

Protein-resistance performance of amphiphilic copolymer brushes consisting of fluorinated polymers and polyacrylamide grafted from Silicon surfaces

Hai-Xia Wu^{1,2}, Lei Tan¹, Mei-Yan Yang¹, Chuan-Jun Liu^{1*}, Ren-Xi Zhuo¹

1. Key Laboratory of Biomedical Polymers of Ministry of Education, College of Chemistry and Molecular Science, Wuhan University, Wuhan, 430072, P. R. China.

2. College of Chemistry and Chemical Engineering, Luoyang Normal University, Luoyang, 471022, P. R. China

*Corresponding author, email: cjliu@whu.edu.cn

The sample number, surface composition detected by XPS and the thickness of grafted layers measured by AFM were shown in **Table S1**.

Table S1. Composition and the thickness of grafted layer

Samples	Molar ratio of AM/FMA in monomer	XPS atomic concentration, (at %)					Thickness of grafted layer (nm)
		C	N	O	Br	F	
S ₀ (Si-initiator)		63	5.4	30.4	1.2	--	--
S ₁	1/0	60.9	18.4	20.6	0.1	--	7.4±0.5
S ₂	3/1	46.3	3.6	21.3	--	28.8	10.7±0.4
S ₃	1/1	45.7	1.1	9.1	--	44.1	10.3±0.5
S ₄	1/3	46.3	1.1	9.5	--	43.1	10.3±0.6
S ₅	0/1	44.2	1.1	9.4	--	45.3	10.6±0.7

The XPS spectra of S_0 - S_5 were shown in **Figure S1**.

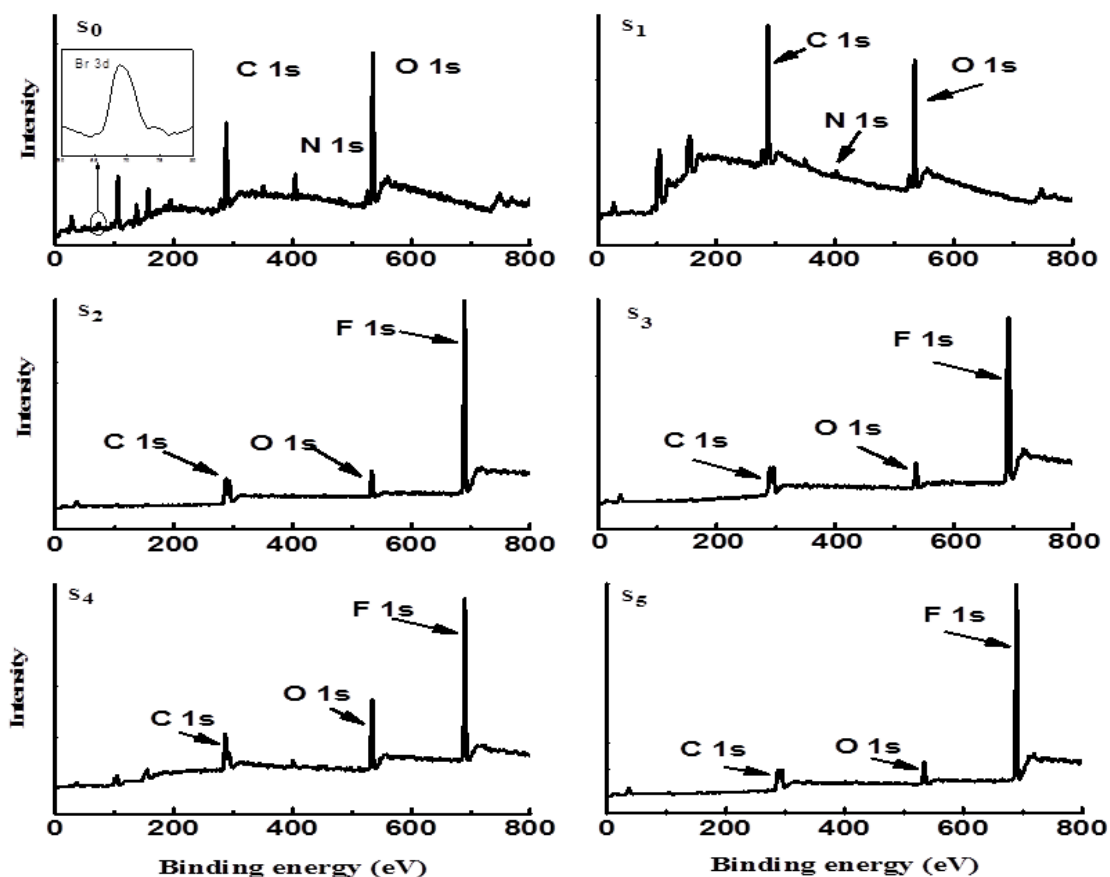


Figure S1. XPS survey spectra for the silicon surface after modification at a takeoff angle of 90° . S_2 :Si-(PAM-ran-PFMA) brushes with 3:1 mole ratio of AM to FMA in monomers; S_3 :Si-(PAM-ran-PFMA) brushes with 1:1 mole ratio of AM to FMA in monomers; S_4 :Si-(PAM-ran-PFMA) brushes with 1:3 mole ratio of AM to FMA in monomers; S_5 :Si-PFMA brushes.