Electronic Supplementary Material (ESI) for RSC Advances.

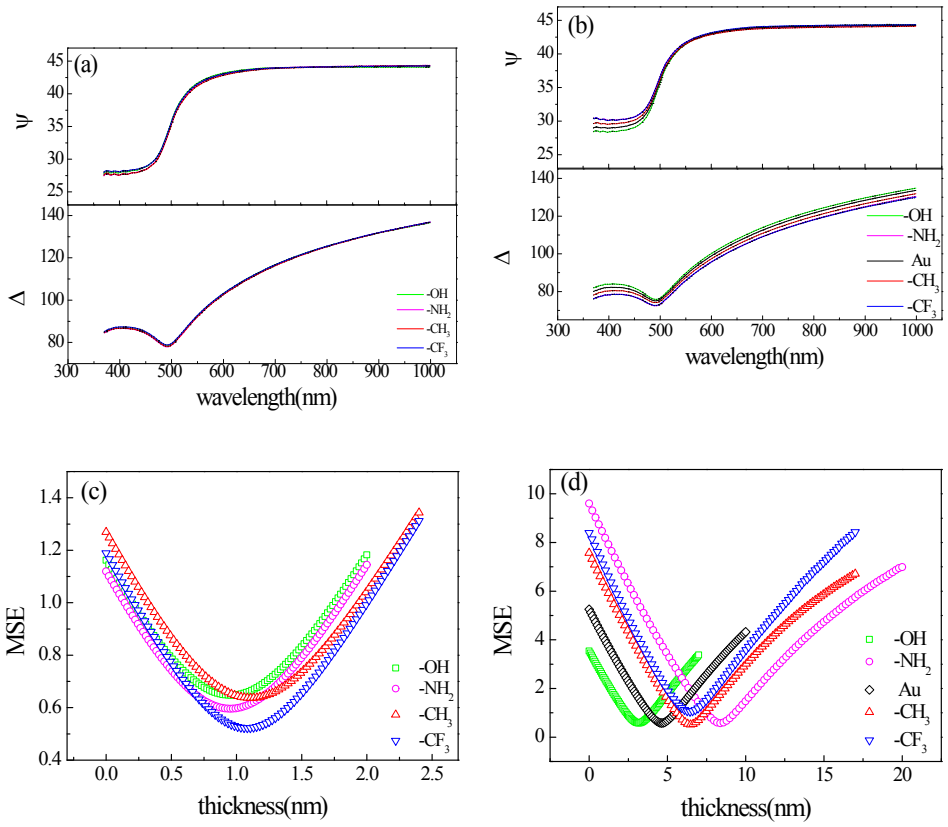
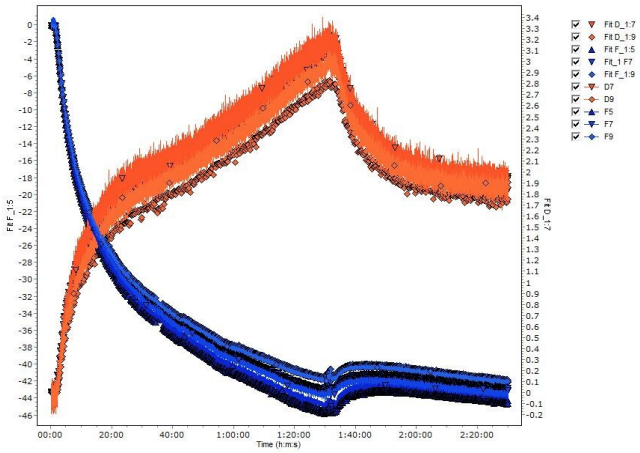
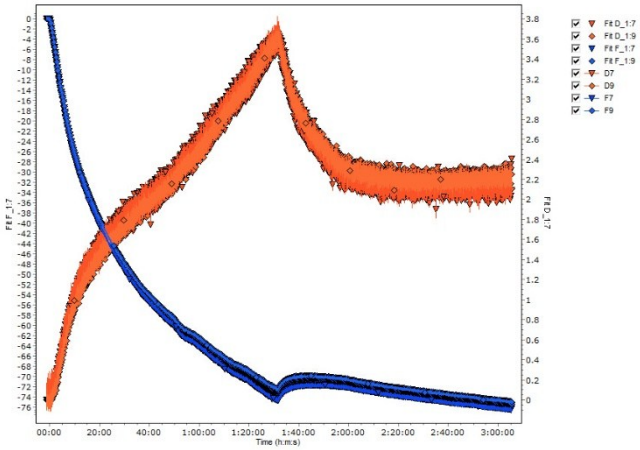


