

Supporting Information for

A Versatile Platform to Achieve Robust Mussel-Inspired Antifouling Coatings via Grafting-to Approach

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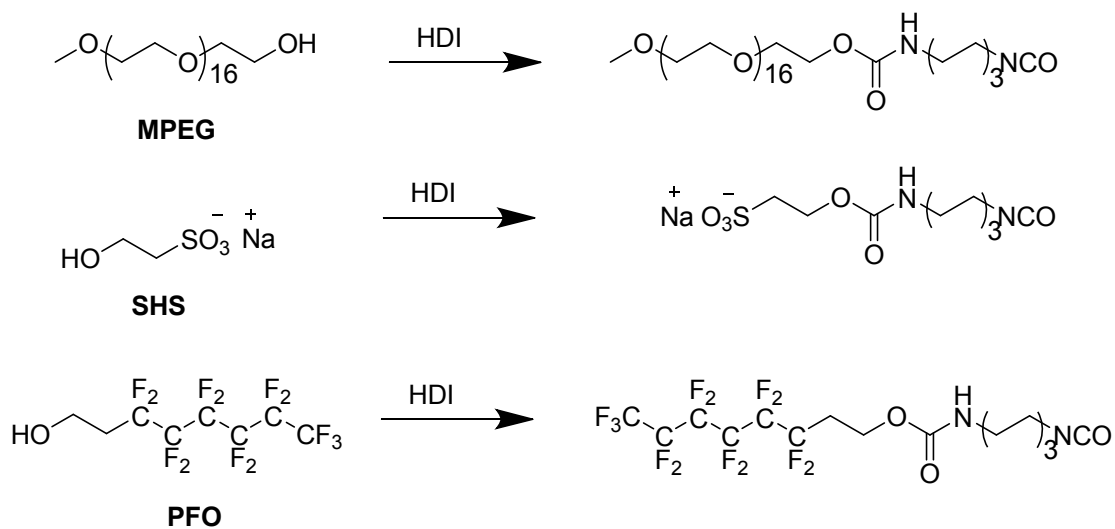


Figure S1. Synthesis scheme of isocyanate-terminated MPEG, SHS and PFO.

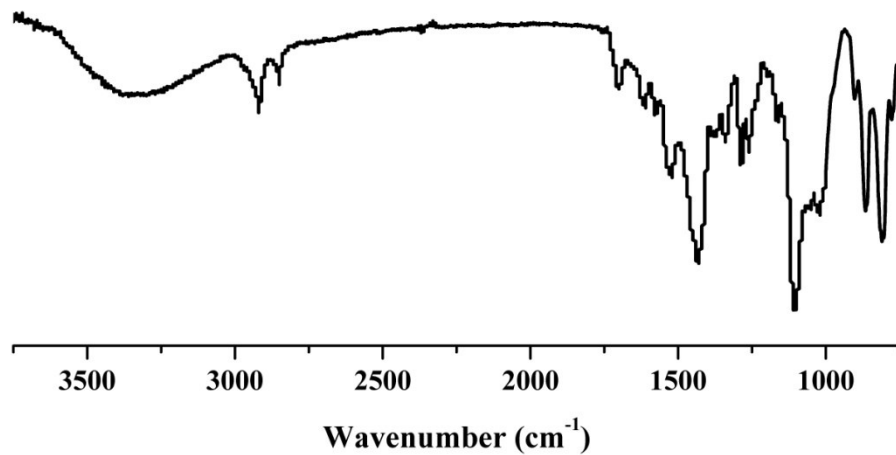


Figure S2. FT-IR spectrum of SS-PVA-g-DBA-MPEG/PFO coating sample.

