

## Supplementary Information

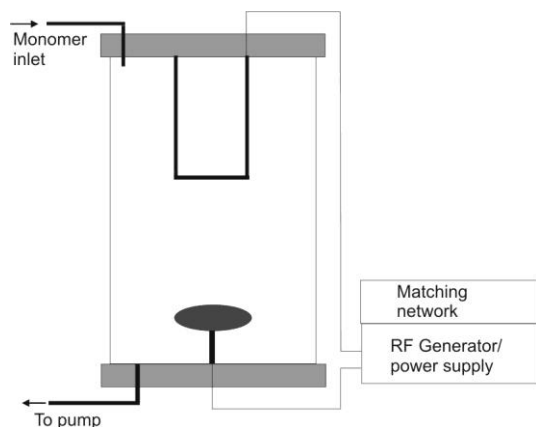


Figure S1. Schematic diagram of the reactor used for plasma polymerisation.

Plasma polymerization was carried out in a custom-built parallel plate plasma reactor consisting of top U shaped electrode and a round bottom electrode. RF power is supplied by a commercial 13.56 MHz generator (Advanced Energy, USA). During deposition samples were placed on the bottom electrode. Monomer pressure was maintained 0.2 Torr.

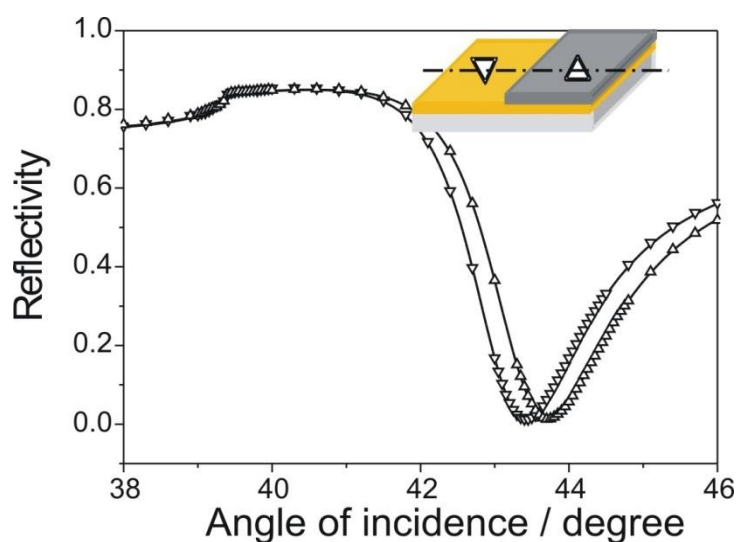


Figure S2. SPR angular measurements on bare gold (∇) and allylamine plasma polymer deposited with a power of 10 W for 15 s (Δ). The solid lines show the corresponding fits. The shift in the angle of resonance corresponds to a plasma polymer thickness of 1.7 nm. The insert shows the way measurements were carried out. First the SPR spectrum was measured on the uncoated part, followed by measurement on the coated part of the samples. Measurements were conducted on the same length axis.

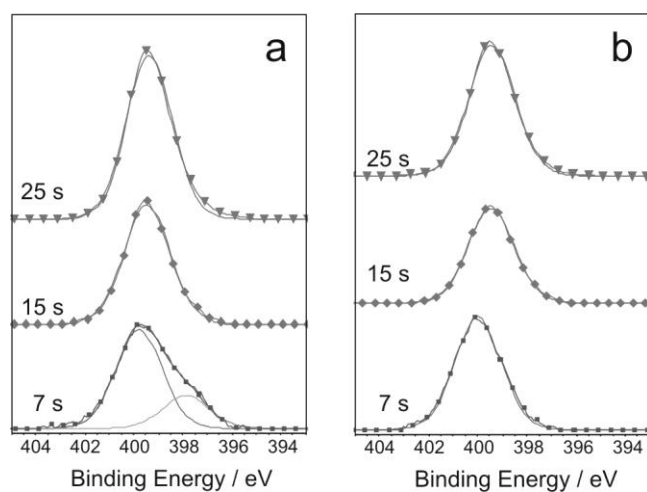


Figure S3. XPS N 1s spectra of allylamine plasma polymer deposited with a power of 20 W for different times on gold (a) and on thiol (b). Note in (a) the disappearance of the peak at lower binding energy with increasing thickness (time of deposition).