

The Synergistic Effect of Different Hierarchical Structures and Alkyl Chain Length on Antifouling and Bactericidal Properties by Cationic/Zwitterionic Block Polymer Brushes

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Table S1 The monomer/initiator feed ratios (M/I) and the degree of polymerization (DP) of PSBMA and PQAs in polymer brushes.

Samples	M/I	DP
Si-KH560	/	/
Si-Br	/	/
Si-PQA4C	20:1	21
Si-PQA8C	20:1	19
Si-PQA12C	20:1	20
Si-PSBMA	20:1	22
Si-PQA4C-b-PSBMA	20:1	21-b-19
Si-PQA8C-b-PSBMA	20:1	19-b-19
Si-PQA12C-b-PSBMA	20:1	20-b-19
Si-PSBMA-b-PQA4C	20:1	22-b-22
Si-PSBMA-b-PQA8C	20:1	22-b-17
Si-PSBMA-b-PQA12C	20:1	22-b-16
Si-PQA4C-r-PSBMA	20:20:1	19-r-20
Si-PQA8C-r-PSBMA	20:20:1	19-r-18
Si-PQA12C-r-PSBMA	20:20:1	17-r-20

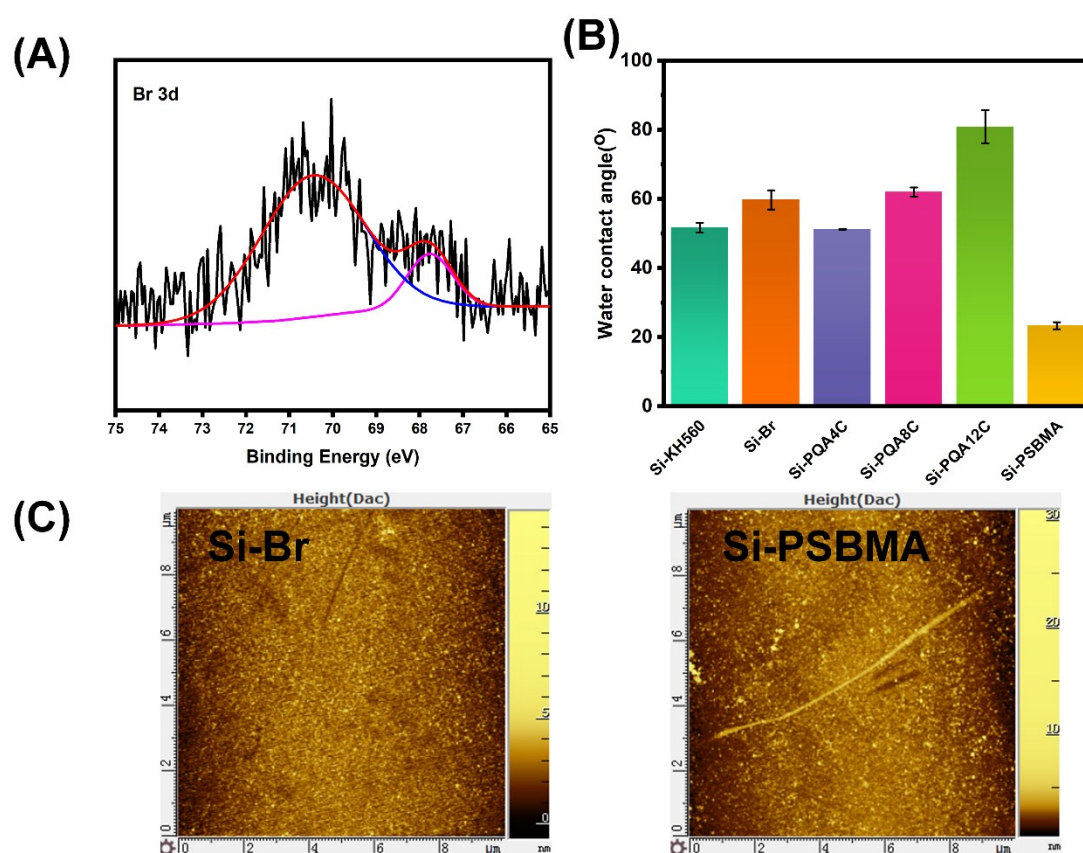


Figure S1. (A) XPS Br 3d spectra of Si-Br. (B) The water contact angles of Si-KH560, Si-Br, Si-PQAs and Si-PSBMA. (C) AFM images of Si-Br and Si-PSBMA.

