

# **Development of Zinc Oxide-based Sub-micro Pillar Arrays for On-site Capture and DNA detection of Foodborne Pathogen**

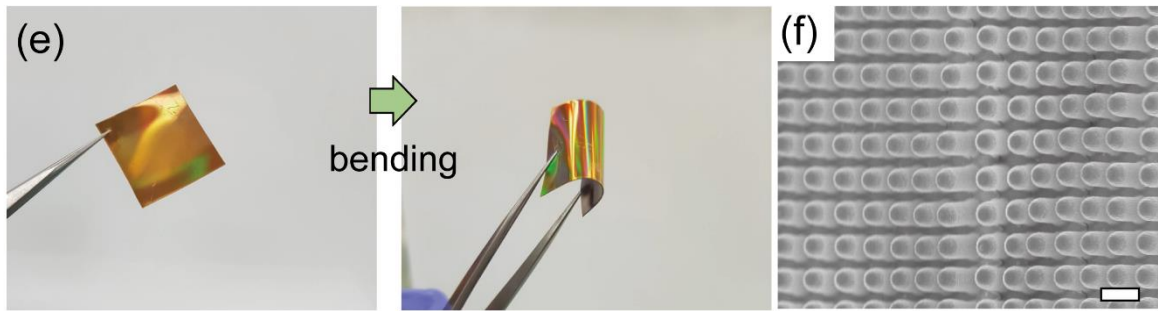
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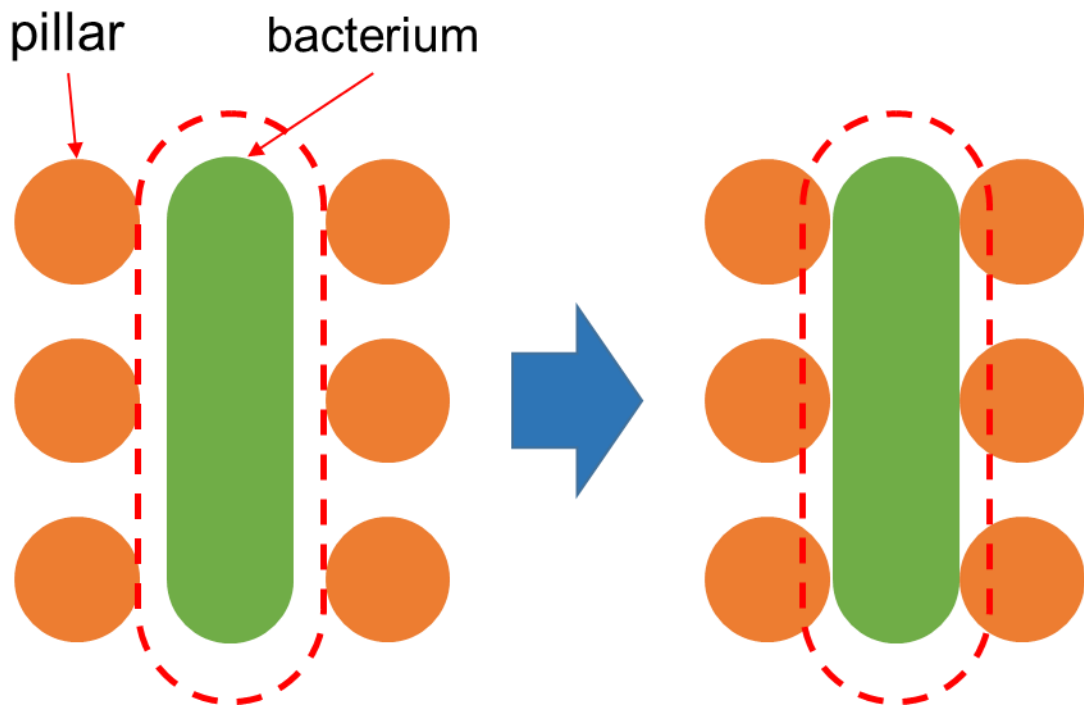
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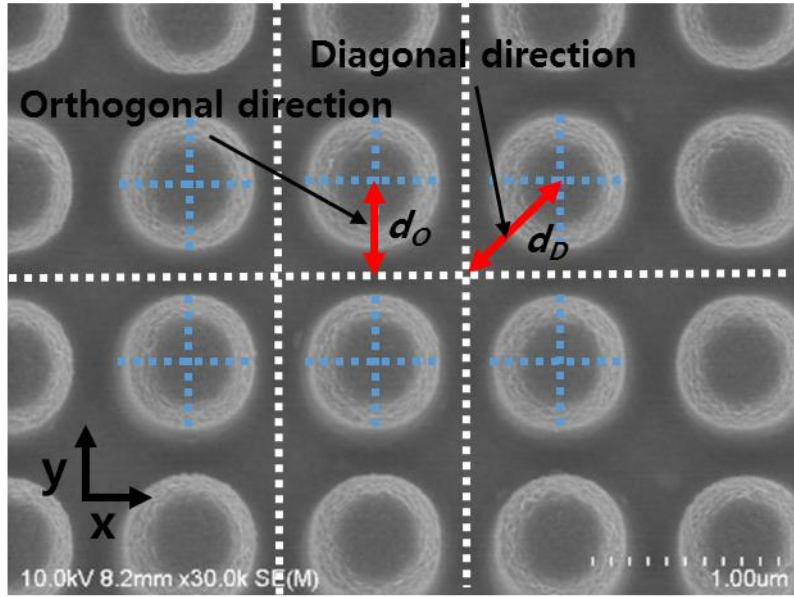
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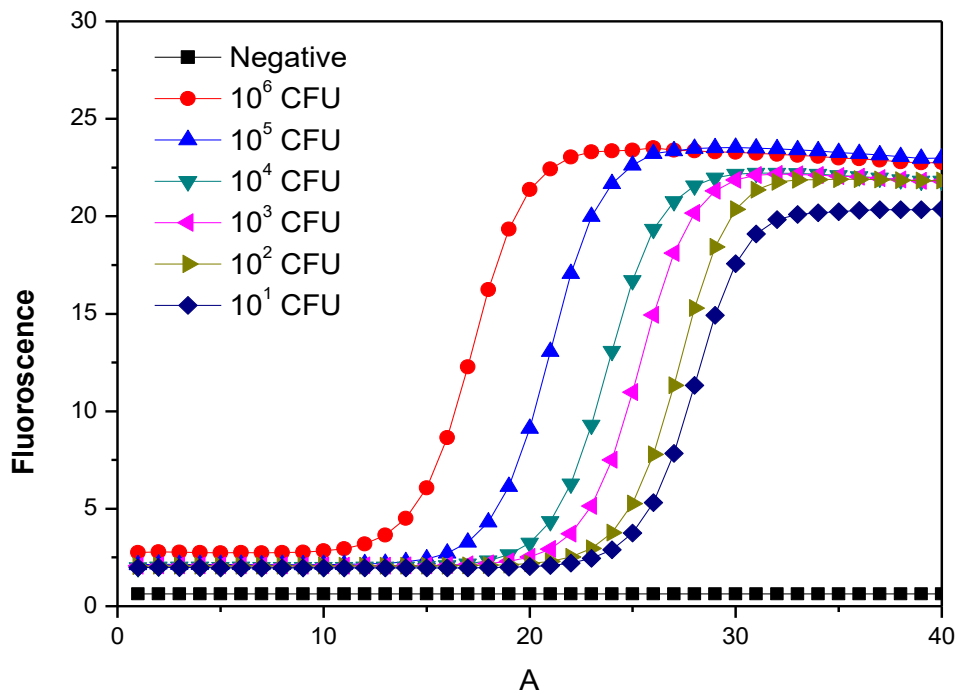
**Fig. S1.** (a) Photograph of Z-PAs before and after bending and (b) SEM image for Z-PAs after bending (scale bar is 1  $\mu\text{m}$ ).



**Fig. S2.** Schematic representation of how depletion attraction operate between bacterium and pillars. The dash line around bacterium is zone where depletion force may apply between the cell and pillars.



**Fig. S3.** Schematic illustration of how to measure position of individual pillars.



**Fig. S4.** RT-PCR amplification port using *E. coli* O157:H7 cells. The target cell number were serially diluted from 10 to  $10^6$  CFU/mL.