

## Supporting Information

# Surface Modification by Nano-Structures Reduces Viable Bacterial Biofilm in Aerobic and Anaerobic Environments

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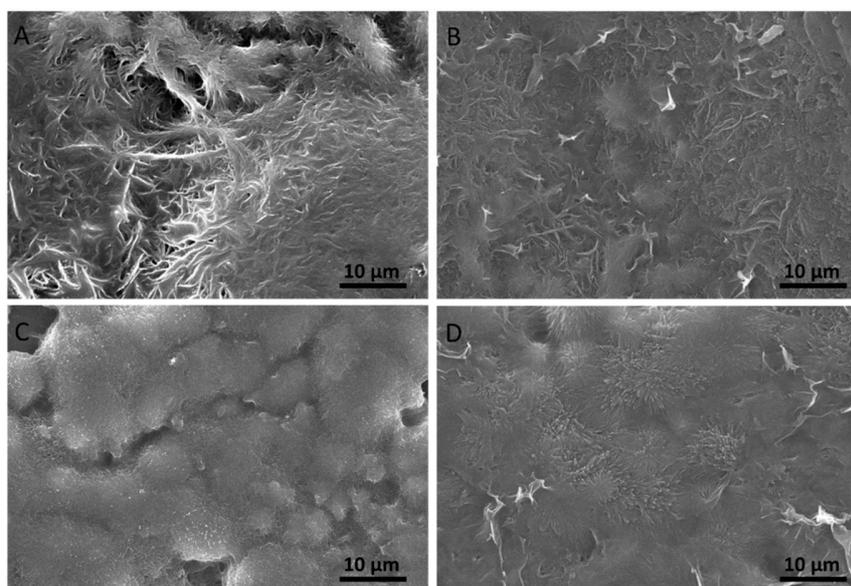
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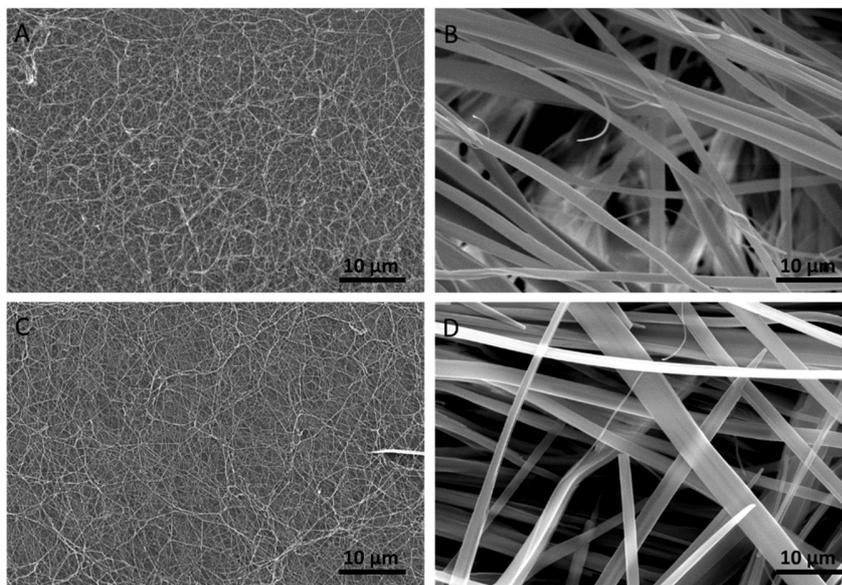
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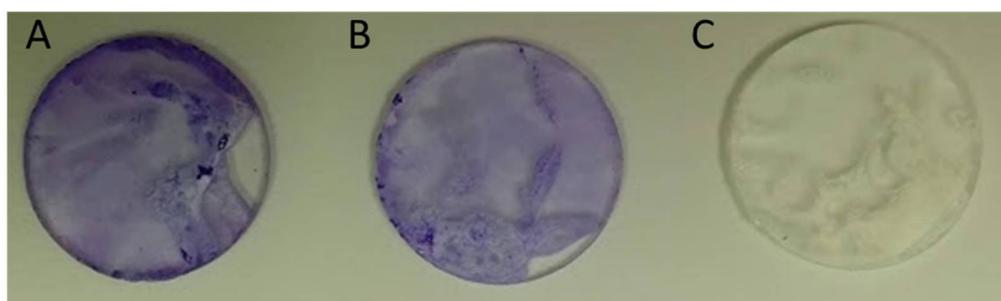
**Keywords:** modified amino acid; self-assembly; surface coating; anti-biofilm activity



