
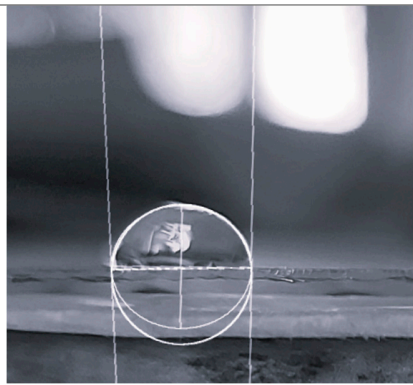


Supplementary information

Table S1. Summarizing information of hydrophobic antimicrobial films

Material	Hydrophobic properties	Antimicrobial properties	Reference
Mesoporous titania films	No	Inhibition of <i>S. aureus</i> and <i>P. aeruginosa</i>	[1]
Carboxymethyl cellulose (CMC) with ZnO NPs	117 °	Inhibition of <i>E. coli</i>	[2]
Chitosan and paper-based	110-120 °	98 % inhibition on <i>S. typhimurium</i> and <i>L. monocytogenes</i>	[3]
Methoxy poly(ethylene glycol)-poly(ϵ -caprolactone)-chitosan (MPEG-PCL-CS)	No	Inhibition on <i>S. aureus</i> and <i>E. coli</i>	[4]
PHB/PLC fibrous membrane with SiO ₂ @TiO ₂ NPs	144 °	Inhibition on <i>S. aureus</i> and <i>E. coli</i>	[5]
SiO ₂ /SiO ₂ -TiO ₂	No, hydrophilicity	No	[6]
TiO ₂ -SiO ₂ @PDMS	153 °	No	[7]

Table S2. Contact angle measurements over glass and aluminum foil.

