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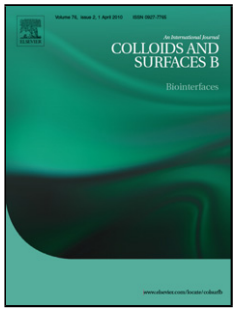

Title: Ultrasonic fabrication of flexible antibacterial ZnO nanopillar array film

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ACCEPTED MANUSCRIPT

Ultrasonic fabrication of flexible antibacterial ZnO nanopillar array film

Kwang Se Lee[1], Chi Hyun Kim[1], Soon Woo Jeong[1], Younseong Song[1], Nam Ho Bae[1,2], Seok Jae Lee[1,*], and Kyoung G. Lee[1,*]

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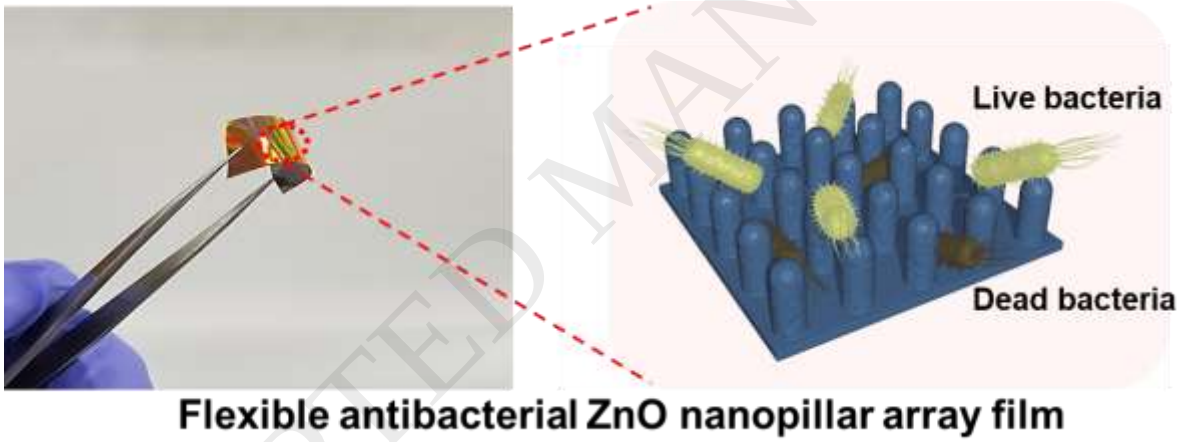
Graphical abstract:



Highlight:

- The flexible antibacterial ZnO nanopiilar arrays were sucessfully fabricated by assistance of sonochemical reaction.
- The ZnO formation mechanism is also proposed and investigated using FT-IR and XRD.
- Antibacterial efficiency was depthly investigated using realistic pathogetnic bacteria model of *E. coli* O157:H7 and *S. aureus.*
- ZnO nanopiilar arrays have improved antibacterial behavior because of nanotopological effects and electrostatic interaction.

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