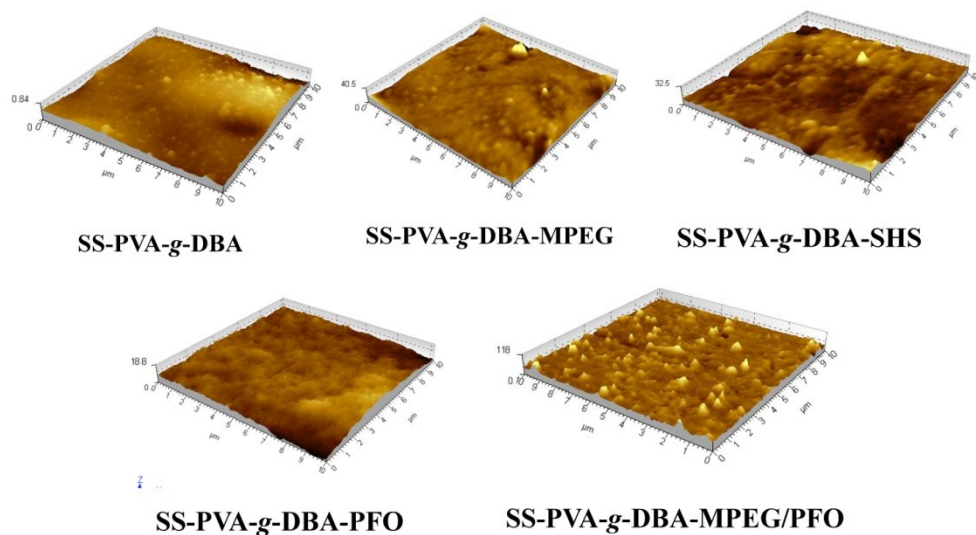


Figure S3. AFM images of the pristine SS, SS-PVA-g-DBA, SS-PVA-g-DBA-MPEG, SS-PVA-g-DBA-SHS, SS-PVA-g-DBA-PFO and SS-PVA-g-DBA-MPEG/PFO surfaces.

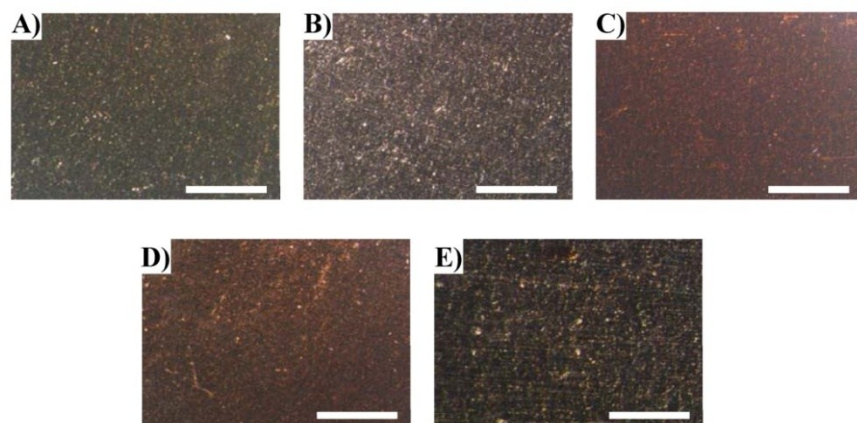


Figure S4. Photomicrographs of the (A) SS-PVA-g-DBA, (B) SS-PVA-g-DBA-MPEG, (C) SS-PVA-g-DBA-SHS, (D) SS-PVA-g-DBA-PFO and (E) SS-PVA-g-DBA-MPEG/PFO surfaces with 4 times magnification. Scale bar is 1 mm. As seen, no obvious difference could be observed on the SS-PVA-g-DBA, SS-PVA-g-DBA-MPEG, SS-PVA-g-DBA-SHS and SS-PVA-g-DBA-PFO and surfaces at this scale, while a rougher surface could be observed on SS-PVA-g-DBA-MPEG/PFO surface.

