

Figure S1. Quantitative ^{13}C NMR spectra of BPE-2, BPED-2 and QBED-2.

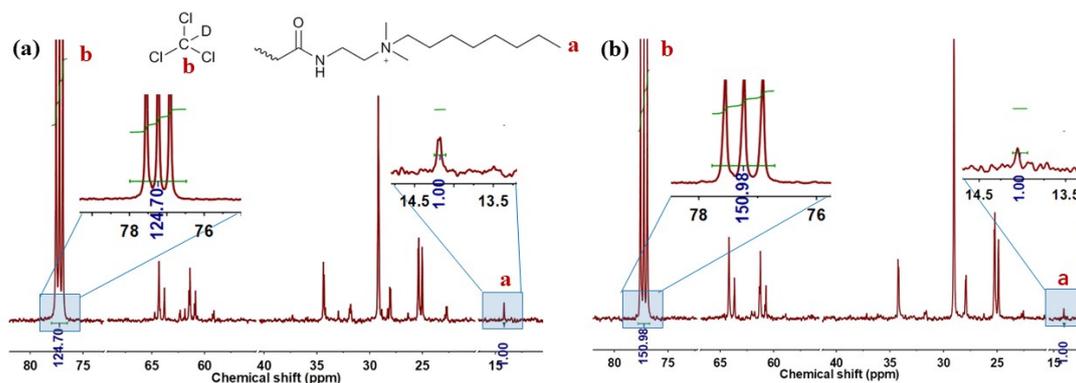


Figure S2. (a) Analysis of quantitative ^{13}C NMR spectrum of QBED-1, (b) analysis of quantitative ^{13}C NMR spectrum of QBED-2.

$$\text{wt. \%} = \left(\frac{m_{\text{CDCl}_3} / M_{\text{CDCl}_3}}{(A_b / A_a)} \times M_{\text{QBED}} \right) \times 100\%$$

$$m_1 \text{CDCl}_3 = 0.8674 \text{ g}$$

$$m_{\text{QBED} - 1} = 0.1092 \text{ g}$$

$$m_2 \text{CDCl}_3 = 0.8792 \text{ g}$$

$$m_{\text{QBED} - 2} = 0.1083 \text{ g}$$

$$M_{\text{CDCl}_3} = 120.38 \text{ g/mol}$$

$$M_{\text{QBED}} = 281.28 \text{ g/mol g}$$

$$A_{b1} / A_{a1} = 124.7$$

$$A_{b2} / A_{a2} = 150.98$$

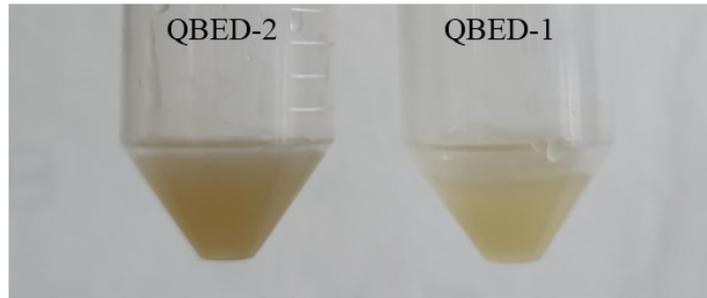


Figure S3. Images of QBED-1 and QBED-2.

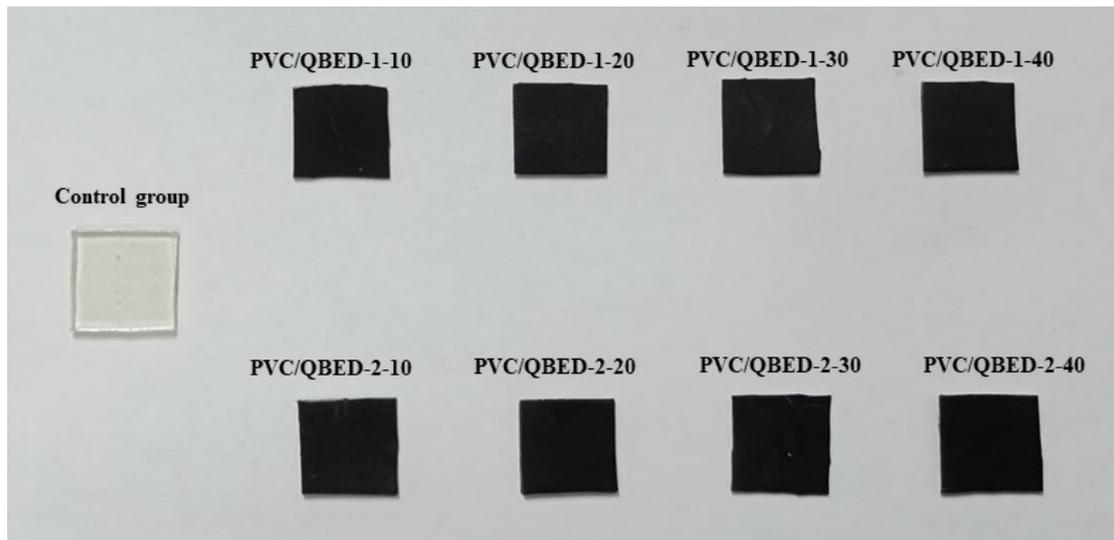


Figure S4. Images of PVC samples.

