Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

Photocatalytic anti-bioadhesion and bacterial deactivation on nanostructured iron oxide films

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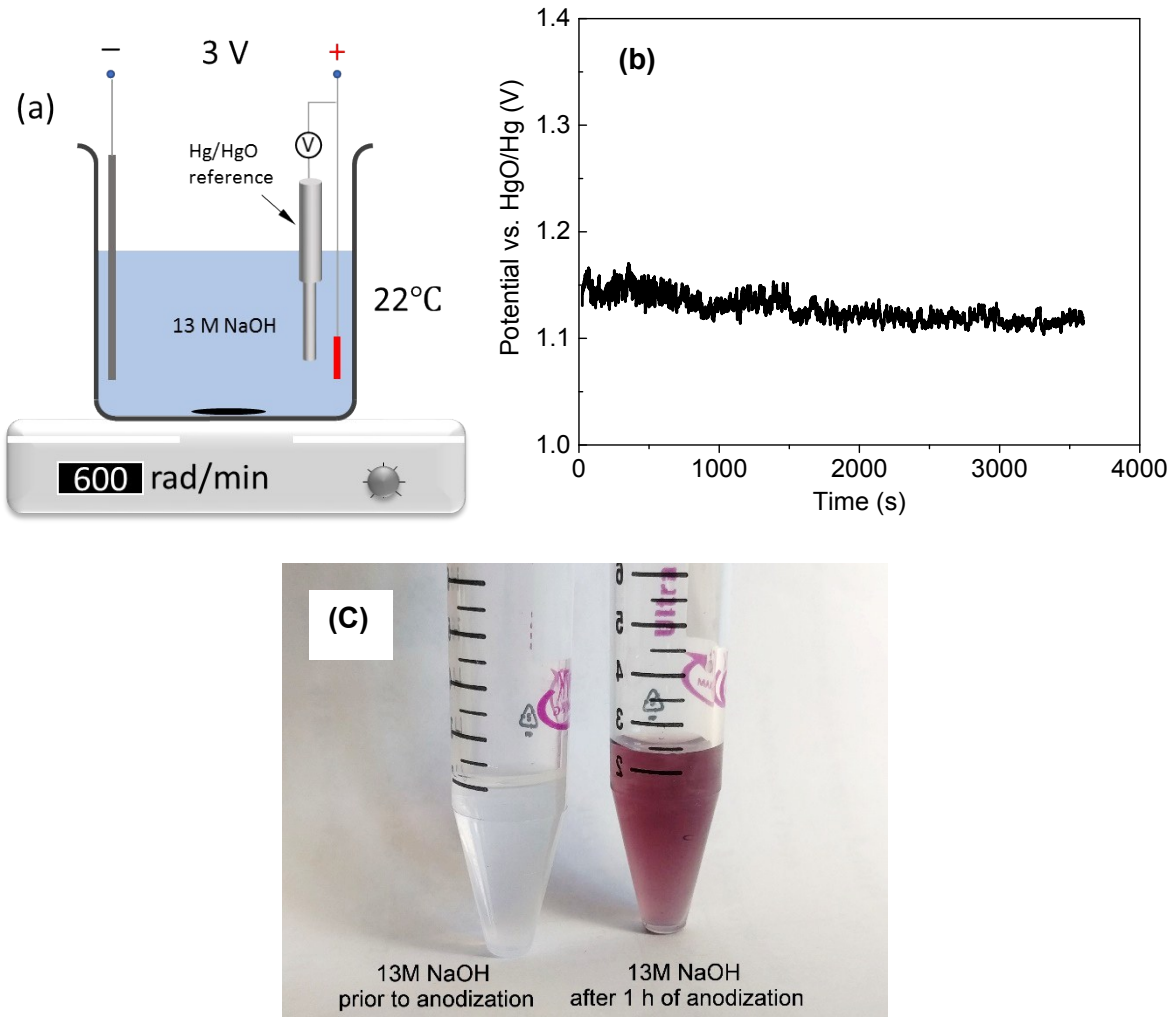

Fig. S1 (a) Schematic setup for anodization of steel electrode. (b) Time dependence of electrochemical potential vs. Hg/HgO reference measured on electrode when anodized in 13 M NaOH solution at 3 V for 60 min. (c) Digital photos of the electrolyte prior to anodization and after 1 h of anodization.

