**Supplementary Data**

**Quantitative evaluation of interaction force of fibrinogen at well-defined surfaces with various structures**

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 Figure S1. XPS spectrum of surfaces (C1s and O1s)



Figure S2. XPS spectrum of surfaces (N1s and P2p)

Table S1. Statistical analysis of interaction force

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | PBMA | PHEMA | PmOEGMA | PMB | PC-SAM | TEG-SAM | NH3Cl-SAM | COOH-SAM | OH-SAM |
| PMPC | 0.104 | 0.042 | 0.073 | 0.116 | 0.002 | 0.002 | 0.003 | 0.093 | 0.005 |
| PBMA | / | 0.625 | 0.221 | 0.94 | 0.439 | 0.685 | 0.940 | 0.155 | 0.706 |
| PHEMA | / | / | 0.079 | 0.019 | 0.542 | 0.607 | 0.173 | 0.705 | 0.481 |
| PmOEGMA | / | / | / | 0.840 | 0.025 | 0.007 | 0.013 | 0.324 | 0.010 |
| PMB | / | / | / | / | 0.022 | 0.014 | 0.003 | 0.307 | 0.005 |
| PC-SAM | / | / | / | / | / | 0.009 | 0.006 | 0.836 | 0.028 |
| TEG-SAM | / | / | / | / | / | / | 0.067 | 0.421 | 0.857 |
| NH3Cl-SAM | / | / | / | / | / | / | / | 0.242 | 0.039 |
| COOH-SAM | / | / | / | / | / | / | / | / | 0.448 |

According to the statistical analysis result shown in the table, the interaction force of the PMPC brush surface had difference statistically from that of other surfaces. For the PMPC brush surfaces, the interaction force was only 0.1 nN and fibrinogen adsorption was less than 5.0 ng/cm2. These results indicated that PMPC brush surfaces had significantly strong repellency to protein adsorption.