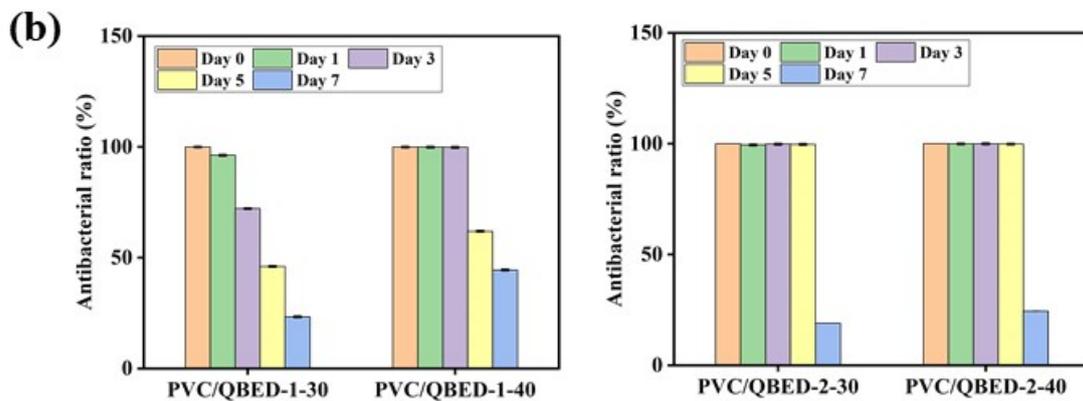
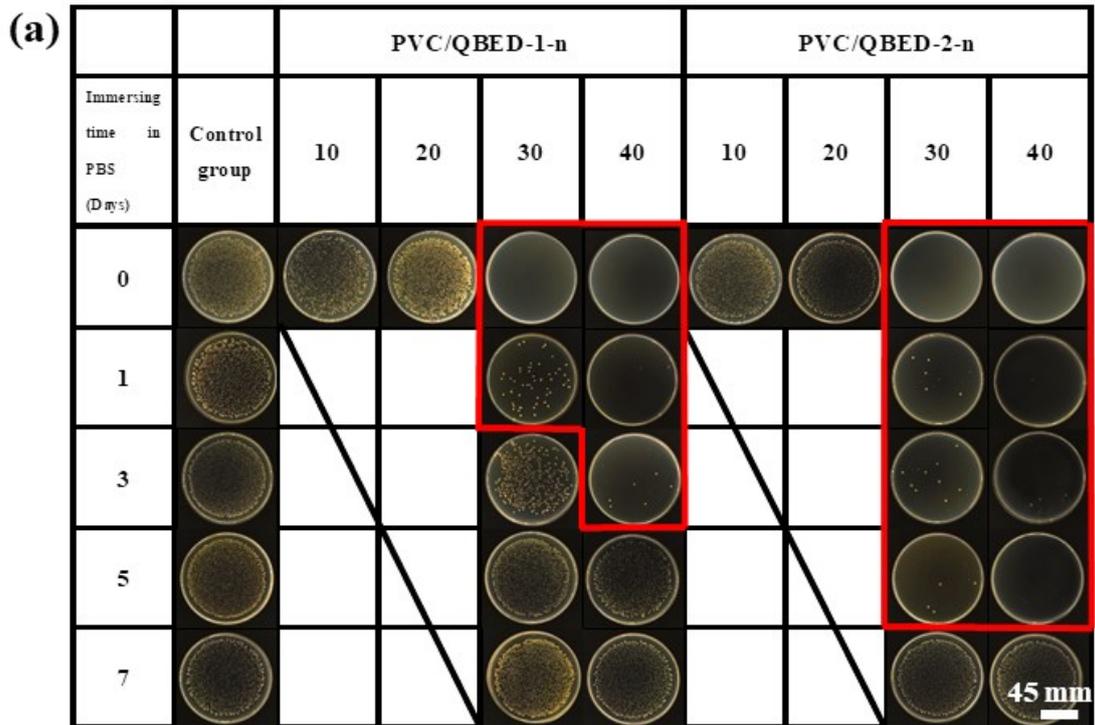


Figure S5. Antibacterial effect against *E.coli* of PVC samples after immersions in PBS for 0, 1, 3, 5, 7 days, respectively, *in vitro*, (a) figures of LB agar plates and (b) antibacterial ratio of PVC samples against *E.coli*.