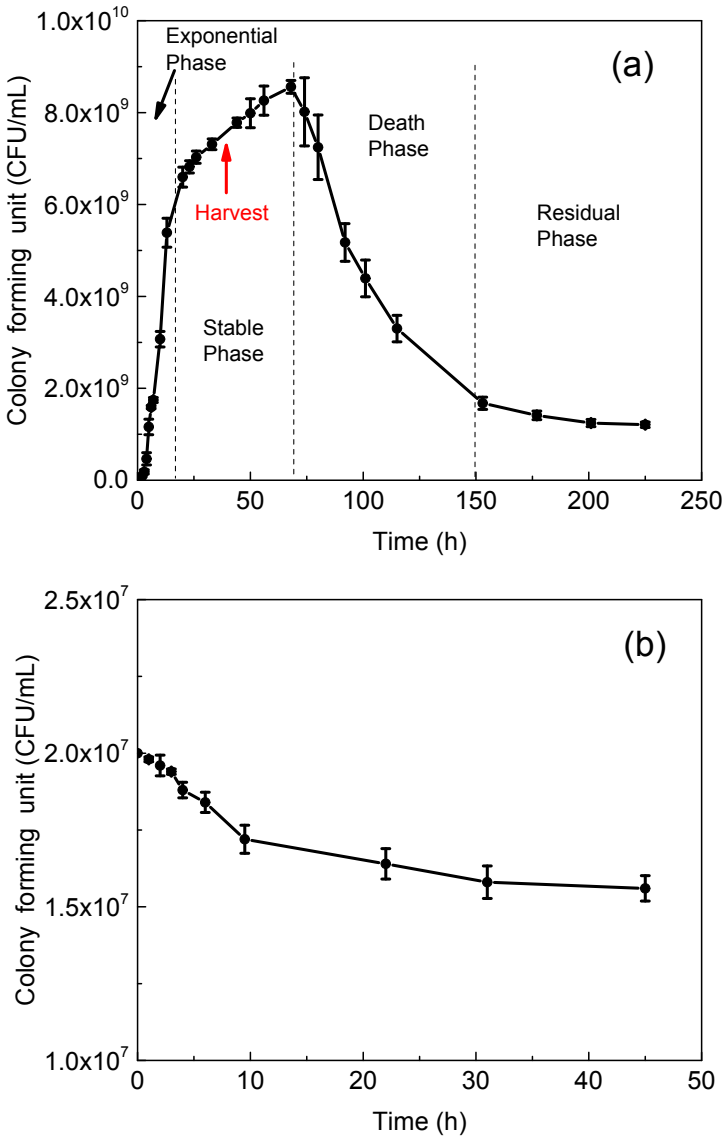

Fig. S2 The growth curve of *pseudomonas aeruginosa* bacteria in (**a**) LB medium and (**b**) PBS, where the red arrow indicates the bacteria harvested at 40 h with a concentration of 7.5 ×10^9 CFU/mL.