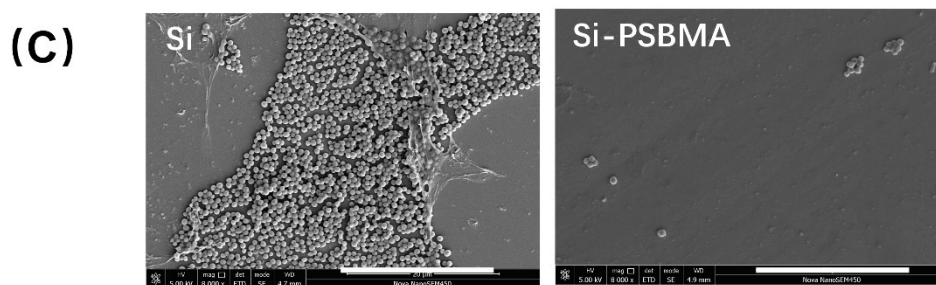
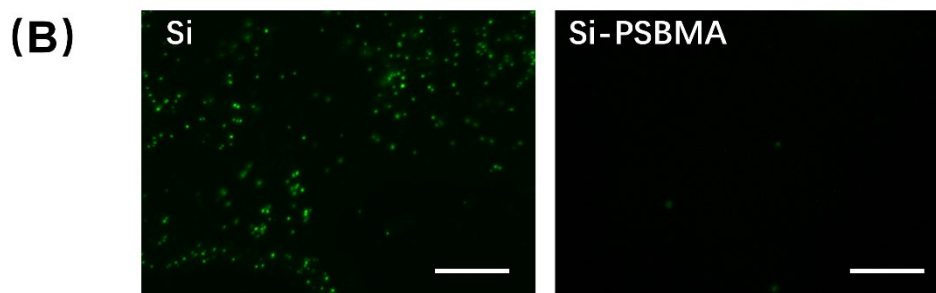
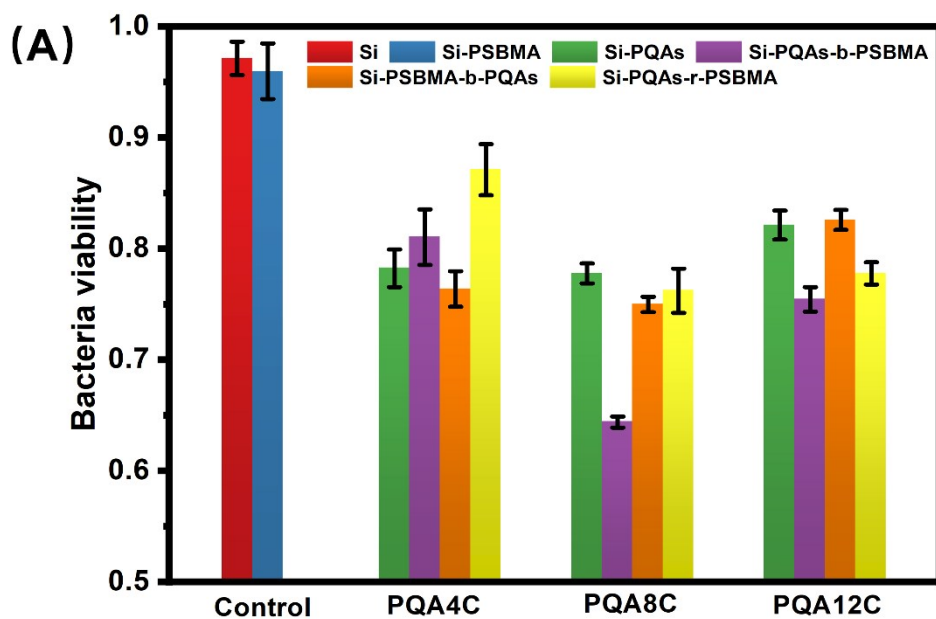


Figure S2. (A) The bacteria viability in suspension near the surface after the samples incubating with 1mL bacterial suspensions (10^5 CFU/mL) for 24 h. (B) Representative fluorescence microscopy images of bacterial colonization on Si and PSBMA brushes after 24 h. Scale bars in fluorescence microscopy images represent 20 μm . (C) Representative SEM images of bacterial colonization on Si and PSBMA brushes after 24 h. Scale bars in SEM images represent 20 μm .