

Electronic Supplementary Information

**Synthesis of Catechol and Zwitterion-Bifunctionalized Poly(ethylene glycol)
for the Construction of Antifouling Surfaces**

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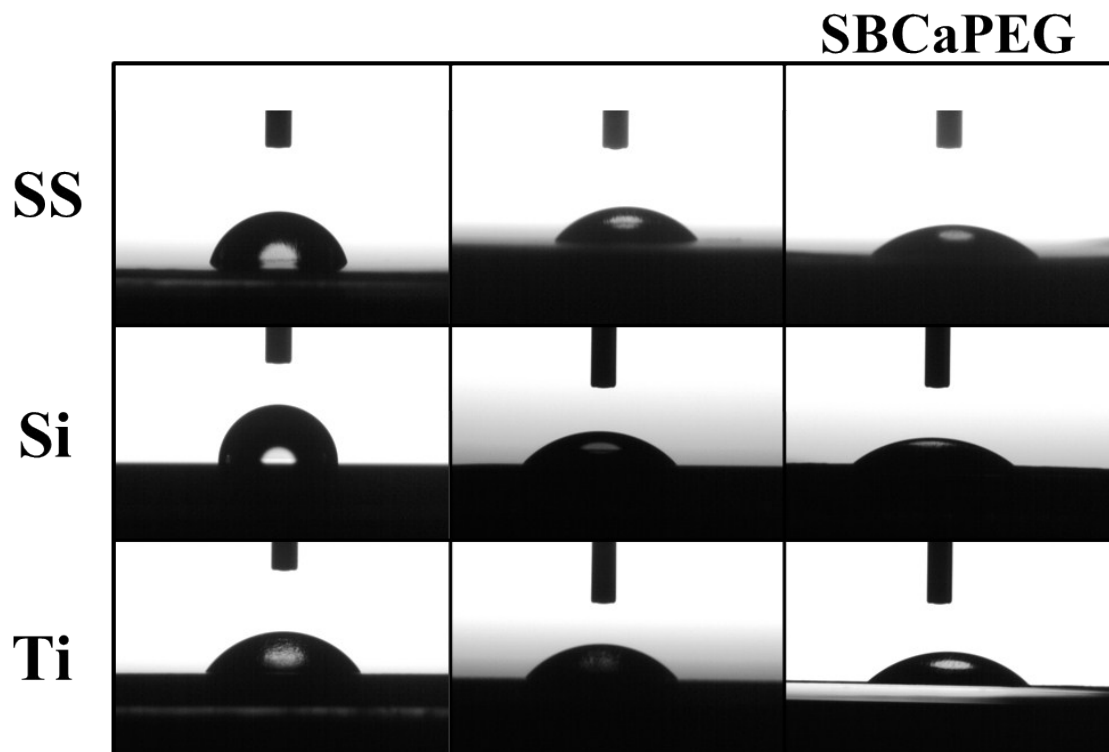


Figure S1. Water contact angle images of the pristine and polymer-coated SS, Si and Ti substrate surfaces.