Substrate	S30	S40
Aluminum foil		

Glass

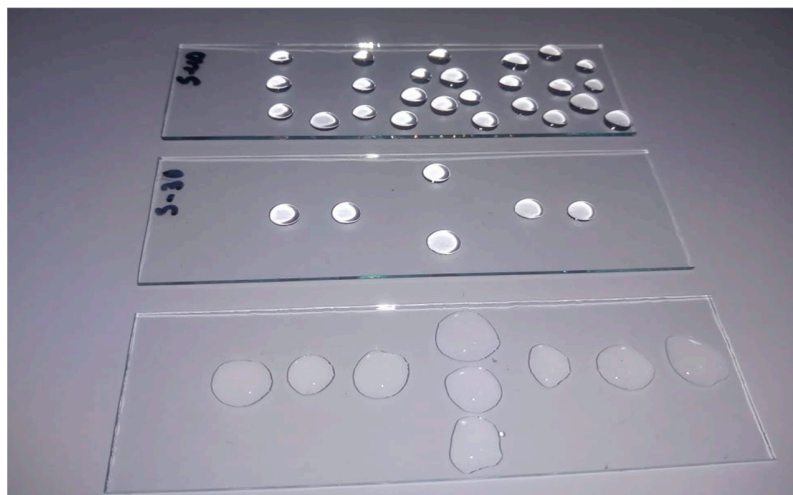
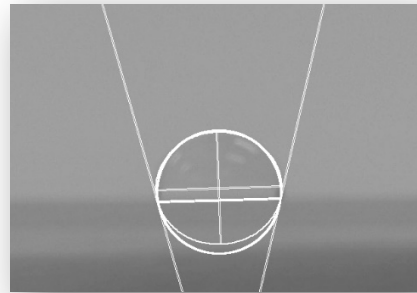
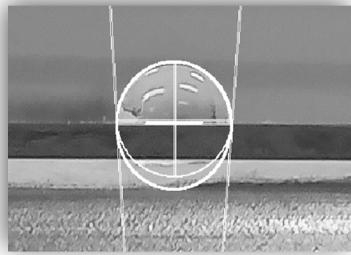
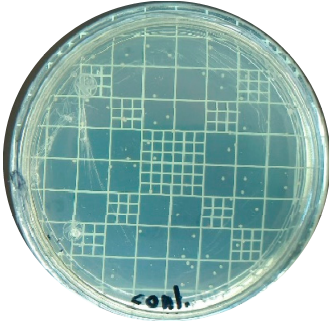
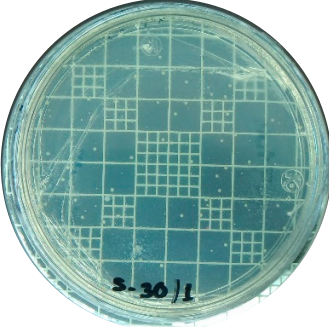
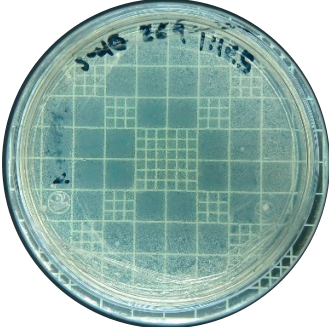
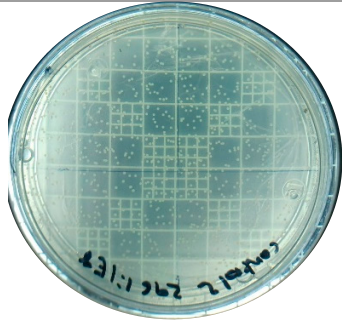
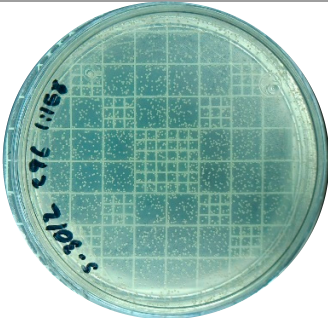
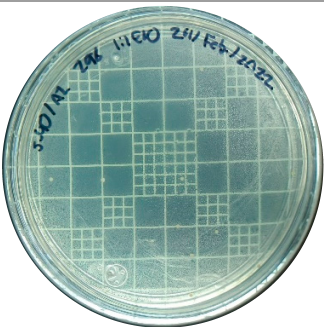
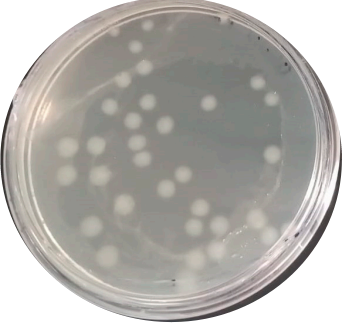
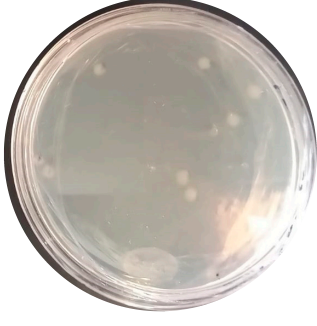
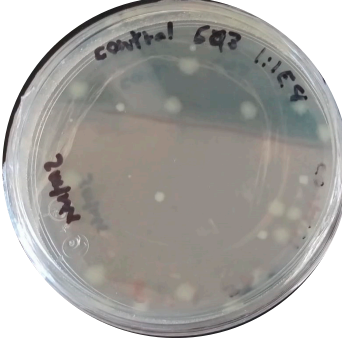
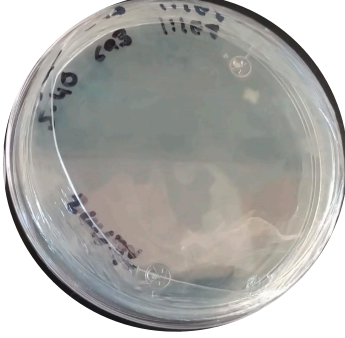


Figure S1. Comparison between glass uncoated and glass coated with $\text{SiO}_2\text{-TiO}_2\text{-S30}$ and S40 films.

Table S3. Images of the bacterial cultures without SiO₂-TiO₂ film (control) and SiO₂-TiO₂-S30 and S40.

Cepa	Control	S30	S40
<i>E. Coli</i>			
<i>S. aureus</i>			
<i>P. aeruginosa</i>			
<i>P. putida</i>			

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