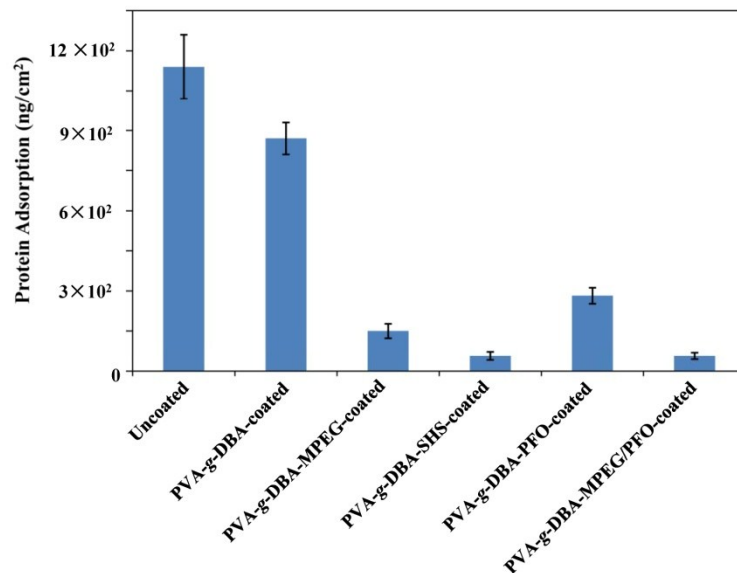


Figure S5. Protein adsorption on the uncoated, SS-PVA-*g*-DBA coated, SS-PVA-*g*-DBA-MPEG coated, SS-PVA-*g*-DBA-SHS coated, SS-PVA-*g*-DBA-PFO coated and SS-PVA-*g*-DBA-MPEG/PFO coated surfaces.

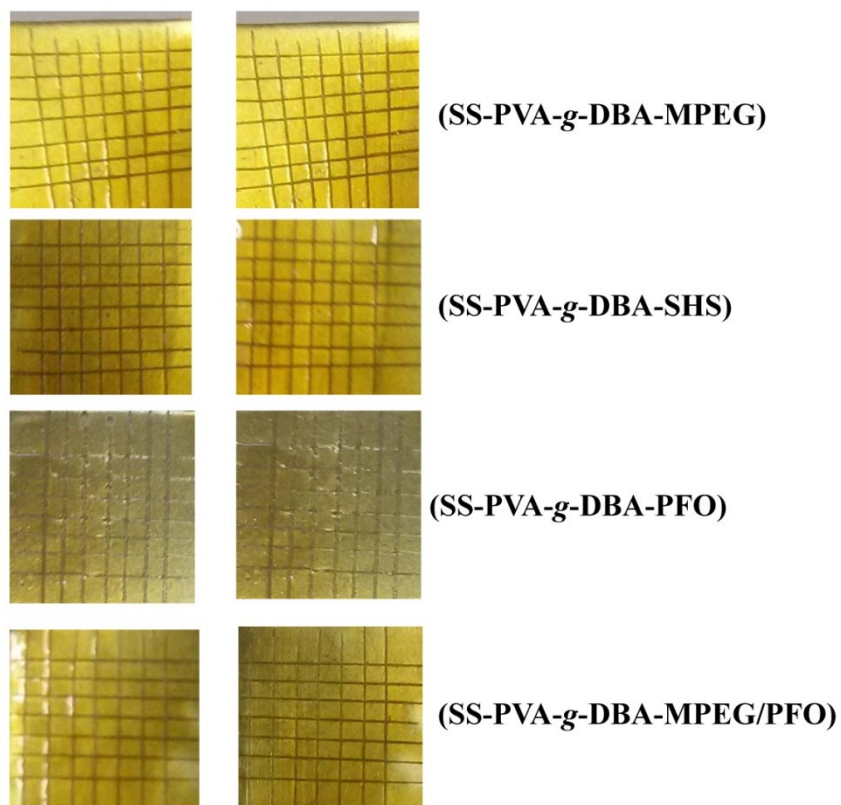


Figure S6. The photo images of before (left) and after (right) the adhesion test

Table S1. Element content of the grafted coatings

coating	N %	C %	H %	S %
SS-PVA-g-DBA/MPEG	2.21	53.14	8.347	0
SS-PVA-g-DBA/SHS	2.35	46.09	6.818	4.549
SS-PVA-g-DBA/PFO	2.05	50.98	7.681	0
SS-PVA-g-DBA/MPEG/PFO	2.18	52.45	7.09	0