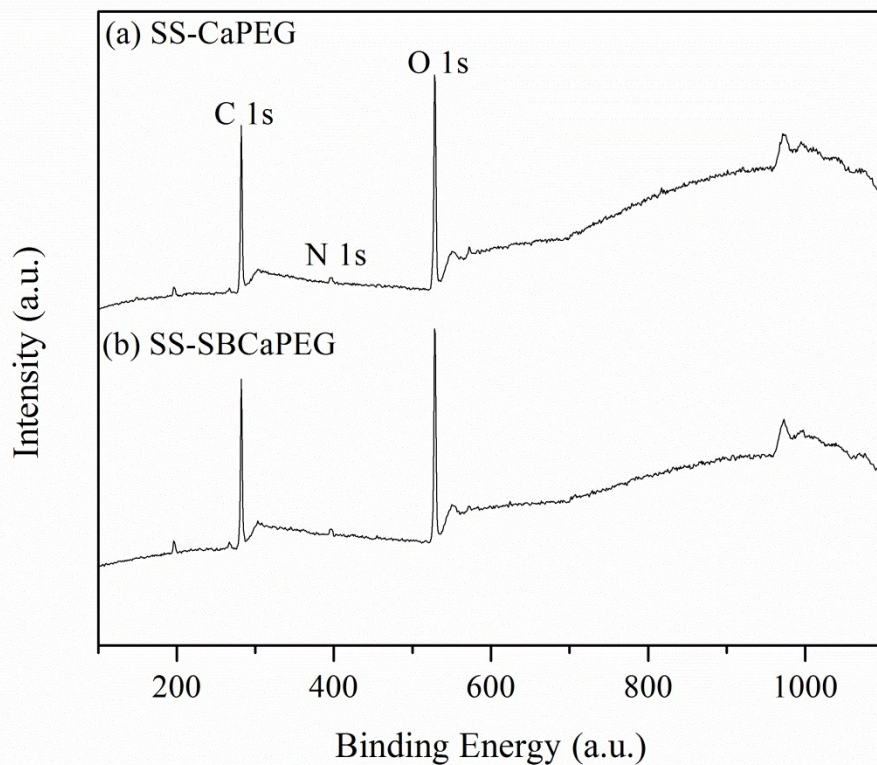


Figure S2. XPS wide-scan spectra of the (a) SS-CaPEG and (b) SS-SBCaPEG surfaces after immersion in artificial seawater for four weeks.

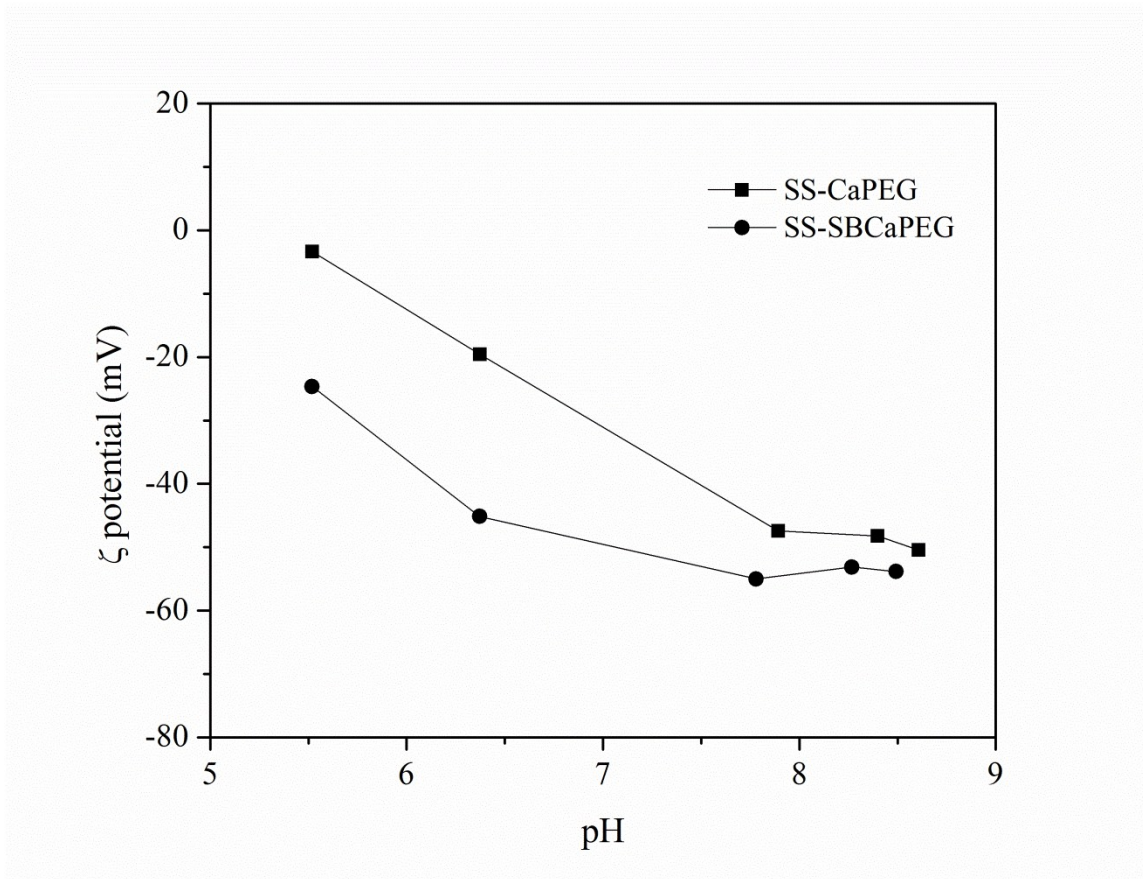


Figure S3. ζ potential of polymer-coated SS surfaces as a function of pH.