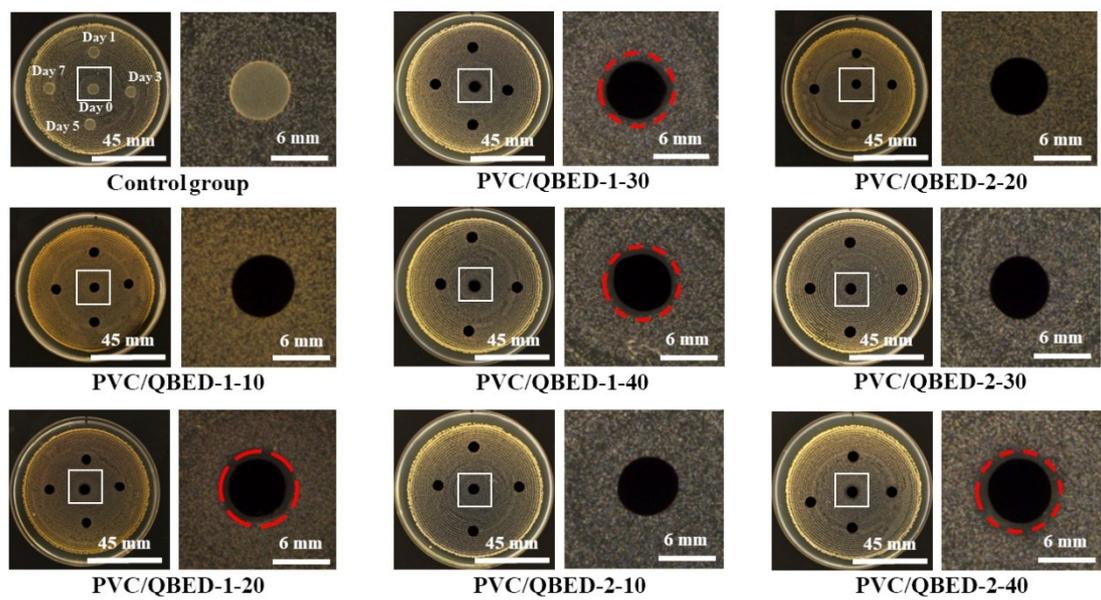


Figure S6. Photographs of the zones of inhibition of PVC samples against *S.aureus* after immersions in PBS for 0, 1, 3, 5, 7 days, respectively.

