Supplementary Material (ESI) for New Journal of Chemistry

Supporting Information: A surface plasmon enhanced fluorescence sensor platform

Figure 1: SPR angle scans before (circles) and after (triangles) forming a self assembled monolayer of biotin-terminated tri(ethyleneglycol) hexadecanethiol (Assemblon, Seattle, USA) on a clean gold surface. The curves are fit using the Fresnel model (lines) and give the thickness of the monolayer as 5nm. The scans are both taken in ethanol.

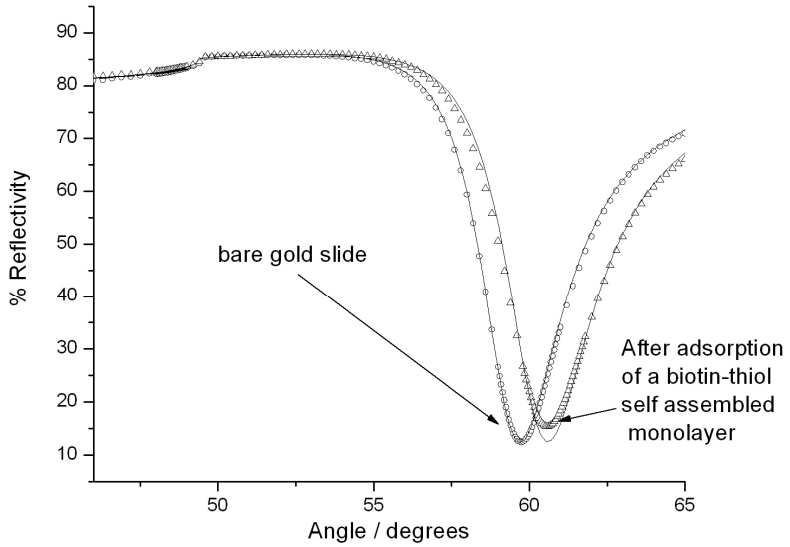

Figure 2: Kinetic scan showing the binding of streptavadin to the surface of the biotinylated self-assembled monolayer. The graph shows a scan of a biotin terminated SAM in phosphate buffered saline (circles) and a scan after binding a 500 nmol dm^{-3} solution of streptavadin (triangles). Assuming that a 0.1^{o} shift corresponds to 0.53ng of protein per mm^2 [see reference 15]; this suggests a protein coverage of 5.03ng / mm^2 for the observed angle shift of 0.95^{o}.