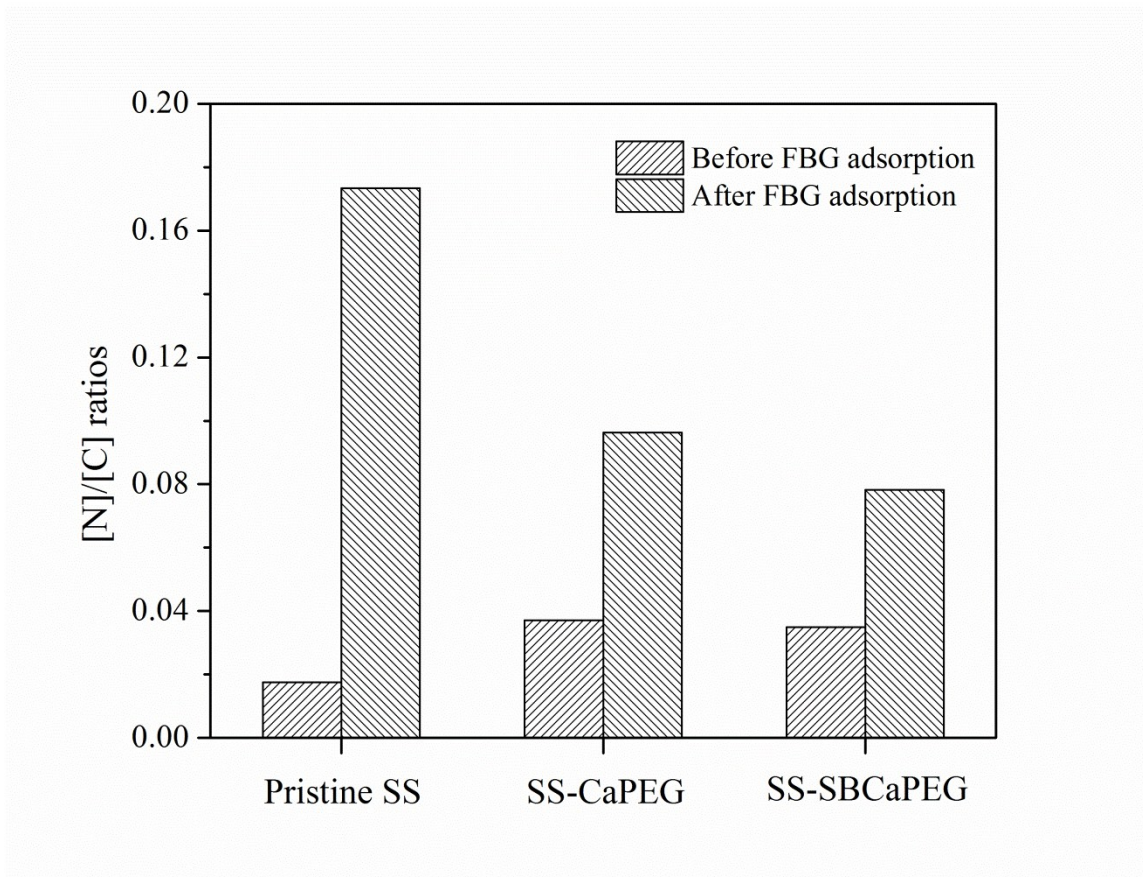


Figure S4. Extent of FBG adsorption, expressed as XPS-derived surface [N]/[C] ratios, on the pristine SS, SS-CaPEG and SS-SBCaPEG surfaces.