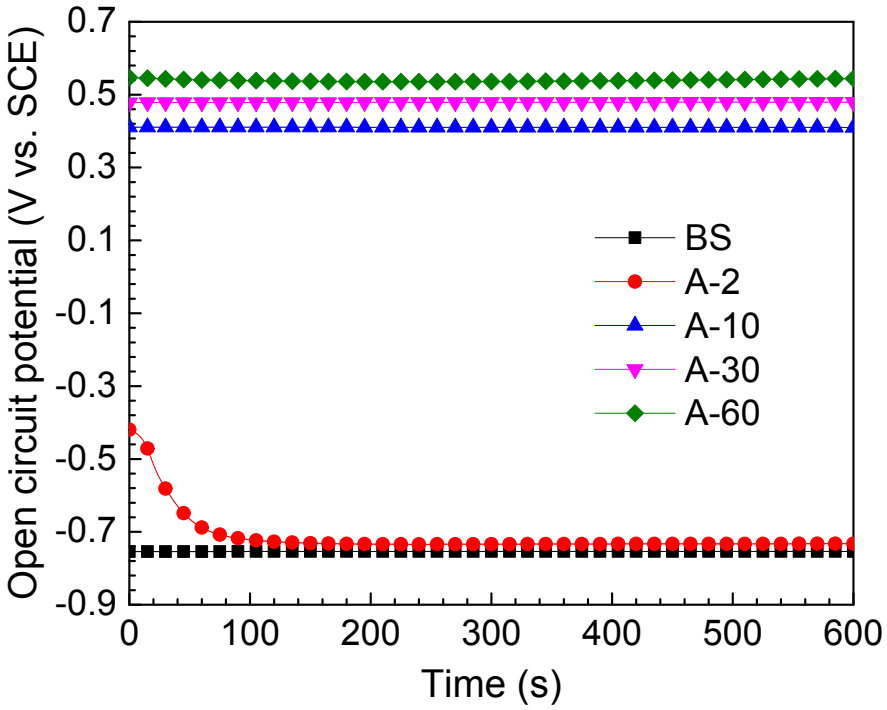

Fig. S3 Evolution of open-circuit potential (OCP) of BS and the anodized samples (A-2, A-10, A-30 and A-60) in PBS solution as a function of time.

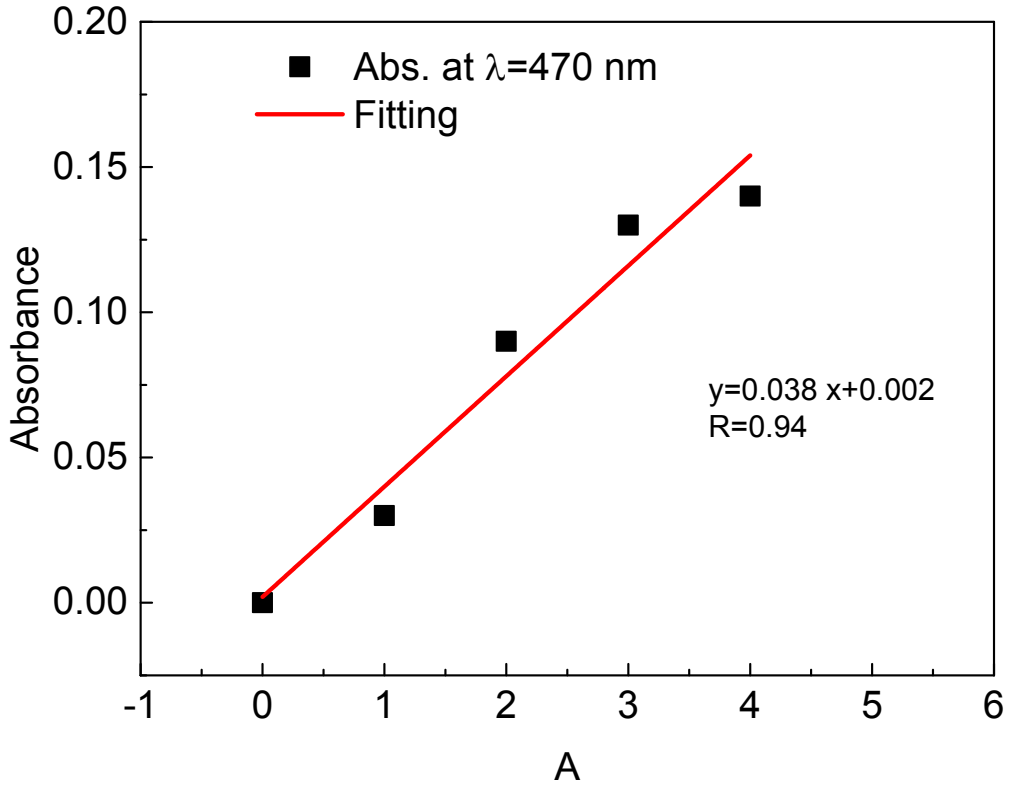

Fig. S4 The absorbance intesity (λ = 470 nm) of resulted XTT-formazan in *pseudomonas aeruginosa* LB culture adding 100 μM XTT as a function of time. The estimated yield rate of $O_2^{\bullet-}$ is about 3.74 μM/h.