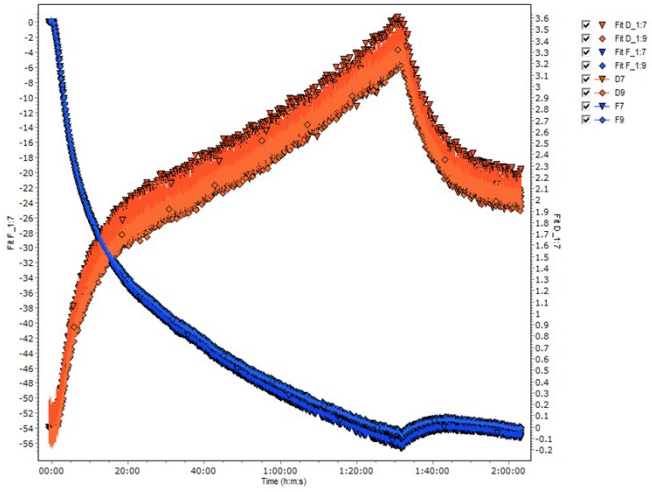
Figure S1. (a) and (b): The plot of Ψ and Δ against λ for Mfp-1 before and after absorbing on the SAMs. The data are fitted by the dash lines. (c) and (d)The plot of mean-square-error against h for the corresponding samples in (a) and (b).



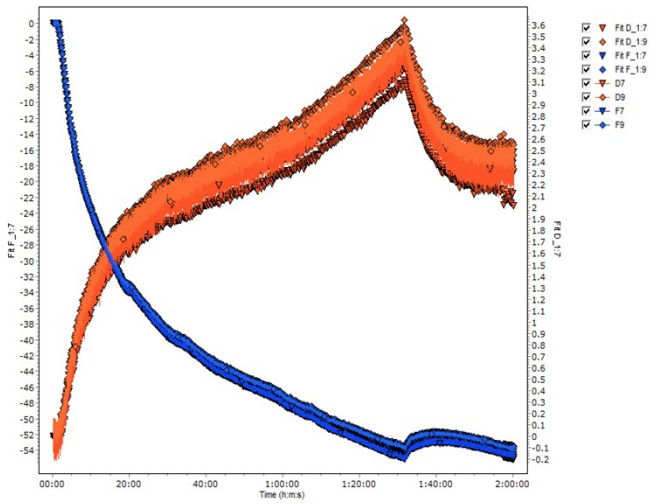
(a) Mfp-1 adsorbing on the SAM-OH surface



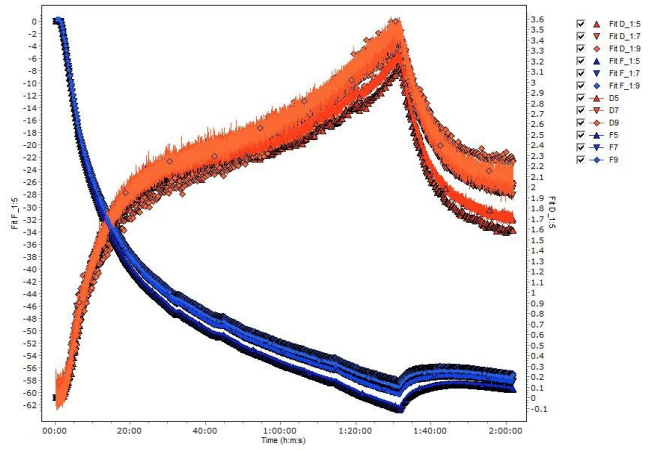
(b) Mfp-1 adsorbing on the SAM- NH_2 surface



(c) Mfp-1 adsorbing on the bare surface



(d) Mfp-1 adsorbing on the SAM-CH_3 surface



(e) Mfp-1 adsorbing on the SAM-CF_3 surface

Figure S2. Fitting curves at different overtones by the use of Voigt model for the adsorption of Mfp-1 on the surfaces: (a) SAM-OH, (b) SAM-NH_2, (c) Au, (d) SAM-CH_3, and (e) SAM-CF_3.

Table S1. Film thickness of SAM layers and Mfp-1 absorbing layers through ellipsometric measurements.

	Film thickness (nm)				
	SAM-OH	SAM-NH_2	Au	SAM-CH_3	SAM-CF_3
SAM layer	0.95	0.95	--	1.11	1.08
Mfp-1 layer	3.17	7.89	4.63	6.47	6.44

Table S2. Modeled Parameters from QCM-D measurements.

Parameter	SAM-OH	SAM-CH_3
shear viscosity, η (g/ms)	6.76	19.09
shear modulus, μ (kPa)	362.69	746.86
thickness, h (nm)	7.42	8.59
density, ρ (kg/m^3)	1164.42	1359.72