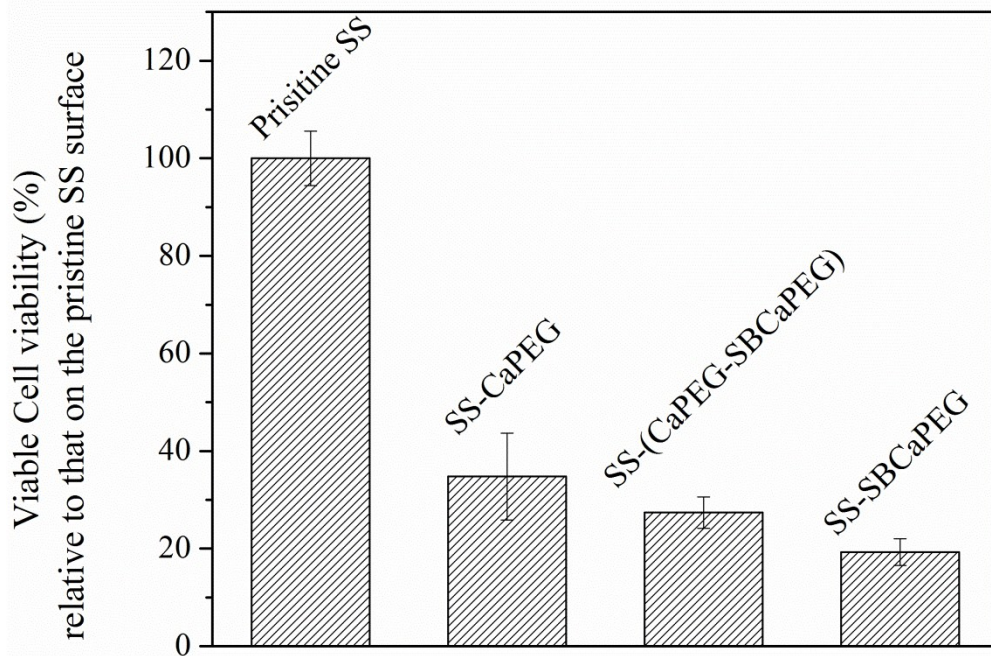


Figure S5. The adhered *E. coli* cells on the SS-CaPEG, SS-(CaPEG-SBCaPEG) and SS-SBCaPEG surfaces, relative to that on the pristine SS surface, after exposure to the *E. coli* suspension in PBS (5×10^7 cells/mL) for 4 h.

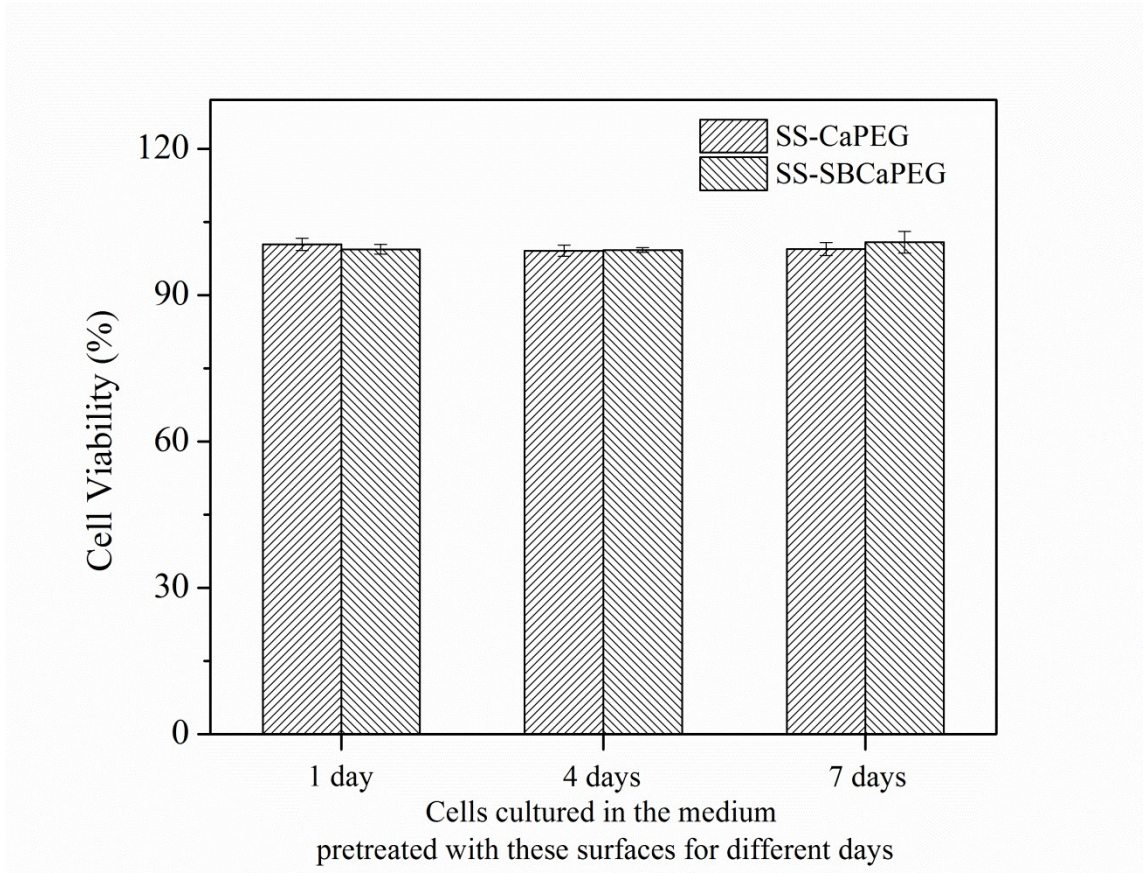


Figure S6. Relative cell viability of 3T3 fibroblasts after 24 h of culturing in DMEM medium pretreated with the SS-CaPEG and SS-SBCaPEG surfaces for 1, 4 and 7 days.