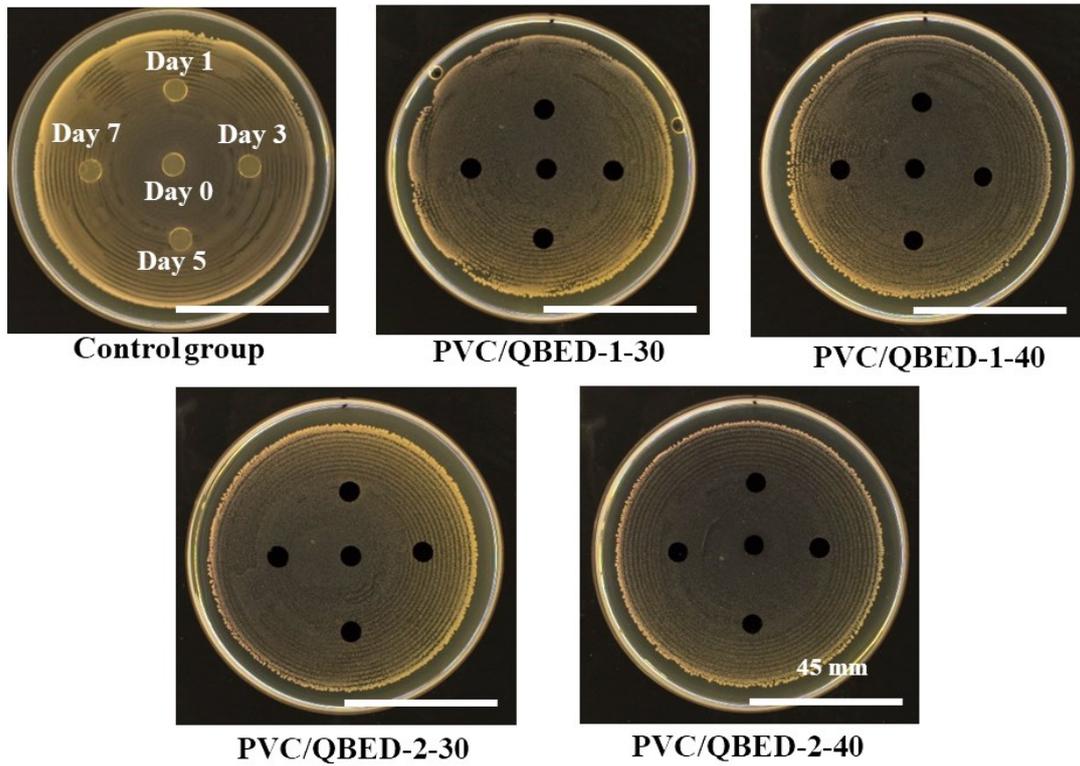


Figure S7. Photographs of the zones of inhibition of the control group, PVC/QBED-1-30, PVC/QBED-1-40, PVC/QBED-2-30 and PVC/QBED-1-40 against *E. coli* after immersions in PBS for 0, 1, 3, 5, 7 days, respectively.

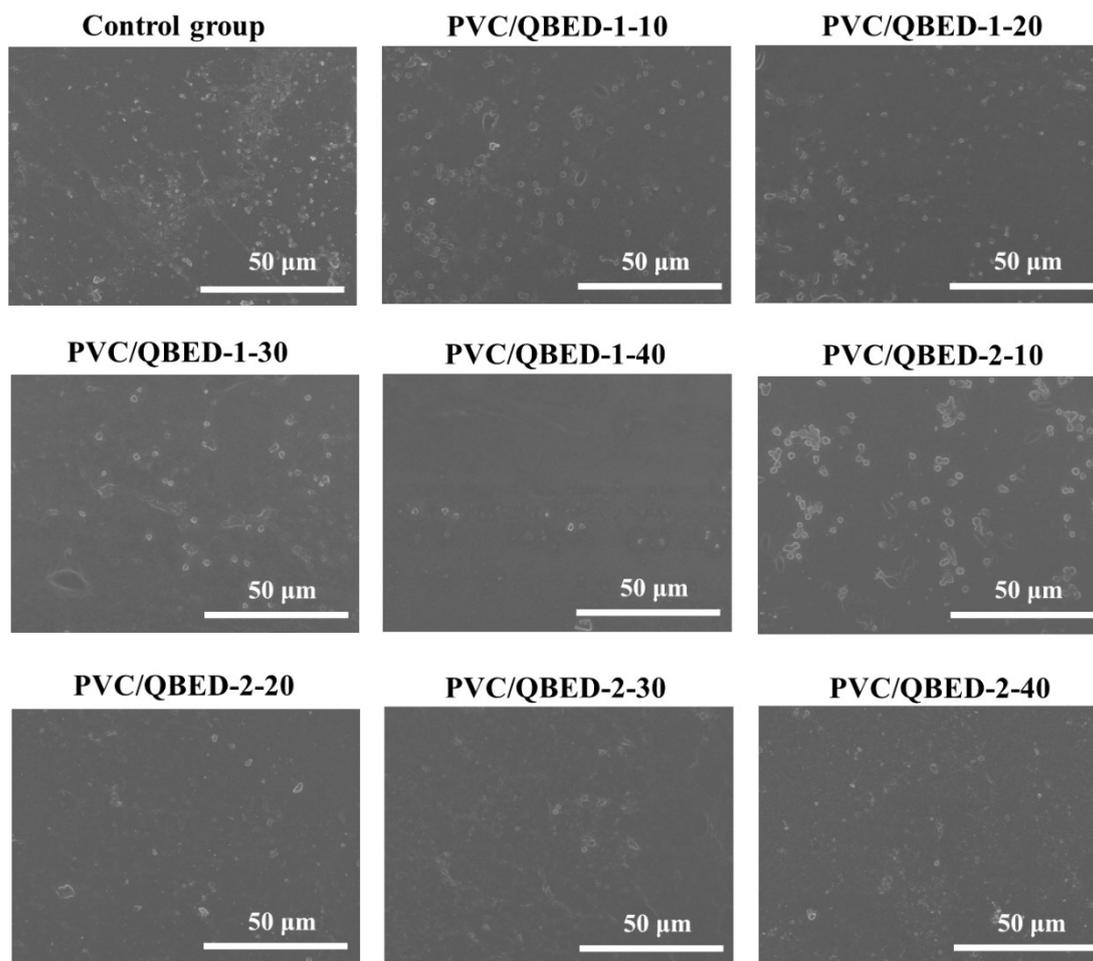


Figure S8. Morphology of adherent platelets on the surfaces of PVC samples observed by SEM.



Figure S9. Overview of the animal model with PVC samples infection.