITC-protein A binding with the Ab@EO NCs.

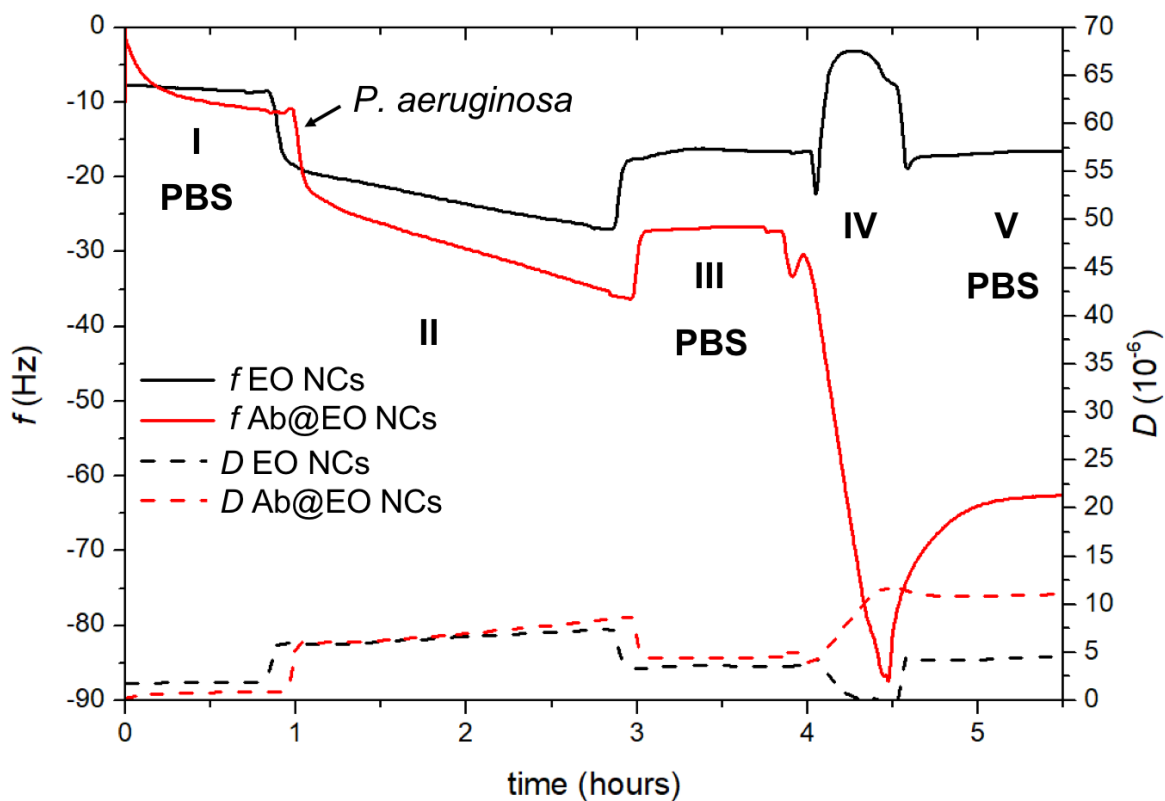


Figure S4. Interaction of EO NCs and Ab@EO NCs with *P. aeruginosa* assessed by QCM-D. The shift in the frequency and dissipation are represented with solid and dashed lines, respectively. The numbers I, II, III, IV and V indicate the different zones, respectively the baseline with PBS, bacterial adhesion, baseline after washing of loosely adherent cells, NCs insertion and PBS washing.

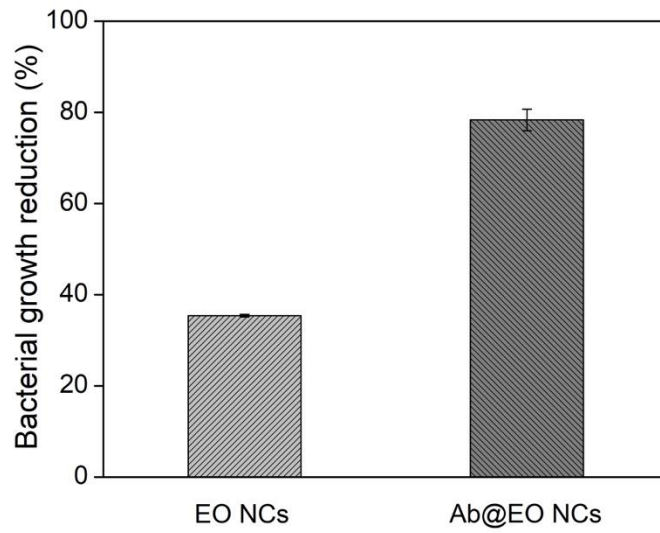


Figure S5. *S. aureus* growth reduction in an *in vitro* co-culturing model with human cells after treatment with EO and Ab@EO NCs.

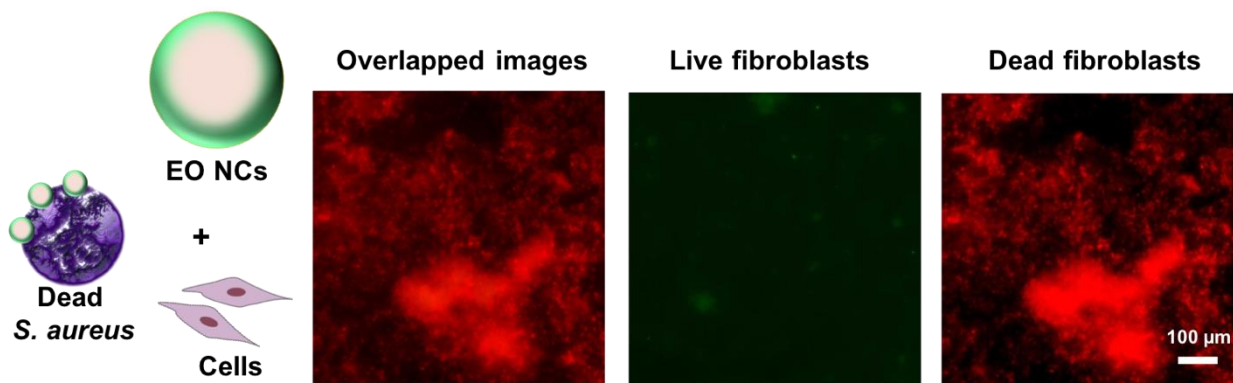


Figure S6. Live/Dead kit staining of *S. aureus* infected human cells treated with EO NCs.