Preparation of reactive surfaces by electrografting.


Electronic supplementary information

**Figure 1**: Coating of the conducting substrates by PNSA  
a) XPS spectra of the electrografted PNSA: (A) nitrogen (B) oxygen (C) carbon  
b) AFM micrograph (tapping mode) of Cu electrode modified by PNSA.  
Table: Quantification of the reconstructed XPS spectrum for the carbon area (spectrum C)  

**Figure 2**: Electroactivity of PNSA-FeNH$_2$, in ACN containing TEAP (0.05M) film grafted on a Pt-QCM electrode (A) Cyclic voltammogram at 100 mV/s; (B) simultaneous change in frequency; (C) change in frequency for neat Pt  

**Figure 3**: Binding of biotin onto PNSA  
a) PNSA grafted on ITO-glass after spraying with DMACA; (I) non-grafted area (II) modified area with PNSA-biotin  
b) UV-Vis spectrum of (A) ITO-glass modified with PNSA-biotin; (B) after spraying with DMACA  

**Figure 4**: Binding of the glucose-oxidase (Gox) onto PNSA:  
a) PNSA grafted on ITO-glass after Bradford test: (I) PNSA-Gox grafted area (II) non-grafted area  
b) $\Delta$I measured at E=0.6V from voltammograms recorded at 5mV/s for C-PNSA-Gox dipped in a ferrocene carboxylic acid containing ($10^{-3}$M) phosphate buffer upon addition of glucose.  

**Figure 5**: Infrared reflection-absorption spectrum of poly(ethyleneimine) grafted onto the poly(N-succinimidyl acrylate) modified Inox 316L with the characteristic bands at 3234 cm$^{-1}$ for NH-stretching, 1651 cm$^{-1}$ for amide I; and 1547 cm$^{-1}$ for amide II proving the grafting efficiency.
a) Figure 1

b) Figure 1
Figure 2

Figure 3

Figure 4
Figure 5