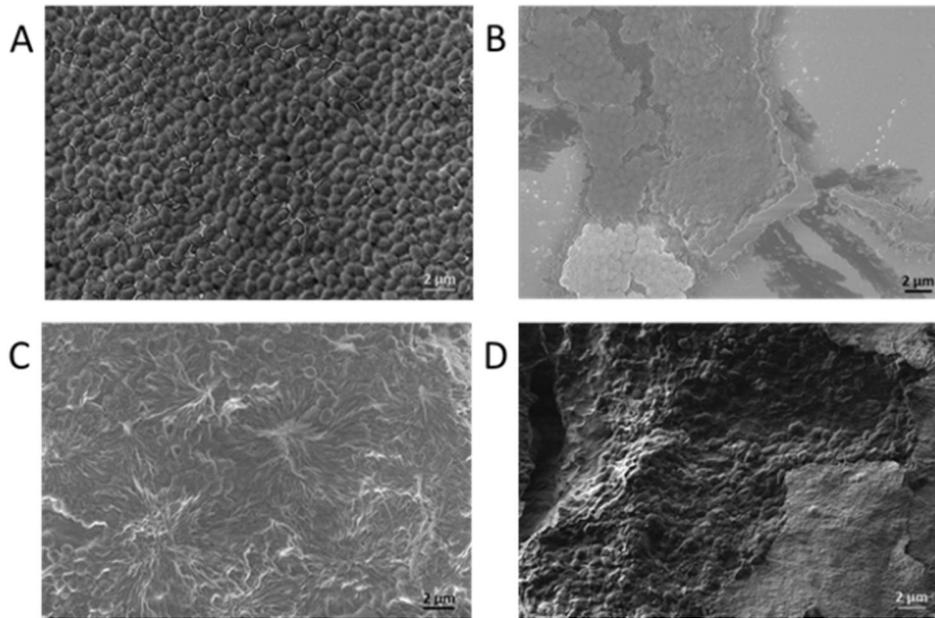
**Figure S1.** SEM images of glass and mica surfaces coated with Fmoc-F<sub>5</sub>-Phe. (A-B) SEM images of Fmoc-F<sub>5</sub>-Phe modified (A) glass and (B) mica before stability test. (C-D) SEM images of Fmoc-F<sub>5</sub>-Phe modified (C) glass and (D) mica after stability test.



**Figure S2. SEM images of glass and mica surfaces coated with Boc-F<sub>5</sub>-Phe.** (A-B) SEM images of Boc-F<sub>5</sub>-Phe modified (A) glass and (B) mica before stability test. (C-D) SEM images of Boc-F<sub>5</sub>-Phe modified (C) glass and (D) mica after stability test.



**Figure S3. Initial biofilm analysis for siliconized glass coated with Fmoc-F<sub>5</sub>-Phe.** (A) Fmoc-F<sub>5</sub>-Phe modified slides without bacteria stained with crystal violet (B) Fmoc-F<sub>5</sub>-Phe stained with crystal violet and washed overnight and (C) non-stained control sample.



**Figure S4. Biofilm analysis by HRSEM.** (A) *E. faecalis* and (B) *S. mutans* form biofilm on non-coated surface, (C) *E. faecalis* and (D) *S. mutans* incubated on Fmoc-F5